



THE SCOTTISH OFFICE

SCOTLAND'S
HEALTH

SCOTTISH
HEALTH SURVEY
1995

VOLUME 2

A SURVEY CARRIED OUT ON BEHALF OF THE SCOTTISH OFFICE DEPARTMENT OF HEALTH



THE SCOTTISH OFFICE

SCOTLAND'S
HEALTH

SCOTTISH
HEALTH SURVEY
1995
VOLUME 2

A SURVEY CARRIED OUT ON BEHALF OF THE SCOTTISH OFFICE DEPARTMENT OF HEALTH

EDITED BY BOB ERENS AND WEI DONG

JOINT HEALTH SURVEYS UNIT

AT

SOCIAL AND COMMUNITY PLANNING RESEARCH

AND

DEPARTMENT OF EPIDEMIOLOGY AND PUBLIC HEALTH,

UNIVERSITY COLLEGE, LONDON



EDINBURGH: THE STATIONERY OFFICE

© Crown Copyright 1997

First published 1997

Reprinted 1998

Applications for reproduction should be made to:

Her Majesty's Stationery Office, Copyright Unit, St. Clements, Norwich

Not to be sold separately

ISBN 0 11 4958475

CONTENTS

VOLUME II: TECHNICAL REPORT

1	SURVEY METHODOLOGY AND RESPONSE	1
	<i>Bob Erens and Wei Dong</i>	
1.1	Survey design and procedures	2
1.2	Survey coverage.....	3
1.3	Ethical clearance	4
1.4	Sample selection	4
1.4.1	Sample coverage	4
1.4.2	Sample design and selection.....	5
1.4.3	Deadwood	5
1.4.4	Selecting households.....	6
1.4.5	Selection within the household.....	6
1.5	Survey Response.....	7
1.5.1	Response to the interview.....	7
1.5.2	Response to nurse visit.....	8
1.5.3	Response to the blood sample	8
1.5.4	Response by sex.....	8
1.5.5	Response by age.....	8
1.5.6	Net response rates.....	9
1.5.7	Response by Carstairs index	9
1.6	Weighting.....	9
1.6.1	Weight 1.....	10
1.6.2	Weight 2.....	10
1.6.3	Weight 3.....	11
1.6.4	Weight 4.....	11
1.7	Comparison of the responding sample with the general population...12	
1.8	The accuracy of the survey results	13
1.8.1	Sampling error	13
1.8.2	Bias.....	13
1.8.3	Simple random sampling formulae.....	14
1.8.4	Estimating errors in complex sample designs: design factors.....	14
1.8.5	Allowing for sampling error when using the data.....	16
1.9	Social class variables	17
	Tables	21

2	BLOOD ANALYTES, QUALITY CONTROL AND QUALITY ASSESSMENT	51
	<i>Wei Dong, etc CHECK AUTHORS</i>	
2.1	Introduction	51
2.1.1	Samples collected in the 9 ml plain tube for serum	51
2.1.2	Samples collected in the 2 ml EDTA tube	51
2.1.3	Samples collected in the 4 ml citrate tube.....	51
2.2	Biochemistry	51
2.2.1	Total cholesterol	52
2.2.2	HDL-cholesterol.....	52
2.2.3	Gamma gt	52
2.2.4	Ferritin	52
2.3	Cotinine	52
2.4	Haematology	52
2.4.1	Haemoglobin.....	52
2.4.2	Fibrinogen.....	52
2.5	Quality control	52
2.5.1	Internal quality control.....	52
2.5.2	External quality assessment.....	53
2.6	Quality assessment results	53
2.6.1	Total cholesterol, HDL-cholesterol, gamma gt and ferritin.....	53
2.6.2	Cotinine.....	54
2.6.3	Haemoglobin and fibrinogen.....	54
2.6.4	Conclusions.....	54
2.7	Reference intervals	54
2.8	Maintenance	54
2.9	Vitamins C, A and E, and carotenoids	54
2.9.1	Sampling, storage and transportation	54
2.9.2	Assay methods.....	54
2.9.3	Quality control and assessment for vitamin C	55
2.9.4	Quality control and assessment for vitamins A and E and carotenoids	55
	Tables	58
 APPENDICES		
A	Fieldwork documents.....	69
B	Measurement protocols.....	141
C	Health boards	161
D	Measurement error experiments.....	163
E	Glossary	167

