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NATIONAL HEALTH SURVEY: USERS' GUIDE - ELECTRONIC PUBLICATION

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CONTENTS

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070.

NOTES

ABOUT THIS PUBLICATION

This publication contains details about the 2004-5 National Health Survey (NHS). It includes information about survey objective, the development process, content of the survey and the concepts, methods and procedures used in the collection of data and derivation of estimates. Also in included is information about the products and services available from the 2004-5 NHS and other ABS health-related surveys. In addition, classification and other relevant material are provided as Appendixes.

The purpose of the Users' Guide is to provide information about the survey which will assist users of the data in better understanding the nature of the survey, its potential and its shortcoming in meeting their data needs. Supplementary information about the survey is contained in the *National Health Survey 2004-5 and National Aboriginal and Torres Strait Islander Survey 2004-5: Data Reference Package* (cat. no. 4363.0.55.001), which includes a set of questionnaires and list of output data items.

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
ARA	any responsible adult
ASCO	Australian Standard Classification of Occupations
ASGC	Australian Standard Geographical Classification
BMI	body mass index
CAC	computer assisted coding
CD	Collection District
DoHA	Australian Government Department of Health and Ageing
DTP	diphtheria, tetanus and pertussis vaccine
DVA	Australian Government Department of Veterans Affairs
GP	General Medical Practitioner
HRT	hormone replacement therapy
HSL	high sugar level in blood and/or urine
ICD-10	International Classification of Diseases 10th Revision
K10	Kessler Psychological Distress Scale
LGA	local government area
NHDD	National Health Data Dictionary
NHMRC	National Health and Medical Research Council
NHPA	National Health Priority Area
NHS	National Health Survey
NNS	National Nutrition Survey
OHP	Other health professional
PAL	primary approach letter
RADL	Remote Access Data Laboratory
RSE	relative standard error
SACC	Standard Australian Classification of Countries
SAS	software package for preparing and executing computerised data analysis
SE	standard error
SEIFA	Socio-Economic Indexes for Areas
SLA	statistical local area
WHO	World Health Organization

INTRODUCTION

This publication presents information about the National Health Survey (NHS) conducted by the Australian Bureau of Statistics (ABS) in 2004-5. It includes information about the NHS objectives, how the survey was developed, the survey concepts and methods, procedures used in the collection of data and the derivation of estimates, and information about the quality, interpretation and availability of survey results. Definition of survey terms and copies of key classifications are provided as Appendixes.

The aim of this publication is to provide information to assist users of the data in better understanding the nature of the survey, and its potential and shortcomings, in meeting their data needs. Further information about the survey is available from the ABS web site. This information includes:

- A data reference package containing the questionnaires and associated prompt cards used to collect the data, together with a list of output data items available from the survey;
- links to sets of tables from the NHS compiled for States and the ACT; and
- links to an Information Paper detailing the availability of microdata from the survey.

Other useful information may also be added to the web site over time as it becomes available. Summary level results of the 2004-5 NHS are contained in the publication *National Health Survey: Summary of Results, Australia 2004-5* (cat. no. 4364.0), which was released in February 2006.

The 2004-5 NHS was conducted in association with the 2004-5 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS). Although this publication deals specifically with the NHS, some sections are also applicable to the NATSIHS, as both surveys had similar data content, shared common elements in the questionnaire, and were processed side by side. For further information about the NATSIHS see *National Aboriginal and Torres Strait Islander Health Survey: Users' Guide* (cat no 4715.0.55.004).

Background to the survey

The 2004-5 NHS was conducted during the 10 month period August 2004 to July 2005. It is the fourth in a series of regular population surveys designed to obtain national benchmark information on a range of health-related issues and to enable the monitoring of trends in health over time.

Previous surveys in the series were conducted in 1989–90, 1995 and 2001. Commencing with the 2001 survey, the survey is now conducted 3 yearly. Health surveys conducted by the ABS in 1977–78 and 1983, while not part of the NHS series, also collected information similar to that obtained in the 2004-5 NHS. In addition, a range of other ABS surveys on health and related issues have been conducted at the national level and for individual States and Territories.

The 2004-5 NHS was conducted in 19,501 private dwellings selected throughout non-sparsely settled areas of Australia. The sample design ensured that within each State or Territory each person had an equal chance of selection. Information was obtained about one adult and one child aged 0 to 17 years in each selected household. A total of 25,906 persons participated in the survey.

Background to the survey continued

Trained ABS interviewers personally interviewed the selected adult member of the household, and children aged 15 to 17 years, with parental consent. A parent or guardian was asked to answer questions in respect of their children aged 15 to 17 years who were not personally interviewed, and children aged less than 15 years. This person is referred to as the child proxy throughout this publication, and in other outputs from the survey. Although the survey was conducted over 10 months, selected households were interviewed only once in that period. Medical records were not required and no medical tests or physical measures were taken as part of the NHS.

Information was collected in the survey about the health status of Australians, their use of health services and facilities and health-related aspects of their lifestyle. Information was collected about long term medical conditions experienced by respondents, recent injury events, consultations with health professionals, other actions people had recently taken in regard to their health (e.g. taken days away from work, used medication), aspects of their lifestyle and other factors which may affect their health such as smoking, alcohol consumption, diet, exercise and immunisation. The survey design enables information for all topics to be analysed in relation to other topics, and in relation to a range of demographic and socioeconomic characteristics.

An advisory group, comprising representatives of the DoHA, the Australian Institute of Health and Welfare, State health authorities, academic and research centres was established to assist the ABS in the ongoing consultation process and to advise on prioritised data requirements. Reports on the development and testing process were prepared for consideration by the group, and distributed to other interested organisations and individuals on request.

The range of topics and of items within topics identified for inclusion in the survey exceed the capacity of the survey. All topics identified were assessed, and relative priorities were established with the assistance of the Health Statistics Advisory Group. Topics ultimately selected for inclusion in the survey were those identified as being of highest priority and which could be appropriately addressed in an ABS household survey of this type.

Some topics proposed for inclusion in the 2004-5 NHS underwent cognitive testing to ensure the concepts were understood by respondents, and to enable questions and associated procedures to be developed to elicit the information required. The survey questionnaires and associated procedures, classifications, etc. were tested to ensure the survey instruments were effectively covering and accurately addressing the issues intended, and to investigate respondent reaction to the survey. A pilot test for the 2004-5 NHS was conducted in Victoria in November/December 2003 and a dress rehearsal was conducted in Tasmania in April/May 2004.

The 2004-5 NHS was conducted under the authority of the *Census and Statistics Act 1905*. The ABS sought the willing cooperation of households in the survey. The confidentiality of all information provided by respondents is guaranteed. Under its legislation the ABS cannot release identifiable information about households or individuals. All aspects of the NHS's implementation were designed to conform to Information Privacy Principles set out in the Privacy Act 1988, and the Privacy Commissioner was informed of the details of the proposed survey.

Background to the survey continued

The success of the 2004-5 NHS was dependent on the high level of cooperation received from the community. Their continued cooperation is very much appreciated; without it, the range of health and other statistics published by the ABS would not be possible.

CHAPTER 2 SURVEY DESIGN AND OPERATION

CONTENTS

SCOPE

The 2004-5 NHS included urban and rural areas across all States and Territories of Australia; very remote areas were excluded from the sample. Persons in scope of the survey were those identified by an adult within each sampled private dwelling as a usual resident of that dwelling. A private dwelling was defined as a house, flat, home unit, caravan, garage, tent and any other structure being used as a private place of residence at the time of the survey. Non-private dwellings including hotels and motels, hostels and boarding houses were excluded. Also excluded were hospitals, nursing and convalescent homes, prisons, reformatories and single quarters of military establishments.

Operationally for survey purposes, the ABS defines a household as one or more persons, at least one of whom is aged 15 years and over, usually resident in the same private dwelling. In the NHS only households containing one or more persons aged 18 years and over were included.

Not all household members were in scope of the survey. Persons living in Australia, but not usually considered part of the Australian resident population, and excluded from the scope of this survey were :

- diplomatic personnel of overseas governments and non-Australian members of their households;
- non-Australian service personnel stationed in Australia and their dependants; and
- short term overseas visitors whose usual place of residence was outside Australia. Overseas visitors staying or intending to stay in Australia for 12 months or more were in scope.

Non-Australians (other than those above) working in Australia, or in Australia as students or settlers, and their dependants, were included in the survey scope.

SAMPLE DESIGN AND SELECTION

Sample design

The 2004-5 NHS was conducted using a stratified multistage area sample of private dwellings. Decisions on the appropriate sample size, distribution and method of selection rested on consideration of the aims of the survey, the topics it contained, the level of disaggregation and accuracy at which the survey estimates were required, and the costs and operational constraints of conducting the survey. The sample was designed to provide:

- relatively detailed estimates for each state, ACT and Australia;
- relatively detailed estimates for capital city/rest of state areas within each State;
- broad level estimates for regions within the larger states;
- estimates for those characteristics which are relatively common and sub-populations which are relatively large and spread fairly evenly geographically.

To achieve these design objectives the state and territory sampling fractions were set as shown in the following table, which also depicts the corresponding expected number of fully responding households. The sample selection procedures described below result in every dwelling in the same state or territory having a known probability of selection, equal to the state or territory sample fraction.

Since 2000, the sample in the NT for some social surveys (including the 2004-5 NHS) has been reduced to a level such that NT records contribute appropriately to national estimates but will not support reliable estimates for the NT. This reallocation of resources has enabled a larger NT sample to be used in the General Social Survey and the Indigenous Social Survey conducted periodically by the ABS. The 2004-5 NHS sample in South Australia, Tasmania and the Australian Capital Territory was increased to improve the reliability of estimates. These sample increases were at the request of, and funded by, the relevant state/territory health authority.

STATE AND TERRITORY SAMPLE

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Approximate sampling fraction	1/520	1/450	1/400	1/150	1/280	1/90	1/335	1/75
Expected fully responding households	3 977	3 470	2 916	3 610	2 233	1 890	121	1 400

Within selected dwellings a random sub-sample of residents was enumerated as follows:

- one adult (18 years of age and older);
- one child aged 0 to 17 years.

Sample selection

The area based selection ensures that all sections of the population living in private dwellings within the geographic scope of the survey were represented by the sample. Each state and territory was divided into geographically contiguous areas called strata. Strata are formed by initially dividing Australia into regions, which are formed within state/territory boundaries, and which basically correspond to the Statistical Division or Subdivision levels of the Australian Standard Geographical Classification. Each stratum contains a number of Population Census Collection Districts (CDs) containing on average about 250 dwellings.

In capital cities and other major urban or high population density areas the dwelling sample was selected in three stages:

Sample selection continued

- a systematic sample of CDs was selected from each stratum with probability proportional to the number of dwellings in each CD;
- each selected CD was divided into groups of dwellings or blocks of similar size, and one block was selected from each CD, with probability proportional to the number of dwellings in the block; and
- within each selected block a list of all private dwellings was prepared and a systematic random sample of dwellings was selected.

In Hobart, parts of Darwin and some strata of high population growth, the CD stage of selection is omitted leaving only two stages of selection.

In strata with low population density each stratum was initially divided into units, usually corresponding to towns or Statistical Local Areas (SLAs) or combinations of both, and one or two units were selected from each stratum. Within selected units, the sample of dwellings was arrived at in the same manner as outlined for high population density areas.

In total a sample of approximately 25,000 households was selected which, taking account of an expected rate of sample loss (e.g. vacant dwellings, dwellings under construction etc.) of 13% and non-response of 10%, was designed to achieve the desired sample of about 20,000 fully responding households.

To take account of possible seasonal effects on health characteristics, the sample was enumerated over a 10 month period from August 2004 to June 2005. Collection Districts were allocated randomly and evenly to one of three sub-periods - August 2004 to November 2004, December 2004 to March 2005, and April 2005 to June 2005.

DATA COLLECTION

Information was obtained in the 2004-5 NHS by trained ABS interviewers, in the main through personal interviews with an adult member of selected households in scope of the survey. Aspects of data collection are discussed below under the headings: interviews, interviewers and questionnaires.

Interviews

In the 2004-5 NHS selected households were initially approached by mail informing them of their selection in the survey and advising them that an interviewer would call to arrange a suitable time to conduct the survey interview. A brochure, providing some background to the survey, information concerning the interview process and a guarantee of confidentiality was included with the initial approach letter. For a small number of households where the ABS did not have an adequate postal address, this was not possible.

General characteristics of the household were obtained from a responsible adult member of the household (ARA). This information included the number and basic demographic characteristics of usual residents of the dwelling, the relationships between those people (eg spouse, son/daughter, not related). The ARA was also asked to nominate the person(s) in the household who were best able to provide information about children in the household, and information about household income.

From the information provided by the ARA about the household composition, the survey instrument established those persons in scope of the survey and selected those residents (one adult and one child) to be included in the survey. The selection was made on a random basis by the computer assisted instrument. A personal interview was conducted with the selected adult (where possible) and an adult was asked to respond on behalf on children. If the dwelling contained no usual residents aged 18 years or more the dwelling was not enumerated.

In some instances adult respondents were unable to answer for themselves because of old age, illness, intellectual disability or difficulty with the English language. In these cases, a person responsible for them was interviewed on their behalf, provided the interviewer was assured that this was acceptable to the subject person. Information was collected by proxy for just over 1% of adult respondents. Where there were language difficulties other persons in the household may have acted as an interpreter if this was suggested by the respondent. If not, arrangements were made where possible for the interview to be conducted either by an ABS interviewer fluent in the respondent's own language or with an ABS interpreter.

Where possible, children aged 15 to 17 years were interviewed in person, with a parent or guardian's consent. Otherwise an adult was interviewed on behalf of the child (aged 0 to 17 years) selected within the dwelling. This adult, who may or may not have been the selected adult respondent in the household, is referred to as the Child Proxy. The relationship of the child proxy and the children for which they were reporting was as below:

Interviews continued

RELATIONSHIP OF PROXY TO CHILD

Relationship	% OF CHILDREN ENUMERATED Children aged 0–14 years	 15–17 years
Mother/step mother as child proxy	79.6	49.3
Father/step father as child proxy	18.1	13.8
Other relative as child proxy	2.1	2.1
Non relative as child proxy	0.2	0.2
No child proxy; child answered for themselves	—	34.6
Total	100.0	100.0

— nil or rounded to zero (including null cells)

In order to obtain a personal interview with appropriate respondents, interviewers made appointments to call-back as necessary to the household. In some cases appointments for call-backs were made by telephone; however, all interviews were conducted face to face. Interviews may have been conducted in private or in the presence of other household members according to the wishes of the respondent.

Interviews were only conducted on Sundays at specific respondent request. Although desirable to spread interviews across the other days of the week, interviews were conducted on days to suit respondents. The result was that higher proportions of interviews were held on Mondays, Tuesdays and Wednesdays, as shown below:

PERCENTAGE OF ADULTS INTERVIEWED

Monday	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*	*Sunday*	*Total*
20.0	21.4	20.7	16.9	11.5	8.8	0.7	100.0

In cases where a respondent initially refused to participate in the survey a follow-up letter was sent and a second visit was made to the respondent, usually by an office supervisor, to explain the aims and importance of the survey and to answer any particular concerns the respondent may have had. No further contact was made with the respondent if they refused at the second approach to participate. Persons missed from the survey through non-contact or refusal were not replaced in the sample.

In total, the survey averaged 40 minutes interviewer contact time per fully responding household.

To assist in obtaining an adequate and representative sample of Indigenous persons for the NATSIHS, some additional persons were enumerated in NHS sample households, based on Indigenous status as reported by the ARA. If there were Aboriginal or Torres Strait Islander people in the household who were not selected for inclusion in the NHS, then up to one additional Indigenous adult and one additional Indigenous child was enumerated. These respondents contribute to the NATSIHS sample, but not the NHS sample. In total 255 additional Aboriginal and Torres Strait Islander people were enumerated in NHS households; see the response rates section of this chapter for further details.

Interviewers

Interviewers for the 2004-5 NHS were primarily recruited from a pool of trained interviewers with previous experience on ABS household surveys. Those selected to work on this survey underwent further classroom training and were required to satisfactorily complete home study exercises. All phases of the training emphasised understanding of the survey concepts, definitions and procedures in order to ensure that a standard approach was employed by all interviewers concerned.

Each interviewer was supervised in the field in the early stages of the survey and periodically thereafter to ensure consistent standards of interviewing procedures were maintained. In addition, regular communication between field staff and survey managers was maintained throughout the survey via database systems set up for the survey.

Interviewers were allocated a number of dwellings (a workload) at which to conduct interviews. The size of the workload was dependent upon the geographical area and whether or not the interviewer was required to live away from home to collect the data. Interviewers living close to their workload area in urban areas usually had larger workloads. Overall, workloads averaged 25-30 dwellings, to be enumerated over a two-week period.

Questionnaires

For the first time, the 2004-5 NHS used an electronic questionnaire. The Computer Assisted Interview (CAI) instrument was based on the paper questionnaires used in the previous NHS, modified as necessary to operate in a computerised format, and modified as appropriate to incorporate new and changed survey content. A single instrument was used which incorporated information previously collected in a:

- Household Form - collects basic demographic data about usual residents of the household (e.g. sex, age, date of birth, birthplace, Indigenous status, marital status) and details of the relationship between individuals in each household. This information was obtained from any responsible adult within the household. The form was also used to identify the selected adult respondent for the dwelling, and the child proxy where applicable. The form was also used by interviewers to record their calls made to the dwelling and the subsequent response status of the household in the survey (e.g. fully responding, refusal, vacant dwelling, etc.).
- Personal Interview Adult Questionnaire - a single questionnaire was used to collect information from adults about their demographic and socio-economic characteristics and health characteristics such as long-term illness conditions experienced, selected lifestyle behaviours, health-related actions they had taken, etc.
- Personal (or proxy) Interview Child Questionnaire - a single questionnaire was used to collect information about the child; this included their demographic and (for older children) their socio-economic characteristics and various health characteristics.

The questionnaire was designed to be administered using standard ABS procedures for conducting population interview surveys, having regard to the particular aims of the survey and of the individual topics within it, and to the methodological issues associated with those topics. Other factors considered in designing the questionnaire included the length of individual questions, the use of easily understood words and concepts, the number of subjects and overall length of the questionnaire, sensitivity of topics, etc. Where appropriate, extracts from previous ABS surveys on the topics covered were adopted.

Questionnaires continued

The CAI instrument offered important advantages over the paper questionnaires used in the past. These included:

- the ability to check the responses entered against previous responses, to reduce data entry errors by interviewers, and to enable seemingly inconsistent responses to be clarified with respondents at the time of the interview. The audit trail recorded in the instrument also provides valuable information about the operation of particular questions, and associated data quality issues;
- the ability to carry forward responses to later questions, to assist respondents in answering, and interviewers in recording future questions. For example, questions in the survey regarding the cause of long-term conditions used responses provided to previous questions to establish the scope of the cause questions;
- the ability to use complex sequencing to define specific populations for questions, and ensure word substitutes used in the questions were appropriate to each respondent's characteristics and prior responses;
- the data are captured electronically at the point of interview, which removes all the added cost, logistical, timing and quality issues around the transport, storage and security of paper forms, and the transcription/data entry of information from forms into a computerised format; and
- the instrument delivers data in an electronic semi-processed form compatible with ABS data processing facilities; semi-processed in terms of the data validation and some derivations which occur in the instrument itself. While both the input and output data still needed to be separately specified to the processing system, input of the data in this form assists in that specification task and reduces the amount and complexity of some later processing tasks. Electronic delivery of text fields describing medical condition, medications used and alcoholic drinks consumed facilitated the introduction of auto-coding systems and improved supplementary manual coding and query processes. Provision was made in the CAI instrument to enable interviewers to record comments to help explain/clarify certain responses or provide supplementary information to assist in office coding.

The questionnaire was fully field tested to ensure:

- it was adequately and appropriately addressing the data requirements from the survey i.e. it obtained the data required in the most effective and efficient way;
- there was minimum respondent concern about the sensitivity or privacy aspects of the information sought, effective respondent/interviewer interaction, acceptable levels of respondent load, etc; and
- the operational aspects of the survey were satisfactory e.g. arrangement of topics, sequencing of questions, adequacy and relevance of coding frames, etc.

The questionnaire employed a number of different approaches to recording information at the interview:

- questions to which responses were classified by interviewers to one or more of a set of predetermined response categories. This approach was used for recording answers to the more straightforward questions, where logically a limited range of responses was expected or where the focus of interest was on a particular type or group of response (which were listed in the questionnaire, with the remainder being grouped together under 'other');

Questionnaires continued

- questions to which responses were recorded by interviewers as reported, for subsequent classification and coding by office staff during processing. This style of question was used for the potentially more complex topics such as type of illness condition, type of medication used, type and quantity of alcohol consumed, etc;
- questions asked in the form of a running prompt i.e. predetermined response categories were read out to the respondent one at a time until the respondent indicated agreement to one or more of the categories (as appropriate to the topic) or until all the predetermined categories were exhausted; and
- questions asked in association with prompt cards. Printed lists of possible answers to the question were handed to the respondent who was asked to select the most relevant responses. By listing a set of possible responses (either in the form of a prompt card or a running prompt question) the prompt served to clarify the question or to present various alternatives, to refresh the respondent's memory and at the same time assist the respondent to select an appropriate response.

To ensure consistency of approach, interviewers were instructed to ask the interview questions as shown in the questionnaire. In certain areas of the questionnaire however, interviewers were asked to use indirect and neutral prompts, at their discretion, where the response given was, for example, inappropriate to the question asked or lacked sufficient detail necessary for classification and coding. This occurred particularly in relation to type of medical condition where interviewers were asked to prompt for a condition if a treatment or symptom was initially reported.

A 'paper version' of the NHS questionnaire and related prompt cards are contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey 2004-5: Data Reference Package* (Cat no 4363.0.55.002) which is available from the ABS website.

MEASURES TO MAXIMISE RESPONSE

Response to a survey can be considered in two parts:

- obtaining contact with the respondent and information from the respondent; and
- ensuring that the information obtained is as accurate and relevant to survey objectives as possible.

This section deals with the first of these shown above. Measures taken to ensure accuracy and relevance of the data (e.g. survey procedures, questionnaire design, interviewers, etc.) have previously been outlined in this chapter.

In any sample survey responses should ideally be obtained from all selected units; in practice however there will always be some non-response, when people refuse to cooperate, cannot be contacted or are contacted but cannot be interviewed. It is important that response be maximised in order to reduce sampling variability and avoid biases. Sampling variability is increased when the sample size decreases and biases can arise if the people who fail to respond to the survey have different characteristics from those who did respond.

The ABS sought the willing cooperation of selected households. Measures taken to encourage respondent cooperation and maximise response included:

- advice to selected households in the 2004-5 NHS, initially by letter, explaining that their dwelling had been selected for the survey, the purposes of the survey, its official nature and the confidentiality of the information collected. The letters gave advance notice that an ABS interviewer would call, and provided an ABS contact number for more information if required. An information brochure, specially designed for selected households was provided with the initial approach letter. This procedure could not be followed for a small number of households where the ABS did not have an adequate postal address;
- stressing the importance of participation in the survey by selected households. Each selected dwelling (and its residents) represented a number of others in that local area in that state and in Australia. Each household selected, represented a number of others like them in size, composition, location, occupation, lifestyle and health. The cooperation of those selected was important to ensure all households/persons were properly represented in the survey and properly reflected in survey results;
- stressing the importance of the survey to the planning and provision of health services and facilities to meet Australia's health needs; and
- stressing the confidentiality of all information collected. The confidentiality of data is guaranteed by the *Census and Statistics Act 1905*; under provisions of this Act the ABS is prevented from releasing any identifiable information about individuals or households to any person, organisation or government authority.

Through call-backs and follow-up at selected dwellings, every effort was made to contact the occupants of each selected dwelling and to conduct the survey in those dwellings. Interviewers made several call-backs before a dwelling was classified as a 'non-contact'. Call-backs occurred at different times during the day to increase the chance of contact. Once contacts had been made at a dwelling the interviewer completed all necessary questionnaires where possible. If any persons who were selected to be included in the survey were absent from the dwelling when the interviewer called, arrangements were made to return and interview them. Interviewers made return visits as necessary in order to complete questionnaires for selected persons in scope of the survey. In some cases,

MEASURES TO MAXIMISE RESPONSE *continued*

the selected adult or designated child proxy within a dwelling could not be contacted or interviewed, and these were classified as individual non-contacts.

Respondents who refused to participate were usually followed-up later by letter and a subsequent visit by an office supervisor. Completed questionnaires were obtained where possible.

RESPONSE RATES

A total of 25,234 private dwellings were selected in the sample for the 2004-5 NHS. This reduced to an active sample of 21,808 dwellings after sample loss in the field stage. Full response details are provided below:

FINAL RESPONSE DETAILS

Sample/ response status	*Number of households*	*% of households*
Selected households	25 234	100.0
Sample loss		
Vacant dwelling	2 075	8.2
All persons out on scope/coverage	476	1.9
Other sample loss(a)	875	3.5
Total sample loss	3 426	13.6
Selected households after sample loss	21 808	86.4
Selected households after sample loss	21 808	100.0
Fully/adequately responding households	19 501	89.4
Not adequately responding households		
Full/ part refusal	521	2.4
Full/part non-contact	1 287	5.9
Language problem	163	0.7
Death or illness/other	336	1.5
Total not adequately responding	2 307	10.6

(a) Includes situations such as selected person away for enumeration period, no adult in household, derelict dwelling, dwelling converted to non-dwelling, holiday home.

Completed questionnaires were obtained for 25,906 persons in fully/adequately responding dwellings, as shown below:

COMPLETED QUESTIONNAIRES, number of records

	AGE GROUP (YEARS)		ALL AGES		
	0–17	*18 and over*	*Capital city*	*Rest of State*	*Total*
New South Wales	1 371	4 004	3 238	2 137	5 375
Victoria	1 082	3 367	3 189	1 260	4 449
Queensland	1 116	3 143	1 858	2 401	4 259
South Australia	1 062	3 458	3 329	1 191	4 520
Western Australia	692	2 106	2 066	732	2 798
Tasmania	624	1 949	1 095	1 478	2 573
Northern Territory	46	109	112	43	155
Australian Capital Territory	412	1 365	1 777	—	1 777
Australia	6 415	19 501	16 664	9 242	25 906

— nil or rounded to zero (including null cells)

INPUT CODING

Input coding refers to the coding of country of birth, language spoken at home, occupation, industry and industry sector, educational qualification and coding of the relationships within the household. This coding was performed by ABS State offices. Coding of alcohol consumption, type of long-term medical conditions and medication type was undertaken later in processing in the central office of the ABS; see Coding of Health Items below. A brief outline of the input coding undertaken follows:

- Country of birth coding - The survey questionnaire listed 10 most frequently reported countries: interviewers were instructed to mark the appropriate box, or if the reported country was not among those listed to record the name of the country for subsequent office coding. Text responses were classified to the Standard Australian Classification of Countries (Cat. no. 1269.0) A copy of the standard output categories at the minor group level of this classification is contained in Appendix 5.
- Coding of language - The survey questionnaire listed 10 frequently reported languages spoken at home. Interviewers were instructed to mark the appropriate box, or if the reported language was not among those listed, to record the name of the language for subsequent office coding. Language was coded to the Australian Standard Classification of Languages (first edition) (Cat. no. 1267.0). A copy of the standard groupings for output from this classification is contained in Appendix 6.
- Coding of occupation - In the 2004-5 NHS, occupation relates to the main job held by employed respondents at the time of their interview. Occupation was office coded, based on a description of the kind of work performed, as reported by respondents and recorded by interviewers. Occupation was coded to the four-digit (unit group) level of the Australian Standard Classification of Occupations (1222.0).
- Coding of industry and industry sector - In the 2004-5 NHS, industry and industry sector relates to the main job held by employed respondents at the time of their interview. These were office coded based on the name of employer and the respondent's description of the business or service carried out at the respondent's workplace. Industry was coded to the four-digit level of the Australian and New Zealand Standard Industrial Classification (first edition) (1292.0).
- Coding of educational qualification - Level of highest non-school educational qualification and field of study of that qualification were coded to the Australian Standard Classification of Education (ASCED) (1272.0): this classification replaces the ABS Classification of qualifications which was used in previous NHSs. Further information is provided in Chapter 6 of this Guide.

CODING OF HEALTH ITEMS

In addition to the general coding of population characteristics outlined above, the following items were office coded:

- long term medical conditions;
- type of medication; and
- alcohol consumption.

This coding was undertaken by coding staff specifically recruited and trained for the task; all coding was centralised in the Canberra office of the ABS. Initially Computer Assisted Coding systems (CAC) were used for each of the three items: these systems were based on those used in the 2001 NHS, updated as necessary. Rigorous quality control processes were applied throughout to ensure that the coding process met agreed standards.

CODING OF HEALTH ITEMS *continued*

In February 2006 an automatic coder was introduced for each of these items. These auto-coders sought exact matches between text recorded in the questionnaires, and text entries in the coders. Cases which could not be coded by the auto-coders were coded manually using the CAC systems.

A brief outline of the coding is provided below. Further information about the CAC and auto-coder systems and how they were applied in the survey can be provided on request.

Coding of medical conditions

All reported long-term medical conditions were coded to a list of approximately 1000 conditions, which was built into a CAC system, and later an auto-coder. Conceptually the coding process simply involved locating the reported condition in the coder, and recording the corresponding 3 digit ABS input code. In practice it was a more complex task and a query data base was established where coders could register any problems they came across, and where a solution could be posted. This provided coders with both a response to specific coding issues, and a resource for dealing with future problem cases.

The code list was that initially compiled for use in the 2001 NHS by the Family Medicine Research Centre, University of Sydney, in association with the ABS. Conditions classified at the full level of detail will not generally be available for output from the survey; however, they can be regrouped in various ways for output. Two standard output classifications, developed for the NHSs, are available:

- a classification based on International Classification of Diseases: 10th Revision (ICD10)
- a classification based on the International Classification of Primary Care (ICPC)

A copy of each of these output classifications is provided as Appendixes 2 and 3.

Coding of type of medication

The 2004-5 survey collected information on medications used by respondents in the two weeks prior to the survey, for asthma, heart and other circulatory conditions, arthritis, osteoporosis and diabetes, and medications used for mental well-being.

The questionnaire provided space to record the names of up to three medications each used, in the reference period, for asthma, arthritis, osteoporosis and diabetes, five for mental wellbeing, and up to 12 medications used for heart and circulatory conditions. The coding process involved assigning a 4 digit generic type of medication code to each medication name recorded.

A CAC system and later an auto-coder were developed incorporating the names of medications readily available in Australia and commonly used for the nominated conditions. The lists of medication names were based on the lists prepared for the 2001 NHS, updated as appropriate with reference to the World Health Organisation's Anatomical Therapeutic Chemical (ATC) Classification and the Australian Medicines Handbook. Respondents were encouraged to refer to the medication packet, bottle, etc when reporting, but may have reported from memory, and may have reported medications by their brand, trade or generic names. Some allowance was made in the coding process for the nature of the information reported; e.g. respondents not sure of the medication name, mispronounced medication name, interviewer misspelling of names, etc. Further information about the CAC system and how it was applied in the survey can be provided on request.

Coding of type of medication continued

The classification of generic type of medication used in the 2004-5 NHS is based on the World Health Organisation's Anatomical Therapeutic Chemical (ATC) Classification (and associated coding indexes) and the Australian Medicines Handbook. Although all medications reported as used for the designated conditions were recorded, the classification of generic type focussed on those types most commonly used for those conditions; other medications were classified to more general categories within the classification. Details of the classification used are provided in Appendix 4. Brand name information is not available for output from this survey.

Coding of alcohol consumption

In the 2004-5 NHS, information about alcohol consumption was recorded against nine general categories of alcoholic drinks: beer, wine, champagne/sparkling wine, ready to drink spirits, liqueurs, spirits, fortified wine, cider and other alcoholic beverages. Beer was further categorised by whether light, medium or full strength, and wine was categorised by whether white, red or low alcohol. Details of the quantity of each of these drinks consumed on (up to) the last three days in the week prior to the day of interview were recorded. Quantities were recorded in terms of standard measures where possible; otherwise a description of the quantity consumed was recorded by interviewers. Interviewers were encouraged to record further details about the brand or name of drink where possible to assist in coding.

Initially a computer assisted coding system was used to calculate in millilitres the amount of pure alcohol contained in the drinks which respondents reported they had consumed. This system, which was first used in the 2001 NHS used information about the type of alcoholic drinks consumed (including brand name for common drinks), and the size and number of drinks consumed; a conversion factor was applied to this information to obtain the amount of pure alcohol consumed. Conversion factors tailored to specific drinks/drink types were included in the system, and default factors for each of the seven broad types of alcoholic drinks used in the survey were included for cases where more detailed information had not been recorded at interview. This system was replaced part way through processing by an automated coding system, supported by clerical coding using the CAC system outlined above when the auto-coder could not find a match.

EDIT CHECKS

During office processing of the data, checks were performed on records to ensure that specific values lay within valid ranges and that relationships between items were within limits deemed acceptable for the purposes of this survey. These checks were also designed to detect errors which may have occurred during processing and to identify cases which although not necessarily errors, were sufficiently unusual or close to agreed limits as to warrant examination.

Periodically throughout computer processing, the data were output to frequency counts and tables containing cross-classifications of selected data items for checking purposes. These were aimed at identifying any problems in the input data, which had not previously been identified, errors in derivations and other inconsistencies between related items. In the final stages of processing additional output editing was undertaken to ensure that estimates conformed to known or expected patterns and were broadly consistent with data from previous NHSs or from other (including external) data sources, allowing for methodological and other factors which might impact comparability.

EDIT CHECKS *continued*

Any errors detected in the data or derivations were checked and subsequently corrected where possible. While all reasonable care was taken to ensure the data are correct some errors may survive to the final data file; further information about data quality issues are contained in Chapter 7: Data Quality and Interpretation of Results.

Data available from the survey are essentially 'as reported' by respondents. The processing procedures and checks outlined above were designed primarily to minimise errors occurring during processing. In some cases it was possible to correct errors or inconsistencies in the data which was originally recorded through reference to other data in the record; in other cases this was not possible and some errors and inconsistencies remain on the data file.

OUTPUT DATA FILE

Information from the survey was stored on the computer output file in the form of data items. In some cases, items were formed directly from information recorded in individual survey questions, in others, data items have been derived from answers to several questions (e.g. the item 'body mass' is derived from reported height and weight). Some items have been derived from the reported information in conjunction with information obtained from other sources (e.g. in deriving the health risk, associated with the reported level of alcohol consumption as defined by National Health and Medical Research Council).

In designing the output data file, the aims were to create a file which was similar to the 2001 data file, but simplified where possible. The result is a 9 level, down from 13 levels in 2001, hierarchical data output file as outlined below:

- Household level, containing information about the household size and structure, dwelling characteristics including geographic classifications and related items, and household income details;
- Persons in household level, containing basic demographic, relationship and income information about all members of households, including those members selected in the survey;
- Person level, which is the main level, containing all demographic and socio-economic characteristics of the survey respondents, and most of the health and related information they provided;
- Alcohol level, containing detailed information about the 3 most recent days in the previous week on which the respondents reported consuming alcohol, and the types and quantities consumed on those days;
- Two condition levels containing detailed information about the long-term conditions reported in the survey;
- Medications level, containing information about the types of medications used, the conditions those medications were used for, and the frequency and duration of use of selected medications; and
- Two injury related items, one with items related to the types of injuries, the other to the body part(s) injured.

A hierarchical data file is an efficient means of storing and retrieving information which describes one to many, or many to many, relationships e.g. a person may report multiple conditions, and may report use of multiple medications for all/some of these.

OUTPUT DATA FILE *continued*

Data about households, families and income units are contained as individual characteristics on person records. Estimates at the household, family or income unit level are not available from this survey.

A full listing of output data items available from the survey is contained in *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey 2004-5: Data Reference Package* (cat no 4363.0.55.002) which can be accessed on the ABS web site.

Once processing and validation of the data were complete, weights were inserted into each responding person's record to enable the data provided by these persons to be expanded to obtain estimates relating to the whole population within scope of the survey: see below. To enable standard error on estimates to be produced, 60 replicate weights were included.

ESTIMATION PROCEDURES

Two sets of estimates are available from the 2004-5 NHS :

- total Australian population estimates, which are based on the total sample of 25,906 Indigenous and non-Indigenous records from the 2004-5 NHS
- non-Indigenous estimates which are based on the 25,511 non-Indigenous records from the 2004-5 NHS

Indigenous estimates are not available from the NHS, but are available from the NATSIHS; these are based on Indigenous persons enumerated in the NATSIHS, Indigenous persons enumerated in the NHS, and additional Indigenous persons enumerated in NHS sample households : see under Interviews earlier in this chapter. This is illustrated below:

	Non–indigenous records	*Indigenous records*	*Indigenous non–community records*	*Indigenous community records*	*Population benchmarks*	*Output estimates*
NHS	25 511	395	—	—	Indigenous & non–indigenous	Total Australian population & non–indigenous population
NATSIHS	—	255	7 438	2 355	Indigenous	Indigenous population

— nil or rounded to zero (including null cells)

Estimates from the 2004-5 NHS are derived using a procedure which combines information collected in the course of the survey, in responses to the survey, and concerning the propensity of selected sample units to respond, with independently available information concerning the underlying populations. As a result, the NHS estimates of population conform to population counts at broad age, sex, part of state (Capital city/rest of state), Indigenous status and state/territory levels.

Benchmarks

The 2004-5 NHS was benchmarked to the estimated population (adjusted for the scope of the survey) as at 31st December 2004. Person level benchmarks were used, excluding persons not resident in private dwellings. In keeping with the scope of the NHS, persons in very remote areas were excluded from the benchmark totals. To align with the NHS scope persons residing in non-very-remote Indigenous communities should also be excluded from the benchmarks. However this is difficult to do accurately and the benchmarks used for the 2004-5 NHS include persons resident in non-very-remote Indigenous communities. The effect on survey estimates from this is considered negligible as the proportion of such persons in each state is very small.

Weighting specifications

To obtain person-based estimates, expansion factors or 'weights' are used with responding persons' records to enable the data provided by these persons to be expanded to provide estimates relating to the whole population within the scope of the survey. The strategy for deriving person weights involved a number of steps as described below.

Initial Household Weight

The first step of the weighting procedure was to assign an initial household weight to fully responding dwellings. The initial household weight was calculated as the inverse of the probability of the household's selection in the sample i.e. the inverse of the relevant state sample fraction as noted in the sample design section above.

The initial household weight was then adjusted as described below.

Adjustment for Period

As mentioned previously, households were randomly assigned to one of three sub-periods that divided up the 10 month reference period. This was done because health variables are thought to be related to the time of year of enumeration. The three sub-periods were:

Sub-period 1: Sep 2004 to Nov 2004
Sub-period 2: Dec 2004 to Mar 2005
Sub-period 3: Apr 2005 to Jun 2005

Note that the lengths of the sub-periods are 3 months, 4 months and 3 months respectively.

The estimated prevalence in this publication are averages over the 10 month reference period. More precisely, they are an average of the three sub-period population prevalence estimates. Since a random third of the sample was allocated to each sub-period, the initial household weights for each sub-period were adjusted by multiplying by a factor of 3. In order to appropriately average the three sub-periods estimates, these weights were further adjusted based on the length of each sub-period. That is, the weights for sub-period 1 and 3 were multiplied by 0.3, and the weights for sub-period 2 by 0.4.

Initial Person Weights

The next step in the procedure was assigning initial weights to fully responding persons based on the sub sampling scheme deployed within households. Initial person weights were calculated by inflating the person's adjusted household weight by the probability of the person being selected. For adults (18 years and over) the household weight was multiplied by the number of adults in the household. Similarly for children.

Calibration to Person Level Benchmarks

The final step in the weighting procedure was calibrating the initial person weights to a set of person level benchmarks. The calibration to benchmarks ensures that the sample survey estimates agree exactly with independent measures of the population at specific levels of disaggregation. In addition, the calibration reduces the impact of differential non-response bias at the specific levels of disaggregation, and also reduces sampling error.

The person benchmarks used in the 2004-5 NHS were estimates for December 2004 projected from the 2001 Census of Population and Housing results.

Two levels of person benchmarks were used in the calibration for the 2004-5 NHS:

state by part of state by age group by sex
state by Indigenous status

The age group categories were set such that there was a reasonable sample size in each weighting class at the state by part of state by age by sex level. The age categories adopted are shown below:

Calibration to Person Level Benchmarks continued

NT	*Other states*
0-4	0-4
5-14	5-9
15-34	10-14
35-54	15-19
55 and over	20-24
	25-29
	30-34
	35-39
	40-44
	45-49
	50-54
	55-59
	60-64
	65-69
	70-74
	75 and over

The calibration process involved adjusting the input person weights as little as possible such that they aggregated to the marginal person level benchmark totals as specified above. The use of the Indigenous status benchmarks was to enable improved estimates for the non-Indigenous population.

CONTENTS

INTRODUCTION

The 2004-5 NHS collected information to describe various aspects of the health status of the Australian population, with a particular focus on the National Health Priority Areas (NHPA) of asthma, cancer, heart and circulatory conditions, diabetes, injuries, mental wellbeing and musculoskeletal conditions, particularly arthritis and osteoporosis.

To enable the prevalence of all long term conditions to be established, supplementary information was also collected on other long term non-NHPA conditions. A long term condition was defined as one reported by respondents as being a condition which they currently had and which had lasted or they expected to last for six months or more.

In addition to information about the medical conditions they had, respondents were asked to rate their overall health.

Information about recent illness conditions (conditions experienced in the two weeks prior to interview), which had been obtained in the 1989–90 and 1995 NHSs was not collected in either the 2001 or 2004-5 surveys, although indications for persons with long term asthma, diabetes mellitus, arthritis and osteoporosis are available; see relevant sections below.

The focus on NHPA conditions in the 2004-5 survey is consistent with changes introduced in the 2001 NHS, but differs from that used in previous surveys.

For each of the NHPA conditions listed above, a condition 'status' item has been derived. These items bring together the concepts of whether ever told (by a doctor or nurse) that they have the condition, whether the condition was current at the time of the interview, and whether the condition had lasted or was expected to last for 6 months or more, regardless of how and where in the questionnaire the condition was reported, and classifies the condition for each respondent into the following categories:

1. Ever told has condition, still current and long term;
2. Ever told has condition, still current but not long term;
3. Ever told has condition, not current;
4. Not known if ever told, but condition current and long term;
5. Never told, not current or long term.

Counts of persons with a specific long term NHPA condition will agree with the sum of current and long term status categories (i.e. status categories 1 and 4) above: as noted previously some conditions are assumed to be current and/or long term. This is discussed in more detail in the individual condition sections which follow. Status items are derived for each of the specific conditions listed in the questionnaire, and for group totals (e.g. all types of arthritis combined).

In some cases persons with these NHPA conditions may not have reported the conditions in response to these specific questions but may instead have reported the condition in response to subsequent, more general, questions covering all conditions. Where this occurred the condition was recorded and is counted in survey results as a current and long term condition, but the supplementary information about actions taken or medication used is not available. Where these cases were identified by the survey instrument at the time of the interview the respondent was asked whether they had ever been told by a doctor or nurse that they had the condition. This enabled most of these cases to be appropriately classified in condition status items which are derived for all NHPA conditions. The small number of cases which were not identified at the time of

INTRODUCTION *continued*

interview have been allocated to condition status 4: Not known if ever told, but condition current and long term.

Conversely, in some cases respondents reported non-NHPA conditions in response to the questions about NHPA conditions. While all conditions reported are recorded and are available for output, counts may differ according to the particular item or population used and some care should be taken in using the data to ensure the items and populations used are appropriate to the purposes intended. Implications for particular NHPA data are discussed under the separate condition sections below.

The approach of screening respondents through 'ever told' questions for most NHPAs was adopted because those previously diagnosed with the conditions, but who no longer consider they had the particular condition, may be at special risk, and were therefore a key group of interest to users of the data. But a key outcome of this methodology is that most of those with NHPA conditions which are included in general long term conditions data from the survey reported they had been medically diagnosed with the condition. This differs from the approach used for data collected in the survey about all other long term conditions, which required only that a condition is current and long term before it is recorded, irrespective of whether it had been medically diagnosed. For general output from the survey all conditions are combined to provide an overall picture of current long term conditions in the population. However, the conceptual differences in the coverage of particular conditions should be considered when interpreting those data.

Conceptually, cases of mis-diagnosis are excluded. Where interviewers became aware of a condition which the respondent had been told they had/have, but that diagnosis later proved incorrect, the respondent was recorded as not ever told they have the condition. This approach retains the conceptual alignment between the 'ever told' and 'whether current' populations. However respondents may not have made this known to interviewers, with the result those cases will appear in survey results as 'ever told' but 'not current'.

Although the overall approach was similar for most NHPA conditions, there are some differences in the conceptual bases of the conditions data available. These are summarised in the table below. As noted above, regardless of these differences, the scope of published results about long term conditions is those conditions identified (by the respondent or assumed under the survey methodology) as *current and long term*. A point to note is that for the NHPA conditions listed, most were assumed, by the survey methodology, to be long term conditions.

INTRODUCTION *continued*

LONG TERM CONDITIONS

Type of condition	*Ever had condition*	*Ever told by doctor or a nurse has condition*	*Currently has condition*	*Condition lasted or expected to last for 6 months or more*
Asthma		X	X	Assumed
Cancer		X	X	Assumed
Heart and circulatory condition		X	X	(a) Assumed and X
Diabetes/high sugar levels		X	X	(b) Assumed and X
Arthritis	X	X	X	Assumed
Osteoporosis		X	X	Assumed
Gout/rheumatism	X		X	X
All other conditions			X	X

(a) Assumed for rheumatic heart disease, heart attack and stroke; asked for all other reported heart and circulatory conditions.

(b) Assumed for diabetes mellitus (excluding gestational diabetes); asked for high sugar levels. Gestational diabetes is not regarded as a long term condtiion in this survey.

Despite the different methodologies used for obtaining information about medical conditions, all condition data from the survey are ultimately 'as reported' by respondents. While the survey questionnaire was designed to prompt respondents and give them an opportunity to report all NHPA conditions and all other long term conditions they had, whether or not they chose to report a condition to the ABS interviewer, and how they chose to identify or describe that condition, were at the respondent's discretion.

As far as was possible (and with the exception of the NHPA 'condition status' items described above) the conditions recorded and classified in the survey were those currently experienced by the respondent at the time of the interview, although not necessarily manifest in terms of current symptoms; for example, a person may suffer from hayfever or sinusitis but experience infrequent attacks.

The 2004-5 NHS questionnaire design enabled a theoretical maximum of almost 100 conditions per person to be reported; there was no limit on the data file to the number of conditions an individual respondent could have but no respondent reported more than 25 conditions.

INFORMATION ABOUT MEDICAL CONDITIONS

Classification of conditions

Provision was made on the survey questionnaire for interviewers to record condition information in two ways;

- record responses against predefined and specified condition type/name response categories, and
- write in responses as reported by respondents for later office coding.

Information from both sources was combined and classified to a single list of approximately 1000 specific condition and condition group categories; referred to as the "1000 input code list" in this publication. This list covered the more common types of long term conditions experienced in the Australian community. The list was initially developed by the Family Medicine Research Centre at the University of Sydney, in consultation with the ABS for the 2001 NHS. A computer-based coding system was developed by the ABS based on this list, and all 'write in' condition information was office coded using this system. Predefined response categories in the questionnaire were allocated unique codes within the 1000 input code list.

Initially the coding system was a computer assisted system, but from February 2005 an automated coding system was introduced. The system allocated codes on the basis of an exact match between the condition description recorded by the interviewer, and the description contained in the auto-coder. The coder was successful in coding around 29% of condition coding instances processed after its introduction. Cases which were not auto-coded were manually coded using the compter-assisted system.

Results from the survey are generally not available classified to the full 1000 code level. As the data are from a sample survey there are not enough observations to support reliable estimates at that level of detail. While some data at this level may be made available on request for more commonly occurring conditions to meet special needs, for general output purposes long term conditions are classified in two ways:

- a classification based on the 10th Revision of the International Classification of Diseases (ICD10),
- a classification based on the International Classification of Primary Care (ICPC 2+).

These output classifications were developed by the ABS based on mappings between the 1000 input code list and ICD10 and ICPC provided by the Family Medicine Research Centre. The classifications take account of the types of long term conditions more commonly reported in a population-based survey and for which reliable estimates could be produced,

- the types of conditions or groups of conditions known to be of particular interest to data users, and
- the variability of the descriptions of conditions provided by respondents.

Efforts were made to ensure that the description of each condition which was recorded at interview was as precise and informative as possible to enable detailed, accurate and consistent coding of conditions. However, provision was made in the coding system and classifications for the general and imprecise terms often used by respondents.

Copies of the standard classifications of medical conditions available from this survey are contained in Appendixes 2 and 3 of this Guide. The process of mapping the 1000 input codes to the ICD and ICPC-based output classifications was complex, and in some cases the classification of the input codes was based on 'best fit' rather than 'exact match'.

