

1989-90
National Health Survey

**Documentation for
Sample File on
Magnetic Media**

Australian Bureau of Statistics
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ENQUIRIES

- For more information about the survey - contact Brian Richings on Canberra (06) 252 5786
- For more information about this file - contact Fred Wensing on Canberra (06) 252 6526 OR
- Write to the Director, Health Section, Australian Bureau of Statistics, P.O. Box 10, Belconnen ACT 2616

SAMPLE FILE ON MAGNETIC MEDIA

1. Introduction

This document provides general information about the December 1991 edition of the magnetic tape or floppy disks containing unit (person) record data from the 1989-90 National Health Survey. More detailed documentation is contained on the sample file itself.

The release of these data is possible under the *Census and Statistics Act 1905*, which allows for the release of data in the form of unit records where the information is not likely to enable the identification of a particular person or organisation. There are no names or addresses on the sample file. Some items of information collected in the survey have been deleted from the sample file, and the level of detail for some others has been suppressed or reduced to ensure that the confidentiality of individuals is protected.

The file is released under certain conditions which are specified in Section 6 of this paper.

There are 54,241 person records on the sample file which, when weighted by expansion factors on each record, gives a population estimate of 16,988,800. Some minor discrepancies should be accepted in weighted estimates due to rounding.

Subject to limitations of sample size and the data classifications used, it is possible for users to manipulate the data, produce tabulations and undertake statistical analyses to their own specifications.

Any statistics produced from the sample file will be subject to sampling error. Information about sampling error is contained in Section 7 and Appendix E.

Detailed information about the survey is contained in the ABS publication *1989-90 National Health Survey: Users' Guide* (Cat No 4363.0) a copy of which is enclosed.

2. File formats and structure

Details of magnetic tape and disk formats, labelling options, recording densities, code sets available, etc are given in Appendix A.

The sample file containing four data files is distributed as a single reel of magnetic tape or on floppy disk. Details of the structure and labels are given in Appendix B.

3. File structure

The sample file comprises four files as follows:

- *File 1* is a series of person records with household, family and income unit indicators provided to enable users to perform their own aggregations for these units if they so desire.

The records on the file are randomly distributed. All fields in the record are numeric. Each record is ~~1044~~ 1053 characters long.

All person records are linked through the use of an 8 digit number which identifies each household. Within each household the families are numbered according to the relationships determined at the time of interview and all records relating to the same family contain the same family number. In the same way, income units are numbered within each family and all records pertaining to the same income unit contain the same income unit number.

Appendix C contains details of the record structure and the characteristics of the data items. Details of the classifications for data items are shown in Appendix D.

- *File 2* is a print file, in that it contains standard ANSI control characters. Each record is 133 bytes in length (the first being the print control character). The user may print this file to obtain extensive documentation about the data in File 1.
- *File 3* is a compressed and formatted version of File 2, which users may load into their systems for ADP purposes. Each record in this file contains 148 bytes. The main difference between Files 2 and 3 is that in File 3 superfluous blank characters have been suppressed and fields have been placed in specific positions within the records together with identifiers to enable interpretation.
- *File 4* is a copyright warning file containing twenty two 80 character records in a 1760 character block.

4. Household, family and income units

4.1 Identification of family structures

To enable users of the sample file to compile and analyse data for household, family and income units the following fields have been prepared in such a way as to make the structure and composition of these units readily identifiable:

Household number	(Char 1 - 8)
Family number	(Char 9)
Income unit number	(Char 10)
Person number	(Char 11 - 12)

The fields have been prepared as follows:

An 8 digit number has been randomly allocated (to preserve confidentiality) to each household on the file and placed on all corresponding member records.

Family Number:

- 1 : Reserved for the family containing the head of the household and placed on all corresponding member records
- 2-7 : Allocated at random to other families within the household and placed on all corresponding member records.

Income Unit Number :

- 1 : Reserved for the income unit containing the head of the family and placed on all corresponding member records
- 2-7 : Allocated at random to other income units within a family and placed on all corresponding member records.

Person Number :

- 1 : Reserved for the head of an income unit
- 2 : Reserved for the spouse of an income unit head
- 3-11 : Allocated to dependent children

4.2 Obtaining household data

Household data can be obtained by following the steps detailed below.

To obtain household data:

- a) Identify household member records - all records with household indicative number
- b) Identify the household head - from the group of records identified above, the household head is that person record with a person number of 1 belonging to income unit number 1 and having a family number 1
- c) Derive a suitable household weight - in the same way as person data needs to be weighted, so too does household data. The household weight is the harmonic mean of the household members.

FORMULA

The formula for the harmonic mean is:

$$\text{Household_weight} = \frac{\text{count_members}}{\text{sum_inverse_weights}}$$

Where:

count_members: is a single count of the number of household members contributing to the household weight.
sum_inverse_weights: is the sum of the inverse of the weights of the household members contributing to the household weight.

DERIVATION

The weight can be derived by accumulating the two components of the formula across the household members then calculating the weight after the last household member is dealt with.

- d) Determine household structure - household structure should be determined from the family structures (see above)
- e) Compile demographic details and accumulate income fields.

4.3 Obtaining family data

Family analysis can be undertaken using the same steps as are required for household data.

To obtain family data:

- a) Identify family member records - all records with the same household indicative number and family number
- b) Identify the family head - from the group of records identified above, the family head is that person record with a person number of 1 belonging to income unit number 1
- c) Derive a suitable family weight - since family data needs to be weighted, a suitable weight needs to be derived. The family weight can be derived using the formula for calculating household weight but for members of each family only i.e. calculate the harmonic mean of family members.
- d) Determine family structure - to determine family structure analyse the relationship code of the family members (NEW RELATIONSHIP CODE) at characters 28-29 on each record
- e) Compile demographic details - demographic details of the family head and spouse may be compiled as desired from the records belonging to person numbers 1 and 2
- f) Aggregate data fields may be accumulated or examined across family members as required.

4.4 Obtaining income unit data

Income unit data can be obtained using the same steps as are required for family data.

To obtain income unit data:

- a) Identify income unit member records - all records with the same household indicative number, family number and income unit number
- b) Identify the income unit head - from the group of records identified above, the income unit head is that person record with a person number of 1
- c) Derive a suitable income unit weight - in the same way as family data needs to be weighted, so too does income unit data. The income unit weight can be derived using the formula for calculating household weight but for members of each income unit only i.e. calculate the harmonic mean of income unit members.
- d) Compile demographic details and accumulate income fields - use the same procedures as for family data.

5. Scope and contents of the survey**5.1 Scope and coverage**

The survey covered a sample of approximately 22,200 private and non-private dwellings selected from all States and Territories, representing about one third of one percent of the Australian population.

Details of the scope and coverage are contained in Section 2.1 of the Users' Guide publication. In particular it should be noted that institutionalised persons, including inpatients of hospitals, nursing homes, etc were excluded from the scope of the survey.

5.2 Data items

The sample file contains a record for each person enumerated in the survey. However, to protect the confidentiality of individual respondents some items of information which were collected in the survey have been deleted from the sample file, and the level of detail for some others has been reduced. In general these adjustments have been confined to demographic, socio-economic and geographic items: the range of health items on the sample file is essentially complete.

Data items for the following topics are contained on the sample file:

- a) Health Status :
 - Self assessed health and happiness
 - Recent illness
 - Long-term conditions
- b) Health Related Actions :
 - Hospital inpatient episodes
 - Visits to casualty/outpatients units
 - Consultations with doctors
 - Dental consultations
 - Consultations with other health professionals
 - Use of medications (including vitamins and mineral supplements)
 - Days away from work or school
 - Other days of reduced activity
- c) Health Risk Factors :
 - Smoking
 - Alcohol consumption
 - Exercise
 - Dietary changes
 - Height and weight
 - Injury accidents
 - Immunisation
- d) Special Women's Health Issues
- e) Demographic and socio-economic characteristics (including health insurance)
- f) Geographic characteristics.

Detailed information about each of the topics covered in the survey, including item definitions, classifications, the concepts and procedures used in the collection and processing of data together with notes concerning the interpretation of data and their comparability with data from similar national surveys conducted by the ABS is contained in the Users' Guide publication.

A listing of all the data items contained on the file is contained in Appendix C. Some items directly reflect responses to individual questions contained in the survey questionnaire while others have been derived from responses to two or more questions, and may include the application of personal characteristics (eg. sex or age) and external criteria (eg. NH and MRC standards) in the

derivation process. Because of the volume of the derivations involved, and the complexity of many of the derivations and the need to understand the logic and intentions underlying them, the derivations have not been presented in this documentation. If you have any queries about the derivation of particular items, please contact Fred Wensing on (06) 2526526: listings of the SAS code used to derive items are available on request

This edition of the sample file includes new data items, relating to the Index of Relative Socio-economic Disadvantage and Equivalent Income for income units. These are briefly outlined below; further information is contained on the file itself.

- The Index of Relative Socio-economic Disadvantage (IRSED) summarises variables related to economic resources of households, education, occupation, family structure and ethnicity, with a focus on attributes such as low income, relatively lower educational attainment and high unemployment. It is one of five Indexes developed by the ABS to assist in the analysis of socio-economic characteristics. Details of the indexes are contained in the ABS publication 'Socio-Economic Indexes for Areas' (1356.0). Two indicators of the IRSED have been placed on each person record on the sample file, except those for persons enumerated in the Hobart Statistical Division, Darwin and the ACT. Locational data for these areas were not available at the time of preparing this edition of the file to match with the IRSED data. Each person record on file was allocated an index score, based on the Statistical Local Area (SLA) in which they were enumerated in the survey (their usual residence in most cases). This score was grouped by quintile, both at the State/Territory and Australia level, and indicators for the relevant quintile groups placed on the person record. Hence the quintile groupings relate to the area in which the person was enumerated, not to the socio-economic characteristics of the individual.
- An Equivalent Income for Income Units indicator has also been placed on each person record on the file. The indicator relates to the decile of equivalent income of the income unit to which that person belongs. The indicator has been derived by summing the individual \$ incomes of all members of the income unit, and then applying factors from the Henderson Simplified Equivalence Scales. These factors vary according to the composition of the income unit and the labourforce status of adult members of the unit. The resulting \$ equivalent income of the unit was then classified by decile. The adoption of the Henderson Simplified Equivalence Scales in this derivation was at user request, and its use does not necessarily imply ABS endorsement of the scale.

For some items discrepancies will occur between data tabulated from the sample file and the estimates contained in the publication 'Summary of Results' (4364.0). These discrepancies are in part due to amendments to the data which have occurred in the process of developing and verifying the sample file. In all cases these discrepancies are proportionately small and hence are not expected to significantly effect interpretations of or conclusions drawn from the data. Discrepancies may also result from the way table populations are defined and it is suggested that particular attention be given to population definitions when comparing published estimates with those produced from the sample file.

It should be noted that the criteria applied in deriving bodymass index groups for the sample file differs from those applied in deriving the groupings contained in the publication 'Summary of Results' as follows:

	Body Mass Index Scores	
	Published	Sample File
Underweight	less than 20	less than 20
Acceptable weight	20.0 to 25.9	20.0 to 30.0
Overweight	26.0 to 30.9	greater than 25.0 to 30.0
Obese	31.0 or more	greater than 30.0

6. Conditions of Issue

6.1 Conditions of sale

Sample files are released in accordance with a Ministerial Determination (Statutory Rules 1983, No.19) in pursuance of Section 13 of the *Census and Statistics Act 1905*. As required by the Determination, the sample files have been designed so that information on the file is not likely to enable the identification of the particular persons to whom it relates.

In pursuance of Clause 7, the Determination requires clients to sign an undertaking stating that the information will be used for statistical purposes only.

Use of data for statistical purposes means use by the person or organisation to produce information of a statistical nature. Examples of such uses are:

- (a) the manipulation of data to produce means, correlations or other descriptive or summary measures;
- (b) the estimation of population characteristics from sample data;
- (c) the use of data as input to mathematical models and for other types of analyses (e.g. factor analysis); and
- (d) to provide graphical and pictorial representations of characteristics of the population or sub-sets of the population.

Copyright in the data for improper purposes may render the user liable to severe penalties. For information about the propriety of any particular intended use of the data, please contact the Director, Health Section, on Canberra (06) 252 7318.

Other conditions of sale are:

- (a) statistical tables, graphs, etc. obtained from analysis of these sample files may be further disseminated provided that the purchaser agrees:
 - (i) to indicate that the ABS is the source of the data used;
 - (ii) not to attribute any analysis or transformation of the data to the ABS; and
 - (iii) to use the terminology currently used by the ABS for describing the data;
- (b) while the utmost care is taken in preparing and handling each file, deterioration may occur between the time of copying and receipt. Accordingly, if the file is unreadable on receipt and this is reported to the ABS within 28 days of despatch, it will be recopied free of charge. As an added precaution at least one security copy of the file should be made on receipt.