1 SURVEY METHODOLOGY AND RESPONSE

1

Bob Erens, Wei Dong and Kavita Deepchand

SUMMARY OF RESPONSE

- 81% (7932) of the eligible sample (people living in private households aged 16-64) were interviewed for the Health Survey. Response rates were 80% or higher for five of the seven regions.
- 71% (6958) of the eligible sample were visited by a nurse.

63% (6183) of the eligible sample gave a blood sample (with a further 2% who agreed to give a blood sample but one could not be obtained and 1% who were ineligible to give a sample).
- Response to the first stage interview was higher among women than men. However, once interviewed, response rates to the nurse visit were about the same for both sexes (88% for men and 87% for women); and blood samples were more likely to be obtained from men than women (of those visited by a nurse, blood samples were obtained from 92% of men and 87% of women).
- Response rates at all stages were lowest amongst the youngest informants (aged 16-24).

1.1 SURVEY DESIGN AND PROCEDURES

The objective of the Scottish Health Survey was to provide data about the health of the working age population (ages 16-64) in Scotland who live in private households. This Technical Report covers methodological issues including sampling, weighting, standard error estimations, and quality control of the blood analytes. Copies of the survey documents may be found in the Appendices.

This section briefly describes the coverage of the survey and fieldwork procedures.

Interviewing began in March 1995, and was carried out over a 12 month period to allow for possible seasonal differences in health and behaviour. The random sample of addresses was selected from 312 post code sectors, and each month interviews were held in 26 sectors. Section 1.4 provides a detailed description of the sample design.

An advance letter was posted to each sampled address informing residents that their household had been selected for inclusion in the survey. Every address was then visited by an interviewer, who randomly selected one resident aged between 16 and 64 years old. If there were no residents within the relevant age range at the address, no interview was attempted. (At addresses which contained more than one household, a maximum of three households were selected at random, and then one resident within each was selected for interview.) Interviews were carried out using Computer Assisted Personal Interviewing (referred to as 'CAPI'), whereby informants' responses are entered directly onto a laptop computer. A description of the content of the interview is given in Section 1.2.

At the end of the interview, every informant was asked if they would be willing to take part in the second stage of the survey which involved a separate visit by a nurse. For those who were willing to take part in the next stage, an appointment would be made for the nurse to visit within a few days of the interview. The nurse took some anthropometric measurements (blood pressure, lung function, waist and hip measurements) and, with the written consent of the informant, collected a small blood sample. Details of the nurse visit are given in Section 1.2.

All blood samples were sent to two separate laboratories for analysis (as well as to a third laboratory in a sub-sample of sectors). Further details of the blood analysis may be found in Section 1.2.

As well as receiving an advance letter, informants were given two leaflets: one by the interviewer which described the purpose of the survey and one by the nurse which explained the measurements taken during the nurse visit. Copies of these documents may be found in the Appendix.

Every informant was also given a Measurement Record Card on which interviewers and nurses entered the informant's height, weight, waist, hip, blood pressure and lung function measurements. With their agreement, informants were also sent the results of their blood sample analyses. Also, with their written consent, informants' blood pressure and lung function readings along with their blood sample analyses were sent to their GPs.

Nurses were issued with a set of guidelines for commenting on informants' blood pressure readings (see Appendix B). The nurse was instructed to contact the Survey Doctor as soon as feasible whenever an informant had severely raised blood pressure. When permission was given for results to go to GPs, the Survey Doctor would contact informants' GPs about any abnormal blood pressure readings or blood test results.