Interpretation of conditions data

In addition to the self-reported nature of all the conditions data recorded, and the conceptual differences (outlined above) between the data recorded for the NHPA conditions and other long term conditions, there are a number of other points to be considered in interpreting the information about medical conditions available from this survey.

- The likelihood of respondents reporting a condition may differ according to the type and form of the questions asked. Those conditions which are specifically mentioned in questions or in prompt cards or other aids are expected to be better reported than conditions which are not. As it is not possible (or appropriate) to mention every condition in the survey interview, the relativity between conditions shown in survey results may in part reflect different methodologies used to collect the information. In the 2004-5 survey respondents were specifically asked about the following conditions:
    1. the NHPA conditions (as outlined above),
    2. eye and sight problems, and
    3. ear and hearing problems

Interpretation of conditions data continued

Other conditions specifically shown in prompt cards (in the order in which they were shown) were:

Hayfever
Sinusitis or sinus allergy
Other allergy
Anaemia
Bronchitis
Emphysema
Epilepsy
Fluid problems, fluid retention or oedema
(Exclude: those due to a heart or circulatory condition)
Hernias
Kidney stones
Migraine
Psoriasis
Stomach ulcers or other gastrointestinal ulcers
Thyroid trouble or goitre
Tuberculosis
Back - slipped disc or other disc problem
Back pain or back problems - specify
Amputation or loss of limb (For example: arm, foot, finger)
Behavioural or emotional disorders
Deformity or disfigurement from birth (For example: club foot, cleft palate)
Other deformity or disfigurement (For example: effects of burns)
Dependence on drugs or alcohol
Difficulties in learning or understanding
Feeling anxious or nervous
Feeling depressed
Gallstones
Incontinence
Paraplegia or other paralysis
Speech impediment

- The survey estimates show the reported prevalence of the condition (as a long term condition) at any point of time during the survey period; the data do not refer to the incidence of conditions occurring in the survey period.
- As noted above only those NHPA conditions which were current at the time of interview and which were long term (i.e. of 6 months or more duration in the respondent's view) are included in estimates of the prevalence of persons with that long term condition. However, for some conditions and purposes, estimates relating to persons ever told they have the condition may be considered a preferable measure of the prevalence of the condition. For example, while cases of diabetes mellitus may be successfully managed they cannot currently be cured so that a 'truer' measure of prevalence might be those 'ever told', rather than the subset of those ever told who considered they currently had the condition and who considered it to be long term.

Interpretation of conditions data continued

- Results of the survey can show the numbers of people with particular conditions, combinations of conditions, etc. However some caution should be used in interpreting counts of the number of conditions from the survey. This is because the number of conditions is in part a product of the classification system used to compile the data. The effects of this are not consistent across conditions - at those levels of the classifications which are fairly broad, the effects may be to undercount conditions (because several different conditions may be classified to a single category and hence appear in output as a single condition), while at more detailed classification levels these effects would be reduced.

ASTHMA

Definition

This topic refers primarily to those ever told by a doctor or a nurse that they have asthma, and who regard their asthma as a current condition. Persons who reported they had been told they had asthma, but not told by a doctor or nurse, were recorded as not having been told. As a result they were sequenced around the detailed asthma questions, but did have the opportunity to report current asthma (if appropriate) through later sections of the questionnaire covering 'other' long term conditions.

Information recorded about whether or not asthma was still current was 'as reported' by the respondent. Many people may consider they still get asthma even though it may have been some time since they last had an asthma attack or since they last used medication to prevent an attack. However if an adult indicated they were unsure how to answer because they have not had an attack since childhood, interviewers were instructed to record that asthma was not still current. All persons recorded as still having asthma were considered to have asthma as a long term condition.

Methodology

All respondents were asked whether they had ever been told by a doctor or nurse that they have asthma, and whether they still got asthma. Those who answered yes to both these questions were asked questions about written asthma action plans, use of medications for asthma in the last 2 weeks, and other actions taken for asthma in that period.

As noted above, persons sequenced around these questions may have reported current long term asthma in response to later general questions about medical conditions. These are included and contribute to estimates of the prevalence of asthma, but the information about written action plans, medication use and other actions taken, was not collected in these cases.

Written asthma action plans included management plans developed in consultation with a doctor, cards associated with peak flow meters and medication cards distributed through chemists. Respondents who reported having a written plan were shown a prompt card of the asthma action plan recommended by the National Asthma Campaign (which is available through doctors) and asked if their plan was similar to this; it is this plan which is referred to as the 'standard plan' in the output data items.

Respondents were encouraged to gather up and refer to their medication packets, bottles, etc when answering questions about medications used for asthma. The brand or generic name of the medications reported by respondents as used for asthma, in the last 2 weeks, was recorded by interviewers; these were office coded during processing – see Chapter 2: Survey Design and Operation. Provision was made to record the names of up to three medications. If more than three medications were reported, only three which the respondent considered were their main asthma medications were recorded.

Population

Information was obtained for all persons.

Data items

As follows:

- Asthma status
- Whether ever told has asthma
- Whether currently has asthma
- Whether has written asthma action plan

Data items continued

Source of written asthma action plan
Whether standard action plan
Whether used medications for asthma in last 2 weeks
Number of medications used for asthma
Types of medications used for asthma
Frequency of medication use (for each medication type)
Whether nebuliser used to administer medication
Actions taken for asthma in the previous 2 weeks

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (cat. no. 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting data for this topic include:

- The definition of asthma for identification and enumeration purposes is difficult as there is a range of different methodologies and criteria which can be applied. In this survey, almost all current asthma cases identified are those which the respondent reported as being medically diagnosed. Those cases which were identified through general questions about long term conditions (rather than the specific asthma questions) have not necessarily been medically diagnosed, and may instead be a different respiratory condition. In both situations however cases are essentially self-reported, and hence may not agree with data from other sources using different approaches to the definition of asthma and the collection of data.
- As asthma for many people is episodic, the notion of whether the condition is still current may be a difficult one (e.g. at what time since the last attack might a person say they no longer get asthma) and one which is likely to be differently judged by different people. Although some guidance was provided to interviewers in cases where a number of years had passed, the questions were deliberately tailored to ensure the respondent's perception of their current status was recorded. However, this should be considered in interpreting asthma prevalence as described by the survey.
- Medications recorded were those reported by respondents as used for asthma. In some cases respondents may have failed to report a medication, because they forgot they used the medication in the previous two weeks or because they were not aware the medication was for asthma, or they did not wish to report they used it. As a result the use of medications for asthma may be under-counted. Also, to the extent that asthma medication may be used for other conditions for which medications data were not recorded in the survey (e.g. hayfever, sinusitis) the data do not represent total use of asthma medication.
- Respondents may have mistakenly reported other medications they were using, as medications for asthma. All medications reported were coded and data can be refined for use on the basis of medication type.
- Because this is a household based survey, those people with cancer who are residents in hospitals, nursing or convalescent homes or similar accommodation are outside the scope of this survey.

Comparability with 2001

The methodology used in the 2004-5 NHS was the same as that used in the 2001 survey, and data for this topic which are common to both surveys are therefore considered directly comparable, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results).

The following table summarises differences in the items collected.

Item	*2004–05*	*2001*	*Comment*
Whether medication used(a)	Not collected	Collected	The item was dropped from 2004–05 as it was considered indications of use could be determined from the type of medication and frequency of use.
Frequency of use (for each medication)	Collected	Not collected	New item added on request
Respiratory symptoms	Not collected	Collected	The series of items was dropped from 2004–05 due to concerns about the quality/interpretation of the indicators they provided.

(a) Medication(s) used for prevention, relief or both.

CANCER

Definition

This topic refers primarily to those ever told by a doctor or nurse they have cancer, and who consider they currently have cancer (including cancer in remission).

For the purposes of this survey all cancer reported as current was regarded as being a long term condition. Given the potential sensitivity of the topic, this was considered the most appropriate approach, although it was recognised that some cases of cancer may not meet the 6 months threshold (e.g. a person diagnosed for skin cancer who has surgery to remove it, all within a six month period).

Methodology

Respondents were asked if they had ever been told by a doctor or nurse that they had cancer, and the type of cancer, including type of skin cancer, they had.

Predefined 'type of cancer' categories were included on the questionnaire, with provision for interviewers to record one additional 'write-in' type of cancer if required. The type of cancer categories used were:

- Skin
- Colon/rectum/bowel
- Breast
- Prostate
- Lung (including trachea, pleura, bronchus)
- Female reproductive organs (including cervix, uterus, ovary)
- Bladder/Kidney
- Stomach
- Leukaemia
- Lymphoma (including Non-Hodgkins lymphoma)
- Other (specify)
- Unknown (primary site)

The use of these types in the questionnaire effectively established this list as the most detailed level of information on type of cancer available from the survey, although very limited further detail may also be available for those recorded in the 'write-in' specify category.

If breast cancer was reported, age when first diagnosed with breast cancer was asked. Respondents were then asked if they currently had cancer and the type of cancer (including type of skin cancer). For the purposes of this survey, persons in remission were regarded as still having cancer, irrespective of the period of remission, and this was specifically mentioned in the question regarding currency (i.e. "including cancer which is in remission, do you currently have cancer?").

As noted in the introduction to this Chapter, persons sequenced around these questions may have reported current long term cancer in response to later general questions about medical conditions. These are included and contribute to estimates of the prevalence of cancer.

Population

Information was obtained for all persons.

Data items

As follows:

- Cancer status (separately for each type of cancer ever told)
- Type(s) of cancer ever told

Data items continued

Age first diagnosed with breast cancer
Whether currently have cancer
Type(s) of cancer currently have
Whether regularly check on freckles and moles

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (cat. no. 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting data for this topic include the following:

- Those cases of cancer reported through the general questions about long term conditions (rather than the specific cancer questions) have not necessarily been medically diagnosed, and may instead be other conditions; self-diagnosed skin cancer in particular may be subject to misreporting.
- As noted above, current cancers were assumed to be of 6 months or more duration. This is not necessarily the case.
- Because this is a household based survey, those people with cancer who are residents in hospitals, nursing or convalescent homes or similar accommodation are outside the scope of this survey.

Comparability with 2001

The methodology used in the 2004-5 NHS was the same as that used in the 2001 survey, and data for this topic which are common to both surveys are therefore considered directly comparable, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results).

The following table summarises differences in the items collected.

Item	*2004–05*	*2001*
Whether used medication for cancer in the last 2 weeks(a)	Not collected	Collected
Number of medications used	Not collected	Collected
Type of medications used	Not collected	Not collected

(a) Including vitamins and minerals, natural and herbal medicines.

Advice from key users was that there was sufficient information on medication use for cancer from other sources, and these items were therefore deleted as lower priorities.

HEART AND CIRCULATORY CONDITIONS

Definition

This topic refers primarily to those persons ever told by a doctor or nurse that they have one or more heart or circulatory conditions, and who consider they currently have one or more such conditions.

The scope of this topic differs according to the particular data aspect being considered.

- For data collection purposes, and for data output relating to heart and circulatory conditions as a group of NHPA conditions, heart and circulatory conditions were defined broadly to include a range of heart, vascular and related conditions.
- For output as long term conditions classified to the standard ICD or ICPC–based classifications, some conditions such as high cholesterol were appropriately classified to other (i.e. non-circulatory) disease or condition groups.

Some care should be taken in using the data to ensure the scope of the topic is appropriate to the data use intended.

For the purposes of this survey rheumatic heart disease, heart attack and stroke were assumed to be long term conditions i.e. of 6 months or more duration, if the respondent reported them as current conditions. This reflects the likelihood of ongoing effects/consequences of those conditions. Although unlikely in some cases, all other heart and circulatory conditions could be reported by the respondent as current conditions, but in the respondent's perception, not be of 6 months or more duration and hence not be defined as a long term condition in this survey.

Methodology

Respondents were asked if they had ever been told by a doctor or nurse that they had a heart or circulatory condition. A prompt card showing examples of conditions was provided to respondents. The following predefined condition categories were included on the questionnaire, with provision for interviewers to record three additional 'write-in' conditions if required:

Rheumatic heart disease
Heart attack
Stroke (including after effects of stroke)
Angina
High blood pressure or hypertension
Low blood pressure or hypotension
Hardening of the arteries, atherosclerosis or arteriosclerosis
Fluid problems, fluid retention or oedema
High cholesterol
Rapid or irregular heartbeats, tachycardia or palpitations
Heart murmur or heart valve disorder
Haemorrhoids
Varicose veins
Other - specify (up to 3 conditions could be recorded)

The use of these categories in the questionnaire effectively established this as the most detailed level of information on those conditions available from the survey, although very limited further detail may also be available for those conditions recorded in the 'other specify' category.

Methodology continued

Respondents were then asked if they currently had any heart or circulatory conditions, including conditions currently controlled by medications, and whether any/which of these conditions had lasted or were expected to last for 6 months or more. The list of predefined conditions was again used for these questions, with provision for interviewers to record up to three additional conditions if required. If in response to either of these questions a respondent mentioned a heart or circulatory condition they hadn't previously mentioned, the earlier questions in this section were re-asked as appropriate.

Information was then obtained about medication use for up to three current and long term heart and circulatory conditions reported. Respondents were asked whether they had taken vitamins/minerals, natural/herbal medicines or other medications (pharmaceuticals) for the condition in the last two weeks. Respondents were encouraged to refer to their medication packets, bottles, etc when answering questions about medications used for heart and circulatory conditions. The brand or generic name of the medications reported by respondents were recorded by interviewers; these were office coded during processing – see Chapter 2: Survey Design and Operation. Provision was made to record the names of up to three medications for each (up to a maximum of 3) heart and circulatory condition reported. If more than three medications were reported, only three which the respondent considered were the main medications they used for that condition were recorded.

Testing had shown that in some cases people who had several heart and circulatory conditions were unable to link a particular medication they had used with a particular condition. Provision was made to record up to three additional medication names in these cases.

Only those medications specifically used for (the particular) heart and circulatory condition are conceptually included. Other medications, used for example to treat symptoms or side effects of treatment were excluded where the purpose for use was identified.

Persons sequenced around these questions because they reported they had never been told by a doctor or nurse that they had a heart or circulatory condition may have reported a current and long term heart or circulatory condition in response to later general questions about medical conditions. These cases are included and contribute to estimates of the prevalence of heart and circulatory conditions, but the information about medication use was not collected in these cases.

Population

Information was obtained for all persons.

Data items

As follows:

- Condition status (separately for each of the predefined heart and circulatory conditions reported)
- Type(s) of heart/circulatory condition(s) ever told
- Type(s) of heart/circulatory condition currently have
- Type(s) of long term heart/circulatory condition currently have
- Whether used medications for heart/circulatory condition (separately for each of up to three conditions)

Data items continued

Number of medications used for heart/circulatory conditions (separately for each of up to three conditions).

Type(s) of medications used for heart/circulatory condition (separately for each of up to three conditions, and overall where respondent was unable to link a medication with a specific condition).

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (cat. no. 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting data for this topic include the following:

- Because this is a household based survey, those people with heart/circulatory conditions who are residents in hospitals, nursing or convalescent homes, or similar accommodation are outside the scope of this survey; as a result, the survey will under-represent those with more severe conditions.
- In this survey persons who reported they had been told they had a heart attack or stroke are counted as having a current and long term condition. Even though these conditions are usually short term events, they often result in some form of residual damage or effects, and have been treated in this survey as current long term conditions on that basis.
- The conditions recorded are as reported by respondents. In some cases it could be expected that some conditions reported may be symptoms of other conditions; heart or circulatory conditions or other conditions. For example oedema may be a symptom of a heart valve disorder. Respondents were not asked to associate conditions in this way, such that both symptoms and underlying conditions may have been reported in some cases, or symptom or condition only in other cases. As a result, in looking at the prevalence of certain conditions, data users should consider how related or associated conditions should be treated.
- Medications recorded were those reported by respondents as used for heart and circulatory conditions. In some cases respondents may have not reported a medication, because they forgot they used the medication in the previous two weeks, because they were not aware the medication was for a heart/circulatory condition, or they did not wish to report they used it. In other cases medications taken for conditions or symptoms associated with a heart/circulatory condition but not for the condition itself may have been reported, when conceptually they were excluded. Also, to the extent that heart/circulatory medications may be used for other conditions for which medications data were not recorded in the survey the data do not represent total use of these medication types.
- Respondents may have mistakenly reported other medications they were using, as medications for a heart or circulatory condition. All medications reported were coded and data can be refined for use on the basis of medication type.

Comparability with 2001

The questions and methodology for this survey were the same in 2004-5 as in the 2001 NHS, with the result the data from both surveys are considered directly comparable, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results). However, the following should be noted:

Comparability with 2001 continued

- Hypotension (low blood pressure) was added to the prompt card and main condition picklist in the 2004-5 NHS, and this may have lead to a higher level of reporting of that condition than in previous surveys.
- Myocardial conditions (391) were combined with heart attack (936) in the 2001 NHS, in the 2004-5 survey they have been separated.

DIABETES

Definition

This topic refers primarily to those ever told by a doctor or nurse they have diabetes mellitus or high sugar levels in their blood or urine, and who consider they currently have this condition. Although diabetes insipidus is included in some items within this topic, most items relate to diabetes mellitus and/or high sugar levels only.

The topic uses a hierarchy of conditions in cases where several types of diabetes mellitus were reported by a respondent or where high sugar levels were reported in association with diabetes. All types reported were recorded for the item 'whether ever told by a doctor or nurse', but all other items refer only to the type appearing first on the list below:

Diabetes; Type 1
Diabetes; Type 2
Diabetes; Gestational
Diabetes; Type unknown
High sugar levels

Methodology

Respondents were asked if they had ever been told by a doctor or nurse that they had diabetes and/or high sugar levels in blood or urine, the age at which they were first diagnosed, and the type of diabetes they were told they had. Persons were then asked whether the diabetes or high sugar level was still current; those reporting only diabetes insipidus were sequenced out at this point. Where the respondent had reported they currently had Type 1 or Type 2 diabetes those conditions were assumed to be of 6 months or more duration; if the respondent reported they currently had diabetes but didn't know the type, or currently had high sugar levels they were asked if their condition had or was expected to last for 6 months or more.

For the purposes of sequencing respondents through the questionnaire, gestational diabetes was treated as a long term condition. However, for purposes of data output, gestational diabetes is assumed to be of less than 6 months duration, and therefore is excluded from long term conditions data available from the survey.

Additional information outlined below was obtained only for those people reporting conditions determined or assumed to be both current and long term (but excluding gestational diabetes).

Information was then obtained about whether the respondent had daily insulin injections and the age they started having daily injections, and about the use of other pharmaceutical medications in the last two weeks. Respondents were encouraged to gather up and refer to their medication packets, bottles, etc when answering questions about medications used for diabetes. The brand or generic name of the medications reported by respondents were recorded by interviewers; these were office coded during processing – see Chapter 2: Survey Design and Operation. Provision was made to record the names of up to three medications. If more than three medications were reported, only three which the respondent considered were the main medication they used for diabetes or high sugar levels were recorded. Use of vitamins/minerals and natural/herbal medications were identified through questions about other recent actions; see below. Only those medications specifically used for diabetes or high sugar levels were conceptually included. Other medications, used for example to treat symptoms or side effects of treatment were excluded where the purpose for use was identified.

Methodology continued

Respondents who reported they had current and long term diabetes (other than diabetes insipidus) or high sugar levels were also asked about changes to diet, recent actions taken to manage their condition, and whether in the last 12 months their condition had interfered with their work, study and/or other day to day activities. Further information was obtained about whether these people had a diabetes-related sight problem, the type of sight problem, and the time since they had last consulted an eye specialist or optometrist.

Respondents sequenced around these questions because they reported they had never been told by a doctor or nurse that they had diabetes or high sugar levels may have reported these conditions in response to later general questions about long term medical conditions. These cases are included and contribute to estimates of the prevalence of diabetes mellitus and high blood sugar as appropriate, but the information about medication use, recent actions, eye/sight problems, etc was not collected in these cases.

Population

Information was obtained for all persons.

Data items

As follows:

- Diabetes status; separately for each of:
  - Diabetes - Type 1
  - Diabetes - Type 2
  - Diabetes - gestational
  - Diabetes - type unknown
  - High sugar level
- Current diabetes/high sugar level status
- Type of diabetes ever told
- Type(s) of current long term diabetes
- Diabetes/high sugar level status history
- Age first told had diabetes/high sugar level
- Whether having daily insulin injections
- Age started daily insulin injections
- Whether used medications for diabetes/high sugar levels in last two weeks
- Number of medications used for diabetes/high sugar levels (including insulin)
- Type(s) of medications used for diabetes/high sugar levels (1–3)
- Whether changes made to diet/eating patterns due to diabetes/high sugar levels
- Action(s) taken to manage diabetes/high sugar levels in last 2 weeks
- Whether diabetes/high sugar levels interfered with activities in last 12 months
- Type(s) of activities interfered with
- Whether has eye/sight problem due to diabetes/high sugar level
- Type of eye/sight problem due to diabetes/high sugar level
- Time since last consulted eye specialist or optometrist for diabetes-related eye condition.
- Time since last consulted eye specialist or optometrist for any eye/sight condition.

Data items continued

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (cat. no. 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting data for this topic include the following:

- Those cases of diabetes or high sugar levels reported through the general questions about long term conditions (rather than the specific questions about diabetes and high sugar levels) have not necessarily been medically diagnosed.
- Nearly 20% of persons who reported they had been medically diagnosed with diabetes of any type reported the condition was no longer current. Although these conditions can be managed with medications and lifestyle changes, they cannot currently be cured. These cases then have been misreported, but are a group of particular interest since the fact that they report no longer having the condition suggests they are not taking action to effectively manage their condition.
- Although persons may have reported gestational diabetes as a current and long term condition, it has been omitted from counts of long term conditions available from this survey. Separate details of gestational diabetes are available.
- Because this is a household based survey, those people with diabetes but who are residing in hospitals, nursing or convalescent homes or similar accommodation are outside the scope of this survey; as a result the survey will under-represent those with more severe complications of the condition.
- Medications recorded were those reported by respondents as used for diabetes or high sugar levels. In some cases respondents may have not reported a medication, because they forgot they used the medication in the previous two weeks, because they were not aware the medication was for diabetes or high sugar levels, or they did not wish to report they used it. In other cases medications taken for conditions or symptoms associated with diabetes but not for the condition itself may have been reported, when conceptually they were excluded. Also, to the extent that medications for diabetes/high sugar levels may be used for other conditions for which medications data were not recorded in the survey the data do not represent total use of these medication types.

Comparability with 2001

The methodology used in the 2004-5 NHS was similar to that used in the 2001 survey, and therefore data for most items are considered directly comparable between surveys, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results).

However, there were some key differences which impact comparability: these are summarised below.

- In 2004-5 respondents reporting they had been told they had diabetes were sequenced passed the 'ever told' question for high sugar levels. In 2001 it was possible for a respondent to report they had been told they had both conditions, but if they reported both, subsequent questions about age first told, and whether the condition was current related to the diabetes only. These differences mean that estimates for those 'ever told', age first told and those with current high sugar levels are more narrowly defined in 2004-5 and are therefore not directly comparable with 2001 estimates, unless the 2001 data are redefined to match the 2004-5 coverage.

Comparability with 2001 continued

- In both surveys, persons reporting diabetes insipidus only are sequenced around most diabetes and related questions. In 2004-5 these respondents were sequenced out after the question about whether they currently had the condition. In 2001 these respondents were sequenced out at the 'ever told' stage i.e. the condition was assumed to be current.
- In 2004-5 all types of diabetes reported as current conditions were assumed to be long term conditions for the purposes of sequencing in the questionnaire. In 2001 respondents reporting diabetes of unknown type or a type other than Type 1, 2 or gestational, were asked whether the condition had lasted or was expected to last for 6 months or more. As noted above, gestational diabetes was removed from long term conditions for output from both surveys. Conceptually the approach adopted in 2004-5 would see more cases (particularly cases where the respondent could not identify the type of diabetes they have) counted as current and long term conditions. However, the actual effect on estimates is minimal; an analysis of 2001 data shows that in almost all cases where the respondent was asked, the condition was reported as being long term.

ARTHRITIS

Definition

This topic refers primarily to those who consider they currently have arthritis (whether or not they had been told by a doctor or nurse that they had the condition). The methodology used for this topic differs from that used in the 2001 NHS, and differs from that used for most other NHPA conditions in this survey.

Methodology

Respondents were asked whether they have, or had ever had, gout, rheumatism or arthritis; those who reported arthritis were asked the type of arthritis – osteoarthritis, rheumatoid arthritis, and/or other type (to be specified). Respondents were then asked whether they currently had this/any of these conditions, and for gout and rheumatism were asked whether the condition had lasted or was expected to last for 6 months or more. All cases of current arthritis were assumed to be long term conditions.

All respondents who reported they had or ever had arthritis (of any type) where asked whether they had been told by a doctor or nurse, and the age they were first told. Information was then obtained about medications used for arthritis in the last 2 weeks, including vitamin and mineral supplements, natural and herbal products and pharmaceutical medicines. Respondents were encouraged to gather up and refer to their medication packets, bottles, etc when answering questions about medications used for arthritis.

The brand or generic name of the pharmaceutical medications reported by respondents were recorded by interviewers; these were office coded during processing – see Chapter 2: Survey Design and Operation. Provision was made to record the names of up to three pharmaceutical medications. If more than three were reported, only three which the respondent considered were the main medication they used for arthritis were recorded. Only those medications specifically used for arthritis were conceptually included. Other medications, used for example to treat symptoms or side effects of treatment were excluded where the purpose for use was identified.

Respondents were also asked about their use of specific dietary supplements such as vitamin D, calcium and various seafood-based products.

Finally respondents were asked whether they had taken certain other actions for their arthritis in the last 2 weeks, and the types of action.

Respondents sequenced around these questions because they reported they did not have and never had arthritis may have reported the condition in response to later general questions about long term medical conditions. These cases are included and contribute to estimates of the prevalence of arthritis as appropriate, but the information about medication use, recent actions, etc was not collected in these cases.

Population

Information was obtained for all persons.

Data items

As follows:

- Whether ever had arthritis
- Type of arthritis ever had
- Whether ever told has arthritis
- Type of arthritis ever told
- Age first told has arthritis
- Type of arthritis currently has

Data items continued

Status items: each type of arthritis
All types of actions taken for arthritis in last 2 weeks
Whether used medications for arthritis in last two weeks
Number of medications used for arthritis
Type(s) of medications used for arthritis (1–3)
Type of dietary actions taken for arthritis.

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (cat. no. 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting data for this topic include the following:

- Whereas the 2004-5 NHS methodology used for other NHPAs commenced with the 'ever told' question such that all further questions were asked only of that population medically diagnosed, questions on arthritis commence with 'have or ever had' such that the 'ever told' population is a subset, not the defining population for the topic. This methodology recognises the large numbers of people in the community who consider themselves to have arthritis, but who have not necessarily been diagnosed with the condition; most of these cases would not be recorded under the methodology used for the other NHPA conditions. For output the different approach means:
  - That although 'status' items are derived for arthritis in the same way as for other NHPAs the data are conceptually different; and
  - That for the purpose of contributing to long term condition data, it is those cases of current arthritis which are counted (as it is assumed all current cases are long term), not those cases ever told and current (which is the case for most other NHPAs).
- The distinction between arthritis, rheumatism and some other joint disorders may not be clear to respondents, particularly those whose condition has not been medically diagnosed. As the data collected in the survey are self-reported by respondents there is a likelihood of some leakage to and from similar conditions. Unfortunately information is not available from this survey as to the extent this is likely to have occurred, but users of the data should consider taking account of similar conditions when, for example, looking at the prevalence of arthritis.
- Because this is a household based survey, those people with arthritis but who are residing in hospitals, nursing or convalescent homes or similar accommodation are outside the scope of this survey; as a result the survey will under-represent those with more severe complications of the condition and the elderly.
- Medications recorded were those reported by respondents as used for arthritis. In some cases respondents may not have reported a medication, because they forgot they used the medication in the previous two weeks, because they were not aware the medication was for arthritis, or they did not wish to report they used it. In other cases medications taken for conditions or symptoms associated with arthritis but not for the condition itself may have been reported, when conceptually they were excluded. Also, to the extent that medication for arthritis may be used for other conditions for which medications data were not recorded in the survey the data do not represent total use of these medication types.

Comparability with 2001

Despite methodology changes between the 2004-5 and 2001 surveys, results are considered broadly comparable for common items. However some care should be used in comparing results between surveys as discussed below.

As previously noted the coverage of the topic and the order of hierarchy in determining the populations involved differed between surveys, as shown in the table below:

	2004–05		2001	
Item	*Hierarchy*	*Status*	*Hierarchy*	*Status*
Whether has/ever had arthritis	1	Collected		Not collected
Whether currently has arthritis	2	Collected	1	Collected
Whether arthritis is a long term condition		Assumed	2	Collected
Whether ever told by doctor or nurse	3	Collected		Not collected

However data output from both surveys are conceptually similar. For counts of persons with long term arthritis the shaded cells above have been used. The 'has/ever had' screen in 2004-5 does not restrict the population 'currently'. The 2001 results showed that almost all current cases were reported as long term, so the 2004-5 approach of assumed long term status will have negligible effects on the estimates.

In 2001 gout, rheumatism and arthritis were initially covered in a running prompt style of question, while in 2004-5 they were initially covered in a series of separate questions. A point of difference which may effect comparability is that in 2001 gout and rheumatism were asked after the main types of arthritis, while in 2004-5 they were asked before. While multiple responses were allowed in both surveys, if respondents were unclear about their condition (and were not aware of subsequent questions) there may have been a tendency for people to report against the first mentioned condition. The overall effects on comparability are expected to be minor, but should be considered in analysis of changes over time.

Most of the data items collected for this topic in the 2004-5 survey are not available for 2001. The only items which are available for both surveys are Whether currently has arthritis, gout, rheumatism, and whether these were long term conditions.

OSTEOPOROSIS

Definition

This topic refers primarily to those ever told by a doctor or nurse they have osteoporosis or osteopenia (a mild loss of bone mass density that may progress to osteoporosis). The methodology used for this topic differs from that used in the 2001 NHS, but is similar that used for most NHPA conditions in this survey.

Methodology

Respondents were asked whether they had ever been told by a doctor or nurse that they had osteoporosis or osteopenia. All cases reported were assumed to be still current and long term. Information was then obtained about age first told, and about medications used for the conditions in the last 2 weeks, including vitamin and mineral supplements, natural and herbal products and pharmaceutical medicines. Respondents were encouraged to gather up and refer to their medication packets, bottles, etc when answering questions about medications used for osteoporosis.

The brand or generic name of the pharmaceutical medications reported by respondents were recorded by interviewers; these were office coded during processing – see Chapter 2: Survey Design and Operation. Provision was made to record the names of up to three pharmaceutical medications. If more than three were reported, only three which the respondent considered were the main medications they had used for their osteoporosis or osteopenia were recorded. Only those medications specifically used for osteoporosis or oseopenia were conceptually included. Other medications, used for example to treat symptoms or side effects of treatment were excluded where the purpose for use was identified.

Respondents were also asked about their use of specific dietary supplements such as vitamin D, calcium and various seafood-based products.

Finally respondents were asked whether they had taken certain other actions for their osteoporosis or osteopenia in the last 2 weeks, and the types of action taken.

Respondents sequenced around these questions because they reported they had never been told they had osteoporosis or osteopenia may have reported the condition in response to later general questions about long term medical conditions. These cases are included and contribute to estimates of the prevalence of the conditions as appropriate, but the information about medication use, recent actions, etc was not collected in these cases.

Population

Information was obtained for all persons.

Data items

As follows:

- Whether ever told has osteoporosis
- Age first told had osteoporosis
- Osteoporosis/osteopenia status
- Action taken for osteoporosis in last 2 weeks
- Whether used medications for osteoporosis in last two weeks
- Number of medications used for osteoporosis
- Type(s) of medications used for osteoporosis (1–3)
- Type of dietary supplement used for osteoporosis

Data items continued

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (cat. no. 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting data for this topic include the following:

- The population for this topic was determined by the response to the question whether 'ever told by a doctor or nurse' that they had the condition. The currency and long term nature of the condition were assumed. While this is appropriate given the nature of the condition it conceptually differs from the approach used for most other conditions covered in the survey.
- Presence of the condition is often not known or even suspected until medical diagnosis. Results from this survey therefore expect to significantly under estimate the true prevalence of the condition throughout the community.
- Because this is a household based survey, those people with osteoporosis or osteopenia but who are residing in hospitals, nursing or convalescent homes or similar accommodation are outside the scope of this survey; as a result the survey will under-represent those with more severe complications of the condition and the elderly.
- Medications recorded were those reported by respondents as used for osteoporosis or osteopenia. In some cases respondents may have not reported a medication, because they forgot they used the medication in the previous two weeks, because they were not aware the medication was for osteoporosis or osteopenia, or they did not wish to report they used it. In other cases medications taken for conditions or symptoms associated with osteoporosis or osteopenia but not for the condition itself may have been reported, when conceptually they were excluded. Also, to the extent that medications for osteoporosis or osteopenia may be used for other conditions for which medications data were not recorded in the survey the data do not represent total use of these medication types.

Comparability with 2001

The methodology changes between the 2004-5 and 2001 surveys mean that results are not considered directly comparable. In the 2001 NHS osteoporosis was listed on a prompt card for 'other' long term conditions. Previous experience indicates that the inclusion of a specific question about a condition is likely to obtain a higher response than a more general question. Therefore part of the increase in the reported prevalence of osteoporosis between the surveys is likely to be attributable to methodology rather than a true increase in prevalence. The specific mention of osteopenia in 2004-5 is expected to have little impact as it is understood to be rare as often by the time the condition is diagnosed it has progressed to osteoporosis.

In addition to issues influencing the likelihood of the condition being reported, the data from each survey are conceptually different – self-reported current and long term in 2001 compared with 'ever told' and assumed current and long term in 2004-5. However, the impact on the data is expected to be relatively minor. The nature of the condition is such that it usually only becomes known to a person through diagnosis, so that although not explicit in the 2001 survey, it could be expected that most, if not all cases reported had been diagnosed. The nature of the condition also means the assumption of currency and long term nature in 2004-5 would have minimal impact on data comparability.

Comparability with 2001 continued

Most of the data items collected for this topic in the 2004-5 survey are not available for 2001. The only items which are available for both surveys are whether currently has osteoporosis, and whether this was a long term condition.

MENTAL WELLBEING

Definition

Mental health relates to emotions, thoughts and behaviours. A person with good mental health is generally able to handle day-to-day events and obstacles, work towards important goals, and function effectively in society. However, even minor mental health problems may affect everyday activities to the extent that individuals cannot function as they would wish, or are expected to, within their family and community. Consultation with a health professional may lead to the diagnosis of a mental disorder.

In the 2004-5, information was collected on mental wellbeing via:

- The Kessler Psychological Distress Scale–10 (K10) questionnaire;
- Information on medication use for mental wellbeing; and
- Self-reported long term mental and behavioural problems.

These are outlined below.

Kessler Psychological Distress Scale–10

The Kessler Psychological Distress Scale–10 (K10) is a scale of non-specific psychological distress. It was developed by Professors Ron Kessler and Dan Mroczek, as a short dimensional measure of non-specific psychological distress in the anxiety-depression spectrum, for use in the US National Health Interview Survey. It was asked of adults aged 18 years and over in the 2004-5 NHS.

The K10 is a ten item questionnaire, yielding a measure of psychological distress based on questions about negative emotional states experienced in the four weeks prior to interview. It contains low through to high-threshold items. For each item there is a five-level response scale based on the amount of time that a respondent experienced the particular problem. The response options are: none of the time; a little of the time; some of the time; most of the time; all of the time. Each of the items are scored from 1 for none to 5 for all of the time. Scores for the ten items are summed, yielding a minimum possible score of 10 and a maximum possible score of 50, with low scores indicating low levels of psychological distress and high scores indicating high levels of psychological distress.

For output K10 results are commonly grouped; results from the 2004-5 NHS are usually grouped into four categories:

- low (scores of 10–15, indicating little or no psychological distress)
- moderate (scores of 16–21)
- high (scores of 22–29)
- very high (scores of 30–50) levels of psychological distress

Based on research from other population studies, a very high level of psychological distress, as shown by the K10, may indicate a need for professional help.

In Australia, national level information on psychological distress using the K10 was first collected in the Survey of Mental Health and Wellbeing of Adults (SMHWB) conducted by the ABS in 1997. The SMHWB was an initiative of, and funded by, the (then) Commonwealth Department Of Health and Family Services as part of the National Mental Health Strategy. The K10 was included in both the 2001 and 2004-5 NHS as it proved to be a better predictor of depression and anxiety disorders than the other short, general measures used in the 1997 SMHWB. For further information about ABS use of the instrument see the information paper, *Use of the Kessler Psychological Distress Scale in ABS surveys* (cat. no. 4817.0.55.001).

Type of medication used for mental wellbeing

Information was collected on whether adult respondents had taken any vitamin or mineral supplements, or any herbal or natural treatments or remedies for aspects of their mental wellbeing in the two weeks prior to interview. Respondents were then asked whether they had taken any of the following in that two weeks: sleeping tablets or capsules; tablets or capsules for anxiety or nerves; tranquillisers; antidepressants; mood stabilisers; and other medications for mental health.

The brand or generic name of the pharmaceutical medications reported by respondents were recorded by interviewers; these were office coded during processing – see Chapter 2: Survey Design and Operation. Provision was made to record the names of up to five pharmaceutical medications. If more than five were reported, only five which the respondent considered were the main medication they had used for mental wellbeing were recorded.

For each pharmaceutical medication recorded, information was also collected on the duration and frequency of use.

Long term mental and behavioural problems

Information on long term conditions, i.e. conditions that had lasted or were expected to last for six months or more, was collected in the 2004-5 NHS for people of all ages. Mental health and behavioural problems were identified through the self-reported information on long term conditions obtained by the survey. However, unlike the approach used for other NHPA conditions such as diabetes and asthma, respondents in the survey were not specifically asked whether they had been diagnosed with any mental disorders. The information provided by respondents could therefore be based on self-diagnosis rather than diagnosis by a health professional. This has several important implications.

- Despite the conceptual threshold of conditions being of 6 months or more duration, reporting may be based on recent circumstances, and represent recent feelings or emotions rather than necessarily a long term condition.
- The terminology used by respondents to describe conditions is more likely to be non-medical terminology. This has implications for the accuracy of the classification of the condition assigned through the coding process, and ultimately for use/interpretation of the survey results. In some areas it may also result in the loss of important distinctions in the data; for example feeling depressed and clinical depression are grouped under a single condition code.

In addition to issues around the quality of the conditions which are reported, there are issues around whether or not conditions are reported at all. This is partly to do with the nature of the conditions which respondents may see as very personal or sensitive, particularly as other household members may be present at the interview, and partly to do with the questions asked. No specific questions are asked in the NHS about mental disorders or problems. Instead, some conditions, such as behavioural or emotional disorders, dependence on drugs or alcohol, feeling anxious or nervous were identified on prompt cards with more general questions about long term conditions, while others were collected by asking respondents to identify any other long term conditions they had.

Population

For long term mental and behavioural problems, information was collected for all persons in scope of the survey. Information about all persons under 15 years of age, and some of those aged 15 to 17 years was provided by a proxy – see Chapter 2: Survey Design and Operation. Other mental health information was collected for persons in scope of the survey and aged 18 years and over.

Data items

As follows:

Responses to each Kessler 10 question
Kessler 10 score
Reported type(s) of medication used for mental wellbeing
Generic type(s) of medication used for mental wellbeing
Duration of use of medications used for mental wellbeing
Frequency of use of medications used for mental wellbeing
Whether experienced long term mental or behavioural problem
Type(s) of long term mental or behavioural problem
Number of long term mental or behavioural problems

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (cat. no. 4363.0.55.002) available from the ABS website.

Interpretation

Additional to the points noted in the discussion above, the ABS released a publication containing selected data on mental health available from the previous NHS: *2001 National Health Survey, Mental Health, Australia* (cat. no. 4811.0). As the 2004-5 NHS draws heavily on the 2001 NHS, this paper may be of interest to users of the 2004-5 data.

Comparability with 2001

- The K10 was included in both the 2001 and 2004-5 NHSs, and the data are considered directly comparable, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results).
- Similarly information about long term mental health problems is considered directly comparable between surveys as the approach used, including the prompt cards, was identical. However, changes in community perceptions of mental illness/problems together with changes in the identification of illness and the treatment (e.g. institutional versus community care) of conditions may have affected the degree to which certain conditions were identified in the survey.
- Data on type of medication used for mental health is not comparable between surveys. In the 2001 survey, medication use for mental wellbeing was recorded against the following 6 broad categories:

  Sleeping pills
  Tablets or capsules for anxiety or nerves
  Tranquillisers
  Antidepressants
  Mood stabilisers
  Others medications for mental health.

Comparability with 2001 continued

These categories better reflect reasons for use than type of medication. Despite this, interviewers were instructed to record the use against the appropriate type of medication rather than its reason for use. For example, if a respondent reported having used Serapax for sleeping, interviewers were instructed to record this use against the category "tablets for anxiety or nerves" rather than against "sleeping tablets or capsules". The names of common medications were included on the prompt card in their appropriate type group; more detailed lists were available to assist interviewers in checking the placement of medications in home editing.

In the 2004-5 survey data were recorded against the same 6 categories of reasons for use, but were recorded in the category strictly 'as reported' by respondents. Separately the brand/type names of medications were recorded and later office coded by generic type. This approach yields two separate items, 'reported types' and 'generic types' rather than the single hybrid item from the 2001 survey. Neither of these items are directly comparable with the type of medication available from the 2001 NHS.

The differences noted above in relation to the type of medication flow through to data obtained about the frequency and duration of medication use, and as a result these items are also not directly comparable between surveys.

LONG TERM CONDITIONS: TYPE OF CONDITION

Definition

Long term conditions were defined as medical conditions (illness, injury or disability) which were current at the time of the survey and which had lasted at least six months, or which the respondent expects to last for six months or more, including:

- Long term conditions experienced from which only infrequent attacks may occur;
- Long term conditions which may be under control, for example through the continuing use of medication;
- Conditions which, although present, may not be generally considered 'illness' because they are not necessarily debilitating e.g. reduced sight; and
- Long term or permanent impairments or disability.

In the 2004-5 NHS long term conditions are made up of two conceptually different sets of data.

- The NHPA conditions of asthma, cancer, heart and circulatory conditions, diabetes, and arthritis and osteoporosis. As outlined in previous sections, these data primarily relate to conditions which have been medically diagnosed, and which are current and either reported to be, or assumed to be, of 6 months or more duration.
- Other conditions (including conditions related to the other NHPAs of injuries and mental health) which respondents reported as current at the time of the survey, and which the respondents had, or expected to have, for a period of 6 months or more.

For outputs from this survey relating to long term conditions or persons with long term conditions, data from these two groups are combined.

Methodology

Information about the collection of data for the specific NHPA conditions is contained in the previous sections of this publication. Information about the collection of data about all other long term conditions is provided below.

Long term conditions other than NHPA conditions were addressed in two ways.

- Respondents were asked a series of questions about specific eye and sight problems and ear and hearing problems.
- Respondents were shown a series of 3 prompt cards (two with conditions listed while the third contained more general descriptions of condition types) and asked whether they had any of the conditions shown or conditions similar to those shown or described.

Population

Information was collected in respect of all persons in scope of the survey.

Data items

As follows:

Whether has long term condition
Type(s) of long term condition
Number of long term conditions
Whether currently wears glasses or contact lenses
Whether sight problem corrected by glasses or contact lenses
Whether sight problems correctable but glasses or contact lenses not used
Types of sight problems corrected by glasses or contact lenses

Data items continued

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (cat. no. 4363.0.55.002) available from the ABS website.

Interpretation

Points to be borne in mind in interpreting data from the survey relating to long term conditions include the following:

- As noted previously, the data relate to conditions 'as reported' by respondents and hence do not necessarily represent conditions as medically diagnosed, except in the case of those conditions which respondents reported having been advised by a doctor or nurse. However, as the data relate to conditions which had lasted or are expected to last for 6 months or more it is considered there is a reasonable likelihood that medical diagnosis would have been made in most cases. However, the degree to which conditions have been medically diagnosed is likely to differ across condition types.
- Even where conditions have been medically diagnosed, respondents may have used different terminology when reporting the condition, such that it has been classified to a different group.
- While the methodology aimed at maximising the identification of long term conditions, some under-reporting may have occurred, particularly in respect of those conditions which are controlled by treatment (such as epilepsy), recur infrequently or to which respondents have become accustomed and no longer consider an illness.
- It is expected that those conditions which were specifically mentioned in questions, and to a lesser extent those conditions shown on prompt cards, would have been better reported than conditions for which response relied entirely on respondent judgement and opinion as to whether or not to report them. Data are not available from this survey to enable the magnitude of this effect to be quantified, but it is likely to differ across condition types and for different groups in the population.
- Although long term/permanent disabilities were within the scope of long term conditions, data from this survey should not be interpreted as indicating the disabled or handicapped population. In some cases long term/permanent impairment/disability is evident from the condition categories e.g. blindness (complete or partial), while for others some degree of impairment/disability could be inferred from the nature of the condition e.g. arthritis, back problems. However, these data should, at best, be considered as proxy indicators of disability only, and are not directly comparable with data provided by the ABS Survey of Disabled and Aged Care (2003).
- As noted previously, information about long term conditions is available from the survey classified to two classifications. The categories in these classifications have been adopted to cover specific conditions of known interest to data users, which can be supported by the observations obtained in the survey. In some cases data at a more detailed level can be made available on request – see Chapter 2: Survey Design and Operation. However, it should be recognised that given the vagaries of condition reporting, the finer the level of detail the less accurate the condition data will become.

Interpretation continued

- Because this is a household based survey, those people with cancer who are residents in hospitals, nursing or convalescent homes or similar accommodation are outside the scope of this survey.

Comparability with 2001

Data on long term conditions from the 2004-5 NHS are broadly comparable with long term condition data from the 2001 survey. However, direct comparisons should be made with care.

- The methodologies used for the NHPA conditions are the same or similar to those used in the 2001 NHS such that most data should be directly comparable; however readers are advised to see the comments on comparability contained in each of the separate NHPA sections.
- Although the methodology used for the non-NHPA conditions was similar to that used in 2004-5 overall, there were some differences (e.g. in the coverage of particular conditions in the survey prompt cards) which have reduced comparability – see Chapter 7: Data Quality and Interpretation of Results.
- Changes in community perceptions of illness and disability, together with changes in the identification and treatment (e.g. institutional versus community care) of conditions may have affected the degree to which certain conditions were identified in the survey.
- The prevalence of most long term illness increases with age. In drawing comparisons of prevalence between the surveys, account should be taken of the shift in the age profile of the population during the period between surveys.
- General diminished or disturbed hearing (ABS code: 337) was included under the heading of inner ear conditions in 2001, but was included under the heading of partial deafness conditions in 2004–5.

In comparing data from the 2004-5 NHS with those from previous NHSs, users may find it helpful to refer to an analysis of time series information on long term conditions, published after the 2001 NHS: Occasional Paper: *Long term Health Conditions - A Guide To Time Series Comparability From The National Health Survey, Australia* (cat. no. 4816.0.55.001)

LONG TERM CONDITIONS: REPORTED CAUSE

Definition

This topic refers to the cause; (work related or as a result of an injury (including injury at work) of current long term conditions (and conditions assumed to be current and/or long term)), as reported by respondents.

Methodology

Respondents who earlier in the survey had reported one or more current long term conditions (or conditions which were assumed to be current and long term) were asked whether that/any of the condition(s) was work related, and whether that/any of the condition(s) was the result of an injury. All the conditions previously reported were brought together in the instrument, and those reported by respondents as work related or due to an injury were marked by interviewers, as appropriate. The same condition may have been reported and recorded as both work related and due to an injury.

Respondents who reported one or more conditions as due to an injury were asked, in respect of each condition, whether the injury was received while at work/school, in a motor vehicle accident or during exercise or sport.

Population

Information was collected in respect of all persons for whom one or more current long term conditions (or conditions which were assumed to be current and long term) had been reported.

Data items

As follows:

Whether any long term condition(s) was work related
Whether work related condition as a result of injury
Type of long term condition(s) work related
Whether condition(s) a result of an injury
Type of long term condition(s) due to an injury
Place where injury occurred

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (cat. no. 4363.0.55.002) available from the ABS website.

Interpretation

Points to be borne in mind in interpreting data from the survey relating to the reported cause of long term conditions include the following.

- The data are self-reported, and reflect the respondent's view of causality and responsibility. Conditions identified as work related or due to an injury at work are not necessarily consistent with those which might be deemed to be work related for workers' compensation purposes.
- The questions were asked only in respect of conditions which had previously been reported during the survey interview. To the extent that respondents had failed to previously report a condition, the work related or injury origin of the condition was not established. Some work related conditions, or conditions resulting from an injury, may not be identified in the survey as a result.