7. Using the data

7.1 Effects of sampling

The 1989-90 National Health Survey was conducted on a multi-stage area sample of private and non-private dwellings and covered about one third of one percent of the population of Australia. As the survey was conducted at only a sample of all households it is important to take account of the method of sample selection when deriving estimates from the unit record file. This is particularly important as a person's chance of selection in the survey varied, depending on the State/Territory and region in which they lived. If these chances of selection are not accounted for, by use of appropriate weights, the results will be biased.

7.2 Use of weights

One of the fields on the unit record file contains a "weight" for each person in the sample. This weight takes account of the person's probability of selection in the sample from their region, with adjustment to account for underenumeration at the age, sex and metropolitan/rest of State level.

If estimates of population sub-groups are to be derived from the unit record file it is essential that they are calculated by adding the weights of the persons in each category, not just by counting the number of persons falling into each category. If each person were to be counted only once then no account would be taken of the fact that a person's chance of selection in the survey varied from region to region and the resulting estimates may be seriously biased.

Since all estimates from the survey are based on a sample they are subject to sampling and non-sampling error; see Appendix E for further information.

APPENDIX A

MAGNETIC TAPE FORMATS

All data on magnetic tape from household sample surveys are supplied from the Canberra Office of the ABS and encoded by a FACOM M780 computer. All tapes are of standard dimensions (730m x 12.7mm) and use 9 tracks.

Tape labelling conventions

Three labelling options are available:

- (a) FACOM Standard Label (same as IBM Standard Label). A label block consists of an 80 character EBCDIC coded fixed format record prefixed as for Australian Standard Labels but with some fields containing different information. However the contents of the main fields are the same as for ANSI X3.27 labels. For a complete description see Appendix B;
- (b) Australian Standard Label (ANSI X3.27-1978 and AS 1068-1971). A label block consists of an 80 character ASCII coded fixed format record prefixed by the characters VOL1, HDR or EOF. For a complete description see Appendix B; and
- (c) Unlabelled.

Note: All data files labelled and unlabelled will be encoded using either ASCII or EBCDIC Code Sets and will be blocked. The last file of data will be terminated by two consecutive tape marks. Although the ABS can supply unlabelled tapes from the M780 computer, the practice is strongly discouraged.

Recording densities

There are two recording densities available, and these are

phase encoded 63 RPmm (1600 BPI) and 246 RPmm (6250 BPI).

Code sets

Two code sets are available:

- (d) ASCII Code Set (AS1776-1975) which requires a minimum of 7 bits for representation. ABS always writes this code in 8-bit representation with high order bit set to zero. This code cannot be represented on tapes with FACOM Standard Labels; and
- (e) EBCDIC Code Set. ABS always writes this code in 8-bit representation. This code will not be represented on tapes with ANSI labels.

Block sizes

The block sizes will usually be as close as possible to but not exceeding 8192 characters. Block sizes are not a user option.

Initialising arrangements for magnetic tapes

All tapes will be initialised by the ABS under its Tape Management System (TMS). Labelled tapes will be allocated volume serial numbers (VSNs) by the ABS and hardcopy of the label details will be supplied to the user. The user may specify an expiry date on the order form. Unlabelled tapes can also be provided.

ABS recommended tape option

The ABS recommends that the data be provided on 9 track tapes which are FACOM Standard labelled written at 246 RPmm (6250 BPI) using the EBCDIC code set.

FLOPPY DISK FORMATS

Where a user chooses to obtain data on floppy disks, to enable processing of data on IBM or IBM compatible microcomputers, the data files will be provided on a series of appropriately labelled disks, in a highly compressed format. Public domain software together with

associated documentation will be provided to enable the user to decompress the files into the same format as would normally be provided on magnetic tape, and as such, would reflect the documentation provided with the tape.

APPENDIX B

MAGNETIC TAPE VOLUME AND DATA SET LABELS

Section A — FACOM Standard Labels (same as IBM)

Each label is one 80-byte record containing various attributes of the data set or reel. EBCDIC code is used. There are five kinds of labels, as shown in Figure A.1.

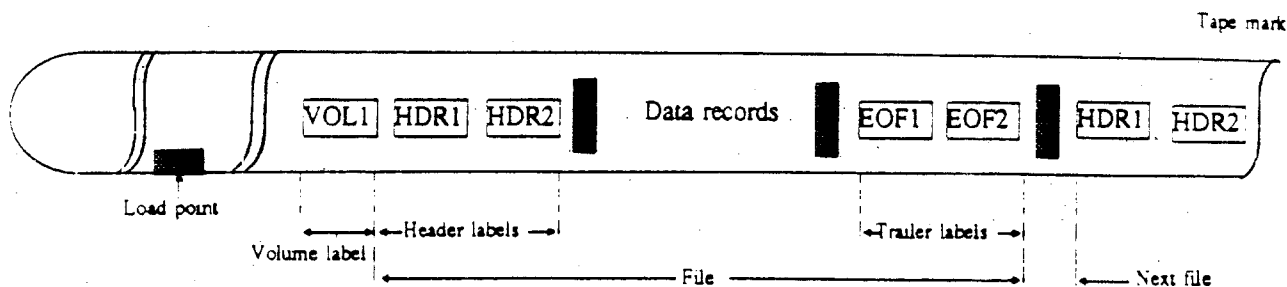


Figure A.1 FACOM Standard labels (same as IBM)

Volume label

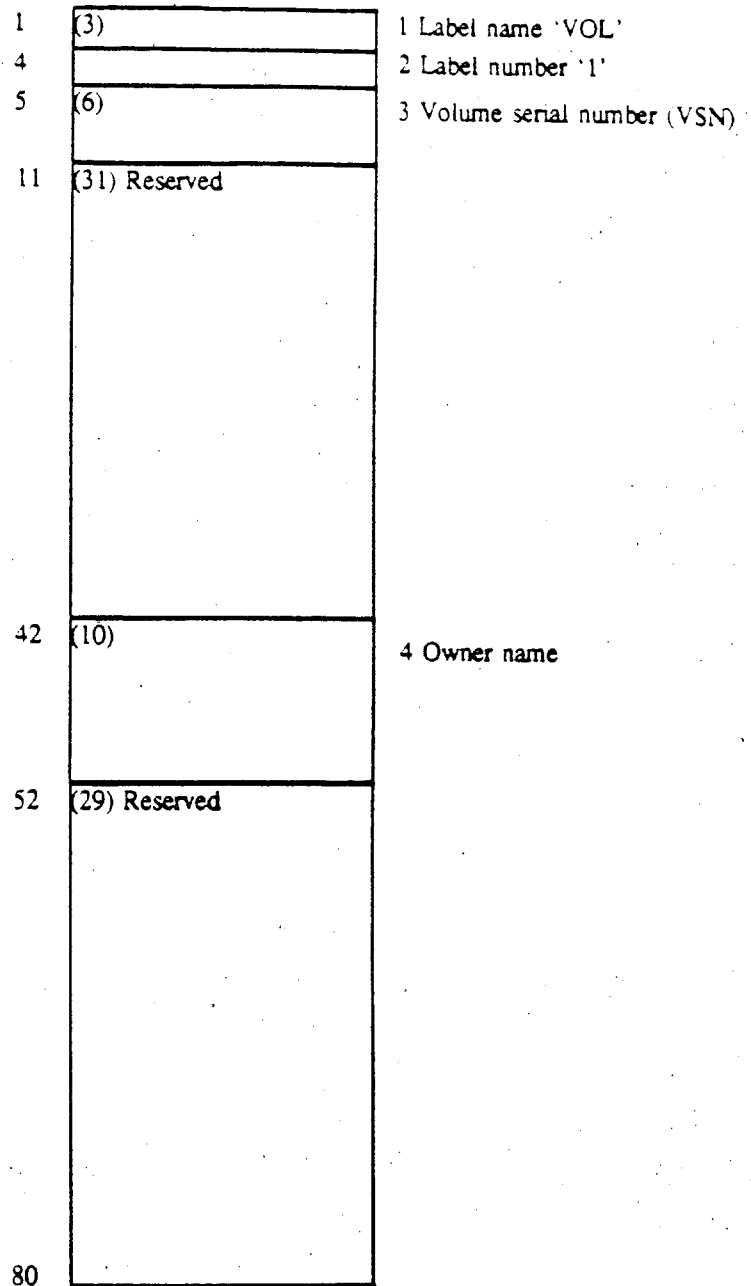
One volume label exists as the first block on each reel. The label contains VSN, owner name and other data pertinent to this reel. A volume label is characterised by its first four characters: VOL. 1.

Header labels

Two header labels are written at the front of each file: header label 1 (HDR1) and header label 2 (HDR2). The former contains an identification of this file, the latter contains various attributes.

Trailer labels

Two trailer labels are written at the end of each file: trailer label 1 (EOF1) and trailer label 2 (EOF2). As can be seen from Figure A.1, header and trailer labels are paired for each file on the volume. Trailer labels are quite similar to header labels, since reel processing does not always start from the front of a file, e.g. when reading backwards.



Note: Reserved — all blank

Figure A.2 Standard volume label

Standard volume label format:

Refer to Figure A.2.

- 1 *Label name*: Indicates that the label is a volume label; always 'VOL'.
- 2 *Label number*: This is the sequence number of the volume label. There is only one volume label for a standard label reel; hence, its sequence number is always '1'.
- 3 *Volume serial number (VSN)*: One to six EBCDIC characters. Used to cite a specific volume. Externally readable label on the reel should agree with this serial number for operating convenience.
- 4 *Owner name*: Arbitrary identifier of up to ten EBCDIC characters.

1	(3)	1 Label name
4		2 Label number
5	(17)	3 File name
22	(6)	4 File serial number
28	(4)	5 Volume sequence number
32	(4)	6 File sequence number
36	(4)	7 Generation number
40	(2)	8 Version number
42	(6)	9 Creation date
48	(6)	10 Expiry date
54		11 Security indicator
55	(6)	12 Block count
61	(13)	13 System code
74	(7)	
80		

Figure A.3 First standard header or trailer label for a file

Standard format for the first header and trailer labels for a file:

Refer to Figure A.3.

1 *Label name:* There are the following two kinds of label names:

- 'HDR' Header label
- 'EOF' Trailer label (end of data set).

2 *Label number:* Sequence number of this label; always '1' in this case.

3 *File name:* Seventeen character left-justified data set name. When less than seventeen characters, padded on right with blanks.

4 *File serial number:* Serial number of first volume on which these data exist.

5 *Volume sequence number:* Sequence number for a data set on one or more volumes. Volume sequence number is always '0001' for a single volume.

6 *File sequence number:* Relative position of each data set on the volume (ranges through 0001-9999). This is relative to the first volume.

7 *Generation number:* Blank.

8 *Version number:* Blank.

9 *Creation date:* Indicates year and day the data set was created:

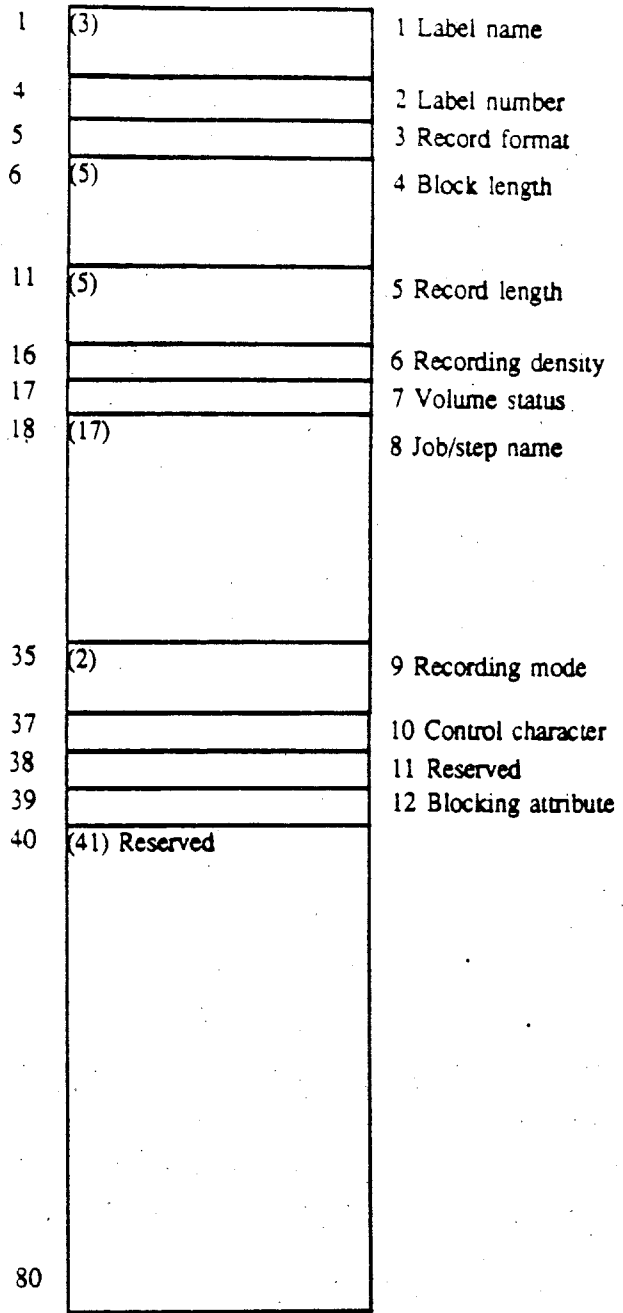
b	Blank
yy	Last two digits of the calendar year (00-99)
ddd	Day in the year (001-366)

10 *Expiry date:* Indicates year and date until which the data set is protected from deletion. Same format as the creation date. Field is character '0' if not specified and the protection interval is null.