All interviewers and nurses were fully trained to carry out the survey procedures. Interviewers attended a one day briefing which included training on measuring height and weight. Nurses were professionally qualified and proficient in blood taking before working on the survey. They attended a two-day training session which included full instructions on the correct protocols to follow for taking measurements and blood samples. At the training sessions for both interviewers and nurses, they were able to practice using the equipment which was to be used in the field.

Detailed written instructions, covering survey procedures and measurement protocols, were issued to all fieldworkers (copies of which may be found in Appendix B). All nurses and new interviewers were supervised during the early stages of their work. Afterwards, routine supervision was carried out. Recalls to check on the work of both interviewers and nurses were carried out with 16% of informants.

1.2 SURVEY COVERAGE

Copies of the CAPI interview and all other data collection documents may be found in Appendix A. Briefly, the main interview covered:

- general health, longstanding illness and acute sickness
- symptoms of cardiovascular disease (CVD)
- brief history of CVD and related conditions, diagnoses and treatment
- use of health services, particularly in relation to CVD
- physical activity and exercise
- eating habits
- smoking
- drinking
- dental health
- recent accidents
- psychosocial factors
- socio-economic details and household composition
- family history of CVD
- height and weight measurements

During the nurse visit, information was collected about prescribed medicines being taken, use of nicotine supplements, and recent experience of food poisoning and gastroenteritis. Nurses then took blood pressure, lung function, waist and hip measurements. They then asked permission to take a small blood sample (up to 16ml) by venepuncture. Informants were required to give written consent before the blood sample was taken; for 16-17 year olds, consent was also required from their parent or guardian.

All blood samples were sent for analysis to two laboratories: the West Middlesex Laboratories at West Middlesex University Hospital and the Nicotine Laboratory in New Cross, London. Samples were analysed for:

- serum total cholesterol
- HDL-cholesterol
- plasma fibrinogen
- haemoglobin
- serum ferritin

gamma-glutamyl transpeptidase (gamma gt)
serum cotinine

In a sub-sample of sampling points, nurses took an extra tube of blood (of about 6ml) which was analysed for vitamins A, C and E, and carotenoids. Because of the unstable nature of these analytes, it was important that the blood be spun and frozen within four hours of the sample being taken. Seven local laboratories were recruited to carry out this preparatory work, and 60 sampling points were then selected from all the points located near these seven laboratories. Because of the constraints of the design, it was not possible to take a random sample of points, but an attempt was made to ensure a reasonable distribution by the Carstairs index (see Section 1.4 for further details). After taking these samples, nurses immediately delivered the extra blood tube to these local processing laboratories, who then stored the blood at -40⁰C. Every few months, they delivered their samples (on dry ice) to the analysis laboratory located in the Human Nutrition Studies Group, School of Biomedical Sciences, University of Ulster at Coleraine.

The nurse also sought agreement for storage of a small sample of blood for possible future analysis.

1.3 ETHICAL CLEARANCE

Before fieldwork started approval for the survey was sought and received from the research ethics committees of all 15 Health Boards in Scotland. At the request of the Forth Valley Health Board, the advance letter was slightly modified for residents in their area.

1.4 SAMPLE SELECTION

1.4.1 Sample coverage

The sample was designed to represent the working age population of Scotland (ages 16-64) living in private households; residents living in institutions were excluded from the survey. The sample was also designed so that the interviews conducted in each quarter of the year would be fully representative of the total sample.

Fieldwork was spread over a 12 month period to control for seasonal differences in health and lifestyle. This applied across each of the seven regions (see below) in order to avoid variation between regions due to uncontrolled seasonal differences.