Comparability with 2001

In the 2004-5 NHS the questions and general methodology for this topic were similar to those of the 2001 survey, with the result that the data are considered broadly comparable between the surveys, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results). However, the following points should be borne in mind in making comparisons:

- This topic is directly dependent on the conditions previously reported in the survey, so that any change in methodology effecting the likelihood of conditions being reported, will impact on comparability. While the overall approach to collecting conditions data was the same in both surveys, changes for example to the approach for arthritis, gout, rheumatism, osteoporosis, changes to condition prompt cards, etc will have had some impact on data for this topic.
- In the 2001 survey, for practical reasons the number of conditions which could be recorded as work related or due to an injury was limited to 5 each; in the 2004-5 NHS there was no limit so that all conditions previously reported could potentially be reported as work related and/or due to an injury. It should be noted that the limit of 5 in 2001 applied to 5 conditions as reported, which may differ from the number of conditions coded and which appear on the final data file - but from that data file 18% of respondents were recorded as having more than 5 conditions.
- In both surveys the injury component was asked following the work related question. In the 2004-5 survey respondents were specifically advised to include conditions reported as work related in their response to the injuries question, if applicable. This instruction was not given in the 2001 survey so some respondents may not have reported a condition as due to an injury because they had just reported it as work related. The extent to which this may have occurred is not known. Where it has occurred, conditions due to injuries will be under-estimated in the 2001 data.

RECENT INJURIES

Definition

This topic refers to selected events occurring in the 4 weeks prior to interview which resulted in injury, and which in turn resulted in medical consultation or treatment, or a reduction in usual activities. The types of events included were:

Accidents (e.g. a fall, vehicle accident, hitting or being hit by something);
Harmful incidents (e.g. bites and stings, attack by another person, near drowning);
Exposures to harmful factors (e.g. poisoning (other than food poisoning), electric shock, loud sounds); and
Other events resulting in injuries such as cuts, scalds, dislocations, sprains, fractures, etc.

The topic aimed to cover all injuries, from minor scrapes and cuts through to serious injuries such as broken bones and burns, and included birth injuries if these occurred in the previous 4 weeks. Detailed information was collected about those events resulting in injury for which some action was taken. Food poisoning and minor insect bites were not regarded as an injury for the purposes of this survey.

The data items included in the NHS module on recent injuries are based on the National Minimum Data Set for Injury Surveillance in the National Health Data Dictionary. They include items describing the event, the type of injury and its bodily location, the place of occurrence and the activity when injured.

Methodology

Respondents were asked (with the aid of prompt cards) whether any of the following events had happened to them in the previous 4 weeks:

Attacked by another person
Bites or stings
Bruising
Burns or scalds
Choking
Cuts
Dislocations, sprains, strains
Electric shocks
Falling over
Fractures and broken bones
Hit by something
Hitting something
Inhaling fumes
Internal injuries
Loud sounds
Near drowning
Swallowing poisons
Vehicle accidents
Other injuries

Methodology continued

and if so, whether those events had resulted in the respondent taking one or more of the following actions.

- Consulting a health professional
- Seeking and/or receiving medical advice or treatment
- Reducing usual activities, or
- Treating the injury themselves, such as using a band aid or bandage, applying an ice-pack, taking medication, bed rest, etc.

For those who reported an event for which one or more of those actions was taken, information was collected to establish the number and types of event(s) which had occurred in that period.

Further information was then collected about the most recent event in that 4 week period. This information covered details of the event (activity at the time of the injury, and location of event) and consequences of the event (type and bodily location of injury, medical treatment and days of reduced activity resulting from the injury). Prompt cards were used to assist respondents in reporting type of injury, activity at time of event, location of event, and medical consultation arising from the event.

Respondents reporting an injury while working for an income were asked if this was in the same occupation as previously reported in the interview; that is, occupation in the main job the respondent had at the time of the survey. For those not in the labour force, not currently employed, or who have changed occupation since their injury, details of the occupation at the time of the injury were not recorded.

A small number of cases were recorded in the survey where after the initial screening questions, it was found that no injury had resulted from the reported event. In these cases no further information about the event or consequences of the event were recorded. These are included in counts of events, but not in counts of injuries or injury events.

Population

Information was collected for all persons in scope of the survey.

Data items

Items available for reported events:

- Whether had event for which action(s) being taken
- Whether had injury event
- Type of event for which action taken
- Number of events occurring for which action taken (for each type of event)
- Type of most recent injury event
- Type(s) of injury from most recent injury event
- Part(s) of body injured
- Whether injury received while working (for income or as volunteer). Occupation at time of injury most recent injury (only where that occupation was the same as the respondent's current occupation)
- Activity at time of injury
- Location of injury event
- Type of hospital attendance
- Type of medical professional consulted
- Whether had time off work/study due to injury

Data items *continued*

Whether cut down on usual activities as a result of injuries
Whether injured while under influence of alcohol/other substance

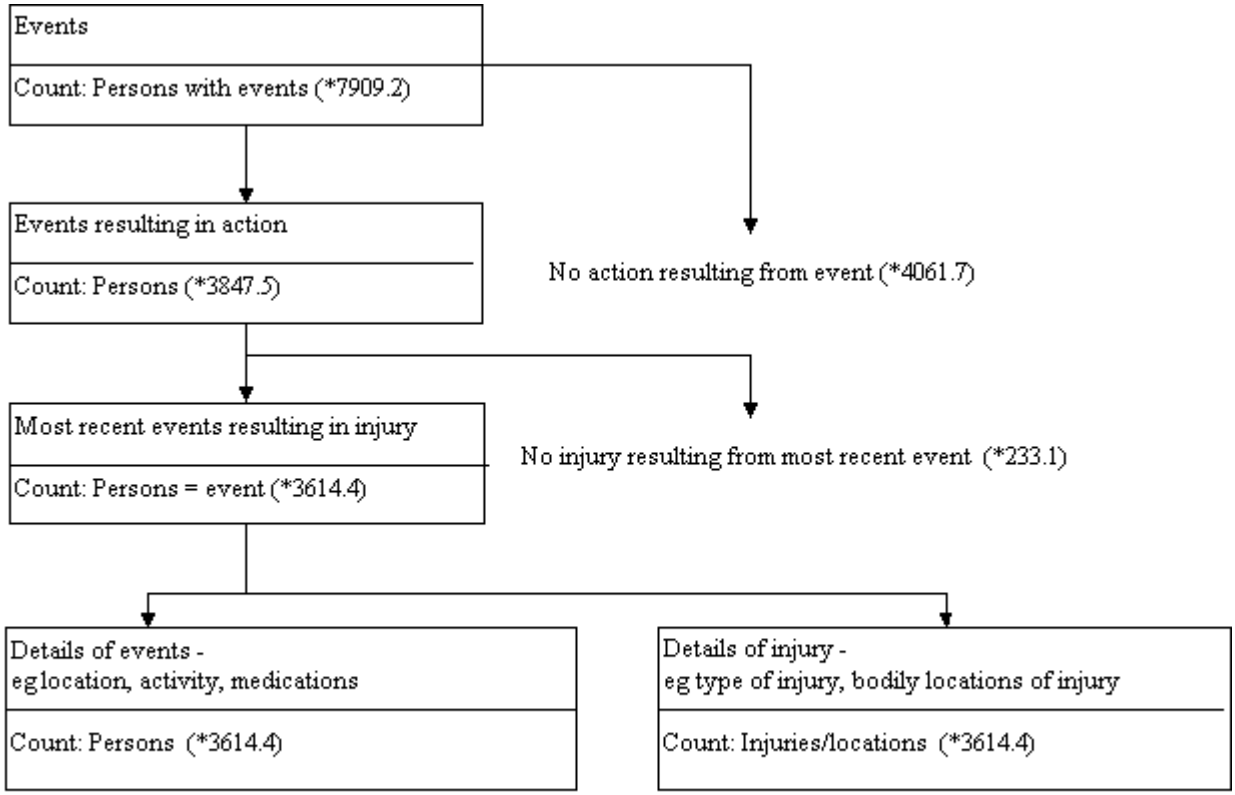
Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (cat. no. 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting data for this topic include the following.

- As the data in this topic can relate to persons, events, injury events and injuries, care should be taken to ensure that the data used are appropriate to the purpose for which they are intended; in particular to ensure that data relate to events, injury events or injuries as required, and that the units used (e.g. events or persons) are appropriate.
- An event is an occurrence of any of the following in the previous 4 weeks:
  - Attack by another person, Hit by something, Bites or stings, Bruising, Burns or scalds, Choking, Cuts, Dislocations, sprains, strains, Electric shocks, Falling over, Fractures, Hitting something, Inhaling fumes, Internal injuries, Loud sounds, Near drowning, Swallowing poisons, Vehicle accidents, Other injuries;
- and which resulted in one or more of the following actions:
  - Consulting a health professional, Seeking and/or receiving medical advice or treatment, Reducing usual activities, or Treating the injury themselves (e.g. using a bandage, applying an ice-pack, taking medication, bed rest).
- An injury event is an event (as defined above but excluding food poisoning) which resulted in an injury.
- An injury is the damage sustained in an injury event; a single event may result in multiple injuries, and each type of injury may involve multiple bodily locations.

The relationships between these concepts are shown in the diagram below.



* Estimates are rounded to thousands.

Interpretation continued

- The identification of events and injury events was entirely at the discretion of respondents and reflected their perceptions of the elements of intent, neglect, etc. which may have been factors in the occurrence and their willingness to identify such occurrences. For example, although inter-personal violence was conceptually within the scope of the topic, it is expected such occurrences will be under-reported in this survey.
- Similarly, although all events in the previous 4 weeks resulting in injury were within scope of the topic, events resulting in minor injuries, and particularly those occurring earlier in the reference period, were less likely to be reported than other events. The degree to which events resulting in minor injuries were reported could also be expected to differ between population groups.
- While the survey identified those injury events which in the respondent's opinion occurred while they were working, the data are not necessarily indicative of injuries which would be considered work related under workers' compensation provisions.

Comparability with 2001

The methodology used to collect data about recent injuries in the 2004-5 NHS is similar to that used in the 2001 survey. As a result the data are considered broadly comparable, but attention is drawn to several differences outlined below.

The methodology used in the 2004-5 and 2001 surveys differed significantly from that of earlier NHSs. The methodology used in 2004-5 provides a picture of injuries occurring in a 4 week period, by collecting information on all events (resulting in an action) experienced in that period, whether or not the injury was current at the time of

Comparability with 2001 continued

interview. In contrast, NHSs prior to 2001 provided a point-in-time picture of the level of injury or illness in the population due to accidents, incidents or exposures.

Two small, but important changes were made to the 2001 list of event types for the 2004-5 survey:

- A new category 'cut with a knife, tool, other implement' was added; and
- The category 'exposure to fire' was renamed 'exposure to heat/fire' .

These changes were aimed at assisting respondents in recalling events, and helping interviewers in recording those events. As a result the likelihood of respondents reporting these types of events was increased; increases between 2001 and 2004-5 estimates for related categories are likely due in part to these wording changes.

A major change between the surveys was that:

- In the 2004-5 NHS detailed information was collected only about the most recent event resulting in action, which may or may not have been an injury event, whereas
- In the 2001 NHS basic information was collected about the three most recent events resulting in action, which may or may not have been an injury event, and detailed information about the most recent event (which may or may not be an injury event).

This difference means that, subject to the other comparability issues noted above, data for all events resulting in action, and for the most recent event (injury event or not) are comparable between surveys. However data for all injury events are not directly comparable, since in 2001 the data combine information from up to 3 events while in 2004-5 injury events are a subset of the most recent event (resulting in action).

The following table summarises differences in the items collected.

Item	*2004–05*	*2001*	*Comment*
All details of 2nd and 3rd most recent injury event	Not collected	Collected	Basic event details recorded for all events, but details collected only for most recent injury event in 2004–05
Whether injured while under the influence of alcohol/other substance	Not collected	Collected	New item included on request.

SELF-ASSESSED HEALTH STATUS

Definition

This is a single question about how respondents rate their health overall.

Population

Information was obtained for all persons aged 15 years and over.

Data items

As follows:

Self-assessed health status

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (cat. no. 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting these data items include the following:

- This is a subjective data item. Perceptions may be influenced by any number of factors, which may be unrelated to health or which may reflect momentary or short term, rather than usual, feelings or circumstances. Responses may have been influenced by factors involved in the interview itself such as the presence of another family member.
- Analysis of similar data from the previous NHSs showed some correlation between self-assessed health status and health status as indicated by more objective measures such as recent and/or long term illness. However, self-assessed health status should not be used as an alternative to those measures without analysis of correlations in the particular use of the item proposed.
- Information recorded for persons aged 15 to 17 may have been reported by an adult within the household, usually a parent. Data for this age group therefore is not conceptually 'self-assessed' health as for other age groups, and responses may have been different if children had responded for themselves.

Comparability with 2001

Self-assessed health status is considered directly comparable between the 2004-5 and 2001 surveys, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results).

However, whereas in the 2001 NHS information for children aged 15 to 17 years was reported by an adult in all cases (possibly with the child's assistance) in the 2004-5 survey children in this age group were encouraged to answer for themselves (with parental consent). This will impact comparability of data for this age group, particularly for subjective items such as self-assessed health status.

In 2001 several additional general health indicators were included, which were not retained for the 2004-5 survey. These were:

Quality of life delighted/terrible scale

Health transition

Two questions from the Short Form 12 (SF12) questionnaire relating to the role emotional health dimension.

CHAPTER 4 HEALTH RISK BEHAVIOURS

CONTENTS

INTRODUCTION

A range of genetic, social, economic and environmental factors are recognised as affecting the risk of ill-health i.e. the chance an individual has of developing a particular illness or injury. Specific lifestyle and related factors which have been identified as (positively and/or negatively) impacting health include diet and nutrition, use of medicines, overweight and obesity, physical activity, high blood cholesterol, inadequate sun protection, high blood pressure, oral hygiene, smoking, alcohol use, inadequate or incomplete immunisation and use of illicit drugs.

It is clearly not possible, and in some cases inappropriate, in a survey such as the NHS to attempt to address the whole range of factors likely to affect health. The approach taken in this survey was to focus on selected lifestyle-related health risk factors identified through consultations with health professionals, administrators, policy makers, etc. as major issues of concern and considered appropriate for inclusion in an interview survey of this type.

Health risk factor topics included in the 2004–5 NHS were:

- Smoking;
- Alcohol consumption;
- Exercise;
- Height, weight and body mass;
- Dietary habits;
- Breastfeeding; and
- Selected childhood and adult immunisation.

In addition, other aspects of health risks may be indicated through information obtained in the survey about other health and related characteristics, such as the presence of particular long term conditions. The collection of information about health risk factors and behaviours in conjunction with other health and population characteristics enables all these elements to be analysed together. However, while data from the survey may suggest apparent associations between particular risk factor(s) and certain illness condition(s), the data should not be interpreted as indicating causal relationships.

Some caution should be used in drawing together data for the different risk factors covered as the reference periods used differ e.g. smoking - at time of interview, alcohol consumption - in the last week, exercise - in the last two weeks, etc. However, when used with care, data from the NHS can describe populations which may be at special risk due to the presence of combinations of risk factor behaviours and characteristics.

Most of the specific risk factors covered have been addressed in previous ABS surveys, either at the national or state or ACT level. Major changes in the coverage of risk factors between the 2004–5 and 2001 NHS are summarised in the table below.

INTRODUCTION *continued*

Topic	*Coverage in 2004–5 compared with 2001 NHS*
Smoking	Conceptual change, some additional data items
Alcohol consumption	Similar
Exercise	Similar, plus additional data items
Height, weight, body mass	Similar
Dietary indicators	Reduced content
Breastfeeding	Reduced content
Sun protection	Not covered in 2004–05
Adult immunisation	Similar
Child immunisation	Different content
Supplementary women's health topics	HRT and Hysterectomy only retained
Contraception/protection	Not covered in 2004–05

Where appropriate to the survey vehicle and consistent with the data requirements of users, similar methodologies were employed in the 2004–5 NHS to those used in previous surveys to enhance comparability and enable use of the data for analysing changes over time. Comments regarding comparability between the 2004–5 and 2001 NHS are contained in the individual topic descriptions which follow; a more general discussion of time series issues, prepared following the 2001 NHS, is contained in *Occasional Paper: Health Risk Factors - a Guide to Time Series Comparability from the National Health Survey, Australia* (ABS Cat no 4826.0.55.001).

SMOKING

Definition

This topic refers to smoking of tobacco, including manufactured (packet) cigarettes, roll-your-own cigarettes, cigars and pipes, but excludes chewing tobacco and smoking of non-tobacco products. The topic focused on 'regular smoking', where regular was defined as one or more cigarettes (or pipes or cigars) per day as reported by the respondent.

The topic primarily describes smoking status at the time of interview current smokers (daily and other), ex-smokers and those who had never smoked regularly.

Methodology

Adult respondents were asked whether they:

- currently smoke, and if so whether they smoke regularly or at least once a week; or
- have ever smoked regularly, or have smoked at least 100 cigarettes in their life, or smoked pipes, cigars or other tobacco products at least 20 times in their life.

Current and ex-regular smokers were asked the age they had started smoking, and ex-regular smokers the age they had last stopped smoking regularly.

In addition, respondents in households other than single person households were asked whether anyone else in the household smoked regularly, and if so, the number of people, and whether they or anyone else usually smokes inside the house.

Population

Information was collected for all persons aged 18 years and over.

Data items

As follows:

Regular smoker status
Smoker status
Age started daily smoking
Age last ceased daily smoking
Duration of daily smoking
Number of regular smokers in household
Whether any regular smokers smoke at home indoors

Although the last 2 items are household level characteristics, the items are on each person's record, including records of children aged less than 18 years.

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004–5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting data from this survey include the following.

- Some under-reporting of persons identifying as current smokers is expected to have occurred due to social pressures (particularly in cases where other household members were present at the interview). The extent to which under-reporting has occurred and hence its effects on the accuracy of survey estimates are unknown.
- Concepts such as 'regular' are open to different interpretation by respondents and hence may not have been consistently applied in reporting information in this survey, despite a prompt to respondents that regular meant 'at least once a day'.

Interpretation continued

- The selected adult respondent may not have known the smoker status of all other members of the household. For example, if another member only smoked when at work, or if children kept their smoking hidden from parents. As a result, some undercounting may have occurred. Estimates of the prevalence of smoking in the population should therefore be based on person level data rather than responses to the smokers in household questions.
- the categories of smoker status, and the concepts on which they are based align with those in the NATIONAL HEALTH DATA DICTIONARY (NHDD).
- Duration of smoking is derived from reported age started to current age at the time of the survey (for current smokers) and from age started to age last stopped smoking regularly (for ex-regular smokers). The items are therefore subject to errors around the ages reported by respondents, and the derivation of 'duration' takes no account of periods (potentially long periods) when the respondent may have ceased smoking only to start again.

Comparability with 2001

Data for some items are directly comparable between the 2001 and 2004–5 surveys, but due to some differences in the questions and sequencing, care should be taken to ensure the same items are being compared.

Additional questions were asked in the 2004–5 NHS of persons who did not currently smoke and who had never smoked daily, as to whether they had ever smoked 100 cigarettes or more in their life or smoked pipes, cigars or other tobacco products at least 20 times in their life. Consistent with NHDD standards in most outputs from the survey, those who answered yes to either of these additional questions are classified as ex-smokers. This will have the effect of increasing the number of ex-smokers and decreasing those who had 'never smoked' relative to the 2001 methodology.

SMOKER STATUS

2001	*2004–05*
Current smoker – daily	Current smoker – daily
Current smoker – other	Current smoker – weekly
	Current smoker – other/ irregular
Ex-smoker (daily)	Ex-smoker(a)
Never smoked (daily)	Never smoked(b)

(a) Daily or 100 plus cigarettes in a lifetime or pipes/cigars/etc at least 20 times.
(b) Daily or less than 100 cigarettes in a lifetime or less than 20 pipes/cigars/etc in a life time.

2004–5 data on smoker status, compiled to 2001 criteria can be made available on request to facilitate direct comparisons.

New items collected in 2004–5 which were not collected in the 2001 NHS are:

- age first started to smoke regularly;
- age last ceased regular smoking; and
- whether anyone in household usually smokes inside the house.

In both surveys 'other' smokers in the household could include children.

ALCOHOL CONSUMPTION

Definition

This topic refers to consumption of alcoholic drinks, and focuses on two aspects of consumption:

- The intake of alcohol derived from information about the types and quantities of alcoholic drinks (including homemade wines and beers) consumed on the three most recent days in the week prior to interview on which alcohol was consumed; and
- the frequency of consuming 'at risk' amounts of alcohol in the previous 12 months. Amounts are defined in terms of 'standard drinks', where an Australian Standard Drink contains 10 grams (equivalent to 12.5 mls) of alcohol.

The intake of alcohol in the week prior to interview refers to the quantity of alcohol contained in the drinks consumed, not the quantity of the drinks themselves.

Methodology

Adult respondents were asked how long ago they last had an alcoholic drink. Those who reported they had a drink within the previous week were asked the days in that week on which they had consumed alcohol (excluding the day on which the interview was conducted), and for each of the last 3 days (in the last week) on which they drank, the types and quantities (number and size) of drinks they had consumed. They were further asked whether their consumption in that week was more, about the same, or less than their usual consumption.

Information was collected separately in respect of the following categories of alcoholic drinks:

Beer
- light beer
- mid-strength beer
- full-strength beer
- type not known

Wine
- red wine
- white wine
- low alcohol wine

Champagne/sparkling wine
Ready to drink spirits/liqueurs
Liqueurs
Spirits
Fortified wine
Cider
Other alcoholic drinks

Those who initially reported having beer or wine were asked supplementary questions to identify the type; e.g. light beer, white wine, as shown above. If interviewers were unsure as to which category a reported drink belonged, details were recorded in 'other alcoholic drinks' for checking/reclassifying as appropriate during office processing.

Respondents were asked to report the number of drinks of each type they had consumed, the size of the drinks, and where possible the brand name(s) of the drink(s) consumed on each of the last 3 days on which they had consumed alcohol.

Methodology continued

The collection of accurate data on quantity of alcohol consumed is very difficult, particularly in a recall situation, and considering the nature and possible circumstances of consumption. Interviewers were provided with extensive documentation and training covering the recording of amounts consumed. Where possible, information was collected in terms of standard containers or measures i.e. 10 oz glass, stubbie, nip, etc. In other cases interviewers were asked to record as much information as necessary to clearly indicate quantity.

Reported quantities of drinks consumed were converted to millilitres of alcohol present in those drinks, and then summed to the drink type, day, week, etc level as required. The methodology to convert drinks to mls of alcohol consumed is simply the alcohol content of the drink consumed (%) x the number of drinks (of that type) consumed x the vessel size (in mls). The conversion was performed by a computer-based coding system; initially a computer-assisted clerical system and later in processing an automated system (supported by clerical coding for cases which could not be coded automatically).

Where precise brand x type of drink information was not recorded, default alcohol content values based on drink type were applied. These values are shown below:

Light beer	0.027
Mid-strength beer	0.035
Full-strength beer	0.049
Stout	0.058
Wine coolers	0.035
Low alcohol wines	0.090
Fortified wines	0.178
White wine	0.124
Red wine	0.133
Sparkling wine/champagne	0.133
Spirits	0.400
Liqueurs	0.200
Pre-mixed spirits (e.g. UDL)	0.050
Alcoholic cider	0.047
Extra-strong cider	0.075
Cocktails	0.315
Other alcoholic beverage	0.274

It is recognised that particular types or brands of beverage within each of these categories may contain more or less alcohol than indicated by the conversion factor e.g. full-strength beers are usually in the range 4% to 6% alcohol by volume. The factors are considered to be sufficiently representative of each category as a whole for the purposes of indicating relative health risk as appropriate to the aims of this survey. However, it should be noted that these categories, defined by the conversion factors used, may not reflect legal definitions.

In addition to information about alcohol consumed in the previous week, adult respondents who reported they had drunk alcohol in the previous 12 months were asked about the number of times (days) in that period on which they had consumed:

- 7–10 standard drinks or 11 or more standard drinks in a day if male; or
- 5–6 standard drinks or 7 or more standard drinks in a day, if female.

Population

Information was collected for all persons aged 18 years and over.

Data items

As follows:

Day of week of interview
Time since last consumed alcohol
Number of days last week on which consumed alcohol
Days of week on which consumed alcohol

For each of the last (up to) three most recent days on which alcohol was consumed:

Type(s) of alcoholic beverage consumed
Quantity (mls) of alcohol consumed
Day of week.

For the reference period:

Number of days of week that consumed alcohol
Estimated total quantity (mls) of alcohol consumed in reference week
Average daily consumption (mls) on days for which data were recorded (maximum of 3 days)
Average daily consumption (mls) on days on which consumed alcohol
Average daily consumption (mls) over reference week
Main type of drink consumed
Day of week of heaviest alcohol consumption
Amount consumed on day of heaviest consumption (mls)
Alcohol risk level (consumed in last week at low risk, risky, high risk level), last consumed more than 1 week to less than 12 months ago, last consumed 12 months or more ago, never consumed)
Weekend consumption flag
Whether consumption in reference week more, less, same as usual.

Number of times (per week/in last 12 months) consumed 5/7 (or more) standard drinks in a day.
Number of times (per week/in last 12 months) consumed 7/11 (or more) standard drinks in a day.

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004–5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting data on alcohol consumption from this survey include the following.

- Some under-reporting of consumption, both in terms of persons identifying as having drank alcohol in the reference week, and in the quantities reported, is expected to have occurred. Investigations in relation to previous NHSs showed possible under-reporting to be as high as 50% for some types of drink. However, the under-reporting which has occurred does not invalidate the survey results as indicators of relative consumption levels (current and over time), and of the relative health risks of the consumption levels identified.

Interpretation continued

- Details of consumption were recorded for the 3 most recent days in the previous week on which respondents had consumed alcohol. Because fewer adults were interviewed on Fridays (11.5%) and Saturdays (8.8%) than other days of the week, and virtually none on Sundays (less than 1%) the methodology used has resulted in some under-representation of those who drank mid-week; see table below.

Day on which consumed alcohol	*% of adults who drank in reference week who drank on that day*	*Of those who drank on that day % for which consumption details were recorded*
Monday	41.3	71.6
Tuesday	41.3	61.8
Wednesday	42.5	53.5
Thursday	42.2	41.2
Friday	57.0	60.3
Saturday	65.6	74.4
Sunday	53.5	80.9

Although consumption levels are highest at weekends, which as shown above are also the days of highest coverage in the data, the impact of the methodology used should be considered in interpreting the data. ABS analysis has indicated that while there is some impact of the 3 day methodology at the individual respondent level (for example in terms of the level of health risk), at the population level the impact is considered to be relatively minor.

To assist users of the data an item (the Weekend Consumption Flag) has been derived to indicate whether consumption during the weekend (i.e. Friday, Saturday, Sunday) is fully, partly or not recorded in the data.

- two indicators of alcohol risk level were derived from the average daily amount of alcohol consumed:
  - average over the 1 to 3 days for which consumption details were recorded; and
  - average over the 7 days of the reference week i.e. average consumption over 3 days x number of days consumed alcohol / 7.

Published data are compiled using the 7 day average, which is also the basis for assessing risk level; see point below. Results compiled using the 3 day average are available on request.

- According to average daily intake over the 7 days of the reference week, respondents were grouped into three categories of relative risk level. Risk levels are based on the National Health and Medical Research Council (NHMRC) risk levels for harm in the long term, and assume the level of alcohol consumption in the week recorded was typical. The average daily consumption of alcohol associated with the risk levels is as follows.

Interpretation continued

Relative risk level	*Male*	*Female*
Low risk	Less than or equal to 50ml	Less than or equal to 25ml
Risky	More than 50–75ml	More than 25–50ml
High risk	More than 75ml	More than 50ml

It should be noted that whereas the NHMRC risk levels assume ongoing consumption at the levels reported, indicators derived in the 2004-5 NHS relate to consumption only during the reference week and take no account of whether or not consumption in that week was more, less or similar to usual consumption levels. In addition, this indicator takes no account of other factors related to health status, other lifestyle behaviours, etc. which may influence the absolute level of personal health risk from drinking alcohol.

- As noted previously, reported quantities of alcoholic drinks consumed were converted to quantities of alcohol consumed. While brand/drink specific conversions were used where possible, some conversions were based on factors representing the alcohol content of each type of drink category as a whole. To the extent that individuals consumed particular brands/types of drink within each group with an alcohol content higher or lower than that represented by the default factor, the derived intake may over or under-state actual intake.
- Where quantities of alcohol consumed have been converted to standard drinks a factor of 12.5 mls of pure alcohol per standard drink has been applied (equivalent to 10 grams of alcohol).

Comparability with 2001

The methodology used in the 2004–5 survey for the collection of data about the quantity of alcohol consumed was essentially the same as that used in the 2001 survey. Results for the two surveys are therefore considered directly comparable.

However, changes to the questionnaire and supporting coding systems used in 2004–5 were aimed at improving the level of accuracy in the derivation of alcohol consumption. These changes included the following.

- Updating and expanding the index lists supporting the system used to derive alcohol intake, together with the use of an automated coding system from February 2005 (supported by clerical back-up for those cases which could not be coded automatically).
- The separate identification of wine types (sparkling, red, white, low alcohol), ready to drink spirits from other spirits, liqueurs from spirits, and cider through questions and/or response categories in the 2004–5 NHS. In 2001 identification relied on interviewers recording additional information.
- In the 2004–5 survey, brand name and type of spirit was recorded enabling very specific coding of alcohol content. In the 2001 survey, all spirits were coded to a common 'default' alcohol content.

These changes were aimed at improving the accuracy with which alcohol intake was derived from reported consumption, However, as the main sources of error in this topic are reporting errors, these changes may have only marginal impact on the overall quality of alcohol consumption data.

Comparability with 2001 continued

The Weekend Consumption Flag has been differently derived in the 2004–5 NHS to that derived from the 2001 survey, and therefore data for this item are not directly comparable between surveys.

In drawing comparisons, consideration should also be given to the social factors and general changes in health awareness which have occurred in the period between surveys and which may have influenced the levels of reporting.

Data on the frequency of consuming 'at risk' alcohol levels were not collected in the NHS prior to 2004–5.

EXERCISE

Definition

This topic covers two distinct components of physical activity:

- exercise undertaken for recreation, sport or fitness purposes during the two weeks prior to interview; and
- walking for transport on the day prior to interview.

The topic excludes physical activity undertaken for other reasons (e.g. in the course of work or around the house). As a result, the data should not be interpreted as indicating overall levels of activity, and does not indicate levels of fitness.

Methodology

Respondents aged 15 years and over were asked whether, during the previous two weeks, they did any:

- walking for sport, recreation or fitness
- moderate exercise (apart from walking) for sport, recreation or fitness
- vigorous exercise for sport, recreation or fitness

For each of these categories of exercise, respondents were asked:

- the number of times they had done that exercise in the previous two weeks; and
- the total amount of time spent (hours and minutes) doing that exercise over that two weeks.

Respondents were also asked whether they had walked the previous day for periods of 10 minutes or more, for the purpose of going from place to place (not for exercise, sport or fitness), the number of times, the total time walked and whether that time was more, the same or less than they did on most days. Data from these questions do not contribute to the calculations of exercise level as discussed below.

For the purposes of the survey, moderate exercise was defined as exercise (undertaken for recreation, sport or fitness) that caused a moderate increase in the heart rate or breathing of the respondent. Vigorous exercise was defined as exercise (undertaken for recreation, sport or fitness) that caused a large increase in the respondent's heart rate or breathing.

The application of these definitions reflected the respondent's perception of moderate or vigorous exercise or walking, and the purpose of that activity. Responses may have varied according to the type of activity performed, the intensity with which it was performed, the level of fitness of the participant, and their general health and other characteristics (e.g. age). For example, some respondents may consider a game of golf to be moderate exercise while others may consider it walking. Information was not recorded in the survey about the type of activities undertaken and reported against each of the three categories above.

From the information recorded about the frequency, duration and intensity of exercise undertaken for sport, recreation or fitness, an exercise level was derived for each respondent. The aim was to produce a descriptor of relative overall exercise level, and to indicate the quality of the activities undertaken in terms of maintaining heart, lung and muscle fitness. The level is based on a score, derived from:

No. of times activity undertaken X Average time per session X Intensity

Methodology continued

where intensity is a measure of the energy expenditure required to carry out the exercise, expressed as a multiple of the resting metabolic rate (MET). Because the survey did not collect details of the types of activities undertaken an intensity value was estimated for each of the three categories of exercise identified in the survey. A score was derived for each of the three categories of exercise and then summed to provide a total for the respondent for that two week period. Respondents were grouped into exercise levels according to their score.

Exercise level was derived using intensity values of:

- 3.5 for walking;
- 5.0 for moderate exercise; and
- 7.5 for vigorous exercise.

Score ranges were grouped and labelled as follows:

Exercise level	*Criteria*
Sedentary	Scores less than 100(a)
Low exercise level	Scores of 100 to less than 1600
Moderate exercise level	Scores of 1600 to 3200 or more than 3200 but less than 2 hours vigorous exercise
High exercise level	Scores greater than 3200 and 2 hours or more of vigorous exercise

(a) Includes no exercise.

Population

Information was collected for all persons aged 15 years and over.

Data items:

As follows:

- Whether walked for sport, recreation or fitness
- Number of times walked
- Total time spent walking
- Whether did any moderate exercise
- Number of times moderate exercise undertaken
- Total time spent in moderate exercise
- Whether did any vigorous exercise
- Number of times vigorous exercise undertaken
- Total time spent in vigorous exercise
- Summary types of exercise undertaken
- Total time spent exercising
- Exercise level
- Whether walked yesterday for transport
- Number of times yesterday walked for transport
- Total time spent walking for transport yesterday
- Whether time walking for transport was more, same, less than usual.

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004–5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered when interpreting these data relating to exercise for sport, recreation or fitness include the following.

- The topic conceptually excludes physical activity undertaken at work, and for reasons other than exercise, sport or recreation (e.g. household duties). As a result the data should not be interpreted as necessarily indicative of overall activity levels of persons, or of their fitness
- Although conceptually excluded, activities at work appear to have been reported by respondents in some cases, contributing to apparently very high levels of exercise. However, because information was not available to confirm this had occurred, the data were not amended and so remain as reported. The possibility that this had occurred in some cases should be considered in interpreting the data
- The information is 'as reported' by respondents and reflects the respondent's perception of the activity undertaken, the intensity of their participation, their level of fitness, etc. Information about exercise undertaken by persons aged 15 to 17 years may have been reported by an adult within the household, usually a parent. The child may or may not have been consulted. As a result, data for this age group should be interpreted with particular care
- In general the use of a two-week reference period was not considered to pose significant recall problems for respondents. For many people, participation in exercise is regular and/or for a set period each session. However, to the extent that persons undertook exercise in less formal circumstances or that the reference period was atypical of usual exercise patterns, the accuracy of the information provided may have been affected
- Recent developments in the area of statistics on exercise or physical activity have tended to move away from the use of METS values in deriving exercise level. Retention of the exercise level approach as described above was primarily for the purpose of consistency and comparability with data from previous NHSs. Recent developments have seen more emphasis placed on time exercised as a key indicator. However, while simple measures of time exercising are available as outputs from this survey, it is not possible to derive outputs to meet certain more complex criteria, such as 30 minutes of at least moderate exercise on most days each week.

Points to be considered when interpreting data relating to walking for transport.

- Walking for transport is a difficult concept to measure and define in a way which is meaningful to both respondents and users of the data. Testing before the survey showed significant recall and reporting problems for respondents. While these problems may have been reduced through more extensive and rigorous questions, in the context of the NHS devoting extra time to this topic would have only been possible by reducing time allocated to other topics. While some modifications were made to improve data quality within the allocated time (e.g. reducing the reference period to 'yesterday'), the data from this topic are considered to be of poor quality, and should be interpreted with caution.
- During office processing it was found that in some cases the values recorded at interview for number of times walked for transport, or time spent walking for transport were conceptually impossible, or were considered too extreme to be accurate. In these cases the number of occasions and/or time spent data items were set to 'not stated' values. This change effected records for less than 1% of persons reporting walking for transport.

Interpretation continued

- In this survey walking for sport, recreation or fitness and walking for transport are conceptually separate activities, and occasions should be recorded as of either type, not both. However for respondents, occasions may be one in the same; for example choosing to walk to work for the exercise rather than take the bus. The order of the questionnaire and instructions to interviewers were aimed at giving priority to recording such occasions as walking for recreation, sport or fitness. However, it is possible (particularly given the different reference periods involved) that some respondents may have reported the same occasions of walking in both sections.
- Walking for transport conceptually excludes walking done at work. Interviewers were asked to exclude these cases where they became aware that respondents had included walking at work. However, testing indicated the likelihood that some respondents will have reported walking at work in response to this question in the final survey.
- The 10 minute threshold (per occasion) is based on advice that this is the minimum time required before some benefits to health accrue from walking. It also provided a cue to respondents about the occasions of walking they should include. However, it is clear from some responses recorded that this threshold was not consistently applied by respondents, and this has impacted both reporting of occasions of walking for transport and the total time reported.

Comparability with 2001

Data on exercise for recreation, sport and fitness were collected in the 2004–5 NHS using the same methodology and questions as in the 2001 survey, and therefore results are considered directly comparable, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results). However, whereas in the 2001 NHS data for 15 to 17 year olds was obtained almost exclusively from a proxy (usually a parent and with or without participation of the child) in the 2004–5 survey 34.9% of children aged 15 to 17 answered for themselves. This is expected to have improved the quality of the data recorded for this topic.

Increasingly over recent years there has been a focus by governments, media, etc, on health and lifestyle issues around obesity and physical activity. While such attention is likely to influence the levels of activity in the community, it may also impact reporting behaviours by respondents; for example a tendency to report what is perceived to be a desirable level of activity rather than actual activity. This should be considered in interpreting changes between 2004–5 and 2001 results.

Walking for transport was not included in the 2001 NHS.

HEIGHT, WEIGHT AND BODY MASS

Definition

This topic refers to:

- the height and weight of respondents as reported during interview; and to
- self-reported and derived body mass.

Information was collected for all respondents aged 15 years and over. No measurements of height and weight were taken as part of this survey.

Methodology

Respondents were first asked whether they considered themselves to be of an acceptable weight, underweight or overweight. They were then asked to report their weight and height without shoes. Women who were pregnant at the time of the interview were asked to provide their usual weight before pregnancy, if they queried the interviewer. Answers provided in imperial measurements were recorded by interviewers and converted into metric measurements. If respondents rounded their weight or height (e.g. about 6 feet) interviewers prompted for a more exact measure where possible.

Body mass index (BMI) was derived using Quetelet's body mass index which is calculated as weight (kg) divided by the square of height (m). A BMI score is created which is then commonly grouped for output. The standard output classification defined for this survey is shown below:

Category	*BMI score*
Grade 3 thinness	Less than 16
Grade 2 thinness	16.0 to less than 17.0
Grade 1 thinness	17.0 to less than 18.5
Underweight	Less than 18.5
Normal range	18.5 to less than 20.0
'	20.0 to less than 25.0
Normal range	18.5 to less than 25.0
Grade 1 overweight	25.0 to less than 30.0
Grade 2 overweight	30.0 to less than 40.0
Grade 3 overweight	40 or more
Overweight	25.0 to less than 30.0
Obese	30.0 or more

Population

Information was collected for all persons aged 15 years and over.

Data items

As follows:

Reported height (cm)
Reported weight (kg)
Self-assessed body mass
Derived body mass index (BMI)

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004–5* (ABS catalogue number 4363.0.55.002) available from the ABS website. Reported height and weight and body mass index scores are stored on the data file and can be grouped in output to suit individual user needs.

Interpretation

In interpreting data for this topic users should bear in mind that:

- The data are 'as reported' by respondents and hence may differ from those which might be obtained by measurement. A comparison of reported height and weight measures recorded in the 1995 NHS with measured height and weight in the 1995 National Nutrition Survey (NNS) was published in 1998 in *How Australians Measure Up, 1995* (ABS Cat No 4359.0). This showed that:
  - overall people tend to overstate their height; 24% of males and 29% of females reported their height to within 1 cm of their measured height. 64% of males and 51% of females overstated their height by 1 cm or more.
  - overall people tended to understate their weight; 22% of both males and females reported their weight within 1 kg of their measured weight. 57% of males and 68% or females understated their weight by 1 kg or more.
  - the net result of differences in reporting height and weight was that 27% of males and 28% of females would be classified to a different body mass index group (usually a heavier group) if measured rather than reported height and weight data were used.
- Information for 65.1% of persons aged 15 to 17 years was reported by an adult within the household, usually a parent, rather than by the child him/herself. The child may or may not have been consulted. As a result, data for this age group should be interpreted with particular care.
- For a variety of reasons some respondents do not report their height and/or weight, which prevents a BMI score being calculated for them. The proportion of males and females in each age group for whom BMI is not available from the 2004–5 NHS is shown below. It cannot be assumed that the BMI pattern for these people is the same as that for people who reported their height and weight.

PERSONS FOR WHOM BMI SCORE IS NOT AVAILABLE: 'PERCENTAGE WITHIN EACH AGE AND SEX GROUP

Age group (years)	*Males*	*Females*
15–24	12.1	14.4
25–34	4.9	10.3
35–44	6.5	11.2
45–54	6.0	11.4
55–64	5.3	11.5
65–74	5.1	11.6
75 and over	9.9	17.0
Total aged 15 years and over	7.0	12.2

- While BMI is a useful tool to assess and monitor changes in body mass at the population level, it may be an inappropriate measure of the body fatness of certain populations and particularly of certain individuals. For example those whose high body mass is due to muscle rather than fat, those with osteoporosis who have lower than usual BMI or those who have a different body build or different body fat distribution.

Comparability with 2001

Data collected on height and weight in the 2004–5 NHS used the same methodology and questions as in the 2001 survey, and therefore estimates from both surveys are considered directly comparable, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results).

However a small difference in the methodology for children 15 to 17 should be noted. As outlined above, 34.9% of children aged 15 to 17 years answered for themselves in the 2004–5 survey; in the 2001 NHS all information for children was provided by a proxy (with or without the child's involvement). The impact on the quality of the height and weight data reported is unknown; importantly however, the self-assessed body mass more directly reflects the child's perception in the 2004–5 survey than in 2001, and this should be considered in interpreting changes between surveys for this population.

DIETARY HABITS

Definition

This topic covers selected dietary indicators relating primarily to usual intake of fruit and vegetables and to food security. National dietary guidelines recommend a minimum of 2 serves of fruit and 5 serves of vegetables per day.

Limited information was also collected about current/previous breastfeeding of children who at the time of the survey were aged 0 to 3 years; this information is discussed separately in the following section of this Guide.

Information about nutritional intake was not collected in the 2004–5 NHS.

Methodology

Following a question on the main type of milk usually consumed, respondents aged 12 years and over were asked to report the number of serves of vegetables and of fruit they usually eat each day, excluding drinks and beverages. For the purposes of this survey:

- A serve of vegetables was defined as a half a cup of cooked vegetables or one cup of salad vegetables – approximately equivalent to 75 grams. All types of vegetables were included (tomatoes were included as a vegetable rather than a fruit) but legumes were excluded.
- A serve of fruit was defined as one medium piece or two small pieces of fruit, or one cup of diced fruit, or one quarter cup of sultanas, or four dried apricot halves - approximately 150 grams of fresh fruit or 50 grams of dried fruits.

Picture prompt cards were used to assist respondents in understanding the concept of a serve; one prompt card showed 6 examples of single serves of different vegetables and another card showed 6 single serves of fruit; if respondents had difficulty in reporting, interviewers were encouraged to prompt in terms of asking respondents about their usual consumption of vegetables and fruit at breakfast, lunch and dinner and for snacks.

Adults were asked whether they had run out of food in the previous 12 months and couldn't afford to buy more, and when this happened, whether they went without food.

Population

Persons aged 12 years and over for fruit, vegetable and milk questions, and persons aged 18 years and over for fruit, vegetable, milk and food security questions.

Data items

As follows:

Main type of milk usually consumed
Usual daily serves of vegetables
Usual daily serves of fruit
Food security
Whether went without meals

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004–5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting data for this topic include the following.

Interpretation continued

- Data on type of milk usually consumed was obtained as an indicator of fat intake. Data recorded are based on the information provided by respondents against a defined classification of milk type categories. The variety of milk products available, and the various terminologies used to label milk products may have led to some misreporting and incorrect classification.
- Questions on intake of fruit and vegetables are based on short questions used in the 1995 National Nutrition Survey (NNS). An analysis of data collected in the 1995 NNS which compared data collected using short questions with data collected from the detailed recall methodology concluded that "the responses to the short questions on fruit and vegetable intake can provide reliable information on fruit and vegetable intake across a range of population sub-groups which is generally consistent with group level differences in fruit and vegetable intake as determined by 24-hour recall" [1].

  The questions however are complex as respondents needed to understand and apply the inclusions/exclusions, understand the concept of a serve and assess their consumption levels accordingly, and think about their total consumption in what would constitute an average day. The questions were subject to cognitive testing, and were a particular focus in pilot tests. Interviewers were instructed to prompt/assist respondents in a standard way if necessary.

  Overall, it is considered that the indicators of vegetable and fruit intake from the 2004–5 NHS are of a lower quality than most other items from the survey, but are considered sufficiently reliable for the purposes of assessing broad intake levels for population groups, and comparisons between population groups. Use of the data for other purposes should be undertaken with care.

  Most of the dietary indicator questions used in the 2004–5 NHS were similar to those used in the 2001 NHS. A comparison of results from the 2001 NHS with those obtained in the 1995 National Nutrition Survey was published by the ABS in the information paper, *Measuring Dietary Habits in the 2001 National Health Survey, Australia* (ABS Cat no 4814.0.55.001).
- Data for all those aged 12 to 14 years, and 65.9% of those aged 15 to 17 years, was provided by a proxy, usually a parent. As a result the data reflects the parent's knowledge of the child's consumption; this is likely to be less accurate for the usual consumption of fruit item than for the type of milk and usual consumption of vegetables items.

(1) Ingrid Coles-Rutishauser, Australian Food and Nutrition Monitoring Unit, 2/3/2000.

Comparability with 2001 NHS

Similar dietary indicators to those in the 2004–5 NHS were obtained in the 2001 survey and the data for those common items are considered broadly comparable, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results). However the following points should be noted.

- As outlined above, 34.1% of children aged 15 to 17 years in the 2004–5 survey answered for themselves; in the 2001 NHS all information for children aged 15 to 17 years was provided by a proxy (with or without the child's involvement).

Comparability with 2001 NHS continued

- In the 2004–5 NHS, the usual daily consumption of vegetables and fruit was recorded as:
  1 serve or less, 2, 3, 4, 5, 6 serves or more, does not eat fruit/vegetables. In the 2001 NHS, this information was recorded partly in ranges:
  1 serve or less, 2–3, 4–5, 6 serves or more, does not eat fruit/vegetables.

The approach used in the 2004–5 NHS enables survey results to be better aligned with the thresholds for recommended daily intakes (for vegetables – 4 serves for those aged 12 to 17, 5 serves for adults: for fruit – 2 serves). However, due to the difficulties respondents have in answering these questions, and the data quality issues which ensue, care should be taken in using/interpreting data at the individual number of serves level and apparent changes in consumption levels/patterns between surveys.

In addition to the points above, there were several differences in the items collected in the two surveys, as shown in the table below.

Item	*2004–05*	*2001*
Frequency of adding salt to food after cooking	Not collected	Collected
Whether eaten foods because had added folate	Not collected	Collected
Whether had beverages because had added folate	Not collected	Collected
Whether had vitamin or mineral supplements because they contained folate/folic acid	Not collected	Collected
Whether went without meals	Collected	Not collected

BREASTFEEDING

Definition

This topic refers to the breastfeeding of infants and focuses on the duration of breastfeeding. It is a much reduced data set to that obtained in the 2001 NHS.

Methodology

Questions on breastfeeding were asked in respect of children aged three years and under at the time of the survey. Questions were answered on their behalf by a parent, usually the mother (84.2% for children aged 0 to 3 years).

Information was collected about whether the child had been and was currently being breastfed, the total time breastfed (including weaning) and the age at which solid food started to be given regularly (for children aged 6 months to 3 years). Regular was defined as at least once per day; occasional use was excluded.

Population

Information was collected for all children aged 0–3 years.

Data items

As follows:

Whether ever breastfed
Whether currently being breastfed
Whether ever regularly given solid food
Age at which solid food first given regularly
Total time exclusively or partially breastfed

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004–5* (ABS catalogue number 4363.0.55.002) available from the ABS website. Age in months and time breastfed in weeks are stored on the main data file, and can be grouped for output to suit individual requirements.

Interpretation

Points to be considered in interpreting data for this topic include the following.

- Information is 'as reported' by respondents. No analysis has been undertaken regarding the accuracy of these reported data and whether the accuracy of recall declines as the child gets older. Respondents may not have interpreted the concept of "regular" consistently, where they did not seek clarification from the interviewer.
- In addition, the accuracy of the data may be reduced in cases where an adult other than the child's mother, responded for the child; this occurred for around 16% of children aged 0–3 years.
- Issues relating to the benefits of breastfeeding have been widely promoted in the community and some respondents may have tended to report recommended practices rather than actual practices.
- Data from this survey cannot be compiled to the concepts of "exclusively breastfed" or "predominantly breastfed" which have been recently adopted for national monitoring purposes in Australia. Data to support these concepts were not obtained in the survey.