11 *Security indicator:* Set to '0' (unprotected).

12 *Block count:* Total number of data blocks in the data set. Stored in the trailer label (EOF1 or EOF1); always '0' in the header label (HDR1).

13 *System code:* Identifier for system that created the data set. Always 'FACOM OS IV/F4' (13 bytes) for reels created on this operating system.



Note : Reserved—All blank

Figure A.4 Second standard header or trailer label for a file

Standard format for the second header and trailer labels for a file:

Refer to figure A.4.

1 *Label name:*

- 'HDR' Header label
- 'EOF' Trailer label (end of data set)

2 *Label number:* Sequence number of this label; always '2' in this case.

3 *Record format:*

F	Fixed length
V	Variable length
U	Undefined length

4 *Block length:*

F	format	Block length (integer multiple of record length)
V	format	Maximum block length (including BDW)
U	format	Maximum block length

5 *Record length:*

F	format	Logical record length
V	format	Maximum logical record length (including RDW)
U	format	Always '0'

6 *Recording density*

3	1600 (9 track)
---	----------------

7 *Volume status:*

0	First (or only) volume for this data set
---	--

8 *Job and step names:* Job name (eight characters) and step name (eight characters) delimited by '/' when the data set was created.

9 *Recording mode:* Blank

10 *Control character:*

A	ANSI control characters
C	FACOM control characters
M	Machine control characters
blank	No control characters

11 *Unused field (blanks):*

12 *Blocking attribute:*

B	Blocked records
S	Spanned records
R	Blocked spanned records
blank	Unblocked unspanned records

Section B — ANSI labels

ANSI labels have basically the same format as FACOM Standard Labels. There are some differences in positions of fields in VOL1 and HDR1. HDR3 and subsequent header labels are not used. All ANSI labels and data are recorded in ASCII code at a recording density of 63 RPmm (1600 BPI) or 246 RPmm (6250 BPI).

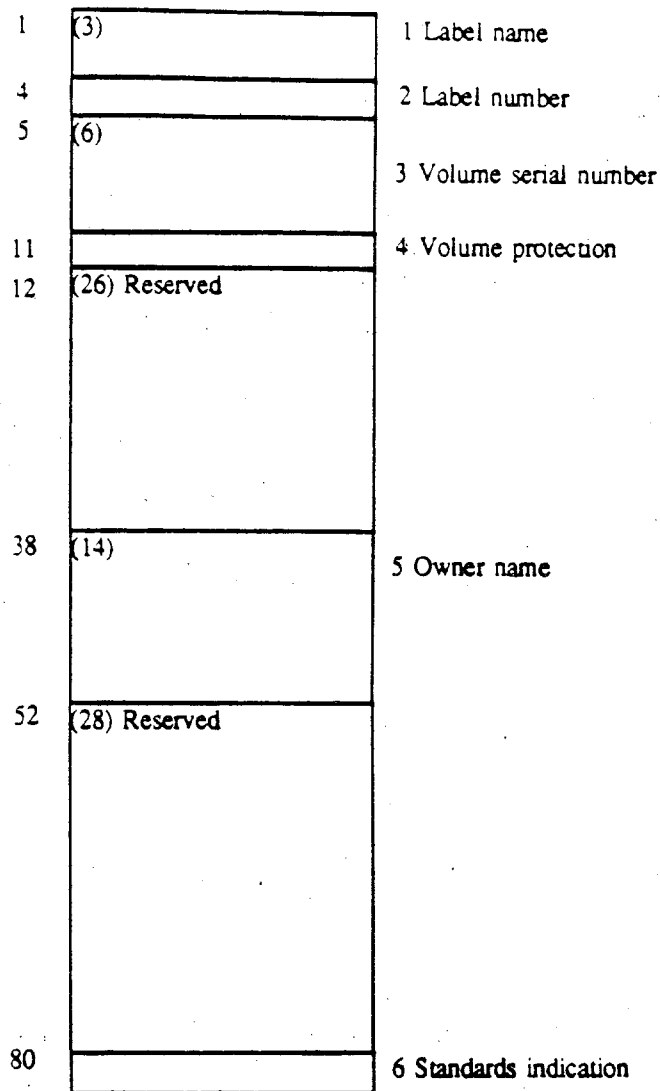


Figure A.5 ANSI volume label

ANSI volume label format:

Refer to figure A.5.

- 1 *Label name*: Indicates that the label is a volume label. Always 'VOL'.
- 2 *Label number*: Sequence number of the volume label. There is only one volume label for an ANSI Standard Label reel; hence, its sequence number is always '1'.
- 3 *VSN*: One to six ANSI characters. Used to cite a specific volume.
- 4 *Volume protection*: This field is an ANSI 'space' character.
- 5 *Owner name*: Arbitrary name of at most 14 ANSI characters. This field is left blank if no owner name was specified when the file was created.
- 6 *Standards indication*: This field is set to '1'.

1	(3)	1 Label name
4		2 Label number
5	(17)	3 File name
22	(6)	4 File serial number
28	(4)	5 Volume sequence number
32	(4)	6 File sequence number
36	(4)	7 Generation number
40	(2)	8 Version number
42	(6)	9 Creation date
48	(6)	10 Expiry date
54		11 Security indicator
55	(6)	12 Block count
61	(13)	13 System code
74	(7)	
80		

Figure A.6 First ANSI header or trailer label for a data set

ANSI format for the first header and trailer labels for a file:

Refer to Figure A.6. The contents of the fields (1)-(13) in Figure A.6 are the same as those of the FACOM Standard Label (Figure A.3) except for field (11), 'Security indicator'.

Figure A.6 First ANSI header and trailer label for a data set

11 *Security indicator*: Blank

ANSI format for the second header and trailer labels for a file: Same as FACOM Standard Labels.

Other labels: File labels 3-9 (HDR3-HDR9, EOF3-EOF9) are not created by ABS.

NATIONAL HEALTH SURVEY, 1989

APPENDIX C

RECORD STRUCTURE FOR SAMPLE TAPE

RECORD : PERSON

FIELD LABEL

FIELD START LENGTH FIELD NAME
NUMBER POSITION (BYTES)

RANGE OF
CODES

DATA ITEM GROUP : INDICATIVE ITEMS

Household indicative number (random)	1	1	8	RANDOMID	0-999999999
Family number	2	9	1	FAMNO	0-7
Income unit number	3	10	1	IUNO	0-7
Person number	4	11	2	PNO	0-11

DATA ITEM GROUP : GEOGRAPHIC ITEMS

* Geographical area of residence	5	13	2	GEOGAREA	1-14
* Health region	6	15	2	HLTHREG	1-45
Capital city or not	7	17	1	CAPCITY	1-2
State of interview	8	18	1	STATEIP	1-8

DATA ITEM GROUP : PERSON DESCRIPTION

Position in family	9	19	1	FAMPOS	0-6
Position in income unit	10	20	1	IUPOS	0-3
Sex	11	21	1	SEX	1-2
* Age	12	22	2	AGE	1-17
Marital status	13	24	1	MARSTAT	0-5
* Country of birth	14	25	2	COB	1-12
* Year of arrival	15	27	1	YOARR	0-4
Relationship code	16	28	2	FAMRELCP	0-18

DATA ITEM GROUP : EDUCATION

When left school	17	30	1	SCHATTGR	0-4
Whether undertaking Post school study	18	31	1	POSTSTUD	0-2
Highest qualifications	19	32	1	HIGHQUAL	0-5
Age first left school	20	33	1	FSTSCH	0-4

* The detail for this item has been reduced to preserve the confidentiality of individuals and/or because the data at a more detailed level would be unreliable for most practical purposes.

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APPENDIX C

RECORD STRUCTURE FOR SAMPLE TAPE

RECORD : PERSON

FIELD LABEL	FIELD NUMBER	START POSITION	LENGTH (BYTES)	FIELD NAME	RANGE OF CODES
-------------	--------------	----------------	----------------	------------	----------------

DATA ITEM GROUP : LABOUR FORCE

Employment status	21	34	1	EMPSTAT	0-3,9
Usual major activity	22	35	1	UMACT	0-4,9
Number of jobs	23	36	1	NOJOBS	0-2,9
* Industry of employment	24	37	2	INDEMPLA	0-13
Industry sector.	25	39	1	INDSECT	0-2,9
* Occupation	26	40	1	OCCA	0-9
Employment type.	27	41	1	EMPTYE	0-3,9
Usual hours worked	28	42	1	HRSWKD	0-9

DATA ITEM GROUP : INCOME

Main source of income	29	43	1	INCMSRC	0-5,6
WHETHER GOVERNMENT PENSION/BENEFIT RECEIVED.	30	44	1	PENBEN	0-2
* Gross personal annual income	31	45	2	INCOME	0-12

DATA ITEM GROUP : LANGUAGE

* Whether Language other than English spoken at home	32	47	1	LANSAH	1-2
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DATA ITEM GROUP : HOSPITAL EPISODES

Whether in hospital in last 2 weeks.	33	48	2	HOSPWTHR	01,51
Number of days in hospital in the last 2 weeks	34	50	2	HOSPNR	0-15,99
Reason for attending hospital first	35	52	3	HOSPRSN1	0-999
Reason for attending hospital - second	36	55	3	HOSPRSN2	0-999
Reason for attending hospital - third	37	58	3	HOSPRSN3	0-999

Whether visited casualty department/outpatients in last 2 weeks.

Number of visits to casualty or outpatients in the last 2 weeks.	38	61	2	CASWTHR	02,52
Number of visits to casualty or outpatients in the last 2 weeks.	39	63	2	CASNR	0-15,99

* The detail for this item has been reduced to preserve the confidentiality of individuals and/or because the data at a more detailed level would be unreliable for most practical purposes.

NATIONAL HEALTH SURVEY, 1989

APPENDIX C

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RECORD STRUCTURE FOR SAMPLE TAPE

RECORD : PERSON

FIELD LABEL

FIELD NUMBER
START POSITION
LENGTH
(BYTES)

FIELD NAME

RANGE OF
CODES

DATA ITEM GROUP : HOSPITAL EPISODES - Continued

Reason for attending casualty - first	40	65	3	CASRSN1	0-999
Reason for attending casualty - second	41	68	3	CASRSN2	0-999
Number of times hospitalised in the last 12 months	42	71	2	HOSPNR12	1-98 times
Length of the most recent hospitalisation	43	73	2	HOSPDUR	0,1,91-94
Hospital type	44	75	1	HOSRECE	0-3
Whether hospitalised in the last 12 months	45	76	1	HOSPWT12	0-2
Reasons for stay hospital 12 months - first	46	77	3	HOS12RN1	0-999
Reasons for stay hospital 12 months - second	47	80	3	HOS12RN2	0-999
Reasons for stay hospital 12 months - third	48	83	3	HOS12RN3	0-999

DATA ITEM GROUP : DOCTOR CONSULTATION

Whether doctor consulted in last two weeks	49	86	2	DOCWTHR	03,53
Number of doctor consultations in last 2 weeks	50	88	2	DOCNR	0-14,99
Reason for consulting doctor - first	51	90	3	DOCRSN1	0-999
Reason for consulting doctor - second	52	93	3	DOCRSN2	0-999
Reason for consulting doctor - third	53	96	3	DOCRSN3	0-999
Period since last doctor consultation	54	99	1	DOCDUR	0-6
Place of most recent doctor consultation	55	100	1	DOCPLCE	0-5
Type of doctor consulted	56	101	1	DOCTYPE	0-3
Whether doctor gave/arranged injection	57	102	1	DOCTREAA	0,1
Whether doctor gave/prescribed medication	58	103	1	DOCTREAB	0,2
Whether doctor made further appointment	59	104	1	DOCTREAC	0,3
Whether doctor arranged admission to hospital/nursing home	60	105	1	DOCTREAD	0,4

NATIONAL HEALTH SURVEY, 1989

APPENDIX C

RECORD STRUCTURE FOR SAMPLE TAPE

4

RECORD : PERSON

FIELD LABEL

FIELD NUMBER START POSITION (BYTES) LENGTH (BYTES) FIELD NAME

RANGE OF CODES

DATA ITEM GROUP : DOCTOR CONSULTATION - Continued

Whether doctor checked blood pressure	61	106	1	DOCTREAE	0,5
Doctor did not arrange treatments listed	62	107	1	DOCTREAF	0,6
Whether doctor took/arranged xray	63	108	1	DOCTREAG	0,1
Whether doctor took/arranged blood test.	64	109	1	DOCTREAH	0,2
Whether doctor took/arranged urine test.	65	110	1	DOCTREAI	0,3
Whether doctor took/arranged any other test.	66	111	1	DOCTREAJ	0,4
Doctor did not arrange tests listed.	67	112	1	DOCTREAK	0,5
Whether doctor made referrals	68	113	1	DOCTREF	0-7

DATA ITEM GROUP : DENTAL

Whether had a dental consultation in last two weeks.	69	114	2	DENTWTHR	00,06,99
Number of dental consultations in last two weeks	70	116	2	DENTNR	0-14,99
Reason for dental consultation	71	118	3	DENTRSN1	0-999
Period since last dental consultation	72	121	1	DENSINCE	0-8
Whether had a dental extraction.	73	122	1	WTHROUT	0-2
Whether had a dental X-ray	74	123	1	WTHRXRAY	0-2
Whether had teeth cleaned/polished	75	124	1	WTHRPOLI	0-2
Whether had dental fluoride treatment	76	125	1	WTHRFLUO	0-2
Whether had a dental filling	77	126	1	WTHRFILL	0-2
Whether had a denture fitting	78	127	1	WTHRFITT	0-2
Whether had denture maintenance/repair.	79	128	1	WTHRREPA	0-2
Whether had dental braces/bands fitted	80	129	1	WTHRBAND	0-2
Whether had a dental checkup	81	130	1	WTHRCHEC	0-2

NATIONAL HEALTH SURVEY, 1989

APPENDIX C

RECORD STRUCTURE FOR SAMPLE TAPE

RECORD : PERSON

FIELD LABEL

FIELD NUMBER START POSITION LENGTH FIELD NAME RANGE OF CODES

DATA ITEM GROUP : DENTAL - Continued

Whether had other dental treatment	82	131	1	WTHRTREA	0-2
Whether has any/own natural teeth	83	132	1	OWNTEETH	0-2
Whether has dentures or false teeth.	84	133	1	FTEETH	0-2
Location of dentures/false teeth	85	134	1	LOCDENT	0-3
Type of dentures or false teeth.	86	135	1	FULLPART	0-8

DATA ITEM GROUP : OTHER HEALTH PROFESSIONALS

Whether chiropractor consulted in last two weeks	87	136	2	CHIRWTHR	0,7
Number of consultations in two weeks - chiropractor.	88	138	2	CHIRNR	0-14,99
Reason for consulting chiropractor - first	89	140	3	CHIRRSN1	0-999
Reason for consulting chiropractor - second.	90	143	3	CHIRRSN2	0-999
Reason for consulting chiropractor - third	91	146	3	CHIRRSN3	0-999
Whether osteopath consulted in last two weeks	92	149	2	OSTEWTHR	0,8
Number of consultations in two weeks - osteopath	93	151	2	OSTENR	0-14,99
Reason for consulting osteopath - first.	94	153	3	OSTERSN1	0-999
Reason for consulting osteopath - second	95	156	3	OSTERSN2	0-999
Reason for consulting osteopath - third.	96	159	3	OSTERSN3	0-999
Whether naturopath consulted in last two weeks	97	162	2	NATUWTHR	0,9
Number of consultations in two weeks - naturopath	98	164	2	NATUNR	0-14,99
Reason for consulting naturopath - first	99	166	3	NATURSN1	0-999
Reason for consulting naturopath - second	100	169	3	NATURSN2	0-999
Reason for consulting naturopath - third	101	172	3	NATURSN3	0-999
Whether herbalist consulted in last two weeks	102	175	2	HERBWTHR	0,10

NATIONAL HEALTH SURVEY, 1989
RECORD STRUCTURE FOR SAMPLE TAPE

APPENDIX C

RECORD : PERSON

FIELD LABEL

FIELD START NUMBER POSITION (BYTES) LENGTH (BYTES) FIELD NAME RANGE OF CODES

DATA ITEM GROUP : OTHER HEALTH PROFESSIONALS - Continued

Reason for consulting optician - second.	125	234	3	OPTIRSN2	0-999
Reason for consulting optician - third	126	237	3	OPTIRSN3	0-999
Whether physiotherapist consulted in last two weeks.	127	240	2	PHYSWTHR	0,15
Number of consultations in two weeks - physiotherapist	128	242	2	PHYSNR	0-14,99
Reason for consulting physiotherapist - first	129	244	3	PHYSRSN1	0-999
Reason for consulting physiotherapist - second	130	247	3	PHYSRSN2	0-999
Reason for consulting physiotherapist - third	131	250	3	PHYSRSN3	0-999
Whether psychologist consulted in last two weeks	132	253	2	PSYCWTHR	0,16
Number of consultations in two weeks - psychologist.	133	255	2	PSYCNR	0-14,99
Reason for consulting psychologist - first	134	257	3	PSYCRSN1	0-999
Reason for consulting psychologist - second.	135	260	3	PSYCRSN2	0-999
Reason for consulting psychologist - third	136	263	3	PSYCRSN3	0-999
Whether social worker consulted in last two weeks	137	266	2	SOCWWTHR	0,17
Number of consultations in two weeks - social worker	138	268	2	SOCWNR	0-14,99
Reason for consulting social worker - first.	139	270	3	SOCWRSN1	0-999
Reason for consulting social worker - second	140	273	3	SOCWRSN2	0-999
Reason for consulting social worker - third.	141	276	3	SOCWRSN3	0-999
Whether chiropodist or podiatrist consulted in last two weeks	142	279	2	PODIWTHR	0,18
Number of consultations in two weeks - chiropodist or podiatrist	143	281	2	PODINR	0-14,99
Reason for consulting chiropodist or podiatrist - first	144	283	3	PODIRSN1	0-999
Reason for consulting chiropodist or podiatrist - second	145	286	3	PODIRSN2	0-999

NATIONAL HEALTH SURVEY, 1989

RECORD : PERSON

RECORD STRUCTURE FOR SAMPLE TAPE

FIELD LABEL	FIELD NUMBER	START POSITION	LENGTH (BYTES)	FIELD NAME	RANGE OF CODES
Reason for consulting chiropodist or podiatrist - third	146	289	3	PODIRSN3	0-999
DATA ITEM GROUP : OTHER HEALTH PROFESSIONALS - Continued					
Whether school nurse consulted in last two weeks	147	292	2	SCHNWTHR	0,19
Number of consultations in two weeks - school nurse.	148	294	2	SCHNNR	0-14,99
Reason for consulting school nurse - first	149	296	3	SCHNRSN1	0-999
Reason for consulting school nurse - second.	150	299	3	SCHNRSN2	0-999
Reason for consulting school nurse - third	151	302	3	SCHNRSN3	0-999
Whether baby health nurse consulted in last two weeks	152	305	2	BABNWTHR	0,20
Number of consultations in two weeks - baby health nurse	153	307	2	BABNNR	0-14,99
Reason for consulting baby health nurse - first.	154	309	3	BABNRSN1	0-999
Reason for consulting baby health nurse - second	155	312	3	BABNRSN2	0-999
Reason for consulting baby health nurse - third.	156	315	3	BABNRSN3	0-999
Whether other nurse consulted in last two weeks.	157	318	2	OTHNWTHR	0,21
Number of consultations in two weeks - other nurse	158	320	2	OTHNNR	-14,99
Reason for consulting other nurse - first	159	322	3	OTHNRSN1	0-999
Reason for consulting other nurse - second	160	325	3	OTHNRSN2	0-999
Reason for consulting other nurse - third	161	328	3	OTHNRSN3	0-999
Whether consulted chiropactor last 12 mths.	162	331	1	CHIR12MT	0,1
Whether consulted Osteopath last 12 mths	163	332	1	OSTE12MT	0,2
Whether consulted Naturopath last 12 mths	164	333	1	NATU12MT	0,3
Whether consulted herbalist last 12 months	165	334	1	HERB12MT	0,4
Whether consulted acupunturist last 12 mths.	166	335	1	ACUP12MT	0,5
Whether consulted dietician last 12 months	167	336	1	DIET12MT	0,6

NATIONAL HEALTH SURVEY, 1989
 RECORD STRUCTURE FOR SAMPLE TAPE

APPENDIX C

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RECORD : PERSON

FIELD LABEL

FIELD NUMBER
 START POSITION
 LENGTH
 (BYTES)
 FIELD NAME
 RANGE OF
 CODES

DATA ITEM GROUP : USE OF MEDICINES

Whether taken vitamins/minerals in last two weeks	168	337	2	VITAWTHR	0,22
Number taken in two weeks - vitamins/minerals	169	339	2	VITANR	00-04,99
Reason for taking vitamins/minerals - first.	170	341	3	VITARSN1	0-999
Reason for taking vitamins/minerals - second	171	344	3	VITARSN2	0-999
Reason for taking vitamins/minerals - third.	172	347	3	VITARSN3	0-999
Whether doctor prescribed vitamins/minerals.	173	350	2	VITAPRES	0-3,8,9
Whether more than one kind vitamins taken	174	352	1	MEDKVIT	0-3
Whether cough medicine taken in last two weeks	175	353	2	COUGWTHR	0,24
Reason for taking cough medicine - first	176	355	3	COUGRSN1	0-999
Reason for taking cough medicine - second	177	358	3	COUGRSN2	0-999
Reason for taking cough medicine - third	178	361	3	COUGRSN3	0-999
Whether doctor prescribed cough medicine	179	364	2	COUGPRES	0-3,8,9
Whether allergy medicine taken in last two weeks	180	366	2	ALLEWTHR	0,25
Reason for taking allergy medicine - first.	181	368	3	ALLERSN1	0-999
Reason for taking allergy medicine - second.	182	371	3	ALLERSN2	0-999
Reason for taking allergy medicine - third	183	374	3	ALLERSN3	0-999
Whether doctor prescribed allergy medicine	184	377	2	ALLEPRES	0-3,8,9
Whether skin medication used in last two weeks	185	379	2	SKINWTHR	0,26
Reason for using skin medication - first	186	381	3	SKINRSN1	0-999
Reason for using skin medication - second	187	384	3	SKINRSN2	0-999
Reason for using skin medication - third	188	387	3	SKINRSN3	0-999
Whether doctor prescribed skin medication	189	390	2	SKINPRES	0-3,8,9
Whether laxative taken in last two weeks	190	392	2	LAXAWTHR	0,27

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APPENDIX C

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RECORD : PERSON

RECORD STRUCTURE FOR SAMPLE TAPE

FIELD LABEL

FIELD NUMBER START POSITION LENGTH (BYTES) FIELD NAME RANGE OF CODES

DATA ITEM GROUP : USE OF MEDICINES - Continued

Reason for taking laxative - first	191	394	3	LAXARSN1	0-999
Reason for taking laxative - second	192	397	3	LAXARSN2	0-999
Reason for taking laxative - third	193	400	3	LAXARSN3	0-999
Whether doctor prescribed laxative	194	403	2	LAXAPRES	0-3,8,9
Whether heart medication taken in last two weeks	195	405	2	HARTWTHR	0,28
Reason for taking heart medication - first	196	407	3	HARTRSN1	0-999
Reason for taking heart medication - second	197	410	3	HARTRSN2	0-999
Reason for taking heart medication - third	198	413	3	HARTRSN3	0-999
Whether doctor prescribed heart medication	199	416	2	HARTPRES	0-3,8,9
Whether taken sleeping pills in last two weeks	200	418	2	SLEPWTHR	0,29
Reason for taking sleeping pills - first	201	420	3	SLEPRSN1	0-999
Reason for taking sleeping pills - second	202	423	3	SLEPRSN2	0-999
Reason for taking sleeping pills - third	203	426	3	SLEPRSN3	0-999
Whether doctor prescribed sleeping pills	204	429	2	SLEPPRES	0-3,8,9
Usual frequency of taking sleeping pills	205	431	1	SLEPFRO	0-4
Duration used sleeping pills	206	432	1	SLEPDUR	0-4
Purpose used sleeping pills	207	433	1	SLEPPURP	0-3
Type of medication for sleep - first	208	434	3	SLEPTYP1	0,104-803
Type of medication for sleep - second	209	437	3	SLEPTYP2	0,104-803
Type of medication for sleep - third	210	440	3	SLEPTYP3	0,104-803
Type of medication for sleep - fourth	211	443	3	SLEPTYP4	0,104-803
Type of medication for sleep - fifth	212	446	3	SLEPTYP5	0,104-803