Comparability with 2001 NHS

Results for those items common to both surveys are considered broadly comparable between the 2004–5 and 2001 NHSs, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results). However the following points should be noted:

Comparability with 2001 NHS continued

- In the 2001 NHS, questions about solid food, and total time breastfed came after a series of questions about use of formula, cows milk and milk substitutes; these reinforced to the respondent the concept of 'regularly given', led the respondent through to solid food and assisted them in recalling/calculating total time breastfed. In the 2004–5 survey the respondent was taken directly from whether currently breastfed to the solid food questions (and the concept of 'regularly given') and then to total time breastfed. It is likely that the different approaches will have impacted the quality of reporting, and users should consider this when making comparisons over time.
- In the 2001 NHS information was obtained about the breastfeeding characteristics of all children aged 0 to 3 years. To the extent that breastfeeding characteristics of infants within the one household might be similar, results of the 2001 survey will be influenced by this clustering effect, whereas results from the 2004–5 NHS (where only one child (at random) per household was enumerated) will not. This should be considered in making direct comparisons between the surveys.

ADULT IMMUNISATION

Definition

This topic refers to the immunisation status of adults aged 50 years and over against influenza and pneumococcal disease.

Influenza vaccinations are available free of charge to:

- persons aged 65 years and over under the Older Australians Program,
- Aboriginal and Torres Strait Islander people aged 50 years and over; and
- others with predisposing risk factors.

Annual vaccinations are recommended to retain coverage.

Pneumococcal disease is a major cause of death and morbidity, being linked with meningitis, pneumonia and other upper respiratory tract infections such as otitis media and sinusitis. The NH&MRC recommend routine pneumococcal vaccination, at least every 5 years. Populations most at risk include the elderly (aged 65 years and over), Aboriginal and Torres Strait Islander people of all ages, and people with predisposing risk factors such as diabetes, cardiopulmonary, renal or liver disease, immuno-suppression and alcohol misuse.

Methodology

Respondents aged 50 years and over were asked whether they had ever had an influenza vaccination, whether they had that vaccination in the last 12 months, whether they had to get a prescription to obtain the vaccination, and whether the vaccine was obtained free of charge. Vaccinations at consultations for which the respondents were bulk billed are recorded as free of charge, as are consultations where the respondent was charged for the consultation but received the vaccine free of charge.

Respondents were further asked if they had ever had a pneumococcus or pneumovax vaccination, and whether they had received a vaccination in the last 5 years. Respondents who reported having a pneumonia vaccination were included.

Population

Information was obtained from all persons aged 50 years and over.

Data items

As follows:

Influenza vaccination status
Whether influenza vaccine obtained by prescription
Whether influenza vaccination obtained free of charge
Pneumococcus vaccination status

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004–5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting data for this topic include the following.

Interpretation continued

- During early testing it was found that some respondents were unfamiliar with the term 'pnuemoccocal' and some were confused between the influenza and pneumoccocal vaccinations. However, it was also found these difficulties were mainly among those who had not had either vaccination and that those who had been vaccinated could generally report with surety. Less than 1% of respondents aged 50 years and over reported they did not know if they had an influenza vaccination and less than 2% a pnuemoccocal vaccination. Nevertheless the possibility that some misreporting may have occurred should be considered in interpreting the data. Where this occurred, the order of the questions, influenza first then pneumoccocal, would most likely have led to over-reporting of influenza vaccinations and under-reporting of pneumoccocal vaccinations.
- Items relating to whether or not the respondent obtained a prescription for the influenza vaccine, and whether or not it was administered free of charge should be interpreted with care. Persons who were vaccinated under the Older Australians Program were entitled to receive their vaccination free of charge, without the necessity of obtaining a prescription. However, the circumstances under which a vaccination was received could differ significantly such that various combinations of responses to these items could legitimately apply. Whether or not the vaccine was free of charge may, for some respondents, have been difficult to accurately report; for example where a consultation was bulk billed the respondent may not be aware of the charges levied or where a fee was charged for a consultation at which a vaccination was received, but it was not clear what that fee related to; i.e. the consultation, the vaccine, and/or the giving of the vaccination.
- For many older people the influenza vaccination is a well publicised and a regular (annual) occurrence, such that the 12 month recall period is considered to have posed few problems. However it may have posed more problems for those who have irregular influenza vaccinations. The five year recall period used for pneumoccocal vaccinations, while appropriate to the recommended frequency of vaccination, may have posed recall difficulties for some respondents.

Comparability with 2001

Results for this topic from the 2004–5 NHS are considered directly comparable with those from the 2001 NHS, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results).

CHILDREN'S IMMUNISATION

Definition

Whereas in previous NHSs, this topic has covered all/most vaccinations from the recommended childhood vaccination schedule of the day, issued by NH&MRC, for the 2004–5 NHS this topic relates only to chickenpox (varicella) and adolescent Hepatitis B vaccinations. Most vaccines from the schedule are available free of charge to the Australian community, under the National Immunisation Program (NIP).

The varicella vaccination, which was not covered by the NIP at the time of the survey, is a single vaccination received at approximately 18 months of age; it is not recommended for children under 12 months of age. The Hepatitis B vaccine for adolescents is recommended as 3 doses at 10–13 years of age (for those who have not previously been immunised for Hepatitis B).

Data on the coverage of children relative to most other recommended vaccinations (Diphtheria, Pertussis (whooping cough), Tetanus, Hepatitis B, Poliomyelitis, Measles, Mumps, Rubella and Haemophilus Influenzae Type B) are now available from the Australian Childhood Immunisation Register (ACIR).

Methodology

A nominated adult (usually the child's mother) reported on behalf of children.

For children aged 1 to 5 years, information was obtained about whether they had ever received a varicella vaccination, and whether they had ever had the disease.

For children aged 10 to 17 years, information was obtained about whether they had received any adolescent Hepatitis B vaccinations (Hep B), whether they had received the full course (3 doses), and where they received the vaccinations.

Population

All persons aged 1 to 5 years and 10 to 17 years.

Data items

As follows:

Whether received a varicella vaccination
Whether had chickenpox
Whether completed course of adolescent Hep B vaccinations
Where Hep B vaccinations received

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004–5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting data for this topic:

Adolescent HepB vaccination:

- Some child proxies were unsure on the number of vaccines administered to the child. While respondents/proxies may assume full vaccination if received at school, this is not alway the case, if for example, the child may have been absent on one the days of vaccination.

Varicella vaccination:

- Although this vaccine is not on the ACIR register (not on the recommended list) vaccinations would normally be recorded in the 'baby book' and therefore the child proxy could refer to these records for accurate reporting.

Interpretation continued

- Information was not recorded in the survey about whether or not respondents referred to immunisation records in answering these questions.

Comparability with 2001

The items and/or populations covered in the 2004–5 NHS are different from those in the 2001 NHS and therefore comparable data are not available.

HYSTERECTOMY AND HORMONE REPLACEMENT THERAPY

These two topics have been combined in this Guide, for convenience. Details of each are provided below.

METHODOLOGY

Women were asked whether they had a hysterectomy and their age when they had the hysterectomy. Irrespective of their answer to having had a hysterectomy they were also asked whether they had any ovaries removed, and whether one or both had been removed. Because of the potentially sensitive nature of these questions respondents were given the opportunity to refuse any or all of these questions.

Women were then asked whether they were currently using hormone replacement therapy (HRT) prescribed by a doctor, and how long they had been using HRT.

These questions were interviewer administered following questions about cancer.

Population

Women aged 18 years and over.

Data items

As follows:

Whether had a hysterectomy
Age when had hysterectomy
Whether one/both ovaries removed
Whether currently using prescribed HRT
Time using HRT

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004–5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting the data include the following.

- Because of the potential sensitivity of the questions about hysterectomy respondents were able to refuse to answer any or all of those questions: less than 1% of women refused to answer one or more of these questions. These are categorised as not stated for the items in question. The small number of women who chose this option will not affect overall results, irrespective of whether or not their characteristics differed from those who did respond.
- The potential sensitivity of the questions may have influenced the responses provided, particularly if other household members were present at the interview.
- Results do not provide a measure of women using hormone replacement medication. Excluded are women using medication not prescribed by a doctor.
- Conceptually, only women currently using prescribed HRT should be included. However, although the question asked about medications prescribed by a doctor, it is possible some respondents may have included over the counter and natural and herbal medications if used on the advice of a doctor.
- The survey provides a measure of the prevalence of use of hormone replacement therapy; women who previously had used HRT but no longer did, are not identified by the survey.

Interpretation continued

- Time using HRT is 'as reported' by respondents. As the question follows the question on use of prescribed medication it is expected most respondents will have replied in terms of prescribed medication, but this is not necessarily the case. Also, some respondents may have reported total time used (included gaps in their use, or gaps in their use of prescribed HRT) while others may have reported actual time (exclusive of any gaps).

Comparability with 2001

In the 2001 NHS, these topics were covered in a self-completion questionnaire, along with questions on Pap tests, mammograms, breast examinations, breastfeeding history and contraceptive practices. In contrast in the 2004–5 survey hysterectomy and HRT were covered in interviewer administered questions, located in the illness section of the questionnaire, after questions about cancer. The different methods of data collection and the context effects will have had some impact on the responses provided. Unfortunately, data are not available from the survey to enable these to be quantified, but users of the data should be mindful of the possible effects of these influences when comparing results between the surveys.

Other differences between the surveys:

- These topics were collected for women aged 18 to 64 years in the 2001 NHS; in the 2004–5 NHS data were obtained for all women aged 18 years and over.
- Questions about the removal of ovaries are new to the 2004–5 NHS.

CHAPTER 5 HEALTH RELATED ACTIONS

CONTENTS

INTRODUCTION

The 2004-5 NHS obtained information about the following selected actions persons had taken for their health in the reference period.

As follows:

- Stays in hospital
- Visits to casualty (emergency) and outpatient units at hospital
- Visits to day clinics
- Consultations with doctors
- Dental consultations
- Consultations with selected other health professionals
- Days away from work or school/study
- Other days of reduced activity
- Use of medications, including vitamins/minerals and natural/herbal preparations.

For practical reasons (i.e. limited interview time and the difficulties in defining every possible type of action a person may have taken in relation to his/her health), the survey covered only the limited range of actions listed above. These actions reflect the main areas known to be of interest to data users and cover the more common actions people take in relation to their health. However, care should be taken not to interpret the data as comprehensive of all actions taken.

Except for stays in hospital, the reference period used for actions data was the two weeks prior to interview; stays in hospital uses both a 12 month and a two week reference period. A two week reference period was used in this survey and previous NHSs as an acceptable compromise between enabling respondents to accurately recall and report actions taken in the period while ensuring sufficient observations were recorded in the survey to support reliable results. While the two week period is used for consistency across all actions it is more appropriate to some types of action such as doctor consultations which are more frequently taken actions than to other types such as dental consultations which tend to be taken much less frequently. This will impact on the relative reliability of the estimates across action types.

Estimates are available for the number of persons taking a particular action in a two week period, and the number of occasions on which the action was taken in that period - e.g. the number of consultations or number of days away from work. Service use data from other sources are commonly compiled on an annual basis. Because the 2004-5 NHS was conducted over a 10 month period, the results represent an average two weeks in that enumeration period. This enables 'annualised' estimates of the number of occasions to be produced from the data simply by multiplying the two week estimate by 26. Although the 'annual' estimates produced will be approximates only, they are considered suitable for general comparative purposes. However this approach should not be used to produce 'annualised' estimates of persons taking a particular action, because it takes no account of the frequency patterns of actions taken by individuals.

Information about the medical condition or other reasons (e.g. test, checkup) for taking the action was not generally obtained in the 2004-5 survey; however limited linkage between actions taken and medical condition was recorded for persons reporting some conditions. Details are provided within the action descriptions below.

INTRODUCTION *continued*

In the 2004-5 NHS information was collected about medications used for selected conditions (i.e. asthma, heart and circulatory conditions, diabetes, arthritis and osteoporosis) and for mental wellbeing only. Details of medications use are therefore available separately for each of these conditions, but because of the restricted coverage of the data, medication use does not contribute to counts of actions taken.

Overall actions data from the 2004-5 survey are similar to those collected in the 2001 survey. All changes, and their implications for comparability between the surveys, are discussed under the relevant individual topic headings which follow.

The data items available from this section of the survey are listed under the particular topic to which they relate. In addition data items which combine various actions taken, enabling analysis of action levels and patterns in respect of population groups, etc. can also be produced on request.

STAYS IN HOSPITAL

Definition

This topic refers to admissions to hospital as an inpatient (including same day patients). For the purposes of this survey, a hospital was defined as an institution which offers residential health care, other than a nursing or convalescent home.

In order to be counted, the stay in hospital must have commenced with formal admission and ended in formal discharge, with discharge taking place in the 12 months prior to interview. However, in some cases persons who had not been discharged were included; this occurred when persons technically still admitted patients were enumerated when home on day release or as hospital-at-home patients.

Methodology

Respondents were asked whether they had been admitted to hospital in the 12 months prior to interview, and the number of times admitted in that 12 month period. Further details were obtained about the respondent's most recent inpatient episode in the last 12 months, including length of stay (number of nights in hospital), whether discharged in the two weeks prior to interview, whether in a public or private hospital and whether admitted as a Medicare or Private patient. The medical reasons for hospitalisation were not recorded.

These questions were asked after questions about recent visits to casualty and outpatients units and hospital, and questions about recent visits to day clinics, to minimise the risk of respondents reporting these visits as hospital admissions.

Population

Information was obtained for all persons.

Data items

As follows:

- Whether admitted to hospital in last 12 months
- Number of times admitted in last 12 months.
- In respect of the most recent admission in the last 12 months:
  - Whether discharged in last 2 weeks
  - Number of nights in hospital at most recent admission
  - Patient type (Medicare or private patient).
  - Hospital type at most recent admission (public/private)
  - Reasons chose to be admitted as a Medicare patient

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered when interpreting data from the survey relating to stays in hospital include the following.

- In general "actions" results from the survey, only those persons discharged from hospital in the previous two weeks are included, consistent with the reference period for all other "actions" data obtained in the survey. The 12 months reference period is usually used in results relating specifically to stays in hospital.
- Statistics on hospital inpatient episodes provided by this survey are not directly comparable with hospital morbidity statistics produced from other sources, due to differences in coverage, definitions and procedures used in their collection.

Interpretation continued

- Where respondents were enumerated at home although they were technically still admitted patients at the time they have been included, although their admission had not been completed at that stage. Length of stay in these cases was recorded as the period from admission to date of interview. The number of cases where people in this situation were identified in the survey was very small, and therefore will have negligible effects on results.
- Patient type at most recent episode refers to the patient type as reported by respondents, not to the type of hospital to which admitted; a person may be a private patient at either a public or private hospital. Persons who reported they had been a patient under a DVA entitlement were recorded as private patients
- A person may legitimately have reported no nights in hospital if admitted and discharged on the same day.

Comparability with 2001

Data from the 2004-5 NHS is considered directly comparable for most items with those from the 2001 survey, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results). However, the following points should be noted.

- In response to concerns about a possible undercount of persons reporting zero nights in hospital in the 2001 survey, an additional question was included in 2004-5 asking whether any nights were spent in hospital; this was followed by the previously used question about number of nights. Results show a very large increase in the proportion of people admitted to hospital who reported their most recent stay as zero nights: 8.6% in 2001 to 39.5% in 2004-5. This increase in part is considered due to the new question.
- Two new data items were collected in 2004-5:
  - Whether most recent stay in a public or private hospital; and
  - The reasons chose to be admitted as a Medicare patient (if had private hospital insurance).

VISITS TO CASUALTY/EMERGENCY WARDS AND OUTPATIENTS SECTIONS AT HOSPITAL

Definition

This topic refers to visits to casualty/emergency and/or outpatients units at a hospital in the two weeks prior to interview. For the purposes of this survey, a hospital was defined as an institution which offers residential health care, other than a nursing or convalescent home.

Only visits related to the respondent's health were included; visits such as taking another sick or injured person to emergency are excluded. Also excluded are situations where the respondent was admitted to hospital through a casualty/emergency ward; these instances were recorded as stays in hospital. Visits to dental hospitals, which are sometimes attached to a hospital as part of the outpatients section are also excluded from this topic; these cases were recorded under dental consultations.

Methodology

Respondents were asked whether they had visited a casualty/emergency or outpatients unit/ward for their own health in the two weeks prior to interview, and the number of visits in that period. People who reported visiting an outpatients unit/ward were asked whether their most recent visit in that 2 week period was related to a previous or expected admission to hospital.

Information about the medical condition(s) or other reasons for visiting the casualty/emergency or outpatients unit/ward was not collected in the survey.

Population

Information was obtained for all persons.

Data items

As follows:

Whether visited casualty/emergency ward in last 2 weeks
Number of visits to casualty/emergency ward
Whether visited outpatients section in last 2 weeks
Number of visits to outpatients section
Whether most recent visit to outpatients section was related to previous/expected admission to hospital.

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered when interpreting data from the survey relating to casualty/emergency and outpatients visits include the following.

- Statistics on the usage of casualty/emergency or outpatients units provided by this survey are not directly comparable with statistics produced from other sources, due to differences in coverage, definitions and procedures used in their collection.
- Although interviewers provided guidance to respondents if queried, the decision to report a visit against casualty/emergency or outpatients was the respondent's choice. While the distinction between casualty/emergency ward and outpatients section could be expected to be clear-cut in most cases, the potential for respondents to confuse outpatients with day clinics, or possibly outpatients with day admissions may have affected results.

Comparability with 2001

Results from the 2004-5 NHS are considered directly comparable with those from the 2001 survey, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results).

VISITS TO DAY CLINICS

Definition

This topic refers to visits to day clinics in the 2 weeks prior to interview for the respondent's own health. Day clinics, which are often attached to or operate as part of a hospital, offer minor surgery or diagnostic procedures such as scans, ultrasounds, endoscopies, cardiac tests, etc.. They do not offer residential health care in the same way as hospitals but in some cases a visit may result in an overnight stay.

Included in the survey are all reported visits to day clinics, except those visits solely for the purpose of an X-ray.

Methodology

Respondents were asked whether in the last two weeks they had visited a day clinic for minor surgery or diagnostic tests (other than an X-ray). The number of times they had visited a day clinic in that period was also recorded. No distinction was made as to whether the day clinic was part of or separate from a hospital facility.

Population

Information was obtained for all persons.

Data items

As follows:

Whether had visited a day clinic
Number of times visited a day clinic.

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered when interpreting data from the survey relating to visits to day clinics include the following.

- The wording of the questions, and their sequencing after questions about visits to casualty/emergency ward and outpatients section at hospitals were designed to ensure that as far as possible, respondents did not report use of hospital services (outpatient clinics in particular) as visits to day clinics or vice versa. However, some crossover in reporting between hospital and day clinics may have occurred, particularly for cases where day clinics are located on hospital premises.
- Statistics on the use of day clinics provided by this survey are not directly comparable with statistics available from other sources, due to differences in coverage, definition and procedures used in their collection, and to possible reporting errors as noted above.

Comparability with 2001

Results from the 2004-5 NHS are considered directly comparable with those from the 2001 survey, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results).

DOCTOR CONSULTATIONS

Definition

This topic refers to any occasion in the two weeks prior to interview on which a respondent discussed his/her own health with, or received treatment from a doctor. Included are consultations by telephone or having someone else consult a doctor on behalf of the respondent (such as a relative or friend, or doctor's nurse or receptionist), but excluded are:

- consultations during a visit to casualty/emergency ward or outpatient section at a hospital or during a stay in hospital, or during a visit to a day clinic; and
- visits to a doctor only to deliver a sample or collect a prescription, without seeing the doctor.

As defined for this survey, 'doctor' includes general practitioners and specialists such as surgeons, pathologists, gynaecologists, radiologists, psychiatrists, etc..

This item includes all consultations with a doctor in the reference period, regardless of the type of treatment/service provided. For example, a consultation with a doctor at which acupuncture or physiotherapy was performed has, where identified, been included in this item.

Methodology

Respondents were asked whether during the two weeks prior to interview they had:

- consulted a general practitioner and the number of consultations; and
- consulted a specialist and the number of consultations.

Those who had not consulted either a general practitioner or specialist in that two week period were asked the time since they had last consulted a doctor (general practitioner or specialist) about their own health (other than as a hospital inpatient or at a visit to a hospital casualty/emergency or outpatients unit, or at a day clinic). Information about the medical condition or other reason for consultation was not recorded.

Population

Information was obtained for all persons.

Data items

As follows:

Whether consulted a general practitioner in the two weeks prior to interview
Number of consultations with general practitioner in that period
Whether consulted a specialist in the two weeks prior to interview
Number of consultations with a specialist in that period
Period since last consultation, with general practitioner or specialist (if neither had been consulted in the previous two weeks).

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

When interpreting data from the survey relating to doctor consultations the following should be considered.

Interpretation continued

- Consultation information is essentially 'as reported' by respondents. In some cases respondents may have reported consultations with health practitioners other than doctors because they consider them to be doctors. Conversely, some consultations reported as being with other health professionals should have been reported in this item where the practitioner consulted was a qualified medical practitioner (regardless of the type of treatment/service provided at the consultation). The questionnaire was designed such that most of these cases would be identified through subsequent questions, and information amended as required. However, some cases of misreporting may remain in final survey output
- Similarly, the reporting of a consultation as with a general practitioner or with a specialist was largely at the respondent's discretion, and some misreporting could have occurred
- While the wording and ordering of the questions deterred respondents from reporting consultations with doctors during a visit to, or stay in, hospital or visit to a day clinic, some cases of misreporting or multiple-reporting may have occurred.

Comparability with 2001

Results from the 2004-5 NHS are considered directly comparable with those from the 2001 survey, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results).

DENTAL CONSULTATIONS

Definition

Dental consultations refer to any occasion in the two weeks prior to interview on which a respondent consulted a dentist or other dental professional (e.g. orthodontist, dental nurse, dental technician, dental mechanic) about their teeth, dentures or gums.

Consultations at dental hospitals are included, but dental consultations during a hospital inpatient stay or visit to casualty/emergency, outpatients or day clinic are excluded.

Persons who consulted a doctor about a dental problem are included under the item doctor consultations.

Methodology

Respondents were asked whether during the two weeks prior to interview they had consulted a dentist or anyone about their teeth, dentures or gums, and the number of times consulted in that period. Persons who did not consult in that period were asked the time since their last dental consultation.

Population

Information was obtained for persons aged 2 years and over.

Data items

As follows:

Whether consulted a dentist or dental professional in two weeks prior to interview
Number of times consulted dentist or dental professional in the two weeks prior to interview
Period since last consultation if not in previous two weeks
Time since last consulted a dentist or dental professional

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

The following points should be considered when interpreting dental consultations data provided by this survey.

- For reasons of consistency with other actions data obtained in the survey, a two week reference period was used for dental consultations. However, it is recognised that dental consultations generally occur less frequently than consultations with doctors and some other health professionals. As a result, the data from this survey may not be as representative of the usage of dental services (particularly in applications such as deriving annual aggregates of service usage) as for other types of health service covered in the survey.

Comparability with 2001 NHS

Whereas the 2001 NHS collected data for this topic for persons of all ages, the 2004-5 survey collected data only for those aged 2 years and over. As a result, data provided by the 2004-5 NHS about dental consultations are comparable with those provided by the 2001 survey (within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results)) when 2001 data are defined for the population aged 2 years and over .

CONSULTATIONS WITH OTHER HEALTH PROFESSIONALS (OHPS)

Definition

This topic refers to occasions in the two weeks prior to interview on which respondents consulted a nominated health professional other than a doctor or dentist/dental professional; specifically one or more of the following health professionals:

Aboriginal health worker
Accredited counsellor
Acupuncturist
Alcohol and drug worker
Audiologist/audiometrist
Chiropractor
Chemist for advice only
Chiropodist/podiatrist
Dietician/nutritionist
Herbalist
Hypnotherapist
Naturopath
Nurse
Optician/optometrist
Osteopath
Occupational therapist
Physiotherapist/hydrotherapist
Psychologist
Social worker/welfare officer, and
Speech therapist/pathologist.

This topic refers to consultations at which some discussion and/or treatment of a health-related matter or medical condition took place, or was arranged.

Excluded are:

- occasions on which respondents may have visited the professional only to obtain medical supplies, aids, etc.. For example, consulting a chemist about a medication would be included, while visiting a chemist simply to fill a prescription would not; consulting an optometrist about a sight problem would be included but going to an optometrist to have a pair of glasses made to prescription would not
- consultations occurring during a stay in hospital, or visit to a casualty/emergency or outpatients unit, or day clinic
- consultations with nurses as part of a doctor or dental consultation (including dental nurses); these are included under doctor and dental consultations respectively
- consultations with a doctor at which any of these services (e.g. acupuncture, counselling, etc.) were received. These occurrences are recorded as doctor consultations.

Consultations were recorded against the type of OHP involved, not the type of treatment provided at a particular consultation. For example, if a chiropractor performed physiotherapy, the consultation was recorded under chiropractor. If a practitioner was considered by the respondent to fit more than one of the types listed above, the visit has been recorded against that type of OHP most closely associated with the most recent consultation in the two week period.

Methodology

Using a prompt card, respondents were asked whether they had consulted any of the listed OHPs in the two weeks prior to interview. If so, the respondent was asked to identify which types of OHP had been consulted. For up to two OHPs (the two most recently visited), respondents were asked to report the number of consultations they had in that period.

Information about medical condition(s) or other reason(s) for visiting that OHP was not recorded.

Population

Information was collected in respect of all persons in scope of the survey.

Data items

As follows:

- Whether consulted OHP in two weeks prior to interview
- Type of OHP consulted in the last two weeks
- For the two types of OHP most recently consulted:
  - Type of OHP most recently consulted
  - Number of consultations in that two weeks
- Type of OHP 2nd most recently consulted

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered when interpreting data on OHP consultations from this survey include the following.

- The data relate only to those types of OHP specified in the survey and hence should not, in aggregate, be interpreted as relating to all health professionals other than doctors and dentists.
- While it was recognised that all respondents may not understand the functions of all the OHPs listed, it was considered that in most cases they could accurately identify the type of OHP they had consulted. Interviewers were provided with a list defining the main activities of each of the OHPs covered to assist respondents if queried.
- Despite the point above, some misreporting of type of OHP may have occurred. For example, in cases where the distinction between types of OHP was unclear in the respondent's mind and/or the professional practised more than one form of treatment (e.g. chiropractor/osteopath, naturopath/herbalist).
- Conceptually consultations were only to be recorded where some treatment and/or discussion of a health-related matter took place. However, it is recognised that this distinction may be difficult to make in some cases and interpretation may differ between respondents. In particular, the likelihood of reported consultations with chemists and opticians/optometrists being outside the defined scope of the survey should be considered.

Comparability with 2001

Data for this topic are broadly comparable between the 2004-5 and 2001 surveys, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results). However, several minor changes between surveys should be noted.

Comparability with 2001 continued

In the 2001 survey, the categories 'aboriginal health worker' and 'alcohol and drug worker' were defined as 'not elsewhere classified (nec)' - that means that conceptually these were categories which applied only in cases where one of the other categories of OHP in the question could not apply - i.e. they were effectively secondary classification categories. For the 2004-5 NHS the 'nec' was removed, such that those categories are of equal status as other categories in the list, with the result that conceptually these categories were more likely to be recorded in 2004-5 than in 2001. While users should be aware of this conceptual difference, a comparison of results from both surveys suggests the change made little difference to the survey results.

DAYS AWAY FROM WORK OR SCHOOL/STUDY

Definition

This topic refers to days, during the 2 weeks prior to interview, on which respondents stayed away from their work and/or their school/study:

- due to an illness or injury which they had , or
- as a carer for someone else who was sick or injured.

For the purposes of this topic a "day away" was defined as more than half the (working or student) day absent. If a person was away from both work and study details were recorded against each activity as appropriate.

Methodology

As appropriate to the age, educational and employment circumstances previously recorded at the interview, respondents were asked separately whether in the last two weeks they had stayed away from work or school/study because of an illness/injury they had, and whether in the last two weeks they had stayed away from work or school/study to care for someone else who was sick or injured.

The number of days away was recorded for each of these actions as appropriate. Information about the medical condition involved was not collected in the 2004-5 NHS.

Population

Information was obtained about time away from work or school/study for populations as follows:

Days away from work due to own illness: employed persons aged 15–64 years
Days away from school/study due to own illness: persons aged 5–64 years
Days away from work as carer: employed persons aged 15 - 64 years
Days away from school/study as carer: persons aged 10 - 64 years.

Data items

Data items for this topic include:

Whether had any days away from work due to own illness/injury
Number of days away from work due to own illness/injury
Whether had any days away from study due to own illness/injury
Number of days away from study due to own illness/injury
Whether had any days away from work as carer
Number of days away from work as carer
Whether had any days away from study as carer
Number of days away from study as carer
Whether had days away from work for own illness or as carer
Number of days away from work for own illness or as carer
Whether had days away from study for own illness or as carer
Number of day away from study for own illness or as carer
Whether had days away from work or study for own illness
Number of days away from work or study for own illness
Whether had days away from work or study as carer
Number of days away from work or study as carer

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered when interpreting data on days away from work or study/school include the following.

- Sequencing of respondents through this section of the questionnaire relied on previous information recorded about their current employment and/or student status. To the extent that reporting or recording errors may have occurred in this information, the information recorded about days away from work or school/study will also be effected.
- The survey can provide information both about the numbers of people (and their characteristics) taking time away from work or school/study due to illness, and about the numbers of days away. While efforts were made in the appropriate questions to ensure only illness-related days away are included, and only days where more than half a day's absence was involved are counted, some misreporting may have occurred.
- The questions about days away from work were not asked specifically in terms of a particular job. As a result, for persons with more than one job, the days away were not necessarily (or solely) days away from their main job. While the impact of this is expected to be minor, it should be considered when, for example, analysing information on days away from work against reported occupation or industry of main job.
- The numbers of persons and days away due to own illness/injury and as carer were separately reported and were intended to be conceptually separate so they could be aggregated to produce total "days away" due to illness or injury if required. A small number of respondents (less than 1% of persons aged 15 years and over) reported both days away due to illness and as carers, and in these cases there is some possibility that the same days were reported in each. However, as the number involved was small, even if this did occur it is expected to have minimal effect on estimates.

Comparability with 2001

Data for days away from work are considered to be directly comparable between the 2004-5 and 2001 surveys within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results).

Data for days away from work/study are not directly comparable. In the 2001 NHS, for persons who had days away from both work and school/study in the reference weeks, the days away have been recorded against days away from work only. The number of persons in the survey who reported days away from both work and school/study was very small; nevertheless a small undercount of persons having days away from school/study, and of the number of days away will have occurred. In the 2004-5 survey persons and days away were recorded against both work and school/study, as reported.

OTHER DAYS OF REDUCED ACTIVITY

Definition

This topic refers to days during the two weeks prior to interview on which a person cut-down on his/her usual activities for all or most of the day due to an illness/injury which they had, excluding days away from work or school/study because of own illness/injury.

Note that these (other) days of reduced activity exclude days cut down on activities to care for another person.

Methodology

Respondents were asked whether on any days in the previous 2 weeks they had cut down on anything they usually did because of an illness or injury they had, and the number of days they had reduced their activities. For respondents who were employed or at school/study, these questions followed questions on days away from work or school/study, and respondents were asked to exclude those days they had already reported. Information about the medical conditions or other reason(s) for other days of reduced activity was not collected.

Population

Information was collected for all persons aged 5 years and over.

Data items

As follows:

Whether had (other) days of reduced activity
Number of (other) days of reduced activity

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered when interpreting data for this item include the following.

- The information is 'as reported' by respondents. Perceptions of concepts such as 'cut-down on usual activities' may differ between respondents and hence influence the consistency of the data recorded.
- Other days of reduced activity conceptually exclude days away from work or school/study due to own illness/injury. However, days away from work and days away from study may overlap. For this reason the days recorded for each group (work, study, other days of reduced activity) cannot be aggregated to a total days out of role.

Comparability with 2001

Data for this topic from the 2004-5 and 2001 NHSs are considered comparable within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results).

However, whereas the number of days out of role could be calculated from the 2001 NHS, it is not available from the 2004-5 survey because the way days away from work and days away from study have been recorded may result in double counting.

USE OF MEDICATIONS

Definition

This topic refers to the consumption or other use, for selected conditions/reasons only, of any medications, pills or ointments during the two weeks prior to interview, including vitamins, mineral supplements and herbal or natural medications, and including both prescribed and non-prescribed medications.

Information about use of medication was collected for the following conditions/reasons, as reported by respondents:

Asthma
Heart and circulatory conditions
Diabetes/high sugar levels
Arthritis
Osteoporosis/osteopenia
Mental wellbeing.

In survey output, the following terms are used to describe particular groups of products.

- Medications refers to all reported medications, including pharmaceutical medications, vitamin and mineral supplements and natural and herbal medicines.
- Pharmaceutical medications refers to reported medications excluding those reported by respondents as vitamin or mineral supplements, and those reported as natural or herbal medicines.

It should be noted that this terminology has been adopted for the purposes of describing different groups in the survey, and should not be assumed to be an exact description of the contents of each group. The distinction between pharmaceutical medications, vitamin and mineral supplements and natural and herbal medicines is based primarily on the distinction made by respondents in providing the information.

Methodology

The methodology used to obtain this information was similar throughout the survey, but there were some differences for individual conditions/reasons for use. Each of the approaches is summarised below; further information is contained in the individual condition sections of this Guide.

ARTHRITIS

Respondents who reported they ever had arthritis and still have arthritis (irrespective of whether or not they had been told by a doctor or nurse) were asked:

- whether they used any medication for their arthritis in the last 2 weeks,
- the name of up to 3 medications used,
- whether they had taken selected dietary supplements in that 2 week period for arthritis, and the type of supplement (a pick-list and one write in response) used ; and
- whether they had taken any other action for arthritis in that period.

ASTHMA

Respondents who reported they had been told by a doctor or nurse that they had asthma, and reported it was still a current condition, were asked:

- whether they used any medication (other than vitamins, minerals, natural and herbal medicines) for their asthma in the last 2 weeks,
- the name of up to 3 medications used, and for each of these,

Methodology continued

ASTHMA *continued*

- whether they had used a nebuliser to administer any medications in the previous 2 weeks; and
- whether they had taken other actions for their asthma in that 2 week period; use of vitamin and mineral supplements, and natural/herbal medications were separate response categories.

HEART AND CIRCULATORY CONDITIONS

Respondents who reported they had been told by a doctor or nurse that they had a heart and circulatory condition, and reported it was a current and long term condition, were asked separately about use of medications in respect of each of 3 heart and circulatory conditions they had reported. If more than three conditions were reported the respondent was asked to provide information about medications taken for the three most severe conditions. The most severe conditions were determined by the respondent.

For each of the three conditions respondents were asked:

- whether they had used any vitamin or mineral supplements or any herbal or natural medicines for that condition in the previous 2 weeks,
- whether they had used any other medications for that condition in that 2 week period, and
- the names of up to 3 medications used.

Testing had shown that some people with multiple heart and circulatory conditions sometimes did not know the particular condition for which a particular medication was used. People who could not associate all their cardiovascular medications with a specific condition were also asked to report the names of up to 3 (additional) medications used for cardiovascular conditions.

DIABETES

Respondents who reported they had been told by a doctor or nurse that they had diabetes (other than diabetes insipidus) or high sugar levels in their blood or urine, and reported it was still a current condition, were asked:

- whether they were currently having daily insulin injections, age started having these injections and the brand name of the insulin taken:
- whether they had used any medications (other than vitamin or mineral supplements or any herbal or natural medicines) for that condition in the previous 2 weeks;
- the names of up to 3 medications used; and
- whether they had taken any other action to manage their condition in the previous two weeks, including use of vitamin or mineral supplements or any herbal or natural medicines.

OSTEOPOROSIS

Respondents who reported they had been told by a doctor or nurse that they had osteoporosis/osteopenia were asked:

- whether they had used any medications (other than vitamin or mineral supplements or any herbal or natural medicines) for that condition in the previous 2 weeks;
- the names of up to 3 medications used;

Methodology continued

OSTEOPOROSIS *continued*

- whether they had taken selected dietary supplements in that 2 week period for osteoporosis, and the type of supplement (a pick-list and one write in response) used; and
- whether they had taken any other action for osteoporosis in that period.

MENTAL WELLBEING

Adult respondents in the NHS were asked about medication use in the previous 2 weeks for mental wellbeing; for example to improve concentration or reduce stress, as follows:

- whether they had used vitamin or mineral supplements for mental wellbeing;
- whether they had used herbal or natural medicines for mental wellbeing'
- whether they had used sleeping tablets/capsules, tablets/capsules for anxiety or nerves, tranquillisers antidepressants, mood stabilisers, other medication for mental health;
- the brand/product names for up to 5 medications used; and
- for each of up to 5 types of medication reported, the duration of use and frequency of use.

Except in the case of medications used for mental wellbeing, provision was made to record up to a maximum of 3 separate medication names for each of the reported conditions, as specified above. In cases where 4 or more medications were reported, only the 3 medications regarded by the respondent as the "main" medications they use for that condition were recorded. Provision was made to record the fact that more than 3 medications were used.

In responding to questions on medication use, interviewers encouraged respondents to collect and refer to medication bottles, packets, etc.. This served to both assist respondents in reporting all medications used for a particular condition, and assist interviewers in accurately recording the medication name. The name recorded may have been a brand or generic name.

The names of the medications reported were office coded to a classification of generic type of medication based on the WHO's Anatomical Therapeutic Chemical Classification (ATCC); see Appendix 4. Data grouped in line with other classifications such as the Australian Medicines Handbook (AMH) may be available on request.

Occasionally, where respondents have several conditions, medications are misreported. These medications are linked to the condition reported but are classified under the medication level as stated in the ATCC.

Population:

Medications data are available for persons of all ages who had reported arthritis, asthma, heart and circulatory conditions, diabetes (excl. diabetes insipidus)/high sugar levels in blood or urine or osteoporosis. Use of medications for mental wellbeing was collected only for persons aged 18 years and over.

Data items

For persons with arthritis:

whether used medications for arthritis
number of medications used

Data items *continued*

generic types of medications used (incl.. vitamins and mineral, and natural and herbal medicines)
type of actions for arthritis

For persons with asthma:
whether used any medications
number of medications used
generic types of medication used (incl. vitamins and mineral, and natural and herbal medicines)
whether nebuliser used to administer any medication.

For persons with heart or circulatory conditions:
whether used any medications
number of medications used (total and for each of 3 conditions)
generic types of medication used (incl. vitamins and mineral, and natural and herbal medications).

For persons with diabetes or high sugar levels:
whether used any medications
number of medications used
generic types of medication used (incl. insulin, vitamins and minerals, and natural and herbal medications
whether have daily insulin injections
age started having daily insulin injections

For persons with osteoporosis:
whether used medications for osteoporosis
number of medications used
generic types of medications used (incl. vitamins and mineral, and natural and herbal medicines)
type of actions for osteoporosis

For persons in the NHS using medication for mental wellbeing:
whether used medications for mental wellbeing
number of medications used
reported types of medication used
generic types of medication used (incl. vitamins and mineral, and natural and herbal medicines)
frequency of use of medication
duration of use of medication

Medication name is recorded for the purposes of enabling coding of generic type of medication; medication name is not available for output from the survey. For further details of the items available, and for details of the standard output categories see the relevant illness topic descriptions. Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey: data reference package, 2004-5* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered when interpreting data from this survey on the use of medications include the following.

- The information is 'as reported' by respondents. This may have implications for the extent to which usage of certain types of medications were reported (e.g. tranquillisers) and the accuracy of some details provided (e.g. name of medication used, frequency of use). As a result the data on medications use are not directly comparable with data from other sources .
- Although respondents were encouraged to bring out the medication packets, bottles, etc. to assist them and interviewers in recording complete and correct details, this did not always occur, which may have led to some medications not being reported at all, or being reported incorrectly.
- The methodology relied on respondents knowing that a particular medication was being taken for a particular condition. For respondents having several conditions and using multiple medications some medications may have been incorrectly reported as used for a particular condition, or not reported at all because the respondent understood the medication was for a different condition (which was not covered by these questions in the NHS). To cater for instances where the direct link between condition and medication was not established, 'dummy' condition codes were used as follows:
  - 995 was used to mean heart/circulatory condition unspecified
  - 996 was used to mean arthritis, type unspecified. This code was used for the purposes of linking all medication used for arthritis where two or more types of arthritis had been reported, and
  - 997 was used to mean mental wellbeing. Although not a condition as such, for the purposes of maintaining consistency in the way medications were linked, it was decided to assign mental wellbeing with a 'condition' code.
- These codes were used for linkage purposes only, and are not regarded as legitimate condition codes for any other purpose: for example, they do not appear in items relating to long term conditions or NHPA condition status.
- The data relates only to medications (known and reported by respondents) used for particular types of medical conditions or reasons. As a result the data does not indicate the levels of total medication use, nor does it necessarily indicate the total use of a particular medication type, particularly in cases where a medication can be used for a range of different conditions.
- Data relating to medication use for mental wellbeing differs from the other medication data because it is not necessarily related to a medically diagnosed condition, and conceptually includes use for preventive or other reasons where no medical condition is present.
- Apart from questions in the arthritis and osteoporosis modules about certain dietary actions, respondents were not asked about the type of product/substance they reported as vitamins/minerals or natural or herbal medicines. As a result, the products reported in these categories were entirely at the discretion of respondents. Some products of this type were reported in response to the questions on other medication use.

Interpretation continued

- Where this has occurred and the product could be identified as a vitamin/mineral or natural/herbal medicine, it was classified to a general vitamin/mineral/natural/herbal category within the generic type classification. However, where the product could not be identified as a vitamin/mineral or natural/herbal medicine it was classified to the general 'other medications' group. As a result, combining responses from the separate vitamins/minerals and natural/herbal medicine questions with those classified to this category within the generic type classification provides a more complete picture of the use of these products for the specified condition, but will not necessarily include all medications of these types.
- Because the distinction between vitamins/minerals and natural/herbal medicines was at the discretion of respondents, and because these can be very similar (or even the same) products, just differently described, data for these categories might more confidently be used in combination, rather than separately.
- Counts of medications are compiled separately for each condition type group; eg for cardiovascular conditions, for asthma, for arthritis, and are generally based on the number of 3 digit 'generic type' codes which have been allocated to that group:
  - after removing duplicate codes, and
  - taking account of the supplementary question to indicate whether more medications were reported than space was allowed in the questionnaire.

For cardiovascular conditions, asthma, diabetes and mental wellbeing, vitamin and mineral supplements and natural and herbal medications are counted only once (per type per condition group) regardless of the number reported. For arthritis and osteoporosis each vitamin/mineral supplement, and each natural/herbal medication identified are counted separately.

As a result:

- The number of medications recorded for arthritis and osteoporosis may appear higher relative to other conditions, and is not comparable with other conditions.
- The number of medications items should not be summed across condition groups to provide a total count at the person level because of the different counting methods used and the possibility of duplications between condition groups (i.e. where the same medication is reported as being used for several different conditions).

Comparability with 2001 NHS

Overall, the methodology for collecting data on medication use in the 2004-5 NHS was similar to that used in the 2001 survey, with the result that the data about medications used for asthma, heart/circulatory conditions and diabetes/high sugar levels are broadly comparable, within the general limits of comparability resulting from a change in the means of data collection (see Chapter 7: Data quality and interpretation of results). The classification of medications used was that used in the 2001 NHS, updated to include new medications introduced since the previous survey, and expanded to include medications used for arthritis, osteoporosis and mental wellbeing.

Medications data were not collected for arthritis and osteoporosis in 2001, and therefore data comparable with 2004-5 are not available. Information about medication use for cancer, which was collected in 2001, is not available from the 2004-5 survey.

Comparability with 2001 NHS continued

Data about medications used for mental wellbeing are not directly comparable between surveys, due to methodological differences. These are summarised in the table below:

2004–05	*2001*
Medications coded to generic type, based on the medication name	Medication name not recorded
Up to 6 reported types could be recorded: reported types as described by respondent	Up to 6 reported types could be recorded: reported types modified by interviewer according to list of common medications only.
Up to 5 generic types of medication could be recorded, irrespective of reported types	Multiple medications falling under a single reported type category would effectively be recorded as one medication
Frequency and duration of use collected for each of up to 5 generic types	Frequency and duration of use collected for each of up to 3 reported types

Other factors which may potentially affect comparability of medications data between surveys include the availability of medications (coming onto or leaving the market), changes affecting accessibility (e.g. prescription requirements), access to/arrangements for pharmaceutical benefits, evolving practices for the treatment/management of conditions, etc.

CHAPTER 6 POPULATION CHARACTERISTICS

CONTENTS

DEMOGRAPHIC AND SOCIOECONOMIC CHARACTERISTICS

In addition to the specific health information collected, the 2004-5 NHS obtained a range of information describing the demographic and socioeconomic characteristics of the survey population. These characteristics can be linked with the health data obtained in the survey to analyse the health status and other health characteristics of particular groups in the community e.g. overseas born, the aged, low income earners, etc. For presentation in this publication the characteristics obtained have been grouped under the following headings: demographics, education, employment, income, health insurance, housing and family/household/income unit.

Only the more commonly used output data items available from the survey are outlined below; for a full list of demographic and socioeconomic variables available see the list of output data items from the 2004-5 NHS contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey 2004-5: Data Referance Package* (ABS catalogue number 4363.0.55.002) available from the ABS website.

In considering the demographic and socioeconomic characteristics available, there are some general points about aspects of the sampling within households, collection methodology, definitions and processing arrangements which need to be borne in mind, because they effect the data recorded for these characteristics.

- Summary characteristics of all usual residents of selected households were recorded from information supplied by a 'responsible adult' resident of the household. Characteristics recorded were sex, age, marital status, whether currently attending school/educational institution, country of birth, year of arrival in Australia, Indigenous status and relationship to other household members.
- Those selected as respondents were asked additional questions regarding their education, language, labour force, housing and income characteristics.
- Within selected households one adult and one child (aged 0–17 years) were enumerated in the NHS. An additional Indigenous adult and Indigenous child may also have been enumerated, but these are not included in NHS estimates.
- The selected adult was selected by the survey instrument on the basis of proximity of next birthday. Therefore in households with parents and adult children, the selected adult may have been one of those children.
- In households with children, an adult was nominated by the household to respond about the selected child - this person is referred to as the child proxy. This may have been the selected adult or may have been another adult member of the household. where the child proxy was not the selected adult, language and selected education details were recorded separately about the proxy on the child record. Where the child proxy was the selected adult, these details were copied from the adult record to the child record.
- Details of the income of each household member (except the selected adult and selected child aged 15 to 17 years), was provided by a household spokesperson. The spokesperson was nominated by the household as the person most likely to be able to provide the information requested. This was usually the selected adult. Income details for the selected adult and selected child were collected as part of their separate interviews.

DEMOGRAPHIC AND SOCIOECONOMIC CHARACTERISTICS *continued*

- Housing information was obtained from the selected adult. Where appropriate, housing tenure relates to the income unit to which the selected adult belongs: for example, it takes into account the tenure of spouse/partner or parent; see the Housing section of this chapter for further details.

As a result of these arrangements, not all the data items described below are available for all adults, child proxy's or children enumerated. The availability of items is summarised at the end of each section.

Although basic demographic information was collected about all household members in both the 2001 and 2004-5 NHSs, processing arrangements in place at the time did not allow these details to be retained on the final survey data file in 2001. In the 2004-5 NHS, in addition to the comprehensive set of demographic and socioeconomic information about the survey respondents, basic demographic and income details are available for all persons in the sampled dwellings.

DEMOGRAPHIC CHARACTERISTICS

Sex

Male or female as reported.

Age

Age as reported was recorded in single years and single months if aged less than two years. Date of birth was recorded where reported, which in conjunction with date of interview enables exact age to be derived if required: date of birth is not available as an output item from the survey. Where discrepancies occurred between derived and reported age for children, reported age was used where appropriate since this was the age used to sequence respondents through the questionnaire.

Standard output categories differ according to the topic to which the data relates. Age in five or ten year groups is most commonly used in survey output. Other non-standard groupings are available on request.

Registered marital status

Registered marital status was recorded for persons aged 15 years and over, as reported, and was classified as: Never married, Widowed, Divorced, Separated but not divorced, Married.

Social marital status

Social marital status was derived for persons aged 15 years and over, and was classified as:

- Married - if living with another person in a couple relationship, which was reported as either a registered marriage or a defacto marriage. Included are persons living with a person of the same sex in a couple relationship.
- Not married - if not living with another person in a couple relationship. Includes persons living alone, with other family members, or in shared accommodation. Included are persons in a registered or defacto marriage but whose partners are not usually resident in the household.

Country of birth

Classified from reported country of birth, to the Standard Australian Classification of Countries (SACC), which is a hierarchical classification based on the concept of geographic proximity. The abbreviated classification used in most standard output is shown in Appendix 5; other groupings are available on request, including the following :

Australia

Other main English speaking countries (comprising New Zealand, England, Scotland, Wales, Northern Ireland, Channel Islands, Isle of Man, Ireland, Canada, United States of America and South Africa)

All other countries

Year of arrival in Australia

This item refers to the year in which a person, reporting a country of birth other than Australia, first arrived in Australia to live for a period of one year or more. Individual year of arrival was recorded and can be grouped as required for output.