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APPENDIX C

RECORD : PERSON

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RECORD STRUCTURE FOR SAMPLE TAPE

FIELD LABEL

RANGE OF CODES

DATA ITEM GROUP : USE OF MEDICINES - Continued

FIELD LABEL	FIELD NUMBER	START POSITION	LENGTH (BYTES)	FIELD NAME	RANGE OF CODES
Type of medication for sleep - sixth	213	449	3	SLEPTYP6	0,104-803
Whether pain relievers taken in last two weeks	214	452	2	PAINWTHR	0,23
Reason for taking pain relievers - first	215	454	3	PAINRSN1	0-999
Reason for taking pain relievers - second	216	457	3	PAINRSN2	0-999
Reason for taking pain relievers - third	217	460	3	PAINRSN3	0-999
Whether doctor prescribed pain relievers	218	463	2	PAINPRES	0-3,8,9
Usual frequency of taking pain relievers	219	465	1	PAINFRQ	0-4
Duration used pain relievers	220	466	1	PAINDUR	0-4
Purpose used pain reliever	221	467	1	PAINPURP	0-3
Type of medication for pain relief - first	222	468	3	PAINTYP1	0,104-803
Type of medication for pain relief - second	223	471	3	PAINTYP2	0,104-803
Type of medication for pain relief - third	224	474	3	PAINTYP3	0,104-803
Type of medication for pain relief - fourth	225	477	3	PAINTYP4	0,104-803
Type of medication for pain relief - fifth	226	480	3	PAINTYP5	0,104-803
Type of medication for pain relief - sixth	227	483	3	PAINTYP6	0,104-803
Whether taken tranquillisers in last two weeks	228	486	2	TRANWTHR	0,30
Reason for taking tranquillisers - first	229	488	3	TRANRSN1	0-999
Reason for taking tranquillisers - second	230	491	3	TRANRSN2	0-999
Reason for taking tranquillisers - third	231	494	3	TRANRSN3	0-999
Whether doctor prescribed tranquillisers	232	497	2	TRANPRES	0-3,8,9
Usual frequency of taking tranquillisers	233	499	1	TRANFRQ	0-4
Duration used tranquillisers	234	500	1	TRANDUR	0-4

NATIONAL HEALTH SURVEY, 1989
 RECORD STRUCTURE FOR SAMPLE TAPE

APPENDIX C

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RECORD : PERSON

FIELD LABEL

FIELD NUMBER START POSITION LENGTH FIELD NAME

RANGE OF CODES

DATA ITEM GROUP : USE OF MEDICINES - Continued

Purpose used tranquilliser	235	501	1	TRANPURP	0-3
Type of tranquilliser - first	236	502	3	TRANTYP1	0,104-803
Type of tranquilliser - second	237	505	3	TRANTYP2	0,104-803
Type of tranquilliser - third	238	508	3	TRANTYP3	0,104-803
Type of tranquilliser - fourth	239	511	3	TRANTYP4	0,104-803
Type of tranquilliser - fifth	240	514	3	TRANTYP5	0,104-803
Type of tranquilliser - sixth	241	517	3	TRANTYP6	0,104-803
Whether other medication taken in last two weeks	242	520	2	OTHMWTNR	0,31
Number taken in two weeks - other medication	243	522	2	OTHMNR	0,16-17,99
Reason for taking other medication - first	244	524	3	OTHMRSN1	0-999
Reason for taking other medication - second	245	527	3	OTHMRSN2	0-999
Reason for taking other medication - third	246	530	3	OTHMRSN3	0-999
Whether doctor prescribed other medication	247	533	2	OTHMPRES	0-3,8,9
DATA ITEM GROUP : SHORT-TERM DISABILITY					
Whether taken days away from work in last two weeks	248	535	2	WRKDWTHR	32,81,99
Number of days away from work in two weeks	249	537	2	WRKDNR	0-14,99
Reason for taking days away from work - first	250	539	3	WRKDRSN1	0-999
Reason for taking days away from work - second	251	542	3	WRKDRSN2	0-999
Whether taken days away from school in last two weeks	252	545	2	SCHDWTHR	33,91,99
Number of days away from school in two weeks	253	547	2	SCHDNR	0-14,99
Reason for taking days away from school - first	254	549	3	SCHDRSN1	0-999
Reason for taking days away from school - second	255	552	3	SCHDRSN2	0-999

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RECORD STRUCTURE FOR SAMPLE TAPE

RECORD : PERSON

FIELD LABEL

FIELD NUMBER START POSITION LENGTH FIELD NAME RANGE OF CODES

DATA ITEM GROUP : SHORT-TERM DISABILITY - Continued

Total days of short term disability.	256	555	2	STDTOT	0-14,99
Whether reduced activity in last two weeks	257	557	2	REDWTHR	4,54,99
Number of days of reduced activity in two weeks.	258	559	2	REDNR	0-14,99
Reason for reduced activity - first.	259	561	3	REDRSN1	0-999
Reason for reduced activity - second	260	564	3	REDRSN2	0-999
Whether had day in bed in last two weeks	261	567	2	BEDWTHR	5,55,99
Number of days in bed in last two weeks.	262	569	2	BEDNR	0-14,99
Reason for bed days - first.	263	571	3	BEDRSN1	0-999
Reason for bed days - second	264	574	3	BEDRSN2	0-999

DATA ITEM GROUP : ACTION TAKEN

Whether taken no action (for any condition) in last two weeks	265	577	2	NOACT	00,34,35,99
Condition for which no action taken - first.	266	579	3	NACTRSN1	0-999
Condition for which no action taken - second	267	582	3	NACTRSN2	0-999

DATA ITEM GROUP : HEALTH INSURANCE

Whether had private insurance cover.	268	585	1	INSPRIV	0-2
Health insurance contribution rate	269	586	1	INSCONR	0-2
* Whether covered by health concession card	270	587	1	INSCARD	0-3
Type of health insurance	271	588	1	INSTYPE	0-5

* The detail for this item has been reduced to preserve the confidentiality of individuals and/or because the data at a more detailed level would be unreliable for most practical purposes.

NATIONAL HEALTH SURVEY, 1989
 RECORD STRUCTURE FOR SAMPLE TAPE

RECORD : PERSON

FIELD LABEL

FIELD NUMBER FIELD START POSITION LENGTH (BYTES) FIELD NAME RANGE OF CODES

DATA ITEM GROUP : CONDITIONS

* FIELD NUMBER 272 : CONGROUP

The fields which follow are a group of fields which repeat 13 times commencing at character 589 in the record. Each repetition is 18 characters in length and the start character shown for each field is relative to the start of each repetition of the group.

Type of condition	273	1	3	CONDYTP	0-999
Whether condition is an illness	274	4	1	MEDWTHR	0-2
Whether action taken	275	5	1	TAKENWTH	0-2
Number of different actions	276	6	2	NUMACTI	0-33 actions
Total actions taken	277	8	2	TOTTAKEN	0-99 actions
Cause of condition	278	10	1	CAUCOND	0-3
Whether condition is recent or chronic	279	11	1	WTHCHRO	0-3
Whether hospitalised (for each condition)	280	12	1	WTHRHOSE	0-2
Whether visited casualty (for each condition)	281	13	1	WTHRCAS	0-2
Whether doctor consulted (for each condition)	282	14	1	WTHRSDOC	0-2
Whether other health professional consulted (for each condition)	283	15	1	WTHRSHOS	0-9
Whether medication(s) taken or used (for each condition)	284	16	1	WTHRMED	0-3,9
Whether had other days of reduced activity (for each condition)	285	17	1	WTHRDAY	0-2
Whether taken days off from work or school (for each condition)	286	18	1	WTHRDAYO	0-2,9

-----< END OF REPEATED FIELDS >-----

Whether suffers from diabetes	287	823	1	SPCONDA	0-5
Whether suffers from hyperglycemia	288	824	1	SPCONDB	0-5

NATIONAL HEALTH SURVEY, 1989
 RECORD STRUCTURE FOR SAMPLE TAPE

APPENDIX C

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RECORD : PERSON

FIELD LABEL

FIELD START LENGTH FIELD NAME RANGE OF CODES
 NUMBER POSITION (BYTES)

DATA ITEM GROUP : CONDITIONS - Continued

Whether has high blood pressure.	289	825	1	SPCONDC	0-5
Whether suffers from angina.	290	826	1	SPCONDD	0-5
Whether has suffered heart attack	291	827	1	SPCONDE	0-5
Whether has suffered a stroke	292	828	1	SPCONDF	0-5
Whether has high cholesterol	293	829	1	SPCONDG	0-5
Whether has high triglycerides	294	830	1	SPCONDH	0-5
Number of recent conditions.	295	831	2	NUMCONDR	0-10 conditions
Number of chronic conditions	296	833	1	NUMCONDC	0-9 conditions

DATA ITEM GROUP : ALCOHOL CONSUMPTION

Alcohol consumption - Monday	297	834	3	ALCMOND	0-999 (mls)
Alcohol consumption - Tuesday	298	837	3	ALCTUES	0-999 (mls)
Alcohol consumption - Wednesday.	299	840	3	ALCWEDN	0-999 (mls)
Alcohol consumption - Thursday	300	843	3	ALCTHUR	0-999 (mls)
Alcohol consumption - Friday	301	846	3	ALCFRID	0-999 (mls)
Alcohol consumption - Saturday	302	849	3	ALCSATU	0-999 (mls)
Alcohol consumption - Sunday	303	852	3	ALCSUND	0-999 (mls)
Whether extra special/light beer consumed during week	304	855	1	WTHLIGHT	0,1
Alcohol from extra special/light beer consumed during week.	305	856	3	AMTLIGHT	0-999 (mls)
Whether low alcohol beer consumed during week	306	859	1	WTHLOALC	0,2
Alcohol from low alcohol beer consumed during week	307	860	3	AMTLOALC	0-999 (mls)
Whether full strength beer consumed during week.	308	863	1	WTHRBEER	0,3
Alcohol from full strength beer consumed weekly.	309	864	3	AMTBEER	0-999 (mls)

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RECORD STRUCTURE FOR SAMPLE TAPE

APPENDIX C

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RECORD : PERSON

FIELD LABEL

FIELD NUMBER START POSITION LENGTH FIELD NAME RANGE OF CODES

DATA ITEM GROUP : ALCOHOL CONSUMPTION - Continued

Whether wine consumed during week	310	867	1	WTHWINE	0,4
Alcohol from wine consumed during week	311	868	3	AMTWINE	0-999 (mls)
Whether spirits consumed during week	312	871	1	WTHSPIR	0,5
Alcohol from spirits consumed during week	313	872	3	AMTSPIR	0-999 (mls)
Whether fortified wine consumed during week	314	875	1	WTHRFORT	0,6
Alcohol from fortified wine consumed during week	315	876	3	AMTFORT	0-999 (mls)
Whether other alcohol consumed during week	316	879	1	WTHROALC	0,7
Alcohol from other alcohol consumed during week	317	880	3	AMTOALC	0-999 (mls)
Alcohol drank last 7 days	318	883	1	ALC7DAY	0-2
Day consumed most alcohol	319	884	1	DAYHEAV	0-7 (days),8
Amount consumed on heaviest day	320	885	3	AMNTHEAV	0-999
Number days alcohol consumed	321	888	1	NRDAYALC	0-7 (days)
Period since last drank alcohol	322	889	1	PERALC	0-5
Whether consumed more/less/same as usual	323	890	1	ALCCONS	0-3

DATA ITEM GROUP : ACCIDENTS

Period since last accident	324	891	2	ACCPRD	0-7
Condition result most recent accident - first reason	325	893	3	ACCONDA	0-999
Condition result most recent accident - second reason	326	896	3	ACCONDB	0-999
Place most recent accident	327	899	1	ACCPLC	0-6

DATA ITEM GROUP : ASTHMA

Whether chest wheezy/whistly	328	900	1	ASTWCHST	0-2
When last had wheezy chest	329	901	1	ASTLCHST	0-4

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APPENDIX C

RECORD STRUCTURE FOR SAMPLE TAPE

17

RECORD : PERSON

FIELD LABEL

FIELD NUMBER START POSITION LENGTH FIELD NAME

RANGE OF CODES

DATA ITEM GROUP : USE OF MEDICINES

Sun protection factor of sunscreen 330 902 2 SPFSUNS 0,2-16,94-99
 Use of sunscreen 331 904 1 SUNSRN 0-4

DATA ITEM GROUP : IMMUNISATION ITEMS

Whether triple antigen/CDT received. 332 905 1 TACDT 0-5
 Where triple antigen/CDT obtained 333 906 1 LOCTACDT 0-6
 Number of triple antigen/CDT injection received. 334 907 1 NRTACDT 0-5
 Whether booster triple antigen/CDT received since age four. 335 908 1 BSTTACDT 0-3
 Whether polio vaccination received 336 909 1 POLIO 0-3
 Where polio obtained 337 910 1 LOCPOLIO 0-6
 Number of polio doses received 338 911 1 NRPOLIO 0-5
 Whether booster polio received since age four 339 912 1 BSTPOLIO 0-3
 Whether combined mumps/measles received. 340 913 1 MUMEA 0-5
 Combined measles mumps received. 341 914 1 COMMEAMU 0-3
 Where mumps measles obtained 342 915 1 LOCMUMEA 0-6
 Whether rubella immunisation received 343 916 1 RUBELLA 0-3
 Where rubella obtained 344 917 1 LOCRUB 0-6
 Why rubella not received 345 918 1 NORUB 0-6
 Whether immunisation cards/records consulted 346 919 1 IMMREC 0-2
 Immunisation status diphtheria/tetanus 347 920 1 IMMIDIPH 0-5,9
 Immunisation status whooping cough 348 921 1 IMMWHOO 0-5,9
 Immunisation status polio 349 922 1 IMPPOLIO 0-5,9
 Immunisation status measles. 350 923 1 IMMMEAS 0-4,9

NATIONAL HEALTH SURVEY, 1989

RECORD STRUCTURE FOR SAMPLE TAPE

RECORD : PERSON

FIELD LABEL

FIELD NUMBER START POSITION LENGTH FIELD NAME RANGE OF CODES

DATA ITEM GROUP : IMMUNISATION ITEMS - Continued

Immunisation status mumps 351 924 1 IMMUMPS 0-4,9

DATA ITEM GROUP : DIET

Whether any diet changes 352 925 1 DIETCHGS 0-3

Reason changed diet. 353 926 1 REACHNG 0-6

Change in usual amount of vegetables consumed 354 927 5 AMTVEG 4

Change in usual amount of fresh/fruit juices consumed 355 928 1 AMTJUICE 0-4

Change in usual amount of fish consumed. 356 929 1 AMTFISH 0-4

Change in usual amount of bread consumed 357 930 1 AMTBREAD 0-4

Change in usual amount of breakfast cereal consumed. 358 931 1 AMTCERE 0-4

Change in usual amount of fat on meat consumed 359 932 1 AMTMEAT 0-4

Change in usual amount of fried foods consumed 360 933 1 AMTFOODS 0-4

Change in usual amount of butter or margarine consumed 361 934 1 AMTMARG 0-4

Change in usual amount of cheese or cream consumed 362 935 1 AMTCREAM 0-4

Change in usual amount of salt consumed. 363 936 1 AMTSALT 0-4

Change in usual amount of sugar consumed 364 937 1 AMTSUGAR 0-4

Change in usual amount of cakes/pastries/desserts consumed. 365 938 1 AMTDESS 0-4

Medical condition for which diet was changed 366 939 3 DIETCOND 0-999

DATA ITEM GROUP : EXERCISE

Whether did vigorous exercise 367 942 1 VIGOROUS 0-2

Number of times did vigorous exercise 368 943 2 NRVIG 0-99 times

Total time did vigorous exercise 369 945 4 TIMEVIG 0-9999 mins

Whether walked 370 949 1 WALK 0-2

NATIONAL HEALTH SURVEY, 1989
 RECORD STRUCTURE FOR SAMPLE TAPE

RECORD : PERSON

FIELD LABEL

FIELD NUMBER START LENGTH FIELD NAME

RANGE OF CODES

DATA ITEM GROUP : EXERCISE - Continued

Number of times walked	371	950	2	NRWALK	0-99 times
Total time walking	372	952	4	TIMWALK	0-9999 mins
Whether did moderate exercise	373	956	1	MODERATE	0-2
Number of times did moderate exercise	374	957	2	NRMOD	0-99 times
Total time did moderate exercise	375	959	4	TIMEMOD	0-9999 mins

DATA ITEM GROUP : TOBACCO CONSUMPTION

Smoker status	376	963	1	SMOSTAT	0-3
Number cigarettes day	377	964	2	NRCIGDAY	0-99 cigarettes
Age commenced smoking	378	966	2	AGECOSMO	0-99 years
Duration of smoking-current smoker	379	968	2	DURSMO	0-99 years
Whether ever attempted to give up smoking	380	970	1	ATTQUIT	0-2
Age last quit smoking	381	971	2	AGEQUIT	0-99 years
Main reason quit smoking	382	973	1	MREAQUIT	0-8
Whether smokes cigarettes	383	974	1	TYPSMOA	0,1
Whether smokes cigars	384	975	1	TYPXMOB	0,2
Whether smokes pipe	385	976	1	TYPXSMOC	0,3
Whether smokes roll-your-own	386	977	1	TYPXSMOD	0-2
Whether used to smoke cigarettes	387	978	1	TYPXMOA	0,1
Whether used to smoke cigars	388	979	1	TYPXMOB	0,2
Whether used to smoke a pipe	389	980	1	TYPXSMOC	0,3
Whether used to smoke roll-your-own	390	981	1	TYPXSMOD	0-2
Tar per cigarette	391	982	2	TARCIG	0-99 mg/in

NATIONAL HEALTH SURVEY, 1989

RECORD STRUCTURE FOR SAMPLE TAPE

RECORD : PERSON

FIELD LABEL

FIELD NUMBER
START POSITION
LENGTH (BYTES)
FIELD NAME
RANGE OF CODES

DATA ITEM GROUP : TOBACCO CONSUMPTION - Continued

Time since last gave up smoking.	392	984	2	DURSMOX	00-06
Nicotine per cigarette	393	986	2	NICCIG	0-99 mgm
Whether reason quit smoking - harmful to health.	394	988	1	QUITHARM	0-2
Whether reason quit smoking - cough/sore throat.	395	989	1	QUITCOFF	0-2
Whether reason quit smoking - reduces fitness/restricts activity	396	990	1	QUITFIT	0-2
Whether reason quit smoking - operations, pregnancy.	397	991	1	QUITHLTH	0-2
Whether reason quit smoking - offensive to others	398	992	1	QUITOFNS	0-2
Whether reason quit smoking - expense	399	993	1	QUITXPNS	0-2
Whether reason quit smoking - lost interest/did not like anymore.	400	994	1	QUITLOST	0-2
Whether reason quit smoking - other reasons.	401	995	1	QUITOTHR	0-2
Type of smoker	402	996	1	SMOTYPG	0-5
Daily tar intake	403	997	4	TARDAY	0-9999 mgm
Type of ex-smoker	404	1001	1	XSMOTYPG	0-5
Daily nicotine intake	405	1002	4	NICDAY	0-999 mgm

DATA ITEM GROUP : SELF ASSESSMENT MEASURES

Self assessed health status.	406	1006	1	SELFHLTH	0-4
Self assessed happiness.	407	1007	1	HAPPY	0-4
Self reported weight	408	1008	3	WEIGHTKG	0-999 kg
Self reported height	409	1011	3	HEIGHTCM	0-999 cm
Male Quetelet Body Mass Index	410	1014	1	MALINDEX	0-5
Female Quetelet Body Mass Index.	411	1015	1	FEMINDEX	0-5

NATIONAL HEALTH SURVEY, 1989

APPENDIX C

21

RECORD STRUCTURE FOR SAMPLE TAPE

RECORD : PERSON

FIELD LABEL

FIELD NUMBER START POSITION LENGTH FIELD NAME

RANGE OF CODES

DATA ITEM GROUP : WOMENS HEALTH ISSUES

Whether womens health form completed	412	1016	1	WHFORM	0-1,9
Ever had hysterctomy	413	1017	1	HADHYST	0-2,9
Ever had mammogram	414	1018	1	HADMAM	0-2,9
Ever had pap test	415	1019	1	HADPAP	0-2,9
Ever had breast examination.	416	1020	1	BRSTOTHR	0-2,9
Whether examines own breasts	417	1021	1	BRSTOWN	0-2,9
Period since last pap test	418	1022	1	LASTPAP	0-4,9
Period since last mammogram.	419	1023	1	LASTMAM	0-4,9
Ever heard pap smear test	420	1024	1	HEARDPAP	0-2,9
Ever heard of mammogram.	421	1025	1	HEARDMAM	0-2,9
Use of oral contraceptives	422	1026	1	PILL	0-2,9
Whether have IUD	423	1027	1	IUD	0-2,9
Whether breastfed children	424	1028	1	BRSTFEED	0-2,9
Number of child 0-5yrs in family where at least 1 child breastfed	425	1029	1	NUMKIDS	0-9 children
Number of children 0-5yrs breastfed in family	426	1030	1	NUMKIDSB	0-9 children
* Age children breastfed - first child	427	1031	1	AGEBRSTA	0-5
Time children breastfed - first child	428	1032	2	TIMEFEDA	0-99 months
* Age children breastfed - second child	429	1034	1	AGEBRSTB	0-5
Time children breastfed - second child	430	1035	2	TIMEFEDB	0-99 months
DATA ITEM GROUP : WEIGHTS					
Weight persons (to be divided by 10,000)	431	1037	8	WTP	0-999999999

* The detail for this item has been reduced to preserve the confidentiality of individuals and/or because the data at a more detailed level would be unreliable for most practical purposes.

NATIONAL HEALTH SURVEY, 1989
 RECORD STRUCTURE FOR SAMPLE TAPE

RECORD : PERSON

FIELD LABEL

FIELD NUMBER START POSITION (BYTES) LENGTH FIELD NAME RANGE OF CODES

DATA ITEM GROUP : PART

Equivalent income decile -Australia.	432	1045	2	EQVDECA	01-10
Seifa index quintile -Aust (No index for Hobart, Darwin & Canberra)	433	1047	2	SEIFAQA	01-05
Equivalent income decile -States	434	1049	2	EQVDECS	01-10
Seifa index quintile-State (No index for Hobart, Darwin & Canberra)	435	1051	2	SEIFAQS	01-05
Income Unit type	436	1053	1	IUTYPE	1-4

APPENDIX D

CLASSIFICATIONS FOR DATA ITEMS

To reduce printing and handling costs, Appendix D has been included on the sample file as File 2. This file contains ANSI print control characters.

File 3 is a compressed version of this print file enabling user specific documentation to be written. It consists of a series of lines of data 148 characters in length. Each field of the sample file is described in four lines followed by one line for each set of frequency results.

Each line of data is identified by the first 9 characters which contain the following:

<i>Character(s)</i>	<i>Type</i>	<i>Contents</i>
1	num	Record number (1,2,...).
2-5	num	Field number (1,2,...).
6-9	num	Sequence number within field (1,2,...).

The first four lines of documentation for each field contain the following:

<i>Character</i>	<i>Type</i>	<i>Contents</i>
------------------	-------------	-----------------

Line with sequence number 0000:

10-39	char	Field name
40	char	Record code (H = household)
41-44	num	Field location within record
45-48	num	Field length
49-52	num	Page reference to Appendix D of clerical mentation
53-56	char	Field type FILL = filler CON = classificatory field OBS = observation field
57-62	num	Date of preparation (DDMMYY) of clerical documentation
6	char	Adjustment flag A = for reasons of confidentiality B = adjusted from main ABS file but data are the same
64-79	char	Range of values of field
80-83	char	Data item group (abbreviated)
84-143	char	Notes concerning field

Line with sequence number 0001:

10-49	char	Data item group (explicit)
50-148	char	Field label

Line with sequence number 0002:

10-108	char	Population definition for field
109-118	num	Number of records corresponding to the defined population
119-128	num	Weighted estimate corresponding to the defined population

Line with sequence number 0003:

10-108	char	Computation corresponding to the defined population
--------	------	---

Remaining documentation lines contain the following:

<i>Character(s)</i>	<i>Type</i>	<i>Contents</i>
10-17	num	Code value for classificatory fields, 999999999 for all observation fields
18-27	num	Number of records containing each value
28-37	num	Percent of records containing each value (needs division by 100)
38-42	num	Percent of weighted estimates corresponding to each value (needs division by 100)
43-47	num	Percent of weighted estimates corresponding to each value (needs division by 100)
48-146	char	Descriptor for each code value (classificatory fields) or for each set of frequencies (observation fields)

Notes:

- . All numeric data is right justified and contains leading zeros
- . Fields of type FILL, only have the first four lines of documentation
- . Character data contains both lower and upper case characters

The following examples relate the information on File 3 to the data item descriptions given in Appendix D on File2.

A SAS program which can be used to interrogate this file is set out in pages 38 to 40 of this document.

This is a CLASSIFICATORY ITEM
(ie descriptors exist for each
code value of the field).