Indigenous status

Refers to whether the person is of Aboriginal and/or Torres Strait Islander origin, as identified by an adult spokesperson within each household i.e. not necessarily self-identification. Status is classified as Aboriginal, Torres Strait Islander, both Aboriginal and Torres Strait Islander, and neither Aboriginal or Torres Strait Islander. Persons

Indigenous status continued

identified as of Kanak descent, from Papua or New Guinea or other Pacific Island origin are recorded as neither Aboriginal or Torres Strait Islander.

Estimates relating to the Indigenous population are available from the 2004-5 NATSIHS, but are not available from the 2004-5 NHS. The sample of Indigenous people in the NHS was designed to ensure the Indigenous population was appropriately represented in total population estimates, but was not large enough, and was not sufficiently representative of the Indigenous population to support Indigenous estimates.

Language mainly spoken at home

Obtained for adults only, as reported. Language was classified at the finest level of the AUSTRALIAN STANDARD CLASSIFICATION OF LANGUAGES; the abbreviated classification used in most standard output is shown in Appendix 6.

Proficiency in spoken English

Adults who reported they mainly spoke a language other than English at home were asked how well they spoke English. Responses were recorded as reported by respondents against the categories very well, well, not well, not at all.

Relationship to child

This item refers to the relationship of the child to the adult reporting for the child (selected adult or other child proxy). In most cases this was derived from information about household composition and relationships within the household; where this was not possible the adult reporting for the child was asked what their relationship to the child was. The output categories are: mother, step mother, father, step father, grandparent, other relative, other.

EDUCATION

Children aged 6–14 years were assumed to be attending school.

For persons aged 15 years and over information was obtained about study at school or another educational institution and the highest non-school educational qualification they had obtained.

Current study

Obtained for persons aged 15 to 19 years not currently attending school, and for persons 20 years and over. Includes study at school, university, technical college or other educational institution. Current study includes persons currently enrolled full or part-time, including apprentices attending one day a week or on block release. Enrolment in adult education courses, hobby and recreation courses are excluded.

Information is collected about the type of educational institution at which currently enrolled (secondary school, university/other higher education, TAFE/technical college, business college, industry skills centre, other) and whether the current study is full-time or part-time. This is determined by how their enrolment is classified by the educational institution they are attending; if uncertain, the respondent's reported status was recorded. Apprentices who attend one day per week or on block release are classified as in part-time study.

Highest year of school completed

Obtained for persons aged 15 to 19 years not attending school, and for persons 20 years and over. For years up to and including Year 11 the term 'completed' means to attend for the full school year such that progression to the following year of school is enabled; for Year 12, completed requires only attendance for the full year. Further details of the definitions used are available on request.

Categories are: Year 12, Year 11, Year 10, Year 9, Year 8 or below, Never attended school, Not stated, Not asked (still at school).

Educational attainment

Persons aged 15 to 19 years not attending school, and persons 20 years and over were asked if they had completed a trade certificate, diploma, degree or any other educational qualification. Those who answered Yes were asked to provide details of that qualification, including level and field of study. Several output data items, relating to the level and field of study are derived from the text descriptions recorded by interviewers.

- Whether has a non-school qualification
- Level of highest non-school qualification

  This item refers to the qualification level as classified to the level of education component of the Australian Standard Classification of Education (ASCED). For standard survey output detailed categories are commonly grouped as shown below:

  Postgraduate Degree
  Graduate Diploma/Graduate Certificate
  Bachelor Degree
  Advanced Diploma/Diploma
  Certificate
  Inadequately described
  No non-school qualification
  Not asked (still at school)

Educational attainment continued

- Main field of highest non-school qualification

  This item refers to the field of study of the highest non-school qualification reported as classified to the field component of the Australian Standard Classification of Education (ASCED). For standard survey output detailed categories are commonly grouped as shown below:

  Natural and physical sciences
  Information technology
  Engineering and related technologies
  Architecture and building
  Agriculture, environmental and related studies
  Health
  Education
  Management and commerce
  Society and culture
  Creative arts
  Food, hospitality and personal services
  Mixed field programmes
  Inadequately described
  No non-school qualification
  Not asked (still at school)

- Highest level of post-school educational attainment

  This item refers to the level of the highest post-school qualification reported, as classified to the ABS Classification of Qualifications. Although this classification has been replaced by ASCED this item has been retained for the 2004-5 NHS to provide greater comparability with the 2001 NHS.

  Higher degree
  Postgraduate diploma
  Bachelor degree
  Undergraduate diploma
  Associate diploma
  Skilled vocational qualification
  Basic vocational qualification
  Inadequately described
  No post-school qualification
  Not asked (still at school)

EMPLOYMENT

Information about employment was obtained about persons aged 15 years and over. The questions used in the 2004-5 NHS are a short-form version of the questions used in the ABS Monthly Labour Force Survey. Use of the reduced set of questions may have resulted in small differences in classification of labour force status and full-time/part-time employment, compared with the results that would have been derived had the full standard question module be used.

Some of the employment items below (e.g. occupation, industry, working arrangements) relate to the respondent's main job. For those respondents who had more than one job at the time of the interview, main job was defined as the paid job in which they usually worked the most hours .

Labour force status

Persons were classified as either employed, unemployed or not in the labour force based on criteria relating to whether the person had a job in the week prior to interview, whether those who did not have a job were actively seeking work, and whether those actively seeking work were available to start work.

- Employed persons were those aged 15 years and over who reported that in the preceding week they had worked in a job, business or farm or who had a job but were absent during that week. Includes people who reported they had a job but who also reported they usually worked no hours.
- Unemployed persons were those aged 15 years and over who were not employed in the reference week, who actively looked for work some time during the previous four weeks and were available to start, or waiting to start within the following four weeks.
- Persons not in the labour force were those aged 15 and over who were not employed or unemployed, as defined.

Labour force status as defined for this survey also incorporates the characteristic of whether full-time or part-time work is involved, as follows:

- Employed full-time if they usually work 35 hours or more a week (in all jobs).
- Employed part-time if they usually worked less than 35 hours a week (in all jobs).
- Unemployed actively seeking full-time work in last 4 weeks.
- Unemployed actively seeking part-time work only in last 4 weeks.

Labour force status is categorised as: employed full-time, employed part-time, unemployed looking for full-time work, unemployed looking for part-time work, not in the labour force.

Status in employment

This item refers to a respondent's position in relation to the main employment (job) in the enterprise in which he or she works and is determined by the following criteria:

- whether a person operates his/her own economic enterprise or engages independently in a profession or trade, and hires one or more employees;
- whether a person operates his/her own economic enterprise or engages independently in a profession or trade and hires no employees;
- whether a person works for a public or private employer and receives remuneration; and
- whether a person works in an economic enterprise operated by a relative without remuneration.

Status in employment continued

Four output categories are available:

- Employee: A person who works for a public or private employer and receives remuneration in wages, salary, a retainer fee by their employer while working on a commission basis, tips, piece-rates or payment in kind, or a person who operates his or her own incorporated enterprise with or without hiring employees.
- Employer: A person who operates his or her own unincorporated economic enterprise or engages independently in a profession or trade, and hires one or more employees.
- Own Account Worker: A person who operates his or her own unincorporated economic enterprise or engages independently in a profession or trade and hires no employees.
- Contributing Family Worker: A person who works without pay in an economic enterprise operated by a relative.

Working arrangements

This item refers to the working or payment arrangements of the respondent in their current main job.

Data are recorded as reported by respondents against the following categories: unpaid voluntary work; contractor/sub-contractor; own business/partnership; commission only; commission with retainer; family business without pay; payment in kind; paid by piece/item produced; wage/salary earner; other .

Occupation

Office coded to the Australian Standard Classification of Occupations (ASCO) from the respondent's description of their occupation in their main job or business and of the main tasks or duties performed. Occupation was classified to the full four-digit level of ASCO, and details can be made available at this level on request (although for many categories observations in the survey are relatively few, and therefore the reliability of the data will be significantly reduced).

For most output purposes occupation classified to the eight major groups (see below) or sub-major group level (see Appendix 7) are the most detailed levels suitable.

ASCO Major Groups are: managers and administrators; professionals; paraprofessionals; tradespersons; clerks; salespersons and personal service workers; plant and machine operators and drivers; and labourers and related workers.

Industry of employment

Office coded to the Australia and New Zealand Standard Industrial Classification (ANZSIC) (1993 edition) based on the description provided by the respondent of the business or activity carried out by their business/employer where they work, and the name of the business/employer. Industry was classified to the 3 digit "Group" level of ANZSIC, and details can be made available at this level on request (although for many groups observations in the survey are relatively few, and therefore the reliability of the data will be significantly reduced).

Industry of employment continued

For most output purposes industry classified to the 17 Divisions of the classification is the most detailed level suitable. These divisions are:

- Agriculture, Forestry and Fishing;
- Mining;
- Manufacturing;
- Electricity, Gas and Water Supply ;
- Construction;
- Wholesale Trade;
- Retail Trade;
- Accommodation, Cafes and Restaurants;
- Transport and Storage;
- Communication Services;
- Finance and Insurance;
- Property and Business Services;
- Government Administration and Defence;
- Education;
- Health and Community Services;
- Cultural and Recreational Services;
- Personal and Other Services.

See also Appendix 8.

Industry sector

This item was office coded for respondents who were wage and salary earners or owners of a limited liability company in their current main job, and refers to the sector - Government, Private or Australian Defence Forces, in which their business/employer operates.

Hours worked

Refers to reported hours usually worked (in all jobs) per week by persons currently employed.

Hours in single units are recorded, but are grouped for standard outputs, as follows:

No hours or less than 1, 1–15 hrs, 16–24 hrs, 25–34 hrs, 35–39 hrs, 40 hrs, 41–48 hrs, 49 hrs or more.

Type of shift work

Recorded for employed persons who reported doing any shift work in their main job, in the 4 weeks prior to interview. Categories available are:

- Rotating shift which changes periodically
- Regular evening, night or graveyard shift
- Regular morning shift
- Regular afternoon shift
- Irregular shift
- Split shift (2 distinct periods per day)
- On call
- Other

Duration of unemployment

Derived for persons classified as unemployed at the time of the survey. This item refers to the period from the time a person began looking for work or was stood down, to the end of the survey reference week. For persons who began looking for work while still employed, the item refers to the period from the time the person last worked full time for two weeks or more until the end of the reference week. The item is a continuous variable, measured in completed weeks.

For standard output periods are grouped as follows:
Less than 4 weeks, 4 to less than 8 weeks, 8 to less than 13 weeks, 13 to less than 26 weeks, 26 to less than 52 weeks, 52 weeks or more. Long term unemployment is defined as unemployment for a period of 52 weeks or more.

INCOME

In the 2004-5 NHS, income information was obtained for all selected persons aged 15 years and over. The data relates primarily to regular/recurring cash income only.

Information was collected about the personal income of the selected adult and selected child aged 15–17 years (where applicable) in each sampled dwelling. An adult within each household was asked to provide information about the income of all other household members aged 15 years and over, enabling household income and income unit income to be derived for 86.8% and 89.2% respectively of respondents. In cases where income was not reported, values were not imputed and missing data appears as not stated values in survey output.

Source(s) of cash income

Using a prompt card, persons were firstly asked whether they had received income from the following sources in the last financial year:

- profit or loss from own unincorporated business or share in partnership (excluding wages/salary drawn from own limited liability company(s));
- profit or loss from rental property; or
- dividends or interest, including dividends from own limited liability business as well as other companies, but excludes bonus share values received with or in lieu of dividends.

Income from share trading, where the respondent was a registered dealer, was recorded as business income. In other cases, income from share trading was recorded as 'other regular income' - see below.

Persons who reported income from any of these sources were asked to report the total amount received from these sources in the last financial year (before tax but after business expenses). Don't know and refusal options were allowed.

Also using a prompt card, persons were then asked whether they currently received income from:

- Community Development Employment Program (CDEP) - asked of Indigenous respondents only;
- wages or salary, includes wages, salary or fees paid to owner of limited liability company, but excludes payments received under Newstart or youth training allowance;
- a government pension or allowance (including payments from overseas governments);
- child support or maintenance (cash only payments);
- superannuation or annuity, excluding lump sum payments and government benefits;
- workers' compensation; and
- or any other regular source, where regular was defined as at least once per year.

Persons were recorded against each source of income they reported, as appropriate. Persons who reported income from any of these sources were asked to report the total $ amount received from all these sources (before tax). Don't know and refusal options were allowed.

For output, sources of income are classified as follows:

Source(s) of cash income continued

Employee cash income
Unincorporated business cash income
Government cash pensions and allowances
- Allowances for students and the unemployed
- Centrelink pensions for the aged and persons with a disability
- Other Government cash pensions and allowances

Other cash income
- Property cash income
- Superannuation/annuities
- Transfers from private organisations
- Transfers from other households
- Other cash income nec

The full classification above is available for sources of personal cash income, while the classifications for sources of household income and income unit income include groupings of some categories because the finer detail was not available at those levels.

Main source of cash income

Respondents who reported income from more than one source of either regular cash income or income last year were asked to identify their main source of income; this is available as a separate output item. Where a source of income was reported in regular cash income and one source in income last year, main source was derived by comparing the $ income reported from each source. In these cases, main source could not be determined where either of the $ income amounts was not stated.

As noted above, an adult within each household was asked to report income details for each member of their household aged 15 years and over. A single source of income question was used, incorporating the following categories:

- Community Development Employment Program (CDEP) - asked of Indigenous respondents only;
- wages or salary
- profit or loss from own unincorporated business or share in partnership
- a government pension or allowance (including Family Tax Benefit if received as a payment from Centrelink)
- or any other regular source.

Don't know and refusal options were allowed. Information about the main source of income of each household member was also collected. At the household and income unit levels all sources of income, categorised to groupings of the sources of personal cash income item outlined above, are available. However, because constructing main source of income at the household or income unit level would involve a range of different assumptions taking account of household/unit composition, $ income amounts and the source mix across the household or unit members, main source of income of households or income units has not been derived for output from the survey; but information to enable users to do their own analysis will be available.

Type of pension, benefit or allowance

Respondents who reported they currently received income from a government pension or allowance were asked the type of pension, allowance or benefit received. Prompt cards were used to assist respondents. Information was recorded against two lists:

Type of pension, benefit or allowance continued

List A	*List B*
Australian age pension	Family tax benefit
Newstart allowance	Parenting payment
Mature age allowance	War widow(er)'s pension (DVA)
Service pension (DVA)	Disability pension (DVA)
Disability support pension (Centrelink)	Carer allowance
Wife pension	Child disability allowance
Carer pension	Youth allowance
Sickness allowance/benefit	Austudy
Widow allowance/benefit (Centrelink)	Abstudy
Widow B pension/benefit (Centrelink)	Overseas pensions/benefits
Special benefit	Other (specify)
Partner allowance	

Respondents could report one only from list A, but as many as applied from list B. Categories from both lists are combined for output.

Gross cash income

Gross cash income refers to total cash income from all sources before tax or anything else (except business expenses) is taken out.

Respondents were asked to report cash $ income they received in two parts:

- Income received last financial year from profit or loss from own unincorporated business or share in partnership, profit or loss from rental property or from dividends or interest. Provision was made to record nil income, and whether profit or loss.
- Usual income from CDEP (Indigenous persons only), wages or salary, a government pension or allowance, child support or maintenance, superannuation or annuity, worker's compensation or any other regular source. The period to which that reported income related was also recorded in weeks or months.

For output, these two incomes are combined to produce a total personal cash income, which is usually expressed for output in annual or weekly income ranges. Incomes in reported $ amounts and in deciles are stored on the data file.

Total cash income at the household and income unit levels are also available, in $ amounts (reported and equivalised) and deciles. These are further explained in the section of this Guide entitled Household, Family and Income unit level characteristics. The dollar ($) ranges coverd by deciles in all income items are shown in Appendix 10.

PRIVATE HEALTH INSURANCE

Definition

Private health insurance is cover additional to that provided under Medicare, offered by private health organisations registered under the National Health Act to reimburse all or part of the cost of hospital and/or ancillary services. Information was obtained about the private health insurance arrangements current at the time of the survey.

Cover provided or arranged through employers was included. Ambulance only cover, and cover arranged under Veteran's Affairs or other government health benefits cards was excluded.

Methodology

Respondents were asked if they were currently covered by private health insurance, the type of cover and type of membership they had, and how long they had private cover. Persons with private cover were also asked the reasons they had cover, and those without cover were asked the reasons why not. Interviewers prompted respondents in both these 'reasons' questions, to ensure that all reasons were recorded.

Type of cover refers to whether persons were covered for hospital expenses, expenses for ancillary services, for both hospital and ancillary or had no private health insurance. Private insurance for hospital expenses provides cover for the costs of accommodation in private hospitals and private accommodation in public hospitals. Ancillary cover includes services such as dental, physiotherapy, optical, acupuncture, etc. The range of services and the level of cover provided for each service may vary.

Type of membership refers to whether the respondent was covered under a family, couple, single parent or single person membership.

Population

All persons aged 15 years and over.

Data items

As follows:

- Whether currently covered by private health insurance
- Type of insurance cover
- Type of membership
- Time covered by private health insurance
- Reasons covered by private health insurance
- Reasons not covered by private health insurance.

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey 2004-5: Data Reference Package* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to consider in interpreting data for this topic include the following.

- While efforts are made to ensure that only legitimate private health insurance was reported, some respondents may have reported life, accident or other forms of insurance.

Interpretation continued

- Overall results from this survey show average reported insurance levels in 2004-5, and reflect people's perception of their insurance cover which may not correspond to their actual cover. As a result the data from this topic are not directly comparable with statistics on health insurance levels compiled from fund membership information and published quarterly by the Private Health Insurance Administration Council.
- Depending on the person in the household chosen as the selected adult, they may have been unaware of their coverage/or lack of coverage under another person's (e.g. a parent's) private health insurance.
- The type of insurance held is only available at the very broad level of hospital only, ancillary only, both hospital and ancillary. Within each of these categories, the actual type and level of cover provided can differ significantly. This needs to be borne in mind when aggregating these data for population groups.
- The length of time insured relates to the current episode of insurance - previous periods of insurance which have lapsed or been terminated are excluded. In addition, the item relates simply to the period insured, and does not necessarily refer to the type of cover or membership currently reported.

Comparability with 2001

Questions asked in the 2004–5 NHS were identical with those in the 2001 NHS, and therefore the data are considered directly comparable.

HEALTH CARDS

This topic refers to coverage by specific government-issued cards which entitle the card holder, and in some cases their dependents, to a variety of health benefits or concessions (e.g. medical care, hospital treatment/accommodation, supply of pharmaceuticals, free of charge or at reduced rates). Cards are provided primarily to recipients of Australian government pensions or benefits.

The specific cards covered in the 2004-5 NHS were:

any cards from the Department of Veterans' Affairs (DVA),
Health Care Card (including the low income health care card),
Pensioner Concession Card
Commonwealth Seniors Health Card.

Readers should contact the relevant authority for details of the persons eligible for these cards (or coverage under these cards) and the range of entitlements available to card holders.

Methodology

Respondents were asked whether they have a DVA Treatment Entitlement Card, and the colour of the card; gold, white, other. Respondents were also asked if they were covered by any of the other government health concession cards listed above. Multiple cards could be reported. A picture prompt card showing examples of the 3 card types listed above was shown to respondents to assist them in reporting. Interviewers were supplied with supplementary information about the cards to assist if queried by respondents.

Population

Information was obtained for all persons aged 15 years and over.

Data items

As follows:

Whether currently has DVA card

Data items continued

Type of DVA card
Whether currently covered by other Government health card
Type(s) of Government health card

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey 2004-5: Data Reference Package* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting data for this topic include the following.

- Although picture prompt cards were used some respondents may have incorrectly reported other types of cards in answer to these questions; for example State Seniors Cards which provide access to non-health services or entitlements (e.g. transport).
- Depending on the person in the household chosen as the selected adult, they may have been unaware of their coverage under another person's (e.g. a parent's) card.

Comparability with 2001

At the broadest level of whether has/covered by a DVA or other Government Health Card, the data are considered directly comparable between surveys. However in making comparisons consideration should be given to changes which may have occurred between 2001 and 2004-5 in terms of eligibility for cards, and the levels and types of entitlements they provide.

HOUSING

Definition

This topic refers to the dwelling type and location and number of bedrooms of the dwelling in which respondents were enumerated - i.e. their usual place of residence in most cases, and to the respondent's tenure in that dwelling.

Methodology

Dwelling type refers to the structure in which the household resides, as recorded by interviewers and based on their observations at the time of the interview. Information was recorded against the following categories;

Separate house
Semi-detached/row or terrace house/town house - one storey; two or more storeys
Flat attached to house
Other flat or apartment - in 1 or 2 storey block; in 3 storey block; in 4 or more storey block
Caravan, cabin or houseboat
Improvised home, tent, camper out
House or flat attached to shop, office, etc.

Dwelling location refers to where the dwelling was situated, as recorded by the interviewer. Categories are caravan park, marina, manufactured home estate, self-care accommodation for the retired or aged or other.

The selected adult was asked to report the number of bedrooms in the dwelling. The item refers to the number of rooms on the dwelling plans as bedrooms, even though they may be currently used for other purposes.

Information from both these questions was recorded at the household level, and can be accessed in relation to each person in the household.

Housing tenure information was separately collected from respondents aged 18 years and over. They were asked whether:

- the dwelling was being paid off, was owned outright, was being rented, or was being purchased under a rent/buy or shared equity scheme, by themselves, their spouse/partner or parent (if the respondent was an adult child living with a parent); or
- whether they, their spouse/partner or parent occupied the dwelling under a life tenure scheme, or paid board or lived there rent free.

Those who reported they paid rent or board (including those purchasing the dwelling under a rent/buy or shared equity scheme) were also asked who rent was paid to.

Population

Persons aged 18 years and over

Data items

As follows:

Dwelling type
Dwelling location
Number of bedrooms
Tenure type
Landlord type

Data items continued

Output categories for these items are available from the list of output data items contained in the *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey 2004-5: Data Reference Package* (ABS catalogue number 4363.0.55.002) available from the ABS website.

Interpretation

Points to be considered in interpreting data for this topic include the following.

- Some respondents may not be aware of the designated usage of rooms specified in building plans, and hence may report other rooms currently used as bedrooms in some cases.
- Some care should be taken in relating the health characteristics of respondents with their housing characteristics, since information is not available from the survey to indicate their length of residence in that dwelling.

Comparability with 2001

Data for dwelling type and number of bedrooms is considered directly comparable between the 2004-5 and 2001 surveys. Information about housing tenure and landlord type was not collected in the 2001 survey.

HOUSEHOLD, FAMILY AND INCOME UNIT LEVEL CHARACTERISTICS

In addition to data obtained about individual respondents in the survey, other data are available about the households, families or income units to which they belong. This information is important to understanding the situation in which people live, and which may impact their health and related characteristics.

In the 2004-5 NHS, only selected people in each dwelling were enumerated; one adult and one child aged 0 to 17 years. As a result, unlike NHSs prior to 2001, it is not possible to bring together the records for all usual residents of the dwelling to determine household, family or income unit characteristics. Instead a range of these characteristics was collected or derived from other data collected and these are contained on each person record from the survey. These characteristics are outlined below.

While this approach enables the health characteristics of individuals and populations of individuals to be analysed in terms of their household, family or income unit characteristics, data from this survey are not available compiled for households, families or income units.

Household characteristics

A household is defined as one or more persons, at least one of whom is aged 15 years and over, usually resident in the same private dwelling; in the 2004-5 NHS only households with at least one person aged 18 years and over were regarded as in scope of the survey. The ABS does not seek to differentiate multi-household dwellings from single-household dwellings; the number of households in a private dwelling is always regarded as one.

As noted above, household level estimates are not available from this survey. Instead, selected household characteristics are compiled and are available for use as person level characteristics. Household level data items are available covering issues such as household size, type and composition, geographic location, dwelling characteristics, income and SEIFA characteristics of the area in which the dwelling is located. Selected items are discussed below: a full list of output data items from the survey is available from the ABS Website.

In addition to these items describing the characteristics of household units basic information is available about each member of the selected households. This enables the circumstances of the respondent to be better understood and provides scope to rework some items (eg equivalised income) to suit particular needs. Information which is available for each member of the selected households is sex, age, Indigenous status, relationship in household, survey status, and personal income: $ amounts and sources of income.

Household composition

This item was previously known as household type. Households are allocated to categories of the 'Household composition' classification on the basis of the number of families identified in the household and whether unrelated household members are present in a family household and whether the number of household members is greater than one in a non-family household.

The standard 'Household composition' classification comprises the following categories:

Household composition continued

One family household
- One family household with only family members present
- One family household with non-family members present

Multiple family household
- Two family household
  - Two family household with only family members present
  - Two family household with non-family members present
- Three or more family household
  - Three or more family household with only family members present
  - Three or more family household with non-family members present

Non-family household
- Lone person household
- Group household

Where a family is two or more related people who usually live together - see Characteristics of families below.

Household structure

This is a non-standard item referring to the composition of the household, as recorded by interviewers, based on the information about the residents of the household provided by the adult initially contacted within the household. Categories are:
- Person living alone
- Couple only
- Couple with unmarried children aged 15 yrs and over
- Couple with children aged 0–14 yrs
- Couple with children aged 0–14 yrs and unmarried children aged 15 yrs and over
- One person with unmarried children aged 15 yrs and over
- One person with children aged 0–14 yrs
- One person with children aged 0–14 yrs and unmarried children aged 15 yrs and over
- All other households

Relationship in household

This item was derived from information supplied by a 'responsible adult' in the household, about all usual residents of the household. This item describes the relationship of each person in a family to the family reference person or where a person is not part of a family that person's relationship to the household reference person. Further details of the input coding can be made available on request. In the 2004-5 NHS, the following categories are available:
- Husband, wife or partner
- Lone parent
- Child aged less than 15 yrs
- Dependent student
- Non-dependent child
- Other related person
- Non-family member
- Visitor

Number of persons in household

This refers simply to a count of persons who are usual residents of the household dwelling and members of the household to which the respondent belongs.

Number of regular smokers in household

As reported by the selected adult respondent- see Smoking, in Chapter 4, Health Risk Factors.

Household income

Household income characteristics were derived from the income details (amount of income and sources of income) reported for each person aged 15 years and over in the household. Income was reported as follows:

- personal income was reported by the selected adult enumerated in the household
- personal income of the child enumerated (where applicable) was reported by the child or by the adult answering on the child's behalf
- personal income of all other household members (aged 15 years and over) was reported by a responsible adult in the household (usually the adult who was enumerated in the survey).

Items showing the amount of household income (in $ amounts and deciles, in 'as reported' and equivalised form) and sources of income are available. For further information about household income items see the discussion on income unit income below.

Information about household income was not available from the 2001 NHS, and although the items are available from the 2004-5 survey some care should be taken in interpreting the data. As it was not practical to collect income from each household member personally, the approach used in the survey relies on the 'responsible' adult spokesperson's knowledge of the income of other household members, and their willingness to report information about other household members which they may see as sensitive. The table below shows information about the cases where insufficient information was obtained to enable household income to be derived; just as the proportions for whom household income is available differs across different types of households, the quality of that information where reported is also expected to differ markedly, and be lowest for the group in "all other households".

	HOUSEHOLD STRUCTURE					
	Couple only	*Couple with child(ren)*	*Single adult with child(ren)*	*Adult living alone*	*All other households*	*Total*
Percent of respondents for whom household income is not available	12.8	13.1	10.1	9.3	28.8	13.2
Percent of weighted population for whom household income is not available	12.7	15.6	11.8	8.7	31.0	15.7

Characteristics of families

A 'family' is defined as two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who are usually resident in the same household. The basis of a family is formed by identifying the presence of a couple relationship, lone parent-child relationship or other blood relationship. Some households therefore contain more than one family.

Characteristics of families continued

This is a more restrictive definition than the ordinary notion of the term 'family' which generally includes relatives whether they live together or not. This is a reflection of the fact that for survey-based research it is necessary to place some physical bound on the extent of family for the purposes of being able to collect family data.

Two family characteristic items are available; number of families, and family composition:

Number of families

This is simply a count of families in the household, office coded from the information recorded about the usual residents of the household.

Family composition

This item was previously known as family type. Family composition is defined as the differentiation of families based on the presence or absence of couple relationships, parent-child relationships, child dependency relationships or other familial relationships, in that order of precedence. The 'family composition' of a particular family is operationalised by enumerating certain relationships that exist between a single 'family reference person' and each other member of that family. 'Family composition' is then allocated on the basis of whether the types of relationships given below are present or not in the family in the following order of precedence.

- Couple relationship - defined as a registered or de facto marriage.
- Parent-child relationship - defined as a relationship between two persons usually resident in the same household. The child is attached to the parent via a natural, adoptive, step, foster or child dependency relationship. For information on 'nominal children' see the section on Discussion of conceptual issues below.
- Child dependency relationship - defined as including all children under the age of 15 (whether related or unrelated to the family reference person) and those natural, step, adopted or foster children who are full-time students 15–24 years of age.
- Other relationship - defined as including all those persons related by blood or by marriage who are not covered by the above relationships.

Family composition continued

Family composition is categorised as follows:

- Couple family with no children under 15
  - Couple family with no children under 15 and no dependent students
- Couple family with children under 15
  - Couple family with children under 15 and dependent students
  - Couple family with children under 15, dependent students and non-dependent children
  - Couple family with children under 15, dependent students and no non-dependent children
- Couple family with children under 15 and no dependent students
  - Couple family with children under 15, no dependent students and with non-dependent children
  - Couple family with children under 15, no dependent students and no non-dependent children
- Couple family with no children under 15
  - Couple family with no children under 15 and with dependent students
  - Couple family with no children under 15, and with dependent students and non-dependent children
  - Couple family with no children under 15, and with dependent students and no non-dependent children
- Couple family with no children under 15 and no dependent students
  - Couple family with no children under 15, no dependent students and with non-dependent children

- One parent family with children under 15
  - One parent family with children under 15 and dependent students
  - One parent family with children under 15, dependent students and non-dependent children
  - One parent family with children under 15, dependent students and no non-dependent children
- One parent family with children under 15 and no dependent students
  - One parent family with children under 15, no dependent students and with non-dependent children
  - One parent family with children under 15, no dependent students and no non-dependent children
- One parent family with no children under 15
  - One parent family with no children under 15 and with dependent students
  - One parent family with no children under 15, with dependent students and non-dependent children
  - One parent family with no children under 15, with dependent students and no non-dependent children
- One parent family with no children under 15 and no dependent students
  - One parent family with no children under 15, no dependent students and with non-dependent children
- Other family

Family composition continued

For the purposes of this and following items, a dependent child is defined as including all children under the age of 15 (whether related or unrelated to the family reference person) and those natural, step, adopted or foster children who are full-time students 15–24 years of age.

Characteristics of income units

An income unit may comprise one person, or a group of related persons, within a household, whose command over income is shared, or is assumed to be shared. The relationships allowed for in the definition of income unit, are restricted to those of marriage (registered or de facto) and of parent/dependent child. Income units can therefore include the partner (for couples), all children aged less than 15 years, and unmarried children who are full-time students aged 15–24 years who don't have children of their own. All other persons were considered to be non-dependent and hence to form their own separate income units. Each household and each family unit can contain numerous income units.

Income unit type

Derived from household composition and relationship in household together with information on the age and student status of children, and classified as follows:

Couple with dependent child(ren)
Couple without dependent child(ren)
Single person with dependent child(ren)
Single person
Not known.

Income of income unit

The personal income for each household member aged 15 years and over was recorded, as reported by an adult member of the household. The income of income unit was derived by summing the personal income (in $) for each person in the income unit (as defined above).

Income of income unit is contained on each respondent's record as a personal characteristic. Standard output groupings are shown in the Output Data Items List. Data can be compiled in different groups to suit individual data needs if required. Income unit income is also available grouped by decile. It should be noted that small discrepancies may occur between unit and personal incomes in single adult income units due to rounding; in some cases this may result in respondents falling in a different income group, or income decile. Such cases are uncommon and should not impact analysis of the data.

Income unit income is not available for all respondents because complete details of the income of all household members were not provided in some cases. The proportions of persons for whom unit income is not available is summarised below:

	TYPE OF INCOME UNIT				
	Couple with dependent child(ren)	*Couple without dependent child(ren)*	*Single person with dependent child(ren)*	*Single person*	*Total*
Percent of respondents for whom income unit income is not available	12.8	11.7	6.9	9.4	10.8
Percent of weighted population for whom income unit income is not available	13.0	12.1	6.1	6.9	10.6

Income of income unit continued

As noted above, income unit income is also available grouped by decile; for this purpose persons with unit income not stated were removed. Weighted persons were counted separately into deciles, based on income unit income. The unit income of units in which more people were enumerated is more highly represented in the calculation of deciles than the income of say single person units under this approach.

Equivalised income

Differences in household types and compositions and their requirements relative to income can be taken into account by the application of equivalence scales. These scales are a set of ratios which when applied to the income of different household or income unit types, produce standardised estimates of income which reflect the households' relative wellbeing.

There are various scales in general use throughout the world. The Henderson Simplified Equivalence Scales were used to derive the equivalised income of income units in the 1995 and 1989–90 NHSs. However it is not possible to use this scale for the 2001 and 2004-5 NHSs, because labour force data about all household members (necessary to support use of the Henderson scale) were not available for those surveys. Instead equivalised income was derived for both the 2001 and 2004-5 NHS using the simpler OECD scale, which requires only information about income and household composition.

From the 2004-5 NHS, equivalised income was derived at both the household and income unit levels; in the 2001 NHS from the data available it was possible to derive equivalised income at the income unit level only.

Equivalised income is derived by calculating an equivalence factor and then dividing income by that factor. The equivalence factor is built up by allocating points to each person in the unit (household or income unit) and summing those points. One point is allocated to the first adult in the unit, 0.5 points for each other person aged 15 years and over, and 0.3 points for each person aged less than 15 years - for example,

- a single person household has a factor of one : equivalised income is therefore the same as reported income.
- a household comprising two adults and a child aged less than 15 years would have a factor of 1.8: equivalised income for this household is the household income divided by 1.8.

Equivalised income from the 2004-5 NHS for households and income units has been standardised to a single person household, reflecting more recent use of the OECD scale. Equivalised income from the 2001 NHS for income units was standardised to a unit comprising two adults and two children, reflecting common use of the scale at that time. To provide comparability between the 2001 and 2004-5 NHS equivalised income for

Equivalised income continued

income units from the 2004-5 NHS has also been calculated to the 'old' two adult/two children standard.

As a result of the different units (households x income units) and different standardisation (single person x two adults/two children), care should be taken in making comparisons between surveys to ensure the items used are directly comparable.

Equivalised income is available in $ amounts, and by decile. For equivalised income of households and income units deciles are calculated using the same methodology as described above for income unit income, but based on equivalised income (rather than reported income) and applied to income units or households as appropriate.

SOCIOECONOMIC INDEXES FOR AREAS (SEIFAS)

From information collected in the Census of Population and Housing, the ABS has developed indexes to allow ranking of regions/areas, providing a method of determining the level of social and economic wellbeing in that region. There are four indexes:

- Index of Advantage\Disadvantage - A new index, and is a continuum of advantage to disadvantage. Low values indicate areas of disadvantage; and high values indicate areas of advantage.
- Index of Disadvantage - focuses on low income earners, relatively lower educational attainment and high unemployment.
- Index of Economic Resources - This index includes variables that are associated with economic resources. Variables include rent paid, income by family type, mortgage payments, and rental properties.
- Index of Education and Occupation - This index includes all education and occupation variables only.

All four SEIFAs, based on the 2001 Census of Population and Housing, are available for use in analysis with information collected in the 2004-5 NHS for survey. It is emphasised however, that these indexes relate to the area in which the survey respondent lived, and were not necessarily indicative of an individual respondent's socioeconomic status. The Index scores have been mapped to the NHS sample at both the CD and SLA levels.

The Index of advantage/disadvantage replaces the separate rural and urban indexes of advantage compiled from previous population Censuses. For further information about the indexes, see *Information Paper: Census of Population and Housing - Socio-Economic Indexes for Areas, Australia* (ABS Cat no 2039.0)

SEIFA deciles/quintiles

Commonly SEIFAs are used to group populations into deciles or quintiles of a particular index. In the NHS case this enables comparisons to be made between the health characteristics of people living in, for example, less advantaged areas with those in more advantaged areas. The Index of Relative Socioeconomic Disadvantage is the SEIFA index most frequently used in this way for analysis of health characteristics. The particular attributes summarised by this index include low income, low educational attainment, high unemployment and jobs in relatively unskilled occupations.

From this survey, SEIFA deciles/quintiles are derived in two ways - area-based and population-based:

SEIFA deciles/quintiles continued

- Area-based deciles/quintiles are derived by simply grouping CDs or SLAs into 10/5 equal groups (equal number of CDs or SLAs in each group) and then allocating these groups to survey records in the same CD or SLA. Because all CDs and SLAs are not equal in size and because the NHS sample is not selected to ensure an equal sample distribution at the CD or SLA level, this method does not result in an equal number of people (either records or weighted estimates) in each decile/quintile in NHS data. This is the only method which was used in deriving SEIFA quintiles/deciles in previous NHSs.
- Population-based deciles/quintiles are derived by splitting the Census population into 10/5 equal groups at CD/SLA level for each SEIFA index based on the SEIFA score for that index and then allocating these groups to the survey records in the same CD or SLA. Although this methodology ensures an equal number of persons in each decile/quintile when the Census population is used, because the scope and distribution of the NHS sample population differs from the Census population, the method does not necessarily result in an equal number of people (either records or weighted estimates) in each decile/quintile in NHS data.

Whether area or population-based SEIFA deciles/quintiles are used it is important to bear in mind that the characteristics indicated by SEIFA indexes relate to the area (in this case the CD or SLA) in which a population lives, not necessarily to all individuals who live in that area.

Interpretation

Confusion can arise about the ordering of the deciles/quintiles created from SEIFA indexes. ABS constructs all four indexes so that relatively disadvantaged areas (e.g. areas with many low income recipients) have low index values, and relatively advantaged areas (e.g. areas with many high income recipients) have high index values. Correspondingly, in ABS publications and other outputs, SEIFA deciles are numbered from decile 1 (most disadvantaged) to decile 10 (least disadvantaged): quintiles are labelled similarly.

For consistency this ordering applies to all indexes, irrespective of whether they are named as indexes of advantage and/or disadvantage. For the Index of Disadvantage, Quintile 1 refers to the most disadvantaged group, while Quintile 5 refers to the most advantaged group. Care needs to be taken in comparing SEIFA analysis undertaken by different agencies, as quintiles or deciles may be labelled in reverse order to the standard ABS order.

SEIFAs were not available for a small number of records obtained in the 2004-5 NHS, because of some differences between CDs/SLAs at the 2001 Census of Population and Housing (the basis for the SEIFAs used) and those in the sample frame from which the NHS sample was drawn. These were excluded before SEIFA quintiles and deciles were created.

GEOGRAPHIC CLASSIFICATIONS

Geographic information available from the 2001 NHS relates to the location of the sampled dwelling at which respondents were enumerated. As a result of the scope rules applied for this survey most respondents were surveyed at their place of usual residence.

Several standard classifications of geographic area are available for use in output from this survey, based on the July 2001 edition of the Australian Standard Geographical Classification (ASGC). The ASGC is a hierarchical system for the classification of statistical units by geographic areas. The basic spatial unit of the classification is the Census Collector's District (CD). Statistical Local Areas (SLAs) are the next level of the classification, and comprise one or more CDs; they are similar in size to local government areas (i.e. Legal LGAs). Under the hierarchical system of the ASGC, SLAs can be further grouped into larger units called Statistical Sub-Divisions, then still larger Statistical Division units. At each level of the classification the units in aggregate cover the whole of Australia without gaps or overlaps. The ASGC defines 65 Statistical Divisions across Australia. The ASGC also contains units based on populations and remoteness from services.

Further details of the units defined in the ASGC and of the areas covered by them are contained in the publication *Australian Standard Geographical Classification* (1216.0) which is available on-line or from any office of the ABS.

The standard classifications of geographic area available for the 2004-5 NHS are:

- States, ACT and Australia. The Northern Territory was included in the survey, with a sample sufficient to contribute to national estimates, but not large enough to support separate estimates for the NT
- Capital cities/remainder of State. For each State where the capital city is defined as the area covered by the relevant city Statistical Division
- Section of State, Comprises the following categories:
    - Major urban: 3 categories with populations:
        - 100,000–249,000
        - 250,000 to 999,999
        - 1 million or more
    - Other urban: 5 categories with populations:
        - 1,000–4,999
        - 5,000–9,999
        - 10,000–19,999
        - 20,000–49,999
        - 50,000–99,999
    - Bounded locality: 2 categories with populations:
        - 200–499
        - 500–999
    - Rural: Remainder of State/Territory.

Although each record is classified to the most detailed Section of State level, based on the CD in which they resided (and were enumerated), for most output purposes some level of aggregation of categories is necessary.

GEOGRAPHIC CLASSIFICATIONS *continued*

- Remoteness. The ASGC Remoteness classification, which is based on the plus version of the Accessibility/Remoteness Index of Australia (ARIA+) mapped to CDs from the 2001 Census of Population and Housing, and classified to the following categories:

ASGC remoteness category	*Index values*
Major cities of Australia	0 up to and including 0.2
Inner regional Australia	Greater than 0.2 up to and including 2.4
Outer regional Australia	Greater than 2.4 up to and including 5.92
Remote Australia	Greater than 5.92 up to and including 10.53
Very remote Australia	Greater than 10.53

Each respondent is classified to the full 5 category classification above, based on the CD in which they resided (and were enumerated). For standard output purposes, a three level classification applies i.e.

Major cities of Australia
Inner regional Australia
Outer regional/remote/very remote Australia

Although provision has been made to compile statistics from the survey in respect of geographic areas within States and Territories, there are limits to the extent to which survey data can usefully be compiled for those areas, particularity in those with smaller populations. The ability of the survey to provide reliable estimates for sub-State areas varies from area to area according to the number of persons in the area which were included in the sample and the level of data disaggregation (e.g. number of variables cross-classified, level of detail required for each variable) attempted.

- Accessibility/Remoteness Index of Australia (ARIA); CDs from the 2001 Census of Population and Housing have been mapped to ARIA categories; overlaying this with CDs from the sampled population enables output from the 2004-5 NHS to be compiled by ARIA category - Highly Accessible, Accessible, Moderately Accessible, Remote, and Very Remote. While output from the survey can be compiled by ARIA groupings, it is recommended that the ASGC Remoteness classification be used instead.

In addition to the geographic classifications outlined above, data from the 2004-5 NHS may be compiled in respect of other geographic units (to suit individual user requirements) on request. Such requests will be considered on a case-by-case basis in terms of sampling, data reliability and confidentiality issues and the additional costs to the user involved in programming to create the units. It is recommended that any such units be of a similar size to Statistical Divisions, and that the areas be defined in terms of component CDs or SLAs.

CHAPTER 7 DATA QUALITY AND INTERPRETATION OF RESULTS

CONTENTS

DATA QUALITY

Although care was taken to ensure that the results of the 2004-5 NHS are as accurate as possible, there are certain factors which affect the reliability of the results to some extent and for which no adequate adjustments can be made. One such factor is known as sampling variability. Other factors are collectively referred to as non-sampling errors. These factors, which are discussed below, should be kept in mind in interpreting results of the survey.

Sampling variability

Since the estimates are based on information obtained from a sample of the population, they are subject to sampling variability (or sampling error), i.e. they may differ from the figures that would have been obtained from an enumeration of the entire population, using the same questionnaires and procedures. The magnitude of the sampling error associated with a sample estimate depends on the following factors.

- Sample design - there are many different methods which could have been used to obtain a sample from which to collect data on health status, health-related actions and health risk factors. The final design attempted to make survey results as accurate as possible within cost and operational constraints. (Details of sample design are contained in Chapter 2, under Sample Design and Selection).
- Sample size - the larger the sample on which the estimate is based, the smaller the associated sampling error.
- Population variability - the third factor which influences sampling error is the extent to which people differ on the particular characteristic being measured. This is referred to as the population variability for that characteristic. The smaller the population variability of a particular characteristic, the more likely it is that the population will be well represented by the sample, and therefore the smaller the sampling error. Conversely, the more variable the characteristic, the greater the sampling error.

Measure of sampling variability

One measure of sampling variability is the standard error. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included in the survey, and about nineteen chances in twenty that the difference will be less than two standard errors. The relative standard error (RSE) is the standard error expressed as a percentage of the estimate to which it relates.

Very small estimates may be subject to such high relative standard errors as to detract seriously from their value for most reasonable purposes. Only estimates with relative standard errors less than 25% are considered sufficiently reliable for most purposes. However, estimates with relative standard errors of 25% or more are included in ABS publications of results from this survey: estimates with an RSE of 25% to 50% are preceded by the symbol * as a caution to indicate that they are subject to high relative standard errors, while estimates with an RSE greater than 50% are preceded by the symbol ** to indicate the estimate is too unreliable for general use.

Standard errors on estimates from this survey are available in two forms: modelled and actual. Both are obtained through a process called replicate weighting. This is a process whereby a small group of households in the sample are assigned a zero weight and then the remaining records are reweighted to the survey benchmark population. For the 2004-5 NHS this process was repeated 60 times to produce 60 replicate weights. These

Measure of sampling variability continued

replicate weights are used for calculating the variances of the estimates by finding the difference between the estimate for each replicate group and the original estimate, squaring the difference and summing these differences over all of the 60 replicate groups. The difference between the replicate estimates and the original estimate in then used in calculating the standard error of the estimate. In the 2004-5 NHS the Jackknife method was used for calculating the standard errors of survey estimates. See Appendix 9 for further details.

This process enables the calculation of an actual standard error on every estimate produced from a survey. However for some purposes, such as publications, it is impractical to show the standard error for every estimate. An alternative is to model the actual standard errors to ensure a suitable fit for a range of different variables available from the survey. A table of 'indicative' standard errors can then be compiled showing the standard error of an estimate of a particular size, irrespective of the item to which the estimate relates. This table therefore provides a useful quick guide to the approximate level of sampling error on any survey estimate. The table of modelled standard errors from the 2004-5 NHS is contained in Appendix 9.

Indicative RSEs are shown in 2004-5 *National Health Survey: Summary of Results, Australia* (ABS cat. no. 4364.0). Selected publication tables containing actual RSEs calculated using the replicate weight methodology are contained in 2004-5 *National Health Survey: Summary of Results; State Tables* (ABS cat. no. 4362.0).

Significance testing on differences between survey estimates

For comparing estimates between surveys or between populations within a survey it is useful to determine whether apparent differences are 'real' differences between the corresponding population characteristics or simply the product of differences between the survey samples. One way to examine this is to determine whether the difference between the estimates is statistically significant. This is done by calculating the standard error of the difference between two estimates (x and y) and using that to calculate the test statistic using the formula below:

$$\frac{[x-y]}{SE(x-y)}$$

If the value of the test statistic is greater than 1.96 then we may say there is good evidence of a real difference in the two populations with respect to that characteristic. Otherwise, it cannot be stated with confidence that there is a real difference between the populations.

Age standardisation

Another useful tool for comparing estimates between surveys or between populations within a survey is to age standardise the estimates being compared. As many health characteristics are strongly age-related, an apparent difference between estimates may be (in part) due to a different age profile of the populations being compared. This is particularly the case, for example, in comparing the health characteristics of Indigenous Australians with the non-Indigenous population, because the Indigenous population has a much younger age profile. Age standardisation is a technique whereby the estimates are rederived according to a single common population age profile and therefore age can be ruled out as a factor influencing the differences observed between the estimates. The age standardised estimates of prevalance are those estimates that 'would have occurred'

Age standardisation continued

if the estimates being compared related to populations which had the standard age composition.

In published output from the 2004-5 NHS age standardisation has been carried out using the 'direct' standardisation technique. The standard (ie common) population used was the estimated resident population at 30 June 2001. Age-standardised results can be calculated using the following formula:

where:

$$C_{direct} = \sum_{a} (C_a \times P_{sa})$$

C_{direct} = the age-standardised rate for the population of interest
a = the age categories that have been used in the age standardisation
C_a = the estimated rate for the population being standardised in age category a
P_{sa} = the proportion of the standard population in age category a.

It should be noted that age standardised estimates are used for comparison purposes only; the estimates themselves do not represent any real population parameters.

Non-sampling errors

The imprecision due to sampling variability should not be confused with inaccuracies that may occur for other reasons, such as errors in response and reporting. Inaccuracies of this kind are referred to as non-sampling errors, and may occur in any enumeration whether it be a full count or a sample. The major sources of non-sampling error are:

- errors related to the survey scope
- response errors such as incorrect interpretation or wording of questions, interviewer bias, etc
- bias due to non-response, because health status, health-related behaviour and other characteristics of non-responding persons may differ from responding persons
- errors in processing such as mistakes in the recording or coding of the data obtained.