NATIONAL HEALTH SURVEY, 1989
DETAILED DOCUMENTATION FOR ITEMS ON SAMPLE FILE

Field name
Field label
Record type
Page reference

APPENDIX D
PAGE : 21

FIELD NAME	AGE	PERSON	Field number
FIELD LABEL	Age	PERSON	Field length
Population definition		12	Field location
APPLICABLE POPULATION	ALL PERSONS (IE ALL RECORDS)	2	
POPULATION TOTAL	54,241 RECORDS OR OBSERVATIONS (A WEIGHTED VALUE OF 16,988,786)	22	

Weighted estimate corresponding to the population definition

CATEGORIES	RECORD COUNTS	WEIGHTED ESTIMATES
0 to 4 years	4,327	1,243,060
5 to 9 years	4,345	1,251,689
10 to 14 years	4,060	1,229,072
15 to 19 years	4,245	1,403,878
20 to 24 years	3,905	1,354,234
25 to 29 years	4,586	1,408,834
30 to 34 years	4,540	1,391,032
35 to 39 years	4,249	1,307,053
40 to 44 years	3,974	1,254,155
45 to 49 years	3,082	980,805
50 to 54 years	2,480	813,566
55 to 59 years	2,288	722,965
60 to 64 years	2,329	731,391
65 to 69 years	2,186	666,006
70 to 74 years	1,602	542,966
75 to 79 years	1,112	371,870
80 years or more	931	316,208

Number of records corresponding to the population definition

Code value

Number of records corresponding to this code value

Percent of all records in this population definition to have this code value

Descriptor for each code value

Percent of total weighted estimate for this population definition to have this code value

Weighted estimate of households corresponding to this code value


```

-----*
MODNAME : URTDOCO                                00000100
-----*
> SAS PROGRAM TO READ THE "DOCO" FILE FOR UNIT RECORD TAPES 00000300
-----*
AUTHOR : FRED WENSING      | TELEPHONE : 06-2526526    00000500
-----*
;
DATA SASDB.URTFILDS          /* FILE FOR FIELDS ONLY          */ 00000800
    (DROP=CCODE NUM1-NUM4 DESCR) 00000900
SASDB.URTVALS              /* FILE FOR FIELD VALUES AND DESCRIPTORS */ 00001100
;
INFILE INSET;
RETAIN; /* GLOBAL RETAIN BECAUSE ENTRIES ARE MULTI RECORD */ 00001400
INPUT @1 RECORD 1. /* RECORD NUMBER (1,2,...) */ 00001500
      @2 FNR 4. /* FIELD NUMBER WITHIN RECORD (1,2,...) */ 00001600
      @6 SEQNR 4. /* SEQUENCE NUMBER IDENTIFIES DETAIL */ 00001700
      @; 00001800
IF SEQNR = 0 THEN /* WHEN SEQNR=0 BASIC DETAILS ARE FOUND */ 00001900
  INPUT
    @10 NAME $30. /* NAME OF FIELD IN ABS PROGRAMS - SINCE */ 00002100
                /* FEB 1991 THIS FIELD CONTAINS THE 8 */ 00002200
                /* CHARACTER SAS NAME, OTHERWISE IT IS */ 00002300
                /* THE 30 CHARACTER TPL NAME */ 00002400
    @40 RECNAME $1. /* ALPHA CODE IDENTIFYING THE RECORD ON */ 00002500
                /* WHICH THE ITEM OCCURS. CURRENT CODES */ 00002600
                /* ARE: H = HOUSEHOLD */ 00002700
                /* F = FAMILY */ 00002800
                /* U = INCOME UNIT */ 00002900
                /* P = PERSON */ 00003000
                /* X = EXPENDITURE */ 00003100
    @41 LOCATION 4. /* LOCATION EXPRESSED IN CHARACTERS FROM */ 00003200
                /* THE PHYSICAL START OF THE RECORD */ 00003300
    LTH 4. /* THE LENGTH OF THE FIELD IN CHARACTERS */ 00003400
    PAGE 4. /* THE REFERENCE PAGE IN APPENDIX D */ 00003500
    @53 TEMPTYPE $4. /* FIELD TYPE FOR "TPL" (TABLE PRODUCT- */ 00003600
                /* ION LANGUAGE) USED IN THE ABS. CODES */ 00003700
                /* ARE: CON = CONTROL VARIABLE */ 00003800
                /* OBS = OBSERVATION VARIABLE */ 00003900
                /* GRO = GROUP DEFINITION */ 00004000
    @57 DATE DDMYY6. /* DATE ON WHICH THE DATASET WAS CREATED */ 00004100
                /* FORMAT IS DDMYY */ 00004200
    @63 ADJ $1. /* WHETHER FIELD WAS ADJUSTED FROM MAIN */ 00004300
                /* ABS DATA. CODES ARE: */ 00004400
                /* A = CONFIDENTIALITY ADJUSTED */ 00004500
                /* B = OTHER ADJUSTMENT */ 00004600
    @64 RANGE $16. /* RANGE OF CODES TO BE FOUND IN FIELD */ 00004700
    @80 DGROUP $4. /* ABBREVIATED CODE FOR THE DATA ITEM */ 00004800
                /* GROUP TO WHICH THE FIELD BELONGS. */ 00004900
                /* THE FULL DATA ITEM GROUP NAME CAN BE */ 00005000
                /* FOUND IN FIELD "GROUPNME" (SEE BELOW) */ 00005100
    @84 NOTES $60. /* NOTES CONCERNING FIELD */ 00005200
;
ELSE IF SEQNR = 1 THEN INPUT
    @10 GROUPNME $40. /* FULL DATA ITEM GROUP NAME */ 00005500
    @50 CLAB $99. /* FIELD LABEL (FULL NAME) */ 00005600
;
00005700

```

```

ELSE IF SEQNR = 2 THEN INPUT
  310 DEF          $99./* DEFINITION OF POPULATION FOR ITEM          */ 00005800
  3109 (SAMPLE WTEST) (10.) /* RECORD COUNTS CORRESPONDING          */ 00005900
                                /* TO THE POPULATION - "SAMPLE" IS THE          */ 00006000
                                /* RECORD COUNT, "WTEST" IS THE SUM OF          */ 00006100
                                /* THE WEIGHTS FOR THE POPULATION          */ 00006200
                                /*                                */ 00006300
                                /*                                */ 00006400
                                /*                                */ 00006500
                                /*                                */ 00006600
                                /*                                */ 00006700
                                /*                                */ 00006800
                                /*                                */ 00006900
                                /*                                */ 00007000
                                /*                                */ 00007100
                                /*                                */ 00007200
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                                /*                                */ 00011400
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                                /*                                */ 00011600
                                /*                                */ 00011700

ELSE IF SEQNR = 3 THEN DO;
  INPUT
    310 COMP          $99./* COMPUTATION TO OBTAIN THE POPULATION    */ 00006700
                                /* WRITTEN USING THE LONG NAMES FOUND IN    */ 00006800
                                /* EARLIER VERSIONS OF THIS FILE (SHORT    */ 00006900
                                /* NAME VERSIONS ARE NOT YET AVAILABLE    */ 00007000
                                /*                                */ 00007100
                                /*                                */ 00007200
                                /*                                */ 00007300
                                /*                                */ 00007400
                                /*                                */ 00007500
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                                /*                                */ 00011500
                                /*                                */ 00011600
                                /*                                */ 00011700

  OUTPUT SASDB.URTFlds;
  END;
ELSE DO;
  INPUT
    310 CCODE          8. /* CODE VALUES FOUND IN FIELDS          */ 00007600
    318 (NUM1-NUM4)    (10. 10. 5. 5.) /* RECORD COUNTS AND PERCENTAGES FOR    */ 00007700
                                /* EACH VALUE:                                */ 00007800
                                /* NUM1 = COUNT OF RECORDS                    */ 00007900
                                /* NUM2 = COUNT OF WEIGHTS                    */ 00008000
                                /* NUM3 = PERCENT OF RECORDS                  */ 00008100
                                /* NUM4 = PERCENT OF WEIGHTS                  */ 00008200
                                /*                                */ 00008300
                                /*                                */ 00008400
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                                /*                                */ 00008700
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                                /*                                */ 00011300
                                /*                                */ 00011400
                                /*                                */ 00011500
                                /*                                */ 00011600
                                /*                                */ 00011700

    348 DESCR          $99./* DESCRIPTOR FOR VALUES OF FIELDS    */ 00008400
                                /*                                */ 00008500
                                /*                                */ 00008600
                                /*                                */ 00008700
                                /*                                */ 00008800
                                /*                                */ 00008900
                                /*                                */ 00009000
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                                /*                                */ 00011500
                                /*                                */ 00011600
                                /*                                */ 00011700

    NUM3 = NUM3 / 100; /* NUM3 NEEDS DIVISION BY 100          */ 00008600
    NUM4 = NUM4 / 100; /* NUM4 NEEDS DIVISION BY 100          */ 00008700
    OUTPUT SASDB.URTVALS;
    END;
-----*-----
| > SAS PROGRAM TO WRITE AN INPUT STATEMENT FROM THE DATA IN THE | 00009200
| DOCUMENTATION DATASET | 00009300
| > SEPARATE CODE IS GENERATED FOR FOR EACH LEVEL OF THE DATASET | 00009400
| WHICH CAN BE INCORPORATED WITHIN RELEVANT INPUT STATEMENTS | 00009500
| (IE. THE KEYWORD "INPUT" AND FINAL SEMICOLON ARE NOT GENERATED) | 00009600
|-----*-----
| AUTHOR : FRED WENSING | TELEPHONE : 06-2526526 | 00009800
|-----*-----
;
PROC SORT DATA = SASDB.URTFlds;
  BY RECNAM LOCATION;
PROC FORMAT;
  VALUE SRECNAM
    'H' = 'HOUSEHOLD'
    'F' = 'FAMILY'
    'U' = 'INCOME UNIT'
    'P' = 'PERSON'
    'X' = 'EXPENDITURE'
;
DATA _NULL_;
  SET SASDB.URTFlds;
  BY RECNAM LOCATION;
  FILE OUTSET; /* A DATASET TO TAKE GENERATED CODE */
  IF FIRST.RECNAM THEN DO;
    PUT @1 '/' @2 '*';
    @4 'THE CODE THAT FOLLOWS MAY BE USED IN AN INPUT STATEMENT'
  END;

```


APPENDIX E

STANDARD ERRORS

Calculation of standard errors

The standard errors of all estimates were derived by the split-halves method. In strata where three stages of selection were used (see Section 2.2), selected census collectors districts were alternately allocated to one of two groups known as variance groups. In the other areas, primary sampling units were allocated to variance groups. The estimates of sampling variance (the square of the standard error) were then derived by use of the split-halves variance expression

$$v(x'q) = \sum_z \sum_{h \in z} (x'_{qh1} - x'_{qh2})^2 - \sum_{a,s} \frac{x'_{qzas}}{f_h \left(\sum_h \frac{1}{f_h} n_{qhas} \right)} (n_{qh1as} - n_{qh2as})^2$$

where h_1, h_2 denote the two variance groups within stratum h , and

n_{qhjas} = the number of respondents in variance group j of stratum h , age group a , sex s in quarter q , and $j = 1$ or 2

$x'_{qhj} = \sum_{a,s} w_{qhas} x'_{qhjas}$ and $j = 1$ or 2

$x'_{qhjas} = \sum_i x'_{qhjasi}$ and $j = 1$ or 2

other expressions are as indicated in Appendix E.

Standard errors were 'smoothed' using models of the form:

$$\log(\text{RSE}\%) = A + B \log(\text{estimate}) + C \log(\text{estimate})^2$$

where RSE% (Relative Standard Error) equals the standard error of the estimate divided by the estimate expressed as a percentage, while A, B and C were estimated by ordinary least squares regression. Separate models were fitted for each region, for each State and Territory and for quarterly and annual estimates.

Table of standard errors

A table of standard errors for general application in using annual State and national estimates is given in Table A. These figures will not give a precise measure of the standard error of a particular estimate but they will provide an indication of its magnitude.