These sources of error are discussed below.

Errors related to survey scope

Some dwellings may have been inadvertently included or excluded because, for example, the distinctions between whether they were private or non-private dwellings may have been unclear. All efforts were made to overcome such situations by constant updating of lists both before and during the survey. Also, some persons may have been inadvertently included or excluded because of difficulties in applying the scope rules concerning who was identified as usual residents, and concerning the treatment of some overseas visitors. Other errors which can arise from the application of the scope and coverage rules are outlined in section Scope and Coverage.

Response errors

In this survey response errors may have arisen from three main sources: deficiencies in questionnaire design and methodology; deficiencies in interviewing technique; and inaccurate reporting by the respondent.

Response errors continued

Errors may be caused by misleading or ambiguous questions, inadequate or inconsistent definitions of terminology used, or by poor overall survey design (for example context effects where responses to a question are directly influenced by the preceding questions). In order to overcome problems of this kind, individual questions and the questionnaire overall were thoroughly tested before being finalised for use in the survey. Testing took two forms:

- cognitive interviewing and focus group testing of concepts, terminology, questions, measurement/reporting issues, etc. relating to the following topics: alcohol consumption, smoking, arthritis, osteoporosis, exercise, injuries, and dietary behaviours; and
- field testing, which involved a pilot test and dress rehearsal conducted in Victoria and Tasmania respectively, each covering 250–300 households.

As a result of both forms of testing, modifications were made to question design, wording, ordering and associated prompt cards, and some changes were made to survey procedures. In considering modifications it was sometimes necessary to balance better response to a particular item/topic against increased interview time or effects on other parts of the survey. The result is that in some instances it was necessary to adopt a workable/acceptable approach rather than an optimum approach; for example in the collection of data on the usual intake of fruit and vegetables. Although such changes would have had the effect of minimising response errors due to questionnaire design and content issues, some will have inevitably have occurred in the final survey enumeration.

Reporting errors may also have occurred because the survey is quite large, and particularly for those respondents reporting for themselves and a child, errors may have resulted from interviewer and/or respondent fatigue (i.e. loss of concentration). While efforts were made to minimise errors arising from deliberate misreporting or non-reporting by respondents (e.g. through emphasising the importance of the data, and through checks on consistency within the survey instrument), some instances will have inevitably occurred.

Reference periods used in relation to each topic were selected to suit the nature of the information being sought; in particular to strike the right balance between minimising recall errors while ensuring the period was meaningful and representative (from both respondent and data use perspectives) and would yield sufficient observations in the survey to support reliable estimates. It is possible that the reference periods did not suit every person for every topic and that difficulty with recall may have led to inaccurate reporting in some instances.

Lack of uniformity in interviewing standards may also result in non-sampling errors. Training and retraining programs, regular supervision and checking of interviewers' work were methods employed to achieve and maintain uniform interviewing practices and a high level of accuracy in recording answers on the survey questionnaire (see Data Collection: Interviews). The operation of the Computer Assisted Instrument (CAI) itself, and the built in checks within it ensure that data recording standards are maintained. Non-uniformity of the interviewers themselves is also a potential source of error in that the impression made upon respondents by personal characteristics of individual

Response errors continued

interviewers such as age, sex, appearance and manner, may influence the answers obtained.

Non-response bias

Non-response may occur when people cannot or will not cooperate in the survey, or cannot be contacted by interviewers. Non-response can introduce a bias to the results obtained in that non-respondents may have different characteristics and behaviour patterns in relation to their health than those persons who responded to the survey. The magnitude of the bias depends on the extent of the differences and the level of non-response.

The 2004-5 NHS achieved an overall response rate of 89% (fully responding households, after sample loss). Data to accurately quantify the nature and extent of the differences in health characteristics between respondents in the survey and non-respondents are not available. Under or over-representation of particular demographic groups in the sample are compensated for at the State, section of State, sex and age group levels in the weighting process. Other disparities are not adjusted for.

Individuals for whom a partial response was obtained were treated as fully responding for estimation purposes if sufficient information was recorded e.g. if the only questions not answered related to income, age (provided the interviewer had provided an estimate) or hysterectomy (women only) then the non-response items were coded to 'not stated'. If any other questions were not answered, respondents were treated as if they had been non-responding (i.e. as if no questionnaire had been obtained).

Processing Errors

Errors may also occur during data processing, between the initial collection of the data and final compilation of statistics. These may be due to a failure of computer editing programs to detect errors in the data or may occur during the manipulation of raw data to produce the final survey data files; for example, in the course of deriving new data items from raw survey data or during the estimation procedures or weighting of the data file.

To minimise the likelihood of these errors occurring a number of quality assurance processes were employed. These included.

- Comprehensive quality assurance procedures were applied to the coding of conditions, medications and alcohol data ; initially manual coding, and later in processing a partially automated coding system was introduced.
- Computer editing - edits were devised to ensure that logical sequences were followed in the questionnaires, that necessary items were present and that specific values lay within certain ranges. These edits were designed to detect reporting and recording errors, incorrect relationships between data items or missing data items.
- Data file checks - at various stages during processing (such as after computer editing and subsequent amendments, weighting of the file and after derivation of new data items) frequency counts and/or tabulations were obtained from the data file showing the distribution of persons for different characteristics. These were used as checks on the contents of the data file, to identify unusual values which may have significantly affected estimates and illogical relationships not previously identified by edits. Further checks were conducted to ensure consistency between related data items and in the relevant populations.

Processing Errors continued

- Where possible checks of the data were also undertaken to ensure consistency of the survey outputs against results of previous NHSs and data available from other sources.

Other factors affecting estimates

In addition to data quality issues, there are a number of other factors, both general and specific to individual topics, which should be considered in interpreting the results of this survey. The general factors affect all estimates obtained, but may affect topics to a greater or lesser degree depending on the nature of the topic and the uses to which the estimates are put. This section outlines these general factors. Additional issues relating to the interpretation of individual topics are discussed in the topic descriptions provided in other sections.

- Sampling variability: It is important to bear in mind that survey estimates are derived from a sample of the population and are, therefore, subject to sampling variability. Consideration should be given to whether estimates are sufficiently reliable for the uses to which they are to be put. Sampling variability and its implications for data reliability are discussed in Data Quality: Sampling Variability.
- Scope: The scope of the survey defines the boundaries of the population to which the estimates relate. The most important aspect of the survey scope affecting the interpretation of estimates from this survey is that institutionalised persons (including inpatients of hospitals, nursing homes and other health institutions) and other persons resident in non-private dwellings (e.g. hotels, motels, boarding houses) were excluded from the survey.
- Personal interview and self-assessment nature of the survey: The survey was designed using personal interview (with proxy interviews for children aged under 15 years), to obtain data on respondents' own perceptions of their state of health, their use of health services and aspects of their lifestyle. The information obtained is therefore not necessarily based on any professional opinion (e.g. a doctor, nurse, dentist, etc.) or on information available from records kept by respondents. For this reason data from this survey are not necessarily compatible with data from other sources or with data collected by other methods.
- Concepts and definitions: The scope of each topic and the concepts and definitions associated with individual pieces of information (see Survey Content and Methods) should be considered when interpreting survey results.
- Wording of questions: To enable accurate interpretation of survey results it is essential to bear in mind the precise wording of questions used to collect individual items of data, and particularly in those cases where the question involved a series of 'running prompts' or where a prompt card was used.
- Reporting of medical conditions is improved if direct questions are asked about that specific condition, or that condition is otherwise specifically identified (e.g. such as through a prompt card), than if left to the respondent to identify in response to a general question. It is not practicable to mention all conditions in questions or prompts; the approach taken in the survey was to identify NHPA conditions and some other conditions of particular interest or known from previous surveys to require special attention. The fact then that some conditions are specifically identified in the questionnaire and others are not will affect the relativity of response levels (and possibly accuracy) between conditions, and where that level and nature of identification has changed between surveys, to also affect comparability over time.

Other factors affecting estimates continued

- Reference periods: All results should be considered within the context of the time references that apply to the various topics. A variety of reference periods was used for specific topics (e.g. one week for alcohol consumption, two weeks for exercise and actions taken, four weeks for events resulting in jury, six months for long term conditions, etc). Caution should be exercised when attempting to extrapolate results of this survey to time periods other than those on which the estimates are based or when attempting to interpret cross-classifications of items which used different reference periods.

  Although it can be expected that a larger section of the population would have reported taking a certain action if a longer reference period had been used, the increase is not proportionate to the increase in time. While it is possible to produce reasonable estimates of the number of actions taken in a year by multiplying the estimate for two weeks by 26, it is not possible to produce, by this method, estimates of the number of persons who took those actions.

  This should be taken into consideration when comparing results from this survey to data from other sources where the data relates to different reference periods.
- Coding framework: The coding framework (i.e. the classifications and categories) used in the survey provides an indication of the level of detail available in survey output. However, the coding framework adopted had to take account of the ability of respondents to provide the data, and may limit the amount of detail that can be provided in statistical output. For example, the output classifications of medical conditions reported by respondents were developed in recognition of the type of information reported (e.g. non-medical terminology, symptoms rather than conditions, generic rather than specific terminology, etc.). One result of this is that some caution should be used in interpreting counts from this survey of the number of medical conditions experienced, since such counts would, in part, be a function of the categories contained in the classification. The major classifications used in this survey are briefly discussed under the relevant topic descriptions in Content and Methods. Copies of, or references to, the full classifications are provided in Appendixes.
- Collection period: It is important to bear in mind the survey collection period, from late August 2004 to late June 2005, when considering results in perspective, or when comparing them with data from another source.

INTERPRETATION OF RESULTS

As noted above, there is a variety of factors which have impacted on the quality of the data collected. Through various means in the development and conduct of this survey the ABS has sought to minimise the effects of these factors; however, it is only sampling error which can be quantified enabling users of the data to adjust for possible errors when using/interpreting the data. For the other issues affecting the data, information is not available from the survey to enable these effects to be quantified. The relative importance of these factors will differ between topics, between items within topics, and by characteristics of respondents.

Comments have been included in individual topic descriptions in this publication to alert users of the data to the more significant issues likely to effect results for that topic or items within it. In part these notes reflect ABS experience of past health and other surveys and feedback from users of data from those surveys, ABS and other research on survey methods and response patterns, on testing for this survey, on comparisons between survey data and other data sources and in part on 'common sense'. However, these comments are indicative only, and are not necessarily comprehensive of all factors impacting results, nor necessarily of the relative importance of those factors.

Against this background, the following general comments are provided about interpreting data from the survey.

- The survey aims to provide statistics which represent the population or component groups of the population; the survey does not aim to provide data for analysis at the individual level. While errors of the types noted above may occur in individual respondent records, if these errors are not repeated commonly throughout the respondent population, they will have little impact on the estimates from the survey, and hence little impact on the story to be gleaned from those estimates.
- The survey data are all self-reported. For some topics/items their self-reported nature is the purpose/value of the item (self-assessed health, self-assessed body mass, reasons for not insuring, etc) while for some others self-reported data are the only source of the information, particularly information with a population group perspective (e.g. insurance status, diet, alcohol consumption). For other topics/items information is available from other sources (e.g. hospital episodes), and because of the different sources and methods, including the self-reported nature of the survey data, the information will likely differ between those sources. In the case of data from administrative sources it is likely (though not necessarily certain) that those data will be more accurate than the survey data. However, the survey data should not be discounted on that basis; survey data can often show other dimensions to the data (e.g. population group dimension, related and other health characteristics, information about uses of other health services) which are not available from administrative sources.

INTERPRETATION OF RESULTS *continued*

- Some survey topics, such as alcohol consumption, have some known data quality issues. While this means the data should be interpreted with care, the information is still considered valuable for certain uses. For example, while the overall levels of alcohol consumption described by the survey should be interpreted with caution, the data are still considered useful in describing consumption patterns across days of the week, types of drink consumed, relative levels of consumption across population groups, alcohol consumption in relation to other risk behaviours or characteristics, and is useful for monitoring changes in the levels and patterns of consumption over time. Notes regarding any known data quality issues are contained in the individual topic descriptions in this publication.
- Although various reference periods are used throughout the survey for different topics (e.g. current, usual, last week, last 2 weeks, last 4 weeks) the survey essentially provides a 'point in time' picture of the health of the population and of population sub-groups. The survey then provides information about the prevalence of characteristics, not the incidence of those characteristics or of changes in characteristics (except in terms of differences between surveys). Because the survey was conducted over a 10 month period, the results essentially are an average over that period e.g. they represent a typical week, fortnight, etc in that period. In some cases these estimates can reasonably be expanded to represent a different reference period. For example, the number of doctor consultations in a two week period can be multiplied by 26 to provide an estimate of consultations over a year.

COMPARABILITY BETWEEN 2001 AND 2004-5 NHS

Understanding the comparability of data from the 2004-5 NHS with data from the previous NHS in 2001 (and with prior surveys) is important to the use of those data and interpretation of apparent changes in health characteristics over time. While the 2004-5 NHS is deliberately the same or similar in many ways to the 2001 NHS (and in part to the 1995 NHS), there are important differences across most aspects of the surveys; sample design and coverage, survey methodology and content, definitions, classification, etc. These differences will affect the degree to which data are directly comparable between the surveys, and hence the interpretation of apparent changes in health characteristics over the 2001 to 2004-5 period.

Throughout the topic descriptions and in other parts of this publication, comments have been made about the changes between surveys and their expected impact on the comparability of data. These are general comments based on results of testing, ABS experience in survey development, and a preliminary examination of results from the 2004-5 survey. As a result they should not be regarded as definitive statements on comparability and may omit the types of findings which might result from a detailed analysis of the affects of all changes made.

The following table summarises key differences in the general survey characteristics of the 2001 and 2004-5 surveys:

Survey characteristic	*2004–5 NHS*	*2001 NHS*
Collection method	Personal interview with adult respondents; proxy interview for children less than 15 years	Personal interview with adult respondents; proxy interview for children less than 18 years.
	Personal interview with children aged 15–17 years with parental consent; otherwise interview by proxy	Self–completion questionnaire for adult female respondents
Questionnaires	Single CAI instrument, incorporating household, adult and child components	Household form; Main adult questionnaire; Main child questionnaire; Women's supplementary questionnaire
Sample coverage	Private dwellings only	Private dwellings only
	Urban and rural areas	Urban and rural areas
	All States and Territories; additional sample in SA, Tas and ACT(a)	All States and Territories; additional sample in ACT(a)
Sample design/size	One child aged 0–17 years, one adult per dwelling	All children aged 0–6 years, one child 7–17 years, one adult per dwelling
	Fully responding H'holds = 19501	Fully responding H'holds = 17918
	Final sample = 6405 children,	Final sample = 8945 children,
	19501 adults, 25906 persons	17918 adults, 26863 persons
Enumeration period	August 2004 to June 2005	February 2001 to November 2001
Collection methodology	CAI questionnaire	Pen and paper questionnaire
	Automated coding, supported by manual and CAC systems	OMR and key data entry
		Manual coding, supported by CAC systems.
Main output units	Person	Person

(a) The NT sample was reduced such that it contributes appropriately to national estimates, but is not large enough to support estimates for the NT

Sample design/size

While the overall sample of households was about 9% higher in 2004-5 than in 2001, fewer people in each household were enumerated with the result that the total sample of persons in the 2004-5 survey was slightly below that in 2001. The 2004-5 approach has had the effect of spreading the sample more and reducing the effects on the final

Sample design/size continued

estimates of clustering of characteristics within households. However, while the overall impact of the smaller sample size on standard errors was relatively small overall, because of the differences between surveys in the supplementary sample in some states, indicative relative standard errors do vary between surveys for some states, as shown below:

SAMPLE SIZES AND INDICATIVE RSES

		NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*	*ACT*	*Aust*
2004–05										
Persons in sample	no.	5 375	4 449	4 259	4 520	2 798	2 573	155	1 777	25 906
Size of estimate										
10,000	%	36.5	34.5	31.0	19.0	27.0	12.5	. .	12.5	31.5
100,000	%	11.4	10.6	9.3	5.4	7.9	3.3	. .	3.1	10.6
1,000,000	%	3.2	2.9	2.5	1.3	2.0	. .	. .	. .	3.2
2001										
Persons in sample	no.	5 998	5 536	4 733	3 016	3 295	1 730	426	2 129	26 863
Size of esitmate										
10,000	%	35.0	31.0	28.8	24.2	24.9	17.1	. .	11.6	30.6
100,000	%	10.6	9.1	8.3	6.2	6.6	3.8	. .	2.3	9.7
1,000,000	%	2.3	2.0	1.9	1.1	1.3	. .	. .	. .	2.4

. . not applicable

Differences in the reliability of estimates between surveys should be considered in interpreting apparent changes between the surveys. It is recommended that apparent changes are subject to significance testing to ensure that changes are not simply the product of different sample size and design (see section under Data Quality in this chapter).

Through the weighting process, survey estimates at the state x part of state by sex by broad age group will be the same or very similar to the benchmark populations. Because the characteristics of the sample are not identical to those of the benchmark population (table see below), some records will receive higher or lower weights than others. As a result the RSE on estimates for those particular groups may also be slightly higher or lower than the average RSE shown in the table above. As this will vary between surveys, it is a factor to consider in comparing 2001 with 2004-5 data, but its impact on comparability is expected to be small.

Sample design/size continued

	2004–05		2001	
Sex/age (years)	*% of adults in sample*	*% of adults in pop'n*(a)	*% of adults in sample*	*% of adults in pop'n*
Males	45.6	49.3	45.6	48.9
Females	54.4	50.7	54.4	51.1
18–24	9.3	12.6	9.1	12.5
25–34	17.3	18.8	19.4	19.8
35–44	20.6	19.8	22.7	20.6
45–54	18.0	18.3	17.9	18.4
55–64	15.1	14.2	12.6	12.7
65–74	10.6	9.1	10.1	9.1
75 and over	9.2	7.3	8.2	6.9
Persons	100.0	100.0	100.0	100.0

(a) Benchmark population as at 31 December 2004.

Partial enumeration of households

In NHSs prior to the 2001 NHS all persons in sampled dwellings were included in the survey, and only records from fully responding households were retained on the data file. This meant that results could be compiled at household, family and income unit level in addition to person level. Because the 2001 and 2004-5 surveys sub-sampled persons in households (one adult and one child 0-17 years in 2004-5) complete enumeration only occurred in a minority of households, and by definition, only in single adult households. Characteristics of the household, family, income unit, etc in which respondents live are available as person level items, but results of the 2004-5 survey compiled at the household, family or income unit level are not available.

In the 2004-5 NHS, although only selected people were fully enumerated, basic demographic characteristics were collected about all household members. As well as assisting in the derivation of household, family, etc characteristics (as outlined above) this information enables the position of the selected persons (adults and children) in the household, family, etc to be taken into account when analysing their health (for example whether youngest, oldest or only child) and in other analysis (number and ages of children in households containing smokers). In the 2001 NHS this level of information is only available about persons enumerated in the survey, not all people in the household.

Enumeration period

Both the 2004-5 and 2001 NHSs were enumerated over about a ten month period : 2004-5 from August to June; 2001 from February to November (with a 6 week break mid-winter coinciding with the conduct of the 2001 Census of Population and Housing and the Post Enumeration Survey). The 2004-5 survey therefore was not conducted over all of the winter months, while the 2001 survey was not conducted over all of the summer months. Research using data from previous NHSs had shown minimal seasonal effects on the data for the topics covered in these surveys; however, statistically significant seasonal differences were found for some items in the alcohol consumption, visits to other health professionals and exercise topics. This should be considered in comparing data for these topics between surveys.

Survey content

The following tables summarises the main differences in content between the 2004-5 and 2001 surveys.

SURVEY CONTENT, Health status indicators

Topics covered	*2001 NHS*	*2004–05 NHS*	*Main items available from 2004–05*	*Comments on main differences between 2001 and 2004–05*
Self assessed health status	X	X	Self-assessed health status	Health transition and quality of life not collected in 2004–05
Health transition	X			
Quality of life	X			
Asthma	X	X	Asthma status; whether has asthma action plan; type of plan; types of medications used in last 2 weeks; type of other action for asthma in last 2 weeks.	Same content in 2004–05 as in 2001
Cancer	X	X	Cancer status; age diagnosed with breast cancer; type of cancer.	Type of medication used for cancer not collected in 2004–05
Circulatory conditions	X	X	Circulatory condition status; types of condition; type of medications used in last 2 weeks.	Same content in 2004–05 as in 2001 except symptoms of asthma and whether medication was for prevention or relief was not collected in NHS 2004–05
Arthritis and Osteoporosis	X	X	Arthritis and osteoporosis status; type of arthritis; age first told; types of medications used in last 2 weeks; types of other actions taken for the condition.	New section in 2004–05: previously covered in general illness section
Diabetes/ high sugar levels	X	X	Diabetes/High sugar level status; types of diabetes; types of medications used in last 2 weeks; type of other actions taken to manage condition; whether condition interferes with usual activity; whether diabetes- related sight problems; period since last visited optometrist/eye specialist.	Same content in 2004–05 as in 2001
Other long term conditions	X	X	Types of condition.	Same content in 2004–05 as in 2001
Cause of reported long term conditions	X	X	Whether work related and/or result of injury; type of injury event.	Same content in 2004–05 as in 2001, but some question differences to address conceptual problems in 2001 survey.
Injuries	X	X	Whether "defined" event in last 4 weeks resulting in action; whether resulted in injury; type of occurrence; type of injury; parts of body injured; activity at time of event; location of event; whether attended for treatment; whether time off work/school or other reduced activity as a result of injury.	Event and injury details collected for the last 3 occasions (in the last 4 weeks) in 2001; collected for most recent event only in 2004–05.
Asthma symptoms	X		Not collected in 2004–05	
Mental wellbeing	X	X	Psychological distress (K10);reported types of medication used in last 2 weeks; frequency and duration of use.	Both reported and generic types of medication available in 2004–05; reported type only in 2001

SURVEY CONTENT, Health related actions

Topics covered	*2001 NHS*	*2004–05 NHS*	*Main items available from 2004–05*	*Comments on main differences between 2001 and 2004–05*
Stays in hospital	X	X	Whether admitted in last 12 months; number of admissions; Most recent admission - number of nights, patient type, public/private hospital, reasons chose admission as Medicare patient, whether discharged in last 2 weeks.	Hospital type and reasons for admission as Medicare patient new items in 2004–05
Visits to casualty, outpatients, day clinics	X	X	Whether visited in last 2 weeks; number of visits; whether outpatients visit related to admission.	Same content in 2004–05 as in 2001
Doctor consultations	X	X	Time since last visit; number of visits in last 2 weeks, separately for GP and specialist.	Same content in 2004–05 as in 2001
Dental consultations	X	X	Time since last visit; number of visits in last 2 weeks.	Same content in 2004–05 as in 2001
Consultations with other health professionals	X	X	Whether visited in last 2 weeks; number of visits by type of OHP.	Some changes to listing of OHP types in 2004–05
Days away from work/school: own illness	X	X	Whether had days away in last 2 weeks due to own illness; number of days.	Same content in 2004–05 as in 2001. Days were recorded against work and school as appropriate in 2004–05 : recorded against work only in 2001.
Days away from work/school as carer	X	X	Whether had days away in last 2 weeks as carer; number of days.	Same content in 2004–05 as in 2001. Days were recorded against work and school as appropriate in 2004–05 : recorded against work only in 2001.
Other days of reduced activity	X	X	Whether cut down on usual activities in last 2 weeks due to illness; number of days	Same content in 2004–05 as in 2001
Use of medications (incl vitamins, minerals, natural and herbal medicines).	X	X	See asthma, heart and circulatory conditions, diabetes, arthritis, osteoporosis and mental wellbeing above.	Collected for arthritis and osteoporosis in 2004–05 but not in 2001. Collected for cancer in 2001 but not in 2004/'5. Expanded type of medications used for mental wellbeing in 2004–05.

SURVEY CONTENT, Health risk behaviours

Topics covered	*2001 NHS*	*2004–05 NHS*	*Main items available from 2004–05*	*Comments on main differences between 2001 and 2004–05*
Adult immunisation	X	X	Whether had influenza and pneumococcal vaccines; time since last vaccine; how obtained flu vaccine.	Same content in 2004–05 as in 2001
Alcohol consumption	X	X	Period since last drank; days consumed in last week; quantity of alcohol by type of drink consumed in last week (max 3 days); alcohol risk level, graduated frequency.	New graduated frequency questions added in 2004–05
Breastfeeding	X	X	Whether currently/ever breastfed; age at introduction of solid food.	Much reduced data set in 2004–05 compared with 2001.
Body mass	X	X	Self-reported height, weight and body mass; Body mass index.	Same content in 2004–05 as in 2001
Children's immunisation	X	X	Whether ever had chicken pox; whether received varicella vaccination, whether received HepB vaccinations, whether completed course, where vaccinations received.	All new items in 2004–05. Children's immunisation in 2001 focussed on the recommended childhood vaccination schedule - polio, tetanus, diphtheria, pertussis, Hib, etc.
Contraception/protection	X		Not collected in 2004–05	
Dietary habits	X	X	Type of milk usually consumed; usual daily intake of vegetables & fruit; Food security.	Additional items in 2001 related to use of salt after cooking, and deliberate consumption of foods, drinks and supplements with added folate.
Exercise	X	X	Type; frequency and duration of exercise in last 2 weeks; exercise level, whether walked yesterday for transport, number of times walked and total duration.	Same content in 2004–05 as in 2001 plus new questions relating to walking for transport
Smoking	X	X	Smoker status; number of smokers in household, age started/stopped smoking regularly.	Expanded data set in 2004–05 compared with 2001. New questions to support more detailed status item and age started and ceased smoking.
Sun protection	X		Not collected in 2004–05	

SURVEY CONTENT, Women's supplementary health topics

Topics covered	*2001 NHS*	*2004–05 NHS*	*Main items available from 2004–05*	*Comments on main differences between 2001 and 2004–05*
Screening for breast & cervical cancer	X		Not collected in 2004–05	
Use of Hormone Replacement Therapy	X	X	Whether currently use; time used HRT.	Same content in 2004–05 as in 2001. Interviewer administered in 2004–05; self-completion in 2001
Hysterectomy	X	X	Whether had hysterectomy; age at hysterectomy; whether one or both ovaries removed	Question on number of ovaries removed new 2004–05. Interviewer administered in 2004–05; self-completion in 2001
Breastfeeding history	X		Not collected in 2004–05	

SURVEY CONTENT, population characteristics

Topics covered	*2001 NHS*	*2004–05 NHS*	*Main items available from 2004–05*	*Comments on main differences between 2001 and 2004–05*
General demographics	X	X	Sex; age; marital status (registered & social); Indigenous status; country of birth; year of arrival in Australia; language spoken at home; proficiency in English; Family type; Household size, composition, type; Income unit type; Location.	Same content in 2004–05 as in 2001
Education	X	X	Whether attending school; highest level of school completed; whether has post-school qualification; level of highest educational attainment; whether currently studying full or part time; field of study of qualification obtained.	Changes to question module and data items in accordance with new ABS standards, and coding of qualification to ASCED.
Labour force	X	X	Labour force status; status in employment; no. of jobs; occupation, industry and industry sector of main job; hours worked; duration of unemployment; shift work.	Same content in 2004–05 as in 2001
Income	X	X	Personal income - Level; sources and main source; type of pension/benefit received. Income unit income - Level, equivalised level. Household - Level, equivalised level.	Same content in 2004–05 as in 2001.Household income added in 2004–05
Housing	X	X	Dwelling type; number of bedrooms; tenure; landlord type.	Tenure and landlord type added in 2004–05
Private health insurance/health cards	X	X	Whether has PHI; contribution rate; type of cover; time covered by PHI; reasons having/not having PHI; Whether has DVA or other Govt concession card: type of card.	Same content in 2004–05 as in 2001

Comparability of data about long term conditions

There are a number of issues effecting the comparability between surveys of data for long term medical conditions; these include the methodology used in the questionnaire to elicit responses, the ways in which those responses were recorded, and the ways in which those responses were turned into coded information for the survey data file. These issues are discussed in general terms below; further discussion of issues related to particular NHPA conditions is contained in the relevant condition sections of this Guide. See also the general description of the methodologies used in the 2004-5 survey for collecting data about medical conditions, which is presented at the beginning of Chapter 3.

METHODOLOGICAL ISSUES

The methodologies used to illicit responses regarding medical conditions were similar in both surveys; a combination of direct questions, general questions supported by prompt cards (either showing examples of conditions, or a list of conditions from which respondents are asked to select), and open ended questions. Experience has shown that respondents are more likely to report a condition in response to a specific question about that condition, than in response to a more general question. Changes between the surveys which may have impacted comparability include the following.

- Low blood pressure/hypotension is listed on the prompt card used for the cardiovascular section of the questionnaire in 2004-5 but was not specifically mentioned in questions or prompt cards used in 2001.
- Macular degeneration is listed on the prompt card used for the eye and sight section of the questionnaire in 2004-5 but was not specifically mentioned in questions or prompt cards used in 2001.

Comparability of data about long term conditions continued

METHODOLOGICAL ISSUES *continued*

- In both surveys the questions to identify cases of arthritis, rheumatism or gout were asked in the form of a running prompt. However, in the 2004-5 survey the questions initially asked respondents whether they had ever had the conditions and then asked whether they currently had the condition(s); in the 2001 survey respondents were asked initially whether they currently had the condition(s). The different approach may have effected the likelihood of these conditions being reported as current conditions. Also, in the 2004-5 survey, current cases of arthritis were assumed to be long term conditions, whereas in the 2001 survey respondents were asked whether the condition had lasted or was expected to last for 6 months or more.
- Specific questions were asked about osteoporosis in the 2004-5 survey, whereas in the 2001 survey it was listed on a prompt card used for a general question about long term conditions.
- In the 2001 survey respondents were asked whether they had ever been told by a doctor or nurse that they had diabetes or high sugar levels such that both could be reported; in the 2004-5 survey respondents were not asked about high sugar levels if they reported they had been told they had diabetes. While this effects the condition status item for high sugar levels, it is expected to have had minimal impact on the long term condition data. This is because in the 2001 survey where a person reported both diabetes and high sugar levels as current conditions, only diabetes was recorded as a long term condition.
- In the 2004-5 survey two categories of back problems were listed on the prompt card used for the general conditions question: Back - slipped disc or other disc problems, and Back pain/back problems. Persons reporting conditions recorded in the second of these categories were asked to provide more detail about the condition, to enable more accurate and specific coding of the condition type. Back problems of any sort were not included on prompt cards used in the 2001 survey.

A further factor which may affect comparability is that the reported prevalence of illness is complex and dynamic, and is a function of respondent knowledge and attitudes, which in turn may be affected by the availability of health services and health information, public education and awareness, accessibility to self-help, etc. For example a public education program has been running in Australia over a number of years aimed to raise public awareness and public acceptance of mental health disorders. One consequence may be that respondents are more willing to talk about, and more willing to report feelings of anxiousness or depression now than they might have been willing to report previously.

RECORDING OF CONDITION DETAILS

Provision made to record conditions information was similar in the 2001 and 2004-5 surveys; a combination of marking specified categories and write in boxes; interviewers were encouraged in both surveys to add supplementary information if they felt this would aid in understanding the responses or in coding the information. From a coding perspective there was no observable difference in the nature or detail of the descriptions recorded in the 2001 pen/paper form as compared with the computer instrument used in the 2004-5 survey.

Comparability of data about long term conditions continued

CODING CONDITIONS DATA

The classification of medical conditions (and supporting coding index) introduced in the 2001 NHS was used largely unchanged in the 2004-5 survey, but coding processes differed between the surveys. For both surveys conditions (and medications and alcohol) data were coded progressively throughout the enumeration period by a group of coders employed and trained specifically to undertake this coding. For both surveys, coding was subject to rigorous quality assurance procedures.

In the 2001 survey coding was performed manually, supported by a computer assisted coding (CAC) system, and coded values were included on computer survey records via a separate data entry process. In the 2004-5 survey coding was initially undertaken using similar arrangements, but with assigned codes added directly to the relevant survey records. From February 2005 an automated coding system was introduced, which automatically assigned a code, and added it to the computer record from the survey. Cases which could not be coded by the auto-coding system were manually coded using the CAC system. The auto-coding system which coded on the basis of an 'exact match' with the coding index was successful in coding 29% of coding instances in the period of its operation.

For both the 2001 and 2004-5 surveys the coding processes and systems were designed to ensure the codes assigned were as specific and accurate as possible. Thorough testing of the auto-coding system prior to its introduction ensured it met or surpassed manual coding quality levels. Although auto-coding could be expected to ensure greater consistency in the coding process, across the whole survey the nature of the coding processes used is considered to have minimal impact on the comparability of data between the surveys.

COMPARISON OF ESTIMATES FROM THE 2001 AND 2004–5 SURVEYS

The series of tables below presents estimates of the prevalence of NHPA condition groups and selected other long term conditions from the 2001 and 2004-5 surveys.

	2004-5 estimate	*2001 estimate*	*% difference*
Type of condition	('000)	('000)	%
Malignant neoplasms			
Skin	147.9	94.3	(a)58.8
Breast	34.0	25.3	(a)34.4
Female genital organs	16.8	10.3	(a)63.1
Male genital organs	53.4	37.4	(a)42.8

(a) Positive differences.

In total, malignant neoplasms were 26% higher in 2004-5 than in 2001; increases were recorded for most types of cancer.

The survey methodologies in relation to these conditions were identical. The increases may in part reflect changes in the prevalence of the conditions and in part reflect changes in diagnosis, treatment and survival rates.

Comparability of data about long term conditions continued

COMPARISON OF ESTIMATES FROM THE 2001 AND 2004–5 SURVEYS continued

	2004-5 estimate	*2001 estimate*	*% difference*
Type of condition	('000)	('000)	%
Endocrine, nutritional, metabolic disorders			
Disorders of thyroid gland	468.5	13.9	. .
Diabetes mellitus	699.6	554.2	(a)26.2
High sugar levels in blood/urine	56.3	61.0	–7.7

. . not applicable
(a) Positive differences

Increases were reported for most diseases in this group. The extremely large increase in the prevalence of reported thyroid disorders is due to an error in the 2001 NHS. This error meant that all reported instances were not carried through to output. As a result, the 2004-5 and 2001 NHS are not comparable for this condition, but 2004-5 is comparable with the 1995 NHS.

The increase in the prevalence of Diabetes Mellitus was entirely the result of an increase in the reported prevalence of Type 2 diabetes: the prevalence of Type 1 fell by 3%.

	2004–5 estimate	*2001 estimate*	*% difference*
Type of condition	('000)	('000)	%
Mental and behavioural problems			
Mood affective disorders	1 052.6	848.9	(a)24.0
Anxiety related problems	967.9	853.3	(a)13.4
Problems of pyschological development	275.3	235.4	(a)16.9

(a) Positive differences.

Overall, the reported prevalence of mental and behavioural problems was 16% higher in 2004-5 than in 2001. An increase was recorded for all conditions identified in the survey.

The methodoloies between the surveys were similar, and this is not considered to be a factor contributing to the increase. The increase may in part result from a greater willingness of respondents to report these types of problems in the survey, due to changing community awareness and perceptions of mental health issues.

Comparability of data about long term conditions continued

COMPARISON OF ESTIMATES FROM THE 2001 AND 2004–5 SURVEYS continued

	2004–5 estimate	*2001 estimate*	*% difference*
Type of condition	('000)	('000)	%
Diseases of the nervous system			
Epilepsy	133.7	120.3	(a) 11.1
Migraine	1 294.8	1 170.6	(a) 10.6

(a) Positive differences.

The survey methodologies in relation to these conditions were identical. The possible misreporting of non-migraine headaches as migraines should be considered in interpreting these data.

	2004–5 estimate	*2001 estimate*	*% difference*
Type of condition	('000)	('000)	%
Diseases of the eye and adnexa			
Blindness (total/partial)	148.3	167.2	–11.3
Short sightedness	4 353.0	3 941.2	(a) 10.4
Long sightedness	5 334.1	4 209.7	(a) 26.7
Presbyopia	848.4	1 677.1	. .
Macular degeneration	111.6	24.0	. .

. . not applicable
(a) Positive differences.

The overall methodology for sight conditions was similar in the 2001 and 2004-5 surveys. The only difference in relation to the conditions shown above was that in 2004-5 two response/prompt card categories were shown for age-related sight problems:

Macular degeneration, and Other age related sight problems/presbyopia.

In 2001 a single category was used 'age-related sight problems/presbyopia'. While it was expected that the number reporting macular degeneration would increase as a result of separately identifying the condition on the prompt card, the large fall in other age related/presbyopia was not anticipated and is more likely an unforseen effect of the change in methodology than a true reflection of a change in population health. For this reason, data for macular degeneration and other age related sight problems/presbyopia are regarded as not directly comparable between surveys.

Comparability of data about long term conditions continued

COMPARISON OF ESTIMATES FROM THE 2001 AND 2004–5 SURVEYS continued

	2004–5 estimate	*2001 estimate*	*% difference*
Type of condition	('000)	('000)	%
Diseases of the ear and mastoid			
Deafness (total/partial)	2 014.3	2 012.8	(a) 0.1

(a) Positive differences.

ABS input condition code 359 was included in 'other diseases of the inner ear' in 2001; for the 2004-5 NHS it was more correctly included in 'partial deafness'. A weighted estimate of 49,400 persons was recorded against code 359 in the 2001 NHS.

	2004–5 estimate	*2001 estimate*	*% difference*
Type of condition	('000)	('000)	%
Diseases of the circulatory system			
Hypertensive disease	2 100.7	1 909.1	(a) 10.0
Ischaemic heart disease	337.0	353.1	–4.6
Cerebrovascular disease	90.8	104.9	–13.8
Oedema and heart failure	263.0	299.9	–12.4
Diseases of arteries, arterioles, capillaries	203.6	199.1	(a) 2.3

(a) Positive differences.

The methodologies used in the surveys were similar for circulatory conditions. In total, the number of persons reporting diseases of the circulatory system was 10% higher in 2004-5 than in 2001. Increases were recorded across a range of conditions, including hypertension, varicose veins, haemorrhoids, tachycardia, but for some other key cardiovascular conditions shown above, the reported prevalence was lower. For the first time low blood pressure was listed on a prompt card in the 2004-5 survey. This was instrumental in lifting the reported prevalence of that condition from approximately 50,500 to 237,800.

Due to the similarities in the survey methodologies the data for other cirulatory conditions are considered to be directly comparabe between surveys.

	2004–5 estimate	*2001 estimate*	*% difference*
Type of condition	('000)	('000)	%
Diseases of the respiratory system			
Asthma	2 013.5	2 197.3	–8.4
Bronchitis/emphsyma	589.9	664.5	–11.2
Hayfever and allergic rhinitis	3 165.7	2 935.3	(a) 7.8
Chronic sinusitis	1 815.5	2 020.0	–10.1

(a) Positive differences.

Comparability of data about long term conditions continued

COMPARISON OF ESTIMATES FROM THE 2001 AND 2004–5 SURVEYS continued

There were no changes to survey methodology for these conditions; data from the 2001 and 2004-5 NHSs are therefore considered to be directly comparable.

In total, the reported prevalence of respiratory conditions was 1% lower in 2004-5 than in 2001.

	2004–5 estimate	*2001 estimate*	*% difference*
Type of condition	('000)	('000)	%
Diseases of the digestive system			
Stomach, duodenal, gastrointestinal ulcer	481.4	505.5	–4.8
Hernia	413.1	380.3	(a)8.6

(a) Positive differences.

The survey methodologies in relation to these conditions were identical.

	2004–5 estimate	*2001 estimate*	*% difference*
Type of condition	('000)	('000)	%
Diseases of the skin and subcutaneous tissue			
Psoriasis	396.2	334.5	(a)18.4
Dermatitis and eczema	221.2	206.9	(a)6.9

(a) Positive differences.

The survey methodologies in relation to these conditions were identical.

	2004–5 estimate	*2001 estimate*	*% difference*
Type of condition	('000)	('000)	%
Diseases of the musculoskeletal system and connective tissue			
Arthritis	3 020.1	2 576.1	(a)17.2
Rheumatism	287.3	248.0	(a)15.8
Gout	250.4	269.6	–7.1
Osteoporosis	585.8	299.8	(a)95.4
Back pain, back problems nec, disc problems	3 018.5	3 874.0	–22.1

(a) Positive differences.

In total, the prevalence of reported musculoskeletal conditions has increased less than 1% between 2001 and 2004-5. However, there were large changes between surveys in the reported prevalence of some specific conditions. These changes are, in part, due to changes in the survey methodologies, as outlined below.

Comparability of data about long term conditions continued

COMPARISON OF ESTIMATES FROM THE 2001 AND 2004–5 SURVEYS continued

- In 2001 respondents were asked whether they currently had arthritis, gout and/or rheumatism and whether the condition(s) had lasted for 6 months or more; osteoarthritis was assumed to be long-term. In 2004-5, respondents were asked whether they currently had, or ever had these conditions. For all those reporting they currently had arthritis the condition was assumed to be long-term. It is expected that some of the increase in the prevalence of arthritis between 2001 and 2004-5 results from this change.
- In the 2001 NHS osteoporosis was listed as a category on the prompt card used for a general question about long-term conditions. In the 2004-5 osteoporosis was covered in a series of separate and specific questions. The large increase in the reported prevalence of osteoporosis between 2001 and 2004-5 is in part due to this change in methodology between surveys. Osteopenia was not mentioned in the 2001 survey whereas it was in 2004–5 and included in the osteoporosis category.
- In the 2001 NHS inadequately specified back disorders (eg back pain, back problems, bad back) were classified together to a single category. In the 2004-5 NHS respondents who reported such conditions were asked to provide further information if possible. This enabled some of those cases to be classified to other condition categories. The fall in the reported prevalence of these conditions is considered to be primarily due to this change in survey methodologies.

While the nature and general direction of the various influences on survey results can be gauged with reasonable surety, the level of effects are much more difficult to determine: i.e. how much of observed changes between estimates from the 2004-5 NHS and those from the 2001 or 1995 NHSs are attributable to real changes in the health characteristics or relationships between characteristics and how much to methodological or other differences between surveys, or to changes in respondent awareness of and attitudes to those characteristics. Unfortunately data to support this type of quantitative analysis are not available.

The points noted above, and within individual topic sections of this publication about comparability between NHSs, are useful guides to interpreting apparent changes between surveys. However, data users should also consider other information external to the NHS to assist them in interpreting the data. For many topics covered in the NHS, some data are available from other sources; although these other sources will seldom be directly comparable with the NHS they can provide a basis for data comparison and assessment.

During validation of the 2004-5 NHS, selected results from the survey were compared both with results from previous NHSs and with data from other sources; differences were reconciled and notes relating to differences or changes have been included where appropriate within individual topic descriptions in this publication. However, as only selected data sources were examined, other differences may exist, and users of the NHS data should contact the ABS if they have any queries regarding comparability issues.

CHAPTER 8 DATA OUTPUT AND DISSEMINATION

CONTENTS

DATA AVAILABILITY

Results from the 2004–05 NHS are available in:

- publications and other releases of sets of standard tables;
- unidentifiable unit records; and
- tables produced on request to meet specific information requirements from the survey.

This section outlines the products and services currently available and those expected to be available over the coming months. The program of publications has not been finalised.

PUBLICATIONS

Selected results of the 2004–05 NHS are contained in *National Health Survey: Summary of Results, Australia 2004–05* (cat. no. 4364.0) which was released in February 2006.

This publication contains summary level statistics for most topics covered in the 2004–05 NHS. The publication primarily presents national results, but some tables show results for states and the ACT, and some tables contain results from previous National Health Surveys for comparative purposes.

In addition, sets of tables selected from those contained in *National Health Survey: Summary of Results, Australia 2004–05* (cat. no. 4364.0), but compiled for individual states and the ACT, are available in EXCEL spreadsheet format from this web site (cat. no. 4362.0).

Results from the survey will also be released in a variety of other publications including.

- Various compendium style publications such as the *Australian Year Book* (cat. no. 1301.0) and *Australian Social Trends* (cat. no. 4102.0).
- A series of thematic publications focussing on particular topics or topic areas covered by the survey. A program and timetable for these releases had not been finalised at the time this Guide was prepared, but will be posted on the ABS website when available. The content of each publication will be developed in consultation with major stakeholders to ensure that output and analyses are relevant to current and policy issues.
- A series of smaller web-based reports focussing on particular health issues. These are seen as a cost effective way of disseminating results as broadly as possible to the community. A program and timetable for these releases had not been finalised at the time this Guide was being prepared.

ACCESS TO MICRODATA

The ABS is required by legislation not to release information in a manner that is likely to enable the identification of a particular person or organisation. To meet this requirement in releasing microdata, the ABS aims to protect against two main types of risk; spontaneous recognition and matching against other data sources. In order to ensure the confidentiality of respondents the ABS usually removes some items from the microdata it makes available, and reduces the level of detail shown for some other items. However in this process the ABS is conscious of the need to find an appropriate balance between ensuring confidentiality while maximising the usefulness of the data set to users of the data.

ACCESS TO MICRODATA *continued*

In the past, ABS released confidentialised data files on floppy disc or CD ROM. To better meet needs for access to microdata, in 2003 the ABS introduced a new facility whereby approved users of the data were granted remote access to confidentialised data files which were retained in the ABS; this facility is called the Remote Access Data Laboratory(RADL). This enables greater security around access to, and use of the file, and by effectively removing the risk of matching to other data sources, RADL enables more detailed information to be made available to users than could be released on CD ROM.

Two confidentialised unit record files will be released from the 2004–05 NHS; a BASIC file available on CD ROM and through RADL, and an EXPANDED file available through RADL only. It is expected these data files will be available from late May 2006.

The files will contain all records from the survey, but some data items will be removed, and the level of detail for some others will be reduced to protect the confidentiality of survey respondents; the extra protections around the data provided by the RADL enable more information to be released on the EXPANDED CURFs than the BASIC CURF. A full list of the data items available in both files is contained in the *Information Paper: National Health Survey, 2004–05: Confidentialised Unit Record File* (cat. no. 4324.0.55.001), which can be viewed from the ABS web site from late May 2006.

Release of all confidentialised unit record information is subject to the approval of the Australian Statistician, and is contingent upon users of the file agreeing in writing to abide by the legislative restrictions on use and such other conditions of sale as may be determined by the Australian Statistician. These include use of the data for statistical purposes only, not attempting to identify particular persons or organisations and not attempting to match the information with any other unit level list of persons or organisations. Full details of the conditions of sale and use, together with application and undertaking forms are available from the ABS Website.

SPECIAL DATA SERVICES

In addition to the products outlined above, a range of special data services are available on request, on a fee for service basis. Subject to sampling and confidentiality constraints, tables can be compiled to individual specifications, and other data and analytical services are available. For people wishing to request special tables, a list of all output data items are contained in *National Health Survey and National Aboriginal and Torres Strait Islander Health Survey 2004–05: Data Reference Package* (cat. no. 4363.0.55.002). For further information, contact the National Information and Referral Service 1300 135 070.

OTHER HEALTH AND RELATED PUBLICATIONS

Listed below is a selection of other mainly ABS publications, released from 2000 onwards, which may be of interest. Information about current ABS publications and products can be found in the *Catalogue of Publications* (cat. no. 1101.0), or on-line at www.abs.gov.au.

OTHER HEALTH AND RELATED PUBLICATIONS *continued*

National Health Surveys

Summary of Results, Australia (cat. no. 4364.0)

Summary of Results, State tables (cat. no. 4362.0)

Data Reference Package (cat. no. 4363.0.55.002)

Information Paper: Confidentialised Unit Record Files (cat. no. 4324.0)

Basic Confidentialised Unit Record File (cat. no. 4324.0.30.001)

Expanded Confidentialised Unit Record File (cat. no. 4324.0.55.001)

Injuries (cat. no. 4384.0)

Mental Health (cat. no. 4811.0)

Health Risk Factors (cat. no. 4812.0)

Asthma in Australia: A Snapshot (cat no. 4819.0.55.001)

Diabetes in Australia: A Snapshot (cat no. 4820.0.55.001)

Cardiovascular Disease in Australia: A Snapshot (cat no. 4821.0.55.001)

Cancer in Australia: A Snapshot (cat no. 4822.0.55.001)

Musculoskeletal Conditions in Australia: A Snapshot (cat no. 4823.0.55.001)

Mental Health In Australia: A Snapshot (cat no. 4824.0.55.001)

Injury in Australia: A Snapshot (cat no. 4825.0.55.001)

Occasional Paper: Measuring Dietary Habits (cat. no. 4814.0.55.001)

Private Health Insurance (cat. no. 4815.0.55.001)

Long term Health Conditions - A Guide To Time Series Comparability (cat. no. 4816.0.55.001)

Occasional Paper: Health Risk Factors - a Guide to Time Series Comparability (cat. no. 4826.0.55.001)

The Health of Older People (cat. no. 4827.0.55.001)

Health of Children (cat no. 4829.0.55.001)

Characteristics of People Reporting Good or Better Health (cat. no. 4828.0.55.001)

A series of brief articles relating to seven national health priority areas are available on the ABS website.

National Aboriginal and Torres Strait Islander Health Survey (cat. no. 4715.0)

OTHER HEALTH AND RELATED PUBLICATIONS *continued*

Other health and related releases

Occasional Paper: Vaccination Coverage in Australian Children (cat. no. 4813.0.55.001)
Australian Standard Classification of Drugs of Concern (cat no. 1248.0)
Measures of Australia's Progress (cat no. 1370.0)
Australian Demographic Statistics (cat no. 3101.0)
Births (cat no. 3301.0)
Deaths (cat no. 3302.0)
Causes of Death (cat no. 3303.0)
Suicides: Recent Trends (cat. no. 3309.0.55.001)
Suicides (cat no. 3309.0.80.001)
Australian Social Trends (cat no. 4102.0)
Measuring Wellbeing: Frameworks for Australian Social Statistics (cat no. 4160.0)
Sport and Recreation: A Statistical Overview (cat. no. 4156.0)
Participation in Sport and Physical Activities (cat no. 4177.0)
Apparent Consumption of Alcohol (cat no. 4307.0.55.001)
Private Hospitals (cat no. 4390.0)
Private Health Establishments: Acute and Psychiatric Hospitals (cat no. 4390.0.40.001)
Private Health Establishments: Free Standing Day Hospital Facilities (cat no. 4390.0.40.002)
Illicit Drug Use: Sources of Australian Data (cat no. 4808.0)
Breastfeeding in Australia (cat no. 4810.0.55.001)
Information Paper: Use of the Kessler Psychological Distress Scale in ABS Health Surveys (cat no. 4817.0.55.001)
The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples (cat no. 4704.0)
Mature Age Persons Statistical Profile: Health (cat no. 4905.0.55.001)
Private Medical Practitioners (cat no. 8689.0) (produced by the Australian Institute of Health and Welfare)
Australian Health Trends (cat no. 8902.0.80.001)
Australia's Health (cat no. 8903.0.80.001)
Australia's Welfare (cat no. 8905.0.80.001)
Australian Hospital Statistics (cat no. 8906.0.80.001)
Medical Labour Force (cat no. 8908.0.80.001)
Cancer in Australia (cat no. 8916.0.80.001)
Australia's Children: Their Health and Wellbeing (cat no. 8917.0.80.001)
Australia's Young People: Their Health and Wellbeing (cat no. 8922.0.80.001)
Older Australia at a Glance (cat. no. 8932.0)
Health and Community Services Labour Force (cat no. 8936.0)
Heart, Stroke and Vascular Diseases Australian Facts (cat no. 8934.0.80.001)
The Burden of Disease and Injury in Australia (cat no. 8935.0.80.001)
Mortality Atlas (cat. no. 3318.0)
Deaths from External Causes (cat. no. 3320.0)
Drug-induced Deaths (cat. no. 3321.0.55.001)

OTHER HEALTH AND RELATED PUBLICATIONS *continued*

Survey of Disability, Ageing and Carers

- *Summary of Findings* (cat. no. 4430.0)
- *Information Paper: Basic Confidentialised Unit Record File* (cat. no. 4430.0.00.001)
- *Basic Confidentialised Unit Record File* (cat. no. 4430.0.30.002)
- *Disability and Long Term Health Conditions* (cat. no. 4430.0.55.001/2)
- *Caring in the Community* (cat no. 4430.0.55.003/4)
- *Users Guide* (cat. no. 4431.0.55.001)

APPENDIX 1

SAMPLE COUNTS AND WEIGHTED ESTIMATES

Provided below are tables showing sample counts and weighted estimates from the 2004–05 NHS.

NHS SAMPLE COUNTS AND WEIGHTED ESTIMATES, Age by sex, Australia

Age group (years)	PERSONS IN SAMPLE			WEIGHTED ESTIMATE ('000)		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
0–4	910	924	1 834	639.7	607.5	1 247.2
5–9	802	727	1 529	668.1	635.8	1 303.9
10–14	883	880	1 763	703.1	666.4	1 368.5
15–19	901	861	1 762	678.2	649.9	1 328.1
20–24	622	708	1 330	698.7	666.1	1 364.9
25–29	681	797	1 478	663.7	663.8	1 327.5
30–34	888	1 005	1 893	732.8	753.4	1 486.2
35–39	897	1 085	1 982	714.9	726.8	1 441.7
40–44	968	1 063	2 031	753.4	764.2	1 517.6
45–49	891	970	1 861	706.9	719.1	1 426.0
50–54	779	869	1 648	644.4	664.4	1 308.8
55–59	756	848	1 604	604.4	602.3	1 206.6
60–64	653	688	1 341	460.0	453.5	913.6
65–69	482	581	1 063	368.2	376.8	745.0
70–74	409	590	999	291.2	317.5	608.7
75–79	321	516	837	238.8	295.7	534.5
80–84	181	405	586	139.4	219.4	358.8
85 and over	133	232	365	82.7	110.4	193.0
Total	**12 157**	**13 749**	**25 906**	**9 788.4**	**9 893.1**	**19 681.5**

NHS SAMPLE COUNTS, Age, States and Territories

Age group (years)	*NSW*	*Vic.*	*Qld*	*SA*(a)	*WA*	*Tas.*(a)	*NT*(b)	*ACT*(a)	*Aust.*
0–17	1 371	1 082	1 116	1 062	692	624	46	412	6 405
18–64	3 183	2 704	2 581	2 681	1 707	1 536	105	1 154	15 651
65 and over	821	663	562	777	399	413	4	211	3 850
Total	**5 375**	**4 449**	**4 259**	**4 520**	**2 798**	**2 573**	**155**	**1 777**	**25 906**

(a) Includes additional sample funded by the health authority in that State or Territory.

(b) This sample is designed to contribute to national estimates only: the sample is insufficient to produce reliable estimates for the NT.

SAMPLE COUNTS AND WEIGHTED ESTIMATES *continued*

NHS SAMPLE COUNTS AND WEIGHTED ESTIMATES, Age by sex by ASGC remoteness groups

	PERSONS IN SAMPLE			WEIGHTED ESTIMATE ('000)		
Age group (years)	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
MAJOR CITIES OF AUSTRALIA						
0–17	2 000	1 931	3 931	1 565.8	1 469.5	3 035.3
18–64	4 611	5 316	9 927	4 277.2	4 316.7	8 593.8
65 and over	904	1 466	2 370	708.6	884.7	1 593.3
Total	*7 515*	*8 713*	*16 228*	*6 551.5*	*6 670.9*	*13 222.5*
INNER REGIONAL AUSTRALIA						
0–17	773	718	1 491	544.6	501.1	1 045.7
18–64	1 619	1 767	3 386	1 203.7	1 212.2	2 415.9
65 and over	359	531	890	247.6	287.0	534.6
Total	*2 751*	*3 016*	*5 767*	*1 995.9*	*2 000.3*	*3 996.1*
REMAINDER						
0–17	486	497	983	318.6	318.8	637.4
18–64	1 142	1 196	2 338	758.3	755.0	1 513.4
65 and over	263	327	590	164.1	148.1	312.2
Total	*1 891*	*2 020*	*3 911*	*1 241.0*	*1 221.9*	*2 462.9*

APPENDIX 2

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: BASED ON ICD 10

LABEL	*ABS INPUT CODES*
Certain infectious & parasitic diseases	
Tuberculosis	20 992
Viral infections characterised by skin & mucous membrane lesions	21 22 39 49 123 602 623 651 903
Viral hepatitis	271
Other infectious & parasitic diseases	23 24 35 40 48 83 118 151 184 237 265 270 272 282 297 330 492 494 495 496 577 624 625 792 793 794 795 810 811 812 831 832 833 834 835 836 962
Neoplasms	
Malignant neoplasms	
Digestive organs	273 274 275 276 277 589 877 921 927
Respiratory & intrathoracic organs	44 45 350 379 380 588 924
Skin	41 42 43 627 920
Mesothelial & soft tissue	418 993
Breast	798 922
Female genital organs	426 743 797 925
Male genital organs	837 838 923
Other	70 71 72 73 74 85 497 674 676 677 711 712 713 714 926 928 929
Site unknown	26 46 47 930
Benign neoplasms & neoplasms of uncertain nature	
Benign neoplasms & neoplasms of uncertain nature	86 87 278 321 378 456 457 498 499 590 595 628 629 631 632 633 675 678 715 716 744 799 800 801 802 839 876
Diseases of the blood & blood forming organs	
Diseases of the blood & blood forming organs	
Anaemias	76 78 79 80 978
Other diseases of the blood & blood forming organs	64 81 82 84 901
Endocrine, nutritional & metabolic disorders	
Diseases of the thyroid gland	
Disorders of the thyroid gland	673 681 684 685 686 695 991
Diabetes mellitus	
Type A	688 947
Type B	689 948
Type unknown	90
Other endocrine, nutritional & metabolic diseases	
High sugar levels in blood/urine	91
High cholesterol	693 942
Other endocrine, nutritional & metabolic diseases	55 92 187 188 189 242 667 682 687 690 691 694 891 950 980
Mental & behavioural problems	
Organic mental problems	
Organic mental problems	538 539
Alcohol & drug problems	
Alcohol & drug problems	526 527 528 529 530
Mood (affective) disorders	
Feeling depressed	515
Other mood (affective) disorders	541 545

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: BASED ON ICD 10 *continued*

LABEL	*ABS INPUT CODES*
Mental & behavioural problems *cont.*	
Other mental & behavioural problems	
Anxiety related problems	89 514 542 543 544 547 548 551
Problems of psychological development	534
Behavioural & emotional problems with usual onset in childhood/adolescence	520 521 522 523 524 525 532 533 550 882
Other mental & behavioural problems	264 518 540 549 552 553 554 555 556 557 890 892
Symptoms & signs involving cognition, perceptions, emotional state & behaviour	7 175 176 177 341 487 531 893
Diseases of the nervous system	
Episodic & paroxysmal disorders	
Epilepsy	505 982
Migraine	506 986
Other episodic & paroxysmal disorders	507 512
Other diseases of the nervous system	112 113 461 462 463 468 503 504 508 509 510 511 513 737
Diseases of the eye & adnexa	
Cataract	
Cataract	331 961
Glaucoma	
Glaucoma	332 960
Disorders of the choroid & retina	
Macular degeneration	328
Other disorders of the choroid & retina	326, 327, 645
Disorders of the ocular muscles, binocular movement, accommodation & refraction	
Astigmatism	103 952
Presbyopia	36 954
Short sightedness/myopia	105 879 953
Long sightedness/hyperopia	640 955
Other disorders of the ocular muscles, binocular movement, accommodation & refraction	107 334 880 963
Visual disturbances & blindness	
Complete blindness (one or both eyes)	93 94 956 957
Partial blindness (one or both eyes)	95 102 958 959
Other visual disturbances or loss of vision	305 306 307 315 333 642
Other diseases of the eye & adnexa	
Colour blind	106, 951
Other diseases of the eye & adnexa	119 302 303 304 308 309 310 311 316 317 318 319 320 329 335
Diseases of the ear & mastoid	
Complete deafness	
Complete deafness	108 964
Partial deafness & hearing loss nec	
Partial deafness & hearing loss nec	109 110 337 358 359 360 965 966
Diseases of the middle ear & mastoid processes	
Otitis media	346 347 349 969
Other diseases of the middle ear & mastoid processes	348 352

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: BASED ON ICD 10 *continued*

LABEL	*ABS INPUT CODES*
Diseases of the ear & mastoid *cont.*	
Diseases of the inner ear	
Menieres disease	111 968
Other diseases of the inner ear	357
Other diseases of the ear	
Other diseases of the ear	134 336 338 339 340 344 345 356 361 934 967
Diseases of the circulatory system(a)	
Hypertensive disease	
Hypertensive disease	392 393 394 939
Ischaemic heart diseases	
Angina	117 938
Other ischaemic heart diseases	382 383 384 391 936
Other heart diseases	
Other heart diseases	136 376 385 386 390 400
Tachycardia	
Tachycardia	365 387 388 943
Cerebrovascular diseases	
Cerebrovascular diseases	396 397 398 937
Oedema	
Oedema	135 941
Diseases of the arteries, arterioles & capillaries	
Diseases of the arteries, arterioles & capillaries	114 115 290 367 399 404 940
Diseases of the veins, lymphatic vessels, etc	
Haemorrhoids	403 945
Varicose veins	402 405 946
Other diseases of the veins, lymphatic vessels, etc	67 69 127 401
Other diseases of the circulatory system	
Low blood pressure	116 395
Other diseases of the circulatory system	377 935
Symptoms & signs involving the circulatory system	
Abnormalities of heartbeat	366
Cardiac murmurs and cardiac sounds	389 944
Other symptoms & signs involving the circulatory system	362 363 364 375
Diseases of the respiratory system	
Chronic lower respiratory diseases	
Bronchitis	583 979
Emphysema	596 981
Asthma	597
Other diseases of the respiratory system	
Hayfever & allergic rhinitis	215 975
Chronic sinusitis	580 976
Other diseases of the respiratory system	120 178 180 568 569 578 579 581 582 584 585 586 587 594 599 897

(a) In published output, selected circulatory conditions are grouped as follows under the heading of Heart, stroke and vascular conditions: Angina (117, 938); other ischaemic heart diseases (382, 383, 384, 391, 936); cerebrovascular diseases (396, 397, 398, 937); oedema and heart failure (135, 941, 385); and diseases of the arteries, arterioles and capillaries (114, 115, 290, 367, 399, 404, 940).

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: BASED ON ICD 10 *continued*

LABEL	*ABS INPUT CODES*
Diseases of the respiratory system *cont.*	
Symptoms & signs involving the respiratory system	
Symptoms & signs involving the respiratory system	9 37 179 214 558 559 560 561 562 563 564 565 566 567 570 572 576 598
Diseases of the digestive system	
Diseases of the oesophagus, stomach & duodenum	
Diseases of the oesophagus	285
Stomach/duodenal/gastrointestinal ulcer	287 286 990
Other diseases of the oesophagus, stomach & duodenum	129 288
Hernia	
Hernia	291 292 293 984
Other diseases of the intestines	
Irritable bowel syndrome	295
Other diseases of the intestines	98 146 147 152 294 296
Gallstones	
Gallstones	486
Other diseases of the digestive system	
Other diseases of the digestive system	131 132 133 138 148 149 150 155 157 192 193 194 283 284 289 298 299 300 301
Symptoms & signs involving the digestive system	
Symptoms & signs involving the digestive system	96 97 100 101 128 130 145 153 154 195 196 197 198 202 269
Diseases of the skin & subcutaneous tissue	
Diseases of the skin & subcutaneous tissue	
Dermatitis & eczema	99 601 636 637 638 639
Psoriasis	647 989
Other diseases of the skin & subcutaneous tissue	25 68 121 181 183 186 605 606 607 614 615 617 618 626 630 634 635 646 648 649 650 652 653 654 655 656 657 658
Symptoms & signs involving the skin & subcutaneous tissue	174 464 600 603 604 616 622
Diseases of the musculoskeletal system & connective tissue	
Arthropathies	
Gout	692 972
Arthritis - Rheumatoid	445 480 481 971
Arthritis - Osteoarthritis	421 423 446 447 448 482 483 970
Arthritis - Other & type unknown	422 449 476 479 974 484 478
Other arthropathies	139 141 142 143 144 158 159 160 161 412 458 485
Soft tissue disorders	
Rheumatism	216 973
Other soft tissue disorders	140 410 411 442 443 444 450 451 452 453 477
Dorsopathies	
Sciatica	425
Disc disorders	171 440
Back pain/problems nec	406 407 408 441 878
Curvature of the spine	424

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: BASED ON ICD 10 *continued*

LABEL	*ABS INPUT CODES*
Diseases of the musculoskeletal system & connective tissue *cont.*	
Osteoporosis	
Osteoporosis	455 987
Other diseases of the musculoskeletal system & connective tissue	
Other diseases of the musculoskeletal system & connective tissue	173 417 454 459 905
Symptoms & signs involving the musculoskeletal system & connective tissue	
Symptoms & signs involving the musculoskeletal system & connective tissue	137 409 416 466 491 899
Diseases of the genito-urinary system	
Diseases of the genito-urinary system	
Urinary calculus	721 985
Incontinence: urine	696
Diseases of male genital organs	814 816 817 818 819 820 821 822 830 843 848 849 850
Diseases of female pelvic organs & genital tract	732 762 763 764 765 766 767 768 769 770 772 773 774 775 776 777 778 779 791 796 805 807 809 813
Other diseases of the genito-urinary system	203 204 207 208 209 211 643 644 697 698 701 702 705 706 707 708 709 710 720 723 780 808
Congenital malformations, deformations & chromosomal abnormalities	
Congenital malformations, deformations & chromosomal abnormalities	
Of the musculoskeletal system	420
Other congenital malformations, deformations & chromosomal abnormalities	54 77 88 185 281 324 325 355 381 593 679 680 719 746 804 844 845 846 847 904
Symptoms, signs & conditions nec	
Dizzyness	467
Disability nec	17 201 267 343 372 373 415 490 537 575 621 790 829 856
Speech difficulties	469 571
Fluid retention (non circulatory)	983
Allergy (undefined)	56 977
Amputation	217 218
Fatigue and exhaustion	124
Injuries	
Fractures	162 163 164 165 166 906
Sprains & Strains	167 168 169
Tear ligament, muscle or tendon	493
Injury internal organs	31 75 280 717
Injury skin	38 122 612 613
Injury knee nec	172
Injury eye	323
Injury joint	419
Injury neck nec	894
Injury nerve	502
Burns & scalds	609

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: BASED ON ICD 10 *continued*

LABEL	*ABS INPUT CODES*
Symptoms, signs & conditions nec *cont.*	
Injuries *cont.*	
Adverse effects of treatment	33 34 50 51 52 53 932
Other injuries	29 30 32 279 353 841 170 182 219 268 322 351 354 460 500 501 591 592 608 610 611 718 745 803 806 840 842
All other symptoms, signs & conditions nec	1 2 3 4 5 6 8 11 63 125 126 190 191 465 516 659 660 661 662 663 664 665 666 670 671 672 699 722 729 730 739 740 747 750 753 771 815 860 866 873 874 875 888 998 999

APPENDIX 3

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED

ABS INPUT CODES	*ICPC CODES*	*LABELS*
A. GENERAL AND UNSPECIFIED		
Symptoms and complaints		
1 2	A01	Pain general/multiple sites
3	A02	Chills
4	A03	Fever
124	A04	Weakness/tiredness general
5	A05	Feeling ill
6	A06	Fainting/syncope
7	A07	Coma
8	A08	Swelling
125	A09	Sweating problem
126	A10	Bleeding/haemorrhage nos
9	A11	Chest pain nos
11	A16	Irritable infant
17	A28	Limited function/disability nos
875 888	A29	General symptom/complaint other
Diagnoses/diseases		
20 992	A70	Tuberculosis
21	A71	Measles
22	A72	Chickenpox
23	A73	Malaria
49	A74	Rubella
237	A75	Infectious mononucleosis
35	A76	Viral exanthem other
39 265	A77	Viral disease other/nos
24 25 48	A78	Infectious disease other/nos
29 30	A80	Trauma/injury nos
26 930 46 47	A79	Malignancy nos
31	A81	Multiple trauma/injuries
32 217	A82	Secondary effect of trauma
33	A84	Poisoning by medical agent
34 932	A85	Adverse effect medical agent
50	A86	Toxic effect non–medicinal substance
51	A87	Complication of medical treatment
52	A88	Adverse effect physical factor
53	A89	Effects prosthetic device
54	A90	Congenital anomaly nos/multiple
55 91	A91	Abnormal results investigation nos
56 977	A92	Allergy/allergic reaction nos
58	A94	Perinatal morbidity other
63	A99	General disease nos

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
B. BLOOD, BLOOD FORMING ORGANS AND IMMUNE MECHANISM		
Symptoms and complaints		
127	B02	Lymph gland(s) enlarged/painful
64	B04	Blood symptom/complaint
267	B28	Limited function/disability (B)
67	B29	Symptom/complaint blood and immune mechanism
Diagnoses/diseases		
68	B70	Lymphadenitis acute
69	B71	Lymphadenitis non–specific
70 71 929	B72	Hodgkin's disease/lymphoma
72 928	B73	Leukaemia
73 74 85 876	B74	Malignant neoplasm blood other
86 87	B75	Benign/uncertain neoplasms blood
75	B76	Ruptured spleen traumatic
268	B77	Injury blood/lymph/spleen other
76	B78	Hereditary haemolytic anaemia
77	B79	Congenital anomaly blood/lymph other
78	B80	Iron deficiency anaemia
79	B81	Anaemia vitamin B12/folate deficiency
80 978	B82	Anaemia other/unspecified
81	B83	Purpura/coagulation defect
82	B84	Abnormal white cells
269	B87	Splenomegaly
83	B90	HIV–infection/AIDS
84 901	B99	Blood/lymph/spleen disease other
D. DIGESTIVE		
Symptoms and complaints		
96	D01	Abdominal pain/cramps general
128	D02	Abdominal pain epigastric
97	D03	Heartburn
98	D04	Rectal/anal pain
99	D05	perianal itching
100	D06	Abdominal pain localised other
129	D07	Dyspepsia/indigestion
130	D08	Flatulence/gas/belching
101	D09	Nausea
145	D10	Vomiting
146	D11	Diarrhoea
147	D12	Constipation
148	D13	Jaundice
149	D14	Haematemesis/vomiting blood
150	D15	Melaena
152	D16	Rectal bleeding

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
	D. DIGESTIVE *cont.*	
Symptoms and complaints *cont.*		
153	D17	Incontinence of bowel
154	D18	Change in faeces/bowel movements
155 157	D19	Teeth/gum symptom/complaint
192 193 194	D20	Mouth/tongue/lip symptom/complaint
195	D21	Swallowing problem
196	D23	Hepatomegaly
197	D24	Abdominal mass nos
198	D25	Abdominal distension
201	D28	Limited function/disability (digestive)
202	D29	Digestive symptom/complaint other
Diagnoses/diseases		
118	D70	Gastrointestinal infection
270	D71	Mumps
271	D72	Viral hepatitis
272	D73	Gastroenteritis presumed infection
273 927	D74	Malignant neoplasm stomach
274 921 275 877	D75	Malignant neoplasm colon/rectum
276	D76	Malignant neoplasm pancreas
277	D77	Malignant digestive neoplasm other/nos
278	D78	Neoplasm digestive system benign/uncertain
279	D79	Foreign body in digestive system
280	D80	Injury other
281	D81	Congenital anomaly digestive
131	D82	Teeth/gum disease
282 283 284	D83	Mouth/tongue/lip disease
285	D84	Oesophagus disease
286	D85	Duedenal ulcer
287 990	D86	Peptic ulcer, other
291	D89	Inguinal hernia
292	D90	Hiatus hernia
293 984	D91	Abdominal hernia, other
298 486	D98	Cholecystitis/cholelithiasis
295	D93	Irritable bowel syndrome
288	D87	Stomach function disorder
289	D88	Appendicitis
294	D92	Diverticular disease
132	D94	Chronic enteritis/ulcerative colitis
296	D95	Anal fissure/perianal abscess
297	D96	Worms/other parasites
133	D97	Liver disease nos
299 300 301	D99	Disease digestive system other

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
F. EYE		
Symptoms and complaints		
302	F01	Eye pain
303	F02	Red eye
304	F03	Eye discharge
305	F04	Visual floaters/spots
306 307	F05	Visual disturbance other
308	F13	Eye sensation abnormal
309 641	F14	Eye movements abnormal
310	F15	Eye appearance abnormal
311	F16	Eyelid symptom/complaint
94 102 315	F28	Limited function/disability eye
316	F29	Eye symptom/complaint, other
Diagnoses/diseases		
317	F70	Conjunctivitis infectious
318	F71	Conjunctivitis allergic
319	F72	Blepharitis/stye/chalazion
320 903	F73	Eye infection/inflammation other
321	F74	Neoplasm of eye/adnexa
119	F75	Contusion/haemorrhage eye
322	F76	Foreign body in eye
323	F79	Injury eye other
324	F80	Blocked lacrimal duct: Infant
325	F81	Congenital anomaly eye other
326	F82	Detached retina
327	F83	Retinopathy
328	F84	Macular degeneration
329	F85	Corneal ulcer
330 962	F86	Trachoma
36 954 103 952 953 104 105 640 955 105 107 879	F91	Refractive error
331 961	F92	Cataract
332 960	F93	Glaucoma
93 95 333 956 957 958 959	F94	Blindness
334 880 963	F95	Strabismus
106 335 951 642 645	F99	Eye/adnexa disease, other
H. EAR		
Symptoms and complaints		
336	H01	ear pain/earache
337	H02	Hearing complaint
338 967	H03	Tinnitus, ringing/buzzing ear
339	H05	ear discharge
340	H13	Plugged feeling ear
341	H15	Concern with appearance of ears
108 109 343	H28	Limited function/disability (ear)
344	H29	ear symptom/complaint other

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
H. EAR *cont.*		
Diagnoses/diseases		
345 934	H70	Otitis externa
346 969	H71	Acute otitis media/myringitis
347	H72	Serious otitis media
348	H73	Eustachian salpingitis
349	H74	Chronic otitis media
350	H75	Neoplasm of ear
351	H76	Foreign body in ear
352	H77	Perforation ear drum
353	H78	Superficial injury of ear
354	H79	Ear injury other
355	H80	Congenital anomaly of ear
356	H81	Excessive ear wax
111 134 968	H82	Vertiginous syndrome
357	H83	Otosclerosis
358	H84	Presbyacusis
359 964	H85	Acoustic trauma
110 360 965 966	H86	Deafness
361	H99	Ear/mastoid disease other
K. CIRCULATORY		
Symptoms and complaints		
362	K01	Heart pain
363	K02	Pressure/tightness of heart
364	K03	Cardiovascular pain nos
365 943	K04	Palpitations/awareness of heart
366	K05	Irregular heartbeat other
367	K06	Prominent veins
135 941	K07	Swollen ankles/oedema
372 373	K28	Limited function/disability (cardiovascular)
116 375	K29	Cardiovascular symptom/complaint other
Diagnoses/diseases		
376	K70	Infection of circulatory system
377 935	K71	Rheumatic fever/heart disease
378 379 380	K72	Neoplasm cardiovascular
381	K73	Congenital anomaly cardiovascular
117 382 938	K74	Ischaemic heart disease with angina
383	K75	Acute myocardial infarction
384	K76	Ischaemic heart disease without angina
385	K77	Heart failure
386	K78	Atrial fibrillation/flutter

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
K. CIRCULATORY *cont.*		
Diagnoses/diseases *cont.*		
387	K79	Paroxysmal tachycardia
388	K80	Cardiac arrhythmia nos
389 944	K81	Heart/arterial murmur nos
390	K82	Pulmonary heart disease
136	K83	Heart valve disease nos
391 936	K84	Heart disease other
392 939	K85	Elevated blood pressure
393	K86	Hypertension uncomplicated
394	K87	Hypertension complicated
395	K88	Postural hypotension
396	K89	Transient cerebral ischaemia
397 937	K90	Stroke/cerebrovascular accident
398	K91	Cerebrovascular disease
114 115 940 290 399	K92	Atherosclerosis/peripheral vascular disease
400	K93	Pulmonary embolism
401	K94	Phlebitis/thrombophlebitis
402	K95	Varicose veins of leg
403 945	K96	Haemorrhoids
404 405 946	K99	Cardiovascular disease other
L. MUSCULOSKELETAL		
Symptoms and complaints		
406	L01	Neck symptom/complaint
407	L02	Back symptom/complaint
408	L03	Low back symptom/complaint
409	L04	Chest symptom/complaint
137	L05	Flank/axilla symptom/complaint
138	L07	Jaw symptom/complaint
139	L08	Shoulder symptom/complaint
140	L09	Arm symptom/complaint
141	L10	Elbow symptom/complaint
142	L11	Wrist symptom/complaint
143	L12	Hand/finger symptom/complaint
144	L13	Hip symptom/complaint
158	L14	Leg/thigh symptom/complaint
159	L15	Knee symptom/complaint
160	L16	Ankle symptom/complaint
161	L17	Foot/toe symptom/complaint
216 410 973	L18	Muscle pain
411	L19	Muscle symptom/complaint nos
412	L20	Joint symptom/complaint nos
415	L28	Limited function/disability (L)
416	L29	Symptom/complaint

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
L. MUSCULOSKELETAL *cont.*		
Diagnoses/diseases		
417 476 477	L70	Infections of
418	L71	Malignant neoplasm musculoskeletal
162	L72	Fracture: radius/ulna
163	L73	Fracture: tibia/fibula
164	L74	Fracture: hand/foot bone
165	L75	Fracture: femur
166	L76	Fracture: other
167	L77	Sprain/strain of ankle
168	L78	Sprain/strain of knee
169	L79	Sprain/strain of joint nos
170	L80	Dislocation/subluxation
218 419 478 493 806	L81	Injury musculoskeletal nos
420	L82	Congenital anomaly musculoskeletal
171 421 479 894	L83	Neck syndrome
422 423 878	L84	Back syndrome without radiating pain
424	L85	Acquired deformity of spine
425 440 441	L86	Back syndrome with radiating pain
442 443 444	L87	Bursitis/tendinitis/synovitis nos
445 480 481 971	L88	Rheumatoid arthritis
446 482	L89	Osteoarthritis of hip
447 483	L90	Osteoarthritis of knee
448 449 974	L91	Osteoarthritis of other
450 451 452	L92	Shoulder syndrome
453	L93	Tennis elbow
454	L94	Osteochondrosis
455 987	L95	Osteoporosis
172	L96	Acute internal knee damage
456 457	L97	Neoplasm benign/unspecified musculoskeletal
458	L98	Acquired deformity of limb
173 459 460 905 970	L99	Musculoskeletal disease, other
N. NEUROLOGICAL		
Symptoms and complaints		
461	N01	Headache
462	N03	Pain face
463	N04	Restless legs
174	N05	Tingling fingers/feet/toes
464	N06	Sensation disturbance other
465	N07	Convulsion/seizure
466	N08	Abnormal involuntary movements
175	N16	Disturbance of smell/taste

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
N. NEUROLOGICAL *cont.*		
Symptoms and complaints *cont.*		
467	N17	Vertigo/dizziness
468	N18	Paralysis/weakness
469	N19	Speech disorder
490	N28	Limited function/disability (neurological)
491 899	N29	Neurological symptom/complaint other
Diagnoses/diseases		
492	N70	Poliomyelitis
494	N71	Meningitis/encephalitis
495	N72	Tetanus
496	N73	Neurological infection other
497	N74	Malignant neoplasm nervous system
498	N75	Benign neoplasm nervous system
499	N76	Neoplasm nervous system uncertain nature
500	N79	Concussion
501 906	N80	Head injury other
502	N81	Injury nervous system other
88	N85	Congenital anomaly neurological
503	N86	Multiple sclerosis
504	N87	Parkinsonism
505 982	N88	Epilepsy
506 986	N89	Migraine
507	N90	Cluster headache
508	N91	Facial paralysis/Bells' Palsy
509	N92	Trigeminal neuralgia
510	N93	Carpal tunnel syndrome
511	N94	Peripheral neuritis/neuropathy
512	N95	Tension headache
112 113 513 737	N99	Neurological disease other
P. PSYCHOLOGICAL		
Symptoms and complaints		
89 487	P01	Feeling anxious/nervous/tense
514	P02	Acute stress reaction
515	P03	Feeling depressed
176	P04	Feeling/behaving irritable/angry
516	P05	Senility, feeling/behaving old
264	P06	Sleep disturbance
518	P08	Sexual fulfilment reduced
520 521	P10	Stammering/stuttering/tic
522	P11	Eating problem in child
523 524	P12	Bedwetting/enuresis

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
P. PSYCHOLOGICAL *cont.*		
Symptoms and complaints *cont.*		
525	P13	Encopresis/bowel training problem
526	P15	Chronic alcohol abuse
527	P16	Acute alcohol abuse
528	P17	Tobacco abuse
529	P18	Medication abuse
530	P19	Drug abuse
531	P20	Memory disturbance
532 882	P22	Child behaviour symptom/complaint
533	P23	Adolescent behaviour symptom/complaint
534	P24	Specific learning problem
537	P28	Limited function/disability
177 892 893	P29	Psychological symptom/complaint other
Diagnoses/diseases		
538	P70	Dementia
539	P71	Organic psychosis other
540	P72	Schizophrenia
541	P73	Affective psychosis
542 543	P74	Anxiety disorder/anxiety state
544	P75	Somatization disorder
545	P76	Depressive disorder
547	P78	Neuraesthenia/surmenage
548	P79	Phobia/compulsive disorder
549	P80	Personality disorder
550	P81	Hyperkinetic disorder
551	P82	Post–traumatic stress disorder
552	P85	Mental retardation
553 554 555	P86	Anorexia nervosa/bulimia
556 860 890	P98	Psychosis nos/other
557	P99	Psychological disorders, other
R. RESPIRATORY		
Symptoms and complaints		
558 559 560 561 562 563	R01	Pain respiratory system
564	R02	Shortness of breath/dyspnoea
565	R03	Wheezing
37	R04	Breathing problem other
566	R05	Cough
567	R06	Nose bleed/epistaxis
178	R07	Sneezing/nasal congestion
568	R08	Nose symptom/complaint other
569 897	R09	Sinus symptom/complaint
214 570	R21	Throat symptom/complaint

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
	R. RESPIRATORY *cont.*	
Symptoms and complaints *cont.*		
571	R23	Voice symptom/complaint
572	R24	Haemoptysis
179	R25	Sputum/phlegm abnormal
575	R28	Limited function/disability (respiratory)
576	R29	Respiratory symptom/complaint other
Diagnoses/diseases		
577	R71	Whooping cough
578	R72	Strep throat
120	R73	Boil/abscess nos
579	R74	Upper respiratoy infection acute
580 976	R75	Sinusitis acute/chronic
581	R76	Tonsillitis acute
180	R77	Laryngitis/tracheitis acute
583 979	R79	Chronic bronchitis
582	R78	Acute bronchitis/bronchiolitis
584	R80	Influenza
585	R81	Pneumonia
586	R82	Pleurisy/pleural effusion
587	R83	Respiratory infection other
44 45 924 588	R84	Malignant neoplasm bronchus, lung
589 993	R85	Malignant neoplasm respiratory other
590	R86	Benign neoplasm respiratory
591	R87	Foreign body nose/larynx/bronchus
592	R88	Injury respiratory other
593	R89	Congenital anomaly respiratory
594	R90	Hypertrophy tonsils/adenoids
595	R92	Neoplasm respiratory uncertain nature
596 981	R95	Chronic obstructive pulmonary disease
597	R96	Asthma
215 975	R97	Allergic rhinitis
598	R98	Hyperventilation syndrome
599	R99	Respiratory disease other
	S. SKIN	
Symptoms and complaints		
601	S02	Pruritus
603 983	S04	Lump/swelling localised
604	S05	Lumps/swelling multiple
605	S06	Rash localised
606	S07	Rash generalised
607	S08	Skin colour change
121	S09	Infected finger/toe
181	S10	Boil/carbuncle
38	S11	Skin infection post–traumatic

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
	S. SKIN *cont.*	
Symptoms and complaints *cont.*		
122	S12	Insect bite/sting
608	S13	Animal/human bite
609	S14	Burn/scald
610	S15	Foreign body in skin
611	S16	Bruise/contusion
182	S17	Abrasion/scratch/blister
612	S18	Laceration/cut
613	S19	Skin injury other
614 615	S20	Corn/callosity
616	S21	Skin texture symptom/complaint
617	S22	Nail symptom/complaint
183	S23	Hair loss/baldness
618	S24	Hair/scalp symptom/complaint
621	S28	Limited function/disability (skin)
622	S29	Skin symptom/complaint other
Diagnoses/diseases		
623	S70	Herpes zoster
123	S71	Herpes simplex
624	S72	Scabies/other acariasis
184	S73	Pediculosis/skin infestation other
40 625	S74	Dermatophytosis
151	S75	Moniliasis/candidiasis skin
626	S76	Skin infection other
41 42 43 627 920	S77	Malignant neoplasm of skin
628	S78	Lipoma
629	S79	Neoplasm skin benign/uncertain
630	S80	Solar keratosis/sunburn
631 904	S81	Haemangioma/lymphangioma
632 633	S82	Naevus/mole
185	S83	Congenital skin anomaly other
634	S84	Impetigo
635	S85	Pilonidal cyst/fistula
636	S86	Dermatitis seborrhoeic
637	S87	Dermatitis/atopic eczema
638	S88	Dermatitis contact/allergic
639	S89	Diaper rash
646	S90	Pityriasis rosea
484 647 989	S91	Psoriasis
648 649	S92	Sweat gland disease
650	S93	Sebaceous cyst
186	S94	Ingrowing nail

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
S. SKIN *cont.*		
Diagnoses/diseases *cont.*		
651	S95	Molluscum contagiosum
652	S96	Acne
653	S97	Chronic ulcer skin
654	S98	Urticaria
655 656 657 658	S99	Skin disease other
T. ENDOCRINE, METABOLIC AND NUTRITIONAL		
Symptoms and complaints		
659	T01	Excessive thirst
660	T02	Excessive appetite
661	T03	Loss of appetite
662	T04	Feeding problem of infant/child
663	T05	Feeding problem of adult
664	T07	Weight gain
665	T08	Weight loss
666	T10	Growth delay
667	T11	Dehydration
670	T28	Limited function/disability (endocrine/metabolic)
187 671 672	T29	Endocrine/metabolic/nutritional symptom/complaint other
Diagnoses/diseases		
673	T70	Endocrine infection
674	T71	Malignant neoplasm thyroid
675	T72	Benign neoplasm thyroid
676 677 678	T73	Neoplasm endocrine other/uncertain
679	T78	Thyroglossal duct/cyst
680	T80	Congenital anomaly endocrine/metabolic
681	T81	Goitre
682	T82	Obesity
683	T83	Overweight
684	T85	Hyperthyroidism/thyrotoxicosis
685 686	T86	Hypothyroidism/myxoedema
687	T87	Hypoglycaemia
688 947	T89	Diabetes insulin dependent
90 689 948	T90	Diabetes non–insulin dependent
188 690 691	T91	Vitamin/nutritional deficiency
692 972	T92	Gout
189 693 942	T93	Lipid disorder
242 485 694 695 991 92 950 891 980	T99	Endocrine/metabolic/nutritional disease, other

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
U. URINARY SYSTEM		
Symptoms and complaints		
190	U01	Dysuria/painful urination
191	U02	Urinary frequency/urgency
696	U04	Incontinence urine
697	U05	Urination problems other
698	U06	Haematuria
699	U07	Urine complaints other
701	U13	Bladder symptom/complaint other
702	U14	Kidney symptom/complaint
705	U28	Limited function/disability (urinary)
706	U29	Urinary symptom/complaint other
Diagnoses/diseases		
203	U70	Pyelonephritis/pyelitis
707 708 709	U71	Cystitis/urinary infection other
710	U72	Urethritis
711 712 926	U75	Malignant neoplasm kidney
713	U76	Malignant neoplasm of bladder
714	U77	Malignant neoplasm urinary other
715	U78	Benign neoplasm urinary tract
716	U79	Neoplasm urinary tract nos
717 718	U80	Injury urinary tract
719	U85	Congenital anomaly urinary tract
204	U88	Glomerulonephritis/nephrosis
720	U90	Orthostatic albuminuria/proteinuria
721 985	U95	Urinary calculus
722	U98	Abnormal urine test nos
643 644 723	U99	Urinary disease other
W. PREGNANCY, CHILDBEARING, FAMILY PLANNING		
Symptoms and complaints		
726	W03	Antepartum bleeding
205	W05	Pregnancy vomiting/nausea
729	W12	Contraception uterine
730	W13	Sterilization
732	W15	Infertility/subfertility

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
W. PREGNANCY, CHILDBEARING, FAMILY PLANNING *cont.*		
Symptoms and complaints *cont.*		
733	W17	Post–partum bleeding
734	W18	Post–partum symptom/complaint other
735	W19	Breast/lactation symptom/complaint
739	W28	Limited function/disablility (pregnancy)
740	W29	Pregnancy symptom/complaint other
Diagnoses/diseases		
741	W70	Puerperal infection/sepsis
742	W71	Infection complicating pregnancy
743	W72	Malignant neoplasm related to pregnancy
744	W73	Benign/uncertain neoplasm related to pregnancy
745	W75	Injury complicating pregnancy
746	W76	Congenital anomaly complicating pregnancy
747	W78	Pregnancy
750	W81	Toxaemia of pregnancy
754 949	W85	Gestational diabetes
759	W94	Puerperal mastitis
206	W95	Breast disorder in pregnancy/puerperium other
760	W96	Complications of peurperium other
761	W99	Disorder of pregnancy/delivery other
X. FEMALE GENITAL SYSTEM (INCLUDING BREAST)		
Symptoms and complaints		
762	X01	Genital pain female
763	X02	Menstrual pain
764	X03	Intermenstrual pain
765	X04	Painful intercourse female
766	X05	Menstruation absent/scanty
767	X06	Menstruation excessive
768	X07	Menstruation irregular/frequent
769	X08	Intermenstrual bleeding
770	X09	Premenstrual symptom/complaint
771	X10	Postponement of menstruation
772 773	X11	Menopausal symptom/complaint
774	X12	Postmenopausal bleeding
775	X13	Postcoital bleeding
776	X14	Vaginal discharge
777	X15	Vaginal symptom/complaint other
778	X16	Vulval symptom/complaint
779	X17	Pelvis symptom/complaint female
780	X18	Breast pain female

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
X. FEMALE GENITAL SYSTEM (INCLUDING BREAST) *cont.*		
Symptoms and complaints *cont.*		
781	X19	Breast lump/mass female
782	X20	Nipple symptom/complaint female
783	X21	Breast symptom/complaint female other
790	X28	Limited function/disability (genital)
791	X29	Genital symptom/complaint female other
Diagnoses/diseases		
792	X70	Syphilis female
793	X71	Gonorrhoea female
794	X72	Genital candidiasis female
795	X73	Genital trichomoniasis female
796	X74	Pelvis inflammatory disease
797	X75	Malignant neoplasm cervix
798 922	X76	Malignant neoplasm breast female
426 925	X77	Malignant neoplasm genital female other
799	X78	Fibromyoma uterus
800	X79	Benign neoplasm breast
801	X80	Benign neoplasm female genital
802	X81	Genital neoplasm female other/unspecified
219 803	X82	Injury genital female
804	X83	Congenital anomaly genital female
207	X84	Vaginitis/vulvitis nos
208	X85	Cervical disease nos
805	X86	Abnormal pap smear
807	X87	Uterovaginal prolapse
808	X88	Fibrocystic disease breast
809	X89	Premenstrual tension syndrome
810	X90	Genital herpes female
811	X91	Condylomata acuminata female
812	X92	Chlamydia infection genital female
813	X99	Genital disease, other
Y. MALE GENITAL SYSTEM		
Symptoms and complaints		
814	Y01	Pain in penis
209	Y02	Pain in testis/scrotum
815	Y03	Urethral discharge
816	Y04	Penis symptom/complaint other
817 818	Y05	Scrotum/testis symptom/complaint other
819	Y06	Prostate symptom/complaint
820	Y07	Impotence nos

CLASSIFICATION OF LONG TERM MEDICAL CONDITIONS: ICPC–BASED *continued*

ABS INPUT CODES	*ICPC CODES*	*LABELS*
Y. MALE GENITAL SYSTEM *cont.*		
Symptoms and complaints *cont.*		
821	Y08	Sexual function symptom/complaint male
822	Y10	Infertility/subfertility male
824	Y16	Breast symptom/complaint male
829	Y28	Limited function/disability genital male
830	Y29	Genital symptom/complaint male other
Diagnoses/diseases		
831	Y70	Syphilis male
832	Y71	Gonorrhoea male
833	Y72	Genital herpes male
834	Y73	Prostatitis/seminal vesiculitis
211	Y74	Orchitis/epididymitis
835	Y75	Balanitis
836	Y76	Condylomata acuminata male
837 923	Y77	Malignant neoplasm prostate
838	Y78	Malignant neoplasm male genital other
839	Y79	Benign/unspecified neoplasm male genital
840 841 842	Y80	Injury male genital
843	Y81	Phimosis/redundant prepuce
844 845	Y82	Hyposadias
846	Y83	Undescended testicle
847	Y84	Congenital genital anomaly male other
848	Y85	Benign prostatic hypertrophy
849	Y86	Hydrocoele
850	Y99	Genital disease male other
Z. SOCIAL PROBLEMS		
Symptoms and complaints		
856	Z07	Education problem
866	Z18	Illness problems with child
873	Z28	Social handicap
874	Z29	Social problem nos
SYMPTOM OR CONDITION NOT KNOWN/NOT STATED		
998 999	Z99	Not known/not stated

APPENDIX 4

CLASSIFICATION OF TYPES OF MEDICATION

ABS category	*Generic medication name*
MEDICATIONS COMMONLY USED FOR MENTAL WELLBEING	
Tricyclic antidepressants and mianserin	
100	Amitriptyline
101	Clomipramine
102	Doxepin
103	Imipramine
104	Nortriptylin
105	Trimipramine
106	Mianserin
107	Dothiepin
Monoamine oxidase inhibitors	
200	Phenelzine
201	Tranylcypromine
Monoamine oxidase A inhibitors	
300	Moclobemide
Selective serotonin reuptake inhibitors	
400	Citalopram
401	Fluoxetine
402	Fluvoxamine
403	Paroxetine
404	Sertraline
Other antidepressants	
500	Mirtazapine
501	Nefazodone
502	Reboxetine
503	Venlafaxine
Conventional antipsychotics	
600	Chlorpromazine
601	Droperidol
602	Fluphenazine
603	Flupenthixol
604	Haloperidol
605	Pericyazine
606	Pimozide
607	Thioridazine
608	Thiothixene
609	Trifluoperazine
610	Zuclopenthixol
Atypical antipsychotics	
700	Amisulpride
701	Clozapine
702	Olanzapine
703	Quetiapine
704	Risperidone
Lithium	
110	Lithium

CLASSIFICATION OF TYPES OF MEDICATION *continued*

ABS category	*Generic medication name*
MEDICATIONS COMMONLY USED FOR MENTAL WELLBEING *cont.*	
Benzodiazepines	
800	Alprazolam
801	Bromazepam
802	Clobazam
803	Diazepam
804	Flunitrazepam
805	Lorazepam
806	Nirtazepam
807	Oxazepam
808	Temazepam
809	Trazolam
899	Other benzodiazepines
Other anxiolytics and hypnotics	
120	Buspirone
900	Zolpidem
901	Zopiclone
Other sedatives and tranquillisers	
0027 0999	Other sedatives and tranquillisers
MEDICATIONS COMMONLY USED FOR RESPIRATORY CONDITIONS	
Sympathomimetics	
2023	Sudafed
2102	Methoxamine
2103	Oxymetazoline
2104	Phenylephrine
2105	Tramazoline
2106	Xylometazoline
2108	Tetryzoline
2110	Ephedrine
2301	Naphazoline
Antihistamine for topical use (nasal)	
2401	Levocabastine (nasal drops)
2402	Ipratropium bromide
2403	Azelastine
2404	Mapirocin
Antihistamine for topical use (conjunctival)	
2501	Levocabastine (eye drops)
2502	Olopatadine
Anti–inflammatory steroids for oral use	
2605	Prednisolone
2606	Prednisone
Anti–inflammatory steroids for topical use (nasal)	
3221	Beclomethasone
3222	Budesonide
3223	Mometasone

CLASSIFICATION OF TYPES OF MEDICATION *continued*

ABS category	*Generic medication name*
MEDICATIONS COMMONLY USED FOR RESPIRATORY CONDITIONS *cont.*	
Anti–inflammatory steroids for topical use (conjunctival)	
2701	Dexamethasone
2702	Fluorometholone
2703	Hydrocortisone
2704	Medrysone
2705	Prednisolone (eye drops)
Anti–inflammatory non–steroids	
2801	Diclofenac
2802	Flurbiprofen
2803	Indomethacin (respiratory)
2804	Ketorolac (respiratory)
Antihistamines for systemic use	
2202	Azatadine
2203	Cetirizine
2204	Chlorpheniramine
2205	Cyproheptadine
2206	Dexchlorpheniramine
2207	Diphenhydramine
2208	Diphenylpyraline
2209	Hydroxyzine
2210	Loratadine
2211	Mebhydrolin
2212	Meclozine
2213	Methdilazine
2214	Pheniramine
2215	Promethazine
2216	Terfenadine
2217	Alimemazine
2218	Fexofenadine
2999	Allergy medications nec
MEDICATIONS COMMONLY USED FOR ASTHMA	
Reliever–bronchodilators	
3101	Adrenaline
3102	Fenoterol
3103	Isoprenaline
3104	Orciprenaline
3105	Salbutamo
3106	Terbutaline
3107	Salmeterol
3108	Eformoterol