Example of the use of standard errors

An example of the use of standard errors follows: the estimated number of persons aged 15 to 24 years who experienced Epilepsy as a chronic condition was 16,600. From Table A it will be seen that the estimate has a standard error of about 2,310 and 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 within the range 14,290 to 18,910 and about nineteen chances in twenty that the value will fall within the range 11,980 to 21,220. This example is illustrated in the following diagram:

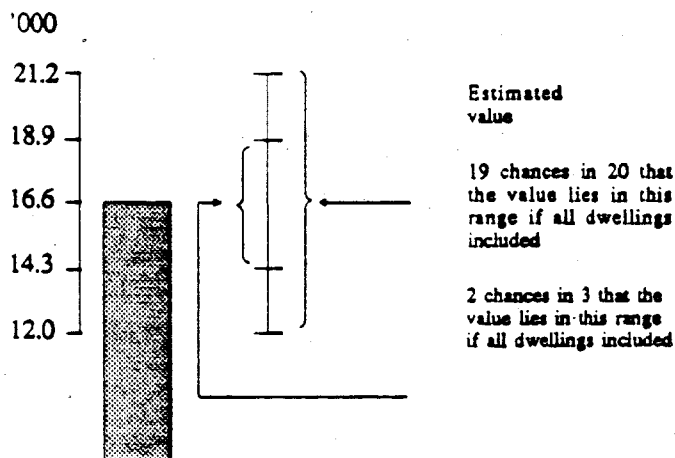


TABLE A. STANDARD ERRORS AND RELATIVE STANDARD ERRORS FOR ESTIMATES OF PERSONS STATES AND TERRITORIES

Size of estimate	NSW		Vic.		Qld		SA		WA		Tas.		NT		ACT		Australia		
	SE	RSE%	SE	RSE%	SE	RSE%	SE	RSE%	SE	RSE%	SE	RSE%	SE	RSE%	SE	RSE%	SE	RSE%	
400																			
500												210	52.4						
600												230	46.9						
700												260	42.7						
800												280	39.5						
900												290	36.8						
1,000												310	34.6			360	52.0		
1,100							510	50.6				330	32.7	450	50.4	390	48.3		
1,200			610	50.6			530	48.1				340	31.1	500	45.2	410	45.2		
1,300			630	48.6			550	46.0	620	52.1		360	29.7	520	43.1	430	42.7		
1,400			660	46.8			570	44.1	650	49.9		370	28.4	540	41.2	450	40.5		
1,500			680	45.2	760	50.8	590	42.4	670	48.0		380	27.3	550	39.6	460	38.5	610	50.9
1,600	810	50.8	700	43.8	790	49.1	610	40.9	690	46.2		390	26.3	570	38.1	480	36.8	640	49.0
1,700	840	49.2	720	42.5	810	47.6	630	39.5	710	44.7		410	25.4	590	36.8	500	35.3	660	47.4
1,800	860	47.8	740	41.3	830	46.2	650	38.3	740	43.2		420	24.5	610	35.6	520	32.8	690	45.9
1,900	880	46.5	760	40.2	850	44.9	670	37.2	750	41.9		430	23.8	620	34.5	540	31.7	740	43.4
2,000	910	45.3	780	39.1	870	43.7	690	36.1	770	40.7		440	23.0	640	33.5	560	29.7	780	41.2
2,100	930	44.2	800	38.2	900	42.6	700	35.1	790	39.6		450	22.4	650	32.6	580	28.9	800	40.2
2,200	950	43.1	820	37.3	920	41.6	720	34.2	810	38.6		460	21.8	670	31.7	590	28.1	830	39.3
2,300	970	42.1	840	36.4	940	40.7	730	33.4	830	37.6		470	21.2	680	31.0	600	27.3	850	38.4
2,400	990	41.2	860	35.6	950	39.8	750	32.6	850	36.7		480	20.7	690	30.2	610	26.7	870	37.7
2,500	1,000	40.4	870	34.9	970	38.9	760	31.9	860	35.9		490	20.2	710	29.5	620	26.0	890	36.9
3,000	1,100	36.7	950	31.8	1,050	35.4	780	31.2	880	35.1		530	17.7	720	28.9	640	25.4	910	36.2
3,500	1,200	33.8	1,050	29.3	1,150	32.6	850	28.2	950	31.8		570	16.2	780	26.1	690	22.9	1,000	33.2
4,000	1,250	31.5	1,100	27.4	1,200	30.3	910	26.0	1,000	29.2		600	15.0	840	24.0	730	20.9	1,100	30.8
4,500	1,350	29.6	1,150	25.7	1,300	28.5	970	24.1	1,100	27.1		630	13.9	890	22.4	770	19.4	1,150	28.9
5,000	1,400	28.0	1,200	24.3	1,350	26.9	1,000	22.6	1,150	25.4		650	13.1	940	21.0	810	18.1	1,250	27.3
6,000	1,500	25.4	1,300	22.1	1,450	24.4	1,050	21.3	1,200	24.0		680	11.7	990	19.8	850	17.0	1,300	25.9
8,000	1,750	21.7	1,500	18.9	1,650	20.8	1,150	19.3	1,300	21.7		700	11.7	1,100	18.0	920	15.3	1,400	23.7
10,000	1,900	19.2	1,650	16.7	1,850	18.4	1,450	14.5	1,450	18.4		780	9.8	1,250	15.4	1,050	12.9	1,650	20.5
20,000	2,600	13.1	2,300	11.4	2,500	12.5	1,950	9.7	2,200	10.9		850	8.5	1,350	13.6	1,150	11.3	1,850	18.4
30,000	3,100	10.4	2,700	9.1	2,950	9.9	2,300	7.6	2,600	8.6		1,100	5.4	1,900	9.4	1,500	7.4	2,550	12.8
40,000	3,500	8.8	3,050	7.7	3,350	8.4	2,550	6.4	2,900	7.2		1,250	4.1	2,250	7.6	1,750	5.8	3,100	10.4
50,000	3,850	7.7	3,350	6.7	3,700	7.4	2,800	5.6	3,150	6.3		1,350	3.4	2,600	6.5	1,950	4.8	3,550	8.9
100,000	5,100	5.1	4,500	4.5	4,850	4.9	3,650	3.7	4,150	4.2		1,450	2.9	2,900	5.8	2,100	4.2	3,950	7.9
200,000	6,700	3.4	5,900	2.9	6,400	3.2	4,750	2.4	5,400	2.7		1,750	1.7	4,000	4.0	2,700	2.7	5,400	5.4
300,000	7,900	2.6	6,800	2.3	7,500	2.5	5,500	1.8	6,300	2.1		2,050	1.0	5,600	2.8	3,450	1.7	7,200	3.6
400,000	8,800	2.2	7,600	1.9	8,300	2.1	6,100	1.5	7,000	1.8		2,250	0.7			3,950	1.3	8,500	2.8
500,000	9,500	1.9	8,300	1.7	9,000	1.8	6,600	1.3	7,600	1.5		2,350	0.6					9,600	2.4
1,000,000	12,200	1.2	10,600	1.1	11,600	1.2	8,300	0.8	9,700	1.0								10,500	2.1
2,000,000	15,500	0.8	13,300	0.7	14,700	0.7	10,400	0.5	12,300	0.6								13,700	1.4
5,000,000	20,900	0.4	17,900	0.4	19,800	0.4												17,700	0.9
10,000,000	25,900	0.3	22,000	0.2														24,500	0.5
20,000,000																		30,800	0.3
																		38,300	0.2

TABLE B. STANDARD ERRORS FOR CONDITIONS EXPERIENCED
AUSTRALIA

Size of estimate	Recent illness		Long-term conditions	
	Standard error	Relative standard error (per cent)	Standard error	Relative standard error (per cent)
500	460	91.5	360	71.0
1,000	630	63.2	520	51.8
1,500	770	51.0	650	43.1
2,000	880	43.9	760	37.8
2,500	980	39.1	850	34.1
3,000	1,050	35.5	940	31.4
3,500	1,150	32.8	1,000	29.2
4,000	1,200	30.6	1,100	27.5
4,500	1,300	28.8	1,150	26.1
5,000	1,350	27.3	1,250	24.8
6,000	1,500	24.9	1,350	22.9
10,000	1,900	19.2	1,800	18.1
20,000	2,700	13.5	2,650	13.2
50,000	4,300	8.6	4,300	8.6
100,000	6,100	6.1	6,300	6.3
200,000	8,800	4.4	9,100	4.6
300,000	10,900	3.6	11,400	3.8
500,000	14,300	2.9	15,000	3.0
1,000,000	20,700	2.1	21,700	2.2
2,000,000	30,300	1.5	31,500	1.6
5,000,000	50,200	1.0	51,500	1.0
10,000,000	74,100	0.7	74,600	0.7

TABLE C. FACTORS FOR ESTIMATES OF ACTIONS TAKEN

Type of estimate	Factor
Number of doctor consultations	1.31
Number of dental consultations	0.54
Number of OHP consultations	2.78
Number of casualty/outpatients visits	0.98
Bed days	3.38
Days of reduced activity	1.07
Days away from work	1.49
Days away from school	1.03
Medications taken	1.10

Similar calculations can be made for estimates concerned with numbers of illness conditions experienced for Australia from Table B. For estimates of actions taken, Table C contains factors to be applied to standard errors obtained from Table A. An example of the use of these factors follows:

The estimated number of doctor consultations during the two weeks prior to interview was 4,428,000. From Table A it can be seen that, as the estimate is between 2,000,000 and 5,000,000, the person standard error is between 17,700 and 24,500. The person standard error is therefore approximately 21,100. From Table C, the factor for estimates of the number of doctor consultations is 1.31. So the standard error for the above estimate of number of consultations is 27,600 (rounded to the nearest 100). Therefore there are about two chances in three that the value that would have been obtained if all dwellings had been included in the survey will fall within the range 4,400,400 to 4,455,600 and about nineteen chances in twenty that the value will fall within the range 4,372,800 to 4,483,200.

As Table A shows, the smaller the size of the estimate the larger the relative standard error of the estimate. Very small estimates may be subject to such high 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.

Standard errors of rates and percentages

The standard error of an estimated percentage or rate computed by using sample data for both numerator and denominator, depends upon both the size of the numerator and the size of the denominator. However, the relative standard error of the estimated percentage or rate will generally be lower than the relative standard error of the estimate of the numerator.

Approximate standard errors of rates or percentages may be derived by first obtaining the relative standard error of the number of persons corresponding to the numerator of this rate or percentage and then applying this figure to the estimated rate or percentage. An example of this calculation follows: The rate of chronic conditions of the respiratory system is 219.8 per 1,000 persons and the numerator of this rate is 3,733,500, which has a relative standard error of 0.6 per cent. By interpolation from Table A, the standard error of this rate of 219.8 can then be approximated by:

$$\begin{aligned} \text{Rate} \times \text{Relative standard error} \\ &= 219.8 \times 0.6 / 100 \\ &= 1.3 \end{aligned}$$

Therefore there are two chances in three that the rate that would have been obtained if all dwellings had been included in the survey is in the range 218.5 to 221.5 per 1,000 persons and about nineteen chances in twenty that it is in the range 217.2 to 222.4 per 1,000 persons.

Standard errors of differences between survey estimates

The difference between two survey estimates is itself also an estimate and is therefore subject to sampling variability. The standard error of the difference between two survey estimates depends on the standard errors of the original estimates and on the relationship (correlation) between the two original estimates. An approximate standard error of the difference between two estimates (x-y) may be calculated by the following formula:

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

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

An example of the use of the above formula follows: the difference between the estimates of the number of males and females who reported complete or partial deafness a long-term condition is

$$432,400 - 253,300 = 179,100$$

The standard error of this estimate can be calculated as follows. From the table above the standard errors of each of the two original estimates can be approximated as 9,900 and 7,800 respectively. Therefore the standard error of the difference is given by:

$$\begin{aligned} \text{Standard error (difference)} &= \sqrt{(9,900)^2 + (7,800)^2} \\ &= 12,600 \text{ (rounded to nearest 100)} \end{aligned}$$

Thus there are about two chances in three that the difference that would have been obtained, if all dwellings had been included in the survey is within the range 166,500 to 191,700 and about nineteen chances in twenty that this difference is between 153,900 and 204,300.

Standard errors of more complex derived statistics

Approximate standard errors of more complex derived statistics (i.e. other than rates, percentages and differences) may be obtained by applying appropriate adjustment factors to the relative standard errors of the estimates of the numbers of persons who contribute to those derived statistics. Full details of adjustment factors and method for obtaining approximate standard errors of the more complex derived statistics are presented in the technical notes of the publications containing the statistics concerned.

How to interpolate between the estimates for SE tables

To find the Australian RSE% for the estimate 250,000 we used linear interpolation between the two adjacent estimates.

The estimate 250,000 lies between:

ESTIMATE	RSE%
200,000	3.6
300,000	2.8

The RSE% for an estimate is:

$$= \text{lower RSE\%} + \left(\frac{y - x}{z - x} \right) (\text{upper RSE\%} - \text{lower RSE\%})$$

where

x = estimate corresponding to lower RSE%

y = actual estimate

z = estimate corresponding to upper RSE%

RSE% for an estimate of 250,000 is:

$$= 2.8 + \left(\frac{250,000 - 300,000}{200,000 - 300,000} \right) (3.6 - 2.8)$$

$$= 2.8 + \left(\frac{50,000}{100,000} \right) \times 0.8$$

$$= 3.2$$