CLASSIFICATION OF TYPES OF MEDICATION *continued*

ABS category	*Generic medication name*
MEDICATIONS COMMONLY USED FOR ASTHMA *cont.*	
Preventers–inhaled steroids	
3201	Beclamethasone (inhaler)
3202	Budesonide (inhaler)
3203	Fluticasone
3204	Ipratropium
3205	Montelukast sodium
3206	Zafirlukast
3401	Tiotropium
Preventers–non–steroids	
3207	Cromoglycate
3208	Nedocromil
Other anti–asthmatics for systemic use	
3301	Aminophyline
3302	Theophylline
3303	Choline theophyllinate
3304	Ipratropium (bromide)
Asthma medications nec	
3999	Asthma medications nec
MEDICATIONS COMMONLY USED FOR ARTHRITIS AND OSTEOPOROSIS	
Androgens	
2730	Testosterone
Medications affecting bone structure and mineralization	
2740	Raloxifene
Bisphosphonates	
2750	Etidronate
2751	Etidronate plus calcium
2752	Alendronate
2753	Risedronate
2754	Pamidronate
2755	Zoledronic acid

CLASSIFICATION OF TYPES OF MEDICATION *continued*

ABS category	*Generic medication name*
MEDICATIONS COMMONLY USED FOR ARTHRITIS AND OSTEOPOROSIS *cont.*	
Anti–inflammatory and antirheumatic products, non steroids	
2810	Meloxicam
2811	Naproxen
2812	Parecoxib
2813	Piroxicam
2815	Sulindac
2816	Tiaprofenic acid
2821	Diclofenac
2823	Indomethacin (arthritis)
2824	Ketorolac (arthritis
2825	Celecoxib
2826	Diflunisal
2827	Ibuprofen
2828	Ketoprofen
2829	Mefenamic acid
Quinolines	
2830	Chloroquine
2831	Hydroxychloroquine
Gold salts	
2850	Auranofin
2851	Aurothiomalate
Immunosuppressants	
2817	Methotrexate
2840	Azathioprine
2841	Cyclosporin
2842	Etanercept
2844	Leflunomide
Other medications for rheumatoid arthritis	
2860	Penicillamine
2861	Sulfasalazine
Antigout preparation	
2818	Colchicine
2870	Allopurinol
2872	Probenecid
Intra–articular corticosteroids	
2880	Betamethasone
2881	Methylprednisolone
2882	Triamcinolone
Other musculoskeletal	
2814	Rofecoxib
2820	Hylans
2836	Methysulfonylmethone

CLASSIFICATION OF TYPES OF MEDICATION *continued*

ABS category	*Generic medication name*
MEDICATIONS COMMONLY USED FOR ARTHRITIS AND OSTEOPOROSIS *cont.*	
Vitamin D substances	
2760	Ergocalciferol
2761	Cholecalciferol
2762	Calcitriol
Calcium	
2770	Calcium citrate
2771	Calcium carbonate
2835	Calcium
Other arthritis medications	
2780	Parathyriod hormone
2790	Strontium ranelate
Vitamins or mineral supplements or herbal or natural remedies	
2800	Glucosamine
2805	Shark cartilage
2806	Osteoeze (vitamin / mineral)
2808	Fish oil
2809	Celery seed
2837	Other vitamins or minerals for arthritis
2838	Other herbal remedies for arthritis
2839	Other vitamins, minerals or herbal remedies for arthritis nec
2847	Vitamin B (arthritis)
2845	Vitamin E
MEDICATIONS COMMONLY USED FOR DIABETES	
Insulins	
4101	Insulin lispro
4102	Insulin neutral
4103	Insulin isophane
4104	Insulin neutral – insulin isophane
4105	Insulin zinc suspension
4109	Insulin not further defined
Oral blood glucose lowering drugs	
4200	Acarbose
4201	Chlorpropamide
4202	Glibenclamide
4203	Gliclazide
4204	Glipizide
4205	Metformin
4206	Tolbutamide
4207	Glimepiride
4301	Pioglitazone
4302	Repaglinide
4304	Glucagon

CLASSIFICATION OF TYPES OF MEDICATION *continued*

ABS category	*Generic medication name*
MEDICATIONS COMMONLY USED FOR DIABETES *cont.*	
Diabetes medications nec	
4999	Diabetes medication nec
MEDICATIONS COMMONLY USED FOR HEART AND BLOOD PRESSURE	
Cardiac glycosides	
5101	Digoxin
5102	Proscillaridin
Anti–arythmics	
5201	Amiodarone
5202	Bretylium tosylate
5203	Disopyramide
5204	Flecainide
5205	Lignocaine
5206	Mexiletine
5207	Procainamide
5208	Quinidine
Vasodilators used in cardiac disease	
5210	Adenosine
5301	Glyceryl trinitrate
5302	Isosorbide dinitrate
5303	Nicorandil
5304	Isosorbide mononitrate
Anti–adrenergic agents, centrally acting	
5401	Clonidine
5402	Methylodopa
Anti–adrenergic agents, peripherally acting	
5501	Alprostadil
5502	Prazosin
5503	Terazosin
Arteiolar smooth muscle, agents acting on	
5601	Hydralazine
5602	Minoxidil
5603	Nitroprusside
5604	Diazoxide

CLASSIFICATION OF TYPES OF MEDICATION *continued*

ABS category	*Generic medication name*
MEDICATIONS COMMONLY USED FOR HEART AND BLOOD PRESSURE *cont.*	
Beta blocking agents	
5801	Alprenolol
5802	Atenolol
5803	Metoprolol
5804	Oxprenolol
5805	Pindolol
5806	Propranolol
5807	Sotalol
5808	Timolol
5809	Esmolol
5810	Labetalol
5811	Carvedilol
Calcium channel blockers	
5901	Amlodipine
5902	Diltiazem
5903	Felodipine
5904	Nifedipine
5905	Nimodipine
5906	Perhexiline
5907	Verapamil
5908	Lercanidipine
ACE inhibitors, plain	
5701	Captopril
5702	Enalapril
5703	Fosinopril
5704	Lisinopri
5705	Perindopril
5706	Quinapril
5707	Ramipril
5708	Trandolapril
Cardiovascular drugs nec	
5999	Cardiovascular drugs nec
FLUID / DIURETIC MEDICATIONS	
Low–ceiling diuretics, thiazides	
6101	Bendrofluazide
6102	Chlorothiazide
6104	Hydrochlorothiazide
6105	Methyclothiazide
Low–ceiling diuretics, excluding thiazides	
6201	Chlorthalidone
6202	Indapamide
6203	Metolazone
6204	Quinethazone

CLASSIFICATION OF TYPES OF MEDICATION *continued*

ABS category	*Generic medication name*
FLUID / DIURETIC MEDICATIONS *cont.*	
High–ceiling diuretics	
6301	Bumetanide
6302	Ethacrynic acid
6303	Frusemide
Potassium–sparing agents	
6401	Amiloride
6402	Spironolactone
6403	Triamterene
Diuretics and potassium–sparing agents in combination	
6501	Amiloride and hydrochlorothiazide
6502	Triamterene and hydrochlorothiazide
Fluid / diuretic medications nec	
6999	Fluid / diuretic medications nec
SERUM LIPID REDUCING AGENTS	
Cholesterol and triglycerid reducers	
7101	Cholestyramine
7102	Clofibrate
7103	Colestipol
7104	Gemfibrozil
7105	Nicotinic acid
7106	Pravastatin
7107	Probucol
7108	Simvastatin
7201	Atorvastatin
7202	Cerivastatin
7203	Fluvastatin
7207	Lipobay

CLASSIFICATION OF TYPES OF MEDICATION *continued*

ABS category	*Generic medication name*
SERUM LIPID REDUCING AGENTS *cont.*	
Serum lipid reducing medications nec	
7999	Serum lipid reducing medications nec
MEDICATIONS COMMONLY USED FOR CARDIAC AND BLOOD ORGANS	
Antithrombotic agents	
9101	Antithrombin III
9102	Dalteparin
9103	Danapariod
9104	Enoxaparin
9105	Heparin
9106	Heparin, combinations
9107	Nadroparin
9108	Parnaparin
9109	Reviparin
9110	Sulodexide
9111	Tinzaparin
9112	Warfarin
9113	Phenindione
9114	Fondaparinux
9201	Phenoxybenzamine
9202	Dipyridamole
9203	Clopidogrel
9204	Ticlopidine
9401	Alteplase
9402	Reteplase
9403	Streptokinase
9404	Urokinase
9405	Tenecteplase
Antifibrinolytics	
9115	Factor VIII
9116	Factor IX
9117	Protamine
9118	Tranexamic acid
9119	Vitamin K
Angiotensin II antagonists	
9301	Candesartan
9302	Irbesartan
9303	Eprosartan
9304	Telmisartan
9305	Losartan
Medication taken but names / brands not known for cardiac	
9998	Medication taken but names / brands not known for cardiac

CLASSIFICATION OF TYPES OF MEDICATION *continued*

ABS category	*Generic medication name*
MEDICATIONS COMMONLY USED FOR CARDIAC AND BLOOD ORGANS *cont.*	
Other medications for cardiac and blood organs	
9999	Other medications for cardiac and blood organs
ANALGESICS MEDICATION	
Opiods	
8101	Buprenorphine
8102	Codeine phosphate
8103	Dextromoramide
8104	Dextropropoxyphene
8105	Fentanyl citrate
8106	Methadone
8107	Morphine
8108	Oxycodone
8109	Papaveretum
8110	Pentazocine
8111	Pethidine
8112	Phenoperidine
8113	Tramadol
8114	Hydromorphone
Other analgesics and anti–pyretics	
8201	Aspirin / other anitplatelet agents
8202	Paracetamol
8203	Aspirin combinations
8204	Paracetamol combinations
8998	Other analgesics / anti–pyretics

CLASSIFICATION OF TYPES OF MEDICATION *continued*

ABS category	*Generic medication name*
ANALGESICS MEDICATION *cont.*	
Analgesics medications nec	
8999	Analgesics medications nec
OTHER MEDICATIONS	
Other medications	
1	Vitamin or mineral supplement
2	Herbal or natural treatments or remedies
22	Iron supplements
23	Cough / cold medications
24	Skin ointments and creams
32	Other antidotes and antivenoms
33	Other dermatological medications
34	Other ear, nose and throat medications
35	Other eye medications
36	Other gastrointestinal medications
37	Other genito–urinary medications
38	Other musculoskeletal medications
39	Other neurological medications
40	Other obstetric / gynaecological medications
41	Other psychotriopics medications
42	Other vaccines and immunoglobulins medications
43	Other endocrine medications
44	Other Immunomodulators medications
45	Anti–infectives medications
95	Vitamins
96	Herbal
97	Other vitamins, minerals or herbal supplements nec
98	All other medications nec
99	Don't know / not stated

APPENDIX 5

CLASSIFICATION OF COUNTRY OF BIRTH

Country of birth is classified to the full 4 digit level of the *Standard Australian Classification of Countries (SACC)* (ABS Cat No 1269.0). While survey results can technically be compiled at this level, the survey sample is not sufficient to support reliable output at that level. For most output purposes, country of birth classified to broader level classifications is more suitable. SACC categories at the broader levels are shown below.

STANDARD AUSTRALIAN CLASSIFICATION OF COUNTRIES, Major and minor group level

1 Oceania and Antarctica	
11	Australia (including external Territories)
12	New Zealand
13	Melanesia
14	Micronesia
15	Polynesia (excluding Hawaii)
16	Antarctica
2 North–West Europe	
21	United Kingdom
22	Ireland
23	Western Europe
24	Northern Europe
3 Southern and Eastern Europe	
31	Southern Europe
32	South Eastern Europe
33	Eastern Europe
4 North Africa and the Middle East	
41	North Africa
42	Middle East
5 South–East Asia	
51	Mainland South–East Asia
52	Maritime South–East Asia
6 North–East Asia	
61	Chinese Asia (including Mongolia)
62	Japan and the Koreas
7 Southern and Central Asia	
71	Southern Asia
72	Central Asia
8 Americas	
81	North America
82	South America
83	Central America
84	Caribbean
9 Sub–Saharan Africa	
91	Central and Western Africa
92	Southern and East Africa

APPENDIX 6

CLASSIFICATION OF LANGUAGE SPOKEN AT HOME

Language spoken at home is classified to the full 4 digit level of the Australian *Standard Classification of Languages (ASCL)* (First Edition) (ABS Cat No 1267.0). While survey results can technically be compiled at this level, the survey sample is not sufficient to support reliable output at that level. For most output purposes, language classified to broader level classifications would be more suitable. ASCL categories at the broader levels are shown below.

AUSTRALIAN STANDARD CLASSIFICATION OF LANGUAGES, Major and minor group level

1 Northern European languages	
11	Celtic
12	English
13	German and related
14	Netherlandic and related
15	Scandinavian
2 Southern European languages	
21	French
22	Greek
23	Iberian
24	Italian
25	Maltese
29	Other Southern European languages
3 Eastern European languages	
31	Baltic
32	Finnic
33	Hungarian
34	East Slavic
35	South Slavic
36	West Slavic
39	Other Eastern European languages
4 Southwest Asian and North African languages	
41	Iranic
42	Middle Eastern and North African
43	Turkish and Central Asian
5 Southern Asian languages	
51	Dravidian
52	Indo–Aryan
53	Other Southern Asian languages
6 Southeast Asian languages	
61	Burman
62	Hmong–Mien
63	Mon–Khmer
64	Tai
65	Western Austronesian
69	Other Southeast Asian languages
7 Eastern Asian languages	
71	Chinese
72	Japanese
73	Korean
79	Other Eastern Asian languages

CLASSIFICATION OF LANGUAGE SPOKEN AT HOME *continued*

AUSTRALIAN STANDARD CLASSIFICATION OF LANGUAGES, Major and minor group level *continued*

8 Australian Indigenous languages	
81	Northern Aboriginal
82	Central Aboriginal
83	York Peninsula Aboriginal
84	Torres Strait Island
85	West Coast Aboriginal
86	Eastern Aboriginal
87	Australian Creoles
9 Other languages	
91	American
92	African (excluding North African)
93	Oceanic Austronesian
94	Oceanic Pidgins and Creoles
95	Papuan
96	Invented languages
97	Sign languages

APPENDIX 7

CLASSIFICATION OF OCCUPATION

Occupation (of main job held at the time of the survey) is classified to the full 4 digit level of the *Australian Standard Classification of Occupation* (ABS Cat No 1222.0). While survey results can technically be compiled at this level, the survey sample is not sufficient to support reliable output at that level. For most output purposes, occupation classified to the broader Major and Sub-Major group level classifications, as shown below, would be more suitable.

AUSTRALIAN STANDARD CLASSIFICATION OF OCCUPATION, Major and sub–major unit groups

1 Managers and administrators	
11	Generalist managers
12	Specialist managers
13	Farmers and farm managers
2 Professionals	
21	Science, building and engineering
22	Business and information
23	Health professionals
24	Education professionals
25	Social, arts and miscellaneous professionals
3 Associate professionals	
31	Science, engineering and related
32	Business and administrative
33	Managing supervisors (sales and service)
34	Health and welfare
39	Other associate professionals
4 Tradespersons and related workers	
41	Mechanical engineering
42	Automotive
43	Electrical and electronics
44	Construction
45	Food
46	Skilled agricultural and horticultural
49	Other tradespersons and related workers
5 Advanced clerical and service workers	
51	Secretaries and personal assistants
59	Other advanced clerical and service workers
6 Intermediate clerical, sales and service workers	
61	Intermediate clerical
62	Intermediate sales and related
63	Intermediate service
7 Intermediate production and transport workers	
71	Intermediate plant operators
72	Intermediate machine operators
73	Road and rail transport drivers
79	Other intermediate production and transport workers
8 Elementary clerical, sales and service workers	
81	Elementary clerks
82	Elementary sales workers
83	Elementary service workers
9 Labourers and related workers	
91	Cleaners
92	Factory labourers
99	Other labourers and related workers

APPENDIX 8

CLASSIFICATION OF INDUSTRY OF EMPLOYMENT

Industry (of main job held at the time of the survey) is classified to the full 4 digit level of the *Australian and New Zealand Standard Industrial Classification* (First Edition) (ABS Cat No 1292.0). While survey results can technically be compiled at this level, the survey sample is not sufficient to support reliable output at that level. For most output purposes, industry classified to the broader Division level classification would be more suitable.

AUSTRALIAN AND NEW ZEALAND STANDARD INDUSTRIAL CLASSIFICATION, Divisions and sub–divisions

Agriculture, forestry and fishing	
01	Agriculture
02	Services to agriculture, hunting and trapping
03	Forestry and logging
04	Commercial fishing
Mining	
11	Coal mining
12	Oil and gas extraction
13	Metal ore mining
14	Other mining
15	Services to mining
Manufacturing	
21	Food, beverage and tobacco
22	Textile, clothing, footwear and leather
23	Wood and paper products
24	Printing, publishing and recorded media
25	Petroleum, coal, chemical and associated products
26	Non–metallic mineral products
27	Metal products
28	Machinery and equipment
29	Other manufacturing
Electricity, gas and water supply	
36	Electricity and gas supply
37	Water, sewerage and drainage services
Construction	
41	General construction
42	Construction trade services
Wholesale trade	
45	Basic material wholesaling
46	Machinery and motor vehicles
47	Personal and household goods
Retail trade	
51	Food retailing
52	Personal and household goods
53	Motor vehicle retailing and services
Accommodation, cafes and restaurants	
57	Accommodation, cafes and restaurants
Transport and storage	
61	Road transport
62	Rail transport
63	Water transport
64	Air and space transport
65	Other transport
66	Services to transport
67	Storage
Communication services	
71	Communication services

CLASSIFICATION OF INDUSTRY OF EMPLOYMENT *continued*

AUSTRALIAN AND NEW ZEALAND STANDARD INDUSTRIAL CLASSIFICATION, Divisions and sub–divisions *continued*

Finance and insurance	
73	Finance
74	Insurance
75	Services to finance and insurance
Property and business services	
77	Property services
78	Business services
Government administration and defence	
81	Government administration
82	Defence
Education	
84	Education
Health and community services	
86	Health services
87	Community services
Cultural and recreational services	
91	Motion picture, radio and television
92	Libraries, museums and the arts
93	Sport and recreation
Personal and other services	
95	Personal services
96	Other services
97	Private households employing staff

APPENDIX 9

STANDARD ERRORS ON SURVEY ESTIMATES

RELIABILITY OF ESTIMATES

Since estimates from the 2004–05 NHS are based on information obtained from a sample of persons, they are subject to sampling variability. That is, they may differ from those that would have been produced if all persons had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of persons was included. There are about two chances in three that a sample estimate will differ by less than one standard error from the number that would have been obtained if all persons had been included, and about 19 chances in 20 that the difference will be less than two SEs. Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate.

The size of the SE increases with the level of the estimate, so that the larger the estimate the larger is the SE. However, the larger the sample estimate the smaller the SE will be in percentage terms (that is the RSE). This means larger estimates will be relatively more reliable than smaller estimates. In general, estimates with an RSE of 25% or less are considered sufficiently reliable for most purposes. Estimates with RSEs of 25% to 50% should be used with caution, while estimates with RSEs above 50% are considered too unreliable for general use.

INDICATIVE STANDARD ERRORS

Exact standard errors (SEs) and relative standard errors (RSEs) on every estimate can be produced using the replicate weight methodology: this methodology is outlined at the end of this Appendix. However, because of the large number and diverse nature of estimates which can be produced from the NHS it is not always practicable to present separate SEs for every estimate. Indicative standard errors have been prepared for these situations. These are standard errors modelled by the ABS on the full survey design information and across a range of different estimates from the survey. The following table shows the indicative standard errors, and relative standard errors on estimates of various sizes by state and for Australia. Figures in these table do not give a precise measure of the SE for a particular estimate but rather provide an indication of its magnitude.

INDICATIVE STANDARD ERRORS continued

STANDARD ERRORS ON PERSON ESTIMATES

	STANDARD ERROR							AUSTRALIA	
Size of estimate	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*ACT*	*Standard error*	*Relative standard error*
	no.	no.	no.	no.	no.	no.	no.	no.	%
100	280	250	260	160	210	120	120	200	200.0
200	420	390	390	240	320	180	180	320	160.0
300	530	490	490	300	410	220	220	410	136.7
500	710	660	650	400	550	290	290	560	112.0
700	870	810	780	480	660	340	350	680	97.1
1,000	1 060	990	950	580	810	410	420	850	85.0
1,500	1 330	1 240	1 180	720	1 010	500	520	1 070	71.3
2,000	1 550	1 460	1 370	840	1 190	580	600	1 270	63.5
2,500	1 750	1 650	1 550	950	1 350	650	650	1 450	58.0
3,000	1 950	1 800	1 700	1 050	1 450	700	750	1 600	53.3
3,500	2 100	2 000	1 850	1 100	1 600	750	800	1 750	50.0
4,000	2 250	2 100	1 950	1 200	1 700	800	850	1 900	47.5
5,000	2 550	2 400	2 200	1 350	1 900	900	900	2 150	43.0
7,000	3 050	2 850	2 600	1 600	2 300	1 050	1 050	2 600	37.1
10,000	3 650	3 450	3 100	1 900	2 700	1 250	1 250	3 150	31.5
15,000	4 500	4 200	3 800	2 300	3 300	1 500	1 500	3 900	26.0
20,000	5 200	4 900	4 350	2 600	3 800	1 700	1 700	4 550	22.8
30,000	6 350	5 950	5 300	3 150	4 600	2 000	2 000	5 650	18.8
40,000	7 350	6 850	6 100	3 600	5 250	2 250	2 200	6 600	16.5
50,000	8 200	7 600	6 750	3 950	5 800	2 450	2 400	7 400	14.8
100,000	11 400	10 550	9 300	5 350	7 900	3 250	3 100	10 550	10.6
150,000	13 800	12 700	11 100	6 300	9 350	3 800	3 600	12 900	8.6
200,000	15 750	14 400	12 650	7 100	10 550	4 200	3 950	14 850	7.4
300,000	18 950	17 250	15 050	8 350	12 450	4 900	4 500	18 100	6.0
500,000	23 800	21 450	18 700	10 150	15 200	5 850	. .	23 050	4.6
1,000,000	32 150	28 600	24 950	13 100	19 750	. .	. .	31 800	3.2
2,000,000	43 000	37 700	32 950	16 750	25 250	. .	. .	43 450	2.2
5,000,000	62 350	53 400	46 900	. .	. .	. .	. .	64 700	1.3
10,000,000	. .	. .	. .	. .	. .	. .	. .	86 450	0.9
15,000,000	. .	. .	. .	. .	. .	. .	. .	101 999	0.7
20,000,000	. .	. .	. .	. .	. .	. .	. .	114 450	0.6

. . not applicable

ESTIMATES WITH RELATIVE STANDARD ERRORS OF 25% AND 50%

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*ACT*	*Aust.*
Size of estimate	no.	no.	no.	no.	no.	no.	no.	no.
Estimate with 25% RSE	21 696	19 036	15 424	5 790	11 833	2 685	2 836	16 504
Estimate with 50% RSE	5 193	4 554	3 847	1 390	2 882	672	710	3 499

INDICATIVE STANDARD ERRORS continued

Below is an example of the calculation and the use of SEs from this table in relation to estimates of persons. From information collected in the 2004–05 NHS it is estimated that 251,700 persons in Australia aged 45–54 years had high cholesterol as a long-term condition (table 4, *2004–05 National Health Survey: Summary of Results, Australia* (cat no 4364.0)). Since this estimate is between 200,000 and 300,000 in the SE table, the SE will be between 14,850 and 18,100 and can be approximated by linear interpolation as 16,500 (rounded to the nearest 100) using the following formula:

$$\begin{aligned} &SE \text{ of estimate} \\ &= lower\ SE + \left(\left(\frac{size\ of\ estimate - lower\ estimate}{upper\ estimate - lower\ estimate} \right) \times (upper\ SE - lower\ SE) \right) \\ &= 14,850 + \left(\left(\frac{251,700 - 200,000}{300,000 - 200,000} \right) \times (18,100 - 14,850) \right) \\ &= 16,530 \\ &= 16,500 \ (\textit{rounded to the nearest } 100) \end{aligned}$$

Therefore, there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey will fall in the range 235,200 to 268,200 and about 19 chances in 20 that the value will fall within the range 218,700 to 284,700.

Standard of error proportion

Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and denominator. For proportions where the denominator is an estimate of the number of persons in a group and the numerator is the number of persons in a sub–group of the denominator population, the formula to approximate the RSE is:

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

Using this formula, the RSE of the estimated proportion or percentage will be lower than the RSE estimate of the numerator. Therefore an approximation for SEs of proportions or percentages may be derived by neglecting the RSE of the denominator i.e. obtaining the RSE of the number of persons corresponding to the numerator of the proportion or percentage and then applying this figure to the estimated proportion or percentage.

Standard error of a difference

The difference between two survey estimates is itself an estimate and is therefore subject to sampling variability. The sampling error of the difference between the two estimates depends on their individual SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates (x–y) may be calculated by the following formula:

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

While this formula will only be exact for differences between separate and uncorrelated characteristics of subpopulations, it is expected to provide a reasonable approximation for most differences likely to be of interest in relation to this survey.

REPLICATE WEIGHTS TECHNIQUE

A class of techniques called replication methods provide a general method of estimating variances for the types of complex sample designs and weighting procedures employed in ABS household surveys.

A basic idea behind the replication approach is to select subsamples repeatedly from the whole sample. For each of these subsamples the statistic of interest is calculated. The variance of the full sample statistic is then estimated using the variability among the replicate statistics calculated from these subsamples. The subsamples are called replicate groups and the statistics calculated from these replicates are called replicate estimates.

REPLICATE WEIGHTS TECHNIQUE continued

There are various ways of creating replicate subsamples from the full sample. The replicate weights produced for the 2004–05 NHS have been created under the Jackknife method of replication which is described below.

There are numerous advantages to using the replicate weighting approach. These include;

- the same procedure is applicable to most statistics such as means, percentages, ratios, correlations, derived statistics and regression coefficients
- it is not necessary for the analyst to have available detailed survey design information if the replicate weights are included with the data file.

Derivation of replicate weights

Under the Jackknife method of replicate weighting, weights were derived as follows:

- 60 replicate groups were formed with each group formed to mirror the overall sample. Units from a CD all belong to the same replicate group and a unit can belong to only one replicate group.
- One replicate group was dropped from the file and then the remaining records were weighted in the same manner as for the full sample.
- The records in that group that was dropped received a weight of zero.
- This process was repeated for each replicate group (i.e. a total of 60 times).
- Ultimately each record had 60 replicate weights attached to it with one of these being the zero weight.

Application of replicate weights

As noted above, replicate weights enable variances of estimates to be calculated relatively simply. They also enable unit records analyses such as chi–square and logistic regression to be conducted which take into account the sample design.

Replicate weights for any variable of interest can be calculated from the 60 replicate groups, giving 60 replicate estimates. The distribution of this set of replicate estimates, in conjunction with the full sample estimate (based on the general weight) is then used to approximate the variance of the full sample.

The formula for calculating the Standard error (SE) and relative standard error (RSE) of an estimate using this method is shown below.

$$SE(y) = \sqrt{((59/60)\, S_g(y(_g) - y)^2)}$$

where

$_g = (1, \ldots, 60$ *(the number of replicate weights)*;

$y(_g) =$ *estimate from using replicate weighting*; *and*

$y =$ *estimate from using full person weight*.

$$The\ RSE(y) = SE(y)/y * 100$$

This method can also be used when modelling relationships from unit record data, regardless of the modelling technique used. In modelling, the full sample would be used to estimate the parameter being studied, such as a regression co–efficient, the 60 replicate groups used to provide 60 replicate estimates of the survey parameter. The variance of the estimate of the parameter from the full sample is then approximated, as above, by the variability of the replicate estimates.

Use of replicate weights with statistical packages

Not all statistical computer packages may allow direct calculation of SEs using the Jacknife replicate weights. However, those packages that allow the direct use of Balanced Repeated Replication (BRR) methodology generally include the option of an adjustment factor. This factor can be incorporated to overcome the difference between the variance formulae.

Availability of RSEs calculated using replicate weights

Indicative RSEs were used in the summary publication released from the NHS. However, a set of NHS tables showing estimates for individual States and ACT are available as spreadsheets on the ABS web site. RSEs for tables in these sets were calculated using the replicate weights methodology.

APPENDIX 10

DECILES IN INCOME ITEMS

A range of income items from the 2004-5 NHS are available expressed in deciles. These deciles refer to groupings of the income values, not to groupings of people who have reported certain income values. As a result, for any of these items, the number of persons counted to each decile are not equal.

To assist in the use and interpretation of these items, the $ amounts contained in each decile are shown in the following table. Cases where the income was not available are shown as not stated, and were excluded before the deciles were calculated.

Information about all income items available from the survey are contained in Chapter 6 of this Guide.

DECILE GROUPINGS OF INCOME VALUES

Decile	*$ value*
Gross weekly cash income	
1	Less than 150
2	150–199
3	200–249
4	250–354
5	355–499
6	500–632
7	633–766
8	767–958
9	959–1297
10	1298 or more
	Not stated
Gross weekly equivalised cash income of income unit	
1	Less than 225
2	225–265
3	266–337
4	338–441
5	442–549
6	550–659
7	660–787
8	788–958
9	959–1278
10	1279 or more
	Not stated
Gross weekly cash income of household	
1	Less than 366
2	366–500
3	501–724
4	725–924
5	925–1147
6	1148–1346
7	1347–1604
8	1605–1917
9	1918–2493
10	2494 or more
	Not stated
Gross weekly equivalised cash income of household	
1	Less than 238
2	238–294
3	295–379
4	380–479
5	480–584
6	585–688
7	689–822
8	823–996
9	997–1278
10	1279 or more
	Not stated

GLOSSARY

This document presents definitions for some of the terms used in this Guide and elsewhere in relation to the 2004–05 NHS. Further definitions are contained in the individual topic descriptions. It should be noted that the definitions used in this survey are not necessarily identical with those used for concepts or data items in other collections, and care should be taken when comparing data from different sources to ensure they are similarly defined.

Age standardisation

A method of removing the influence of age when comparing populations with different age structures. The age standardised rate is that which would have prevailed if the studied population had the standard age composition. In published results from this survey the standard population used is the estimated resident population of Australia as at 30 June 2001.

Alcohol consumption risk level

Alcohol risk levels were derived from the average daily consumption of alcohol in the seven days prior to interview and are grouped into relative risk levels as defined by the National Health and Medical Research Council (NHMRC) as follows:

ALCOHOL RISK LEVEL(a)

	CONSUMPTION PER DAY	
Risk level	*Males*	*Females*
Low risk	50 mLs or less	25 mLs or less
Risky	More than 50 mLs, up to 75 mLs	More than 25 mLs, up to 50 mLs
High risk	More than 75 mLs	More than 50 mLs

(a) One standard drink contains 12.5 mLs of alcohol.

It should be noted that risk level as defined by the NHMRC is based on regular consumption levels of alcohol where as estimates of risk from the NHS do not take into account whether consumption in the reference week was more, less or the same as usual.

Drinking status information was also collected for those who did not consume any alcohol in the 7 days prior to interview. Categorised as:

- Last consumed more than one week to less than 12 months ago;
- Last consumed 12 months or more ago; and
- Never consumed.

Ancillary cover

Any cover provided by private insurance organisations for health-related services other than medical or hospital cover (e.g. physiotherapy, dental, optical, chiropractic and ambulance).

Arthritis

Arthritis is characterised by an inflammation of the joints often resulting in pain, stiffness, disability and deformity.

ASGC Remoteness Structure

The Australian Standard Geographical Classification (ASGC) Remoteness Structure has 5 categories based on an aggregation of geographical areas which share common characteristics of remoteness, determined in the context of Australia as a whole. These categories are: Major cities of Australia, Inner regional Australia, Outer regional Australia, Remote Australia and Very remote Australia. The five categories are generally aggregated in some way for use in output.

The delimitation criteria for these categories are based on the Accessibility/Remoteness Index of Australia (ARIA) developed by the Commonwealth Department of Health and Aging and the National Key Centre for Social Applications of GIS (GISCA). ARIA measures the remoteness of a point based on the physical road distance to the nearest Urban Centre. For more information see Australian Standard Geographical Classification (ASGC), 2001 (cat. no. 1216.0).

Asthma A chronic disease marked by episodes of wheezing, chest tightness and shortness of breath associated with widespread narrowing of the airways within the lungs and obstruction of airflow.

Body Mass Index (BMI) Calculated from reported height and weight information, using the formula weight (kg) divided by the square of height (m). To produce a measure of the prevalence of overweight or obesity in adults, BMI values are grouped according to the table below which allows categories to be reported against both the World Health Organization (WHO) and National Health and Medical Research Council (NHMRC) guidelines.

BODY MASS INDEX

	2004–05
Underweight	Less than 18.5
Normal range	18.5 to less than 20.0
	20.0 to less than 25.0
Overweight	25.0 to less than 30.0
Obese	30.0 and greater

Cause of condition Asked in respect of all the current long-term conditions which the respondent had previously reported. This refers to the respondent's perception of whether the condition was the result of an injury, and/or whether the condition was work-related (including injury at work).

Circulatory problems/diseases Covers all diseases and related problems of the circulatory system. Includes specific conditions such as hypertension, angina, tachycardia, oedema, haemorrhoids, varicose veins and cardiac murmurs. For the purposes of condition status items in this survey, also includes high cholesterol. See also Heart, stroke and vascular diseases.

Co-morbid conditions In this survey, co-morbid conditions refers to two or more medical conditions which the same respondent has reported as long-term conditions which they currently have.

Conditions See long term medical condition.

Condition status Derived for asthma, diabetes and high sugar levels in blood or urine, cancers, circulatory conditions, arthritis and osteoporosis. Condition status brings together information about whether or not a person has ever been told by a doctor or nurse they have the condition, whether the condition was current at the time of the survey, and if current whether the condition was long-term (i.e. had lasted or was expected to last for 6 months or more). The derivations used differ slightly between conditions: see Chapter 3 for further details.

Current daily smoker A current daily smoker is an adult who reported that they regularly smoked one or more cigarettes, cigars or pipes per day. See also Smoker status.

Days away from work or study Refers to days on which the respondent was away from work, school or other educational institution for at least half the day. Absences included days away due to a respondent's own illness or injury, or to care for another person with illness or injury.

Days out of role Days away from work or school/study, and other days of reduced activity due to own illness or injury.

Dentist Includes dentist, orthodontist, dental nurse, dental technician and dental mechanic.

Diabetes mellitus A chronic condition in which blood glucose levels become too high due to the body producing little or no insulin, or not using insulin properly.

Dietary habits In the 2004/5 NHS this term refers to usual daily serves of fruit, usual daily serves of vegetables and the main type of milk usually consumed. Usual daily serves of fruit and vegetables are listed separately in this Glossary.

Employed Persons aged 15–64 years who had a job or business, or who undertook work without pay in a family business for a minimum of one hour per week. Includes persons who were absent from a job or business and Community Development Employment Projects (CDEP) participants. See also Unemployed and Not in the labour force.

Equivalised income Equivalisation is a process whereby reported household income and income unit income is adjusted to take account of the size and composition of the household or income units: for further details see Chapter 6.

Exercise level Based on frequency, intensity (i.e. walking, moderate exercise and vigorous exercise) and duration of exercise (for recreation, sport or fitness) in the two weeks prior to the interview. From these components, an exercise score was derived using factors to represent the intensity of the exercise. Scores were grouped into the following four categories:

EXERCISE LEVEL

Sedentary	Less than 100 mins (includes no exercise)
Low	100 mins to less than 1600 mins
Moderate	1600–3200 mins, or more than 3200 mins but less than 2 hours of vigorous exercise
High	More than 3200 mins and 2 hours or more of vigorous exercise

Sedentary refers to sitting in one place for extended periods of time.

Government health card Refers to coverage by the following government-issued cards which entitle the card holder, and in some cases their dependents, to a variety of health benefits or concessions (e.g. medical care, hospital treatment/accommodation, supply of pharmaceuticals, free of charge or at reduced rates).
- any cards from the Department of Veterans' Affairs (DVA);
- Health Care Card (including the low income health care card);
- Pensioner Concession Card; and
- Commonwealth Seniors Health Card.

Health–related actions Refers to the following health-related action(s) respondents reported they had taken in the two weeks prior to interview:
- Discharged from a stay in hospital (as an admitted patient);
- Visit to casualty/emergency units at hospitals;
- Visit to outpatients department at hospital;
- Visit to day clinics;
- Consultation with general practitioner (GP) and/or specialist;
- Dental consultation;
- Consultation with other health professionals (OHP): see separate entry in this Glossary;
- Days away from work or school (due to own illness or injury); and
- Other days of reduced activity (days other than days away from work or school/study) due to own illness or injury.

Heart, stroke and vascular conditions A subset of reported long-term conditions comprising the following:
- Angina and other ischaemic heart disease;
- Cerebrovascular disease;
- Oedema and heart failure; and
- Diseases of arteries, arterioles and capillaries.

Herbal and natural medications Herbal and natural medications as reported by respondents. The data covers only herbal and natural medications used in the previous 2 weeks for asthma, cancer, heart and circulatory conditions, diabetes, mental well-being, arthritis or osteoporosis. Limited information on the types of herbal and natural medications was collected only for those

Herbal and natural medications *continued*
medications reported as used for arthritis or osteoporosis; otherwise information on the types of herbal and natural medications used was not collected in this survey.

Hospital cover
Health insurance provided by a private insurance organisation to cover all or part of the costs of private accommodation in a public hospital, charges for private hospital treatment and care in a public hospital by a doctor of the patients choice.

Household
A household is defined as one or more persons, at least one of whom is at least 15 years of age, usually resident in the same private dwelling. In this survey, only households with a least one adult (aged 18 years and over) were included.

Household income
Derived as the sum of the reported personal cash incomes of all household members aged 15 years and over. Household income is available in $ amounts and deciles/quintiles, in reported and equivalised form.

Household structure
Refers to the composition of the household to which the respondent belonged: for further details see Chapter 6.

HSL
High sugar levels in blood or urine.

ICD10
ICD10 refers to the tenth revision of the International Classification of Diseases and Health Related Problems. The classification of long-term conditions most commonly used in output from the 2004/5 NHS has been developed for use in this survey, but is based on ICD10: see Appendix 3.

ICPC
International Classification of Primary Care (ICPC). Results of the survey about long-term conditions are available classified to a classification developed for this survey based on ICPC: see Appendix 4.

Incidence
Incidence refers to the number of new cases of a particular characteristic, such as cancer, which occur within a certain period. This differs from prevalence, which refers to the number of cases of a particular characteristic that are present in a population at one point in time.

Index of disadvantage
This is one of four Socio Economic Indexes for Areas (SEIFAs) compiled by ABS following each Census of Population and Housing. The indexes are compiled from various characteristics of persons resident in particular areas; the index of disadvantage summarises attributes such as low income, low educational attainment, high unemployment and jobs in relatively unskilled occupations. For further information see Chapter 6.

Indigenous
Refers to people who identified themselves, or were identified by another household member, as being of Aboriginal and/or Torres Strait Islander origin.

Income of income unit
An income unit may comprise one person or group of related persons (de facto or registered marriage or parent/dependent child relationship) within a household whose command over income is assumed to be shared. An income unit may therefore include the partner (for couples), all children aged less than 15 years, and children aged 15-24 years provided they are unmarried, full-time students and do not have dependents of their own. In this survey, income unit income is the sum of the respondent's cash income, the cash income of their spouse/partner (where applicable) and the cash income of children aged 15 years or more who are part of that unit.

Injury event
An accident, harmful incident, exposure to harmful factors or other incident which resulted in an injury. The injury must have occurred in the four weeks prior to the survey and have resulted in one or more of the following actions being taken:
- consulting a health professional;
- seeking medical advice;
- receiving medical treatment;
- reduced usual activities; and
- other treatment of injury (i.e. taking medications, using a bandage/bandaid, or heat or ice pack).

Ischaemic heart disease — A disease of the blood vessels supplying the heart muscle.

In the labour force — People who, during the reference week, were employed or unemployed, as defined (See also Labour force status).

Kessler 10 (K10) — See Psychological distress.

Labour force status — Refers to the employment situation of respondents at the time of the survey. Categories are:

Employed (aged 15 years and over and had a job in the week prior to the survey) — Refers to the employment situation of respondents at the time of the survey. Categories are:
- Unemployed (aged 15 years and over, were not employed and actively looked for work in the 4 weeks prior to the survey).
- Not in the labour force (all children less than 15 years, and persons 15 years and over who were neither employed or unemployed).

Level of highest non-school educational qualification — The level of the highest educational qualification obtained other than school qualification; may include non-school qualification obtained while still at school.

Long term medical condition — A medical condition (illness, injury or disability) which has lasted at least six months, or which the respondent expects to last for six months or more. Some reported conditions were assumed to be long term, including asthma, arthritis, cancer, osteoporosis, diabetes, rheumatic heart disease, heart attack and stroke.

Main language spoken at home other than English — Obtained for adults only and refers to the language reported by the respondent as the main language they speak at home.

METS — METS or intensity values are a measure of the energy expenditure required to carry out exercise, expressed as a multiple of the resting metabolic rate and operate as a factor when determining exercise level. The 2004/5 NHS used the following 'intensity' factors - 3.5 for walking, 5.0 for moderate exercise and 7.5 for vigorous exercise.

Moderate exercise — Exercise for recreation, sport or fitness which caused a moderate increase in heart rate or breathing.

National Health Priority Areas (NHPA) — Comprises asthma, cancer, diabetes/high sugar levels, heart and circulatory conditions, musculoskeletal conditions (arthritis and osteoporosis), injuries and mental health.

Neoplasm — A neoplasm is a new growth of abnormal tissue (a tumour). Tumours can be either benign (non–cancerous) or malignant (cancerous). Cancer refers to several diseases and can affect most types of cells in various parts of the body.

Not in the labour force — Persons who are not employed or unemployed as defined, including persons who:
- are retired;
- no longer work;
- do not intend to work in the future;
- are permanently unable to work; and
- have never worked and never intend to work.

Oedema — A swelling of any organ or tissue due to accumulation of excess fluid.

Osteoporosis — A condition that thins and weakens bone mineral density, generally caused by loss of calcium, which leads to increased risk of fracture.

Other days of reduced activity — Days other than days away from work or from school/study on which a person had cut down on their usual activities for at least half the day, as a result of personal injury or illness.

Other health professionals — Includes consultation, for own health reasons, in the two weeks prior to interview with

Other health professionals *continued*

one or more of the following:
- Aboriginal health worker;
- Accredited counsellor;
- Acupuncturist;
- Alcohol and drug worker nec;
- Audiologist/audiometrist;
- Chemist (advice only);
- Chiropodist/podiatrist;
- Chiropractor;
- Dietitian/nutritionist;
- Herbalist;
- Hypnotherapist;
- Naturopath;
- Nurse;
- Occupational therapist;
- Optician/optometrist;
- Osteopath;
- Physiotherapist/hydrotherapist;
- Psychologist;
- Social worker/welfare officer;
- Speech therapist/pathologist; and
- Traditional healer.

Pharmaceutical medications

Any medication used in the two weeks prior to interview for the treatment of asthma, arthritis, osteoporosis, heart and circulatory conditions, diabetes/HSL or used for mental wellbeing. Does not include medications identified by respondents as vitamins or minerals, or natural or herbal medications.

Prevalence

The number of cases of a particular characteristic (e.g. a specific long term condition such as cancer) that are present in a population at one point in time. This differs from incidence, which refers to the number of new cases of a particular characteristic, such as cancer, occurring within a certain period.

Private health insurance

Refers to the private health insurance status at the time of the survey of persons aged 15 years or more. Information about type of cover and contribution rate is also available.

Psychological distress

Derived from the Kessler Psychological Distress Scale -10 items (K10). This is a scale of non-specific psychological distress based on 10 questions about negative emotional states in the 4 weeks prior to interview. The K10 is scored from 10 to 50, with higher scores indicating a higher level of distress; low scores indicate a low level of distress.

Risky/high risk alcohol consumption

This is a combination of Moderate (or 'Risky') and High alcohol risk levels. See Alcohol risk level.

SEIFAs

Four Indexes compiled by the ABS following each population Census. Each index summarises different aspects of the socioeconomic condition of areas. The Index of Disadvantage is the SEIFA index most frequently used in health analysis; it focuses on low income earners, relatively lower educational attainment and high unemployment.

The Indexes available for use with 2004/5 NHS data are those compiled from the 2001 Census of Population and Housing. The Index scores have been mapped to the NHS sample at both the CD and SLA levels. For further information about the indexes, see Information Paper: Census of Population and Housing - Socio-Economic Indexes for Areas, Australia (ABS Cat no 2039.0).

Self–assessed body mass

Respondents reported assessment of himself/herself as being of acceptable weight, underweight or overweight.

Self–assessed health status

A person's general assessment of their own health against a five point scale from excellent through to poor.

Significance testing To determine whether a difference between two survey estimates is a real difference in the populations to which the estimates relate, or merely the product of different sampling variability, the statistical significance of the difference can be tested. This is particularly useful for interpreting apparent changes in estimates over time. The test is done by calculating the standard error of the difference between two estimates and then dividing the actual difference by the standard error of the difference. If the result is greater than 1.96 then there are 19 chances in 20 that there is a real difference in the populations to which the estimates relate. For further information see Chapter 7 of this Guide.

Smoker status The extent to which an adult was smoking at the time of interview, and refers to regular smoking of tobacco, including manufactured (packet) cigarettes, roll-your-own cigarettes, cigars and pipes, but excludes chewing tobacco and smoking of non-tobacco products. Categorised as:

- Current daily smoker – an adult who reported at the time of interview that they regularly smoked one or more cigarettes, cigars or pipes per day;
- Current smoker– other – an adult who reported at the time of interview that they smoked cigarettes, cigars or pipes at least once a week, but not daily;
- Ex–smoker – an adult who reported they did not currently smoke, but had regularly smoked daily, or had smoked at least 100 cigarettes, or smoked pipes, cigars, etc at least 20 times in their lifetime; and
- Never smoked – an adult who reported they had never regularly smoked daily, and had smoked less than 100 cigarettes in their lifetime and had smoked pipes, cigars, etc less than 20 times.

Type of condition The type of medical condition as reported by respondents and/or office coded by ABS from the description provided by respondents. All reported long-term medical conditions were coded to a classification developed by the ABS for use in the National Health Survey. For survey output, conditions are classified either to a classification based on the tenth revision of the International Classification of Diseases and Health Related Problems (ICD-10) or a classification based on the International Classification of Primary Care (ICPC). See Chapter 7 for further information.

Type of injury event The type of event resulting in injury as reported by respondents against the following categories:

Vehicle accident;
Low fall (one metre or less);
High fall;
Hitting something or being hit by something;
Attack by another person;
Near drowning;
Exposure to fire/heat;
Exposure to chemicals;
Bite or sting;
Cut with knife/tool; and
Other event.

Type of injury The type injury as reported by respondents against the following categories:

Fractures and broken bones
Internal injury
Dislocations, sprains, strains, torn muscles/ligaments
Open wound
Bruising
Burns and scalds
Concussion
Choking
Poisoning (other than food poisoning)
Other

Type of medication

Obtained for medications reported as used in the two weeks prior to interview for asthma, diabetes, circulatory conditions, arthritis and osteoporosis. Included are vitamins and minerals, natural and herbal medications and pharmaceutical medications. Pharmaceutical medications are classified by generic type, based on reported medication name.

Type of medication used for mental wellbeing

Refers to the type of medication reported by adult respondents as used for their mental wellbeing in the 2 weeks prior to interview. May include medications used for preventive health purposes as well as medications used for mental disorders, and includes vitamins and minerals, natural and herbal medications and pharmaceutical medications. Two items relating to type of medication are available:

- type of medication as reported by respondents; and
- generic type of medication. The generic drug name is the non–proprietary name for the active chemicals in a medicine, in contrast to the proprietary name (trade or brand name) for a medicine.

Unemployed

Persons aged 15 years and over who were not employed and actively looking for work in the four weeks prior to the survey, and were available to start work in the week prior to the survey.

Usual daily intake of fruit

Refers to the number of serves of fruit (excluding drinks and beverages) usually consumed each day, as reported by the respondent. A serve is approximately 150 grams of fresh fruit or 50 grams of dried fruit. The National Health and Medical Research Council (NHMRC) has recommended a minimum of two serves of fruit per day for adults.

Usual daily intake of vegetables

Refers to the number of serves of vegetables (excluding drinks and beverages) usually consumed each day, as reported by the respondent. A serve is approximately half a cup of cooked vegetables or one cup of salad vegetables—equivalent to approximately 75 grams. The National Health and Medical Research Council (NHMRC) has recommended a minimum of five serves of vegetables per day for adults.

Vigorous exercise

Exercise for recreation, sport or fitness which caused a large increase in heart rate or breathing.

Vitamin and mineral supplements

Vitamin and mineral supplements as reported by respondents. The data covers only vitamins and mineral supplements used in the previous 2 weeks for asthma, heart and circulatory conditions, diabetes/high sugar levels, arthritis, osteoporosis or mental well-being. Information on the types of vitamin and mineral supplements used was collected only for supplements reported as used for arthritis or osteoporosis.

Work related conditions

Long-term medical conditions reported in the survey which the respondent reported as work related; may include conditions arising from injuries at work.

Year of arrival

The year in which a person, reporting a country of birth other than Australia, first arrived in Australia to live for a period of one year or more.

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