Another important survey objective was for sample sizes to be large enough to permit analysis of the data at a regional level. For the purposes of the survey, seven 'regions' were defined by aggregating (mainly) contiguous Health Boards as follows:

Highland & Islands (Orkney, Shetland, Western Isles)
Grampian & Tayside
Lothian & Fife
Borders, Dumfries & Galloway
Greater Glasgow
Lanarkshire, Ayrshire & Arran
Forth Valley, Argyll & Clyde

A sample design which strictly reflected the population distribution by region would have resulted in some regions having too small a sample size to provide reliable data. In order to provide reasonably good estimates and to permit some sub-group analysis at the regional level, it was decided to over-sample in the two smallest regions - the Highland & Islands and Borders, Dumfries & Galloway - and

to sample the other five regions (roughly) proportionately in relation in their population size.

1.4.2 Sample design and selection

In order to ensure that fieldwork was cost-effective, it was necessary to select a geographically clustered sample. A stratified, multi-stage random probability design was used.

The sampling frame used was the (small users) Postcode Address File (PAF). At the first stage, 312 postcode sectors (in general, similar in size to electoral wards) out of a total of about 950 sectors¹ were randomly selected as the primary sampling units (PSUs) with probability proportional to size. Because certain parts of rural Scotland contain geographically large postcode sectors (in a few cases up to several hundred square miles) but relatively small populations, in order to maintain cost-effectiveness it was necessary to sub-divide a number of sectors (14 in all) into smaller units (usually halves or thirds), and then to select the units with probability proportional to their size.

For similar reasons of cost-effectiveness some of the islands were excluded from the sampling frame in order to minimise the necessity for interviewers to make time-consuming and costly sea crossings. While all three of the more remote island groups (Western Isles, Shetland and Orkney) were selected for the survey (with a probability of 1), only the main islands were included: there were three sampling points selected from Lewis and Harris, and two each from the main islands in Shetland and Orkney. (For these islands, rather than select postcode sectors at the first stage, the required number of addresses was selected and then allocated to the stipulated number of sampling points.)

As well as the more remote island groups, there are another 40-50 populated islands around the mainland, but most have very few residents. All of the islands with fewer than 3,000 residents were excluded from the sampling frame. This left five islands which were included - Skye, Bute, Islay, Mull and Arran - which between them cover about 87% of the total population of these other islands.

Before postcode sectors were selected, the list of sectors was stratified by region in order to ensure adequate sample sizes for each of the seven regions. Within region, sectors were then ordered by the Carstairs index in order to maximise sample precision.² The Carstairs score is an area measure which places a postcode sector on a scale ranging from affluent to deprived; it can be inferred that it reflects access to services and amenities in society for the population resident in the sector. It is constructed using the following four variables derived from the Small Area Statistics Tables of the 1991 Census:³

overcrowding - the proportion of people living in private households with a density of more than one person per room

male unemployment - the proportion of economically active men seeking work

low social class - the proportion of people living in households with household heads in Social Classes IV or V

no car - the proportion of people living in households which do not own a car

Stratification was achieved by systematically selecting postcode sectors from the complete list of sectors ordered by Carstairs index within region. Each postcode sector was given a chance of selection proportional to its total number of 'delivery points' (or addresses).

A version of PAF expanded out by the Multiple Output Indicator (MOI) was used. The MOI is an indicator of the number of dwellings at an address; most commonly it equals 1, but at a minority of addresses the MOI is greater than 1. Repeating the addresses on the sampling frame by a number equal to the MOI largely ensures that 'dwellings' rather than 'addresses' have an equal probability of selection. The number of dwellings at an address does not however always equal the number of households, and using the expanded version of the PAF does not guarantee an equal probability of selection per household. Furthermore, on some occasions the MOI is not an accurate reflection of the number of dwellings. Discrepancies between the MOI and the number of households and/or dwellings was dealt with by weighting of the data (see Section 1.6), or by the selection by interviewers of more than one household at an address (see below).

Within the sampled postcode sectors, depending on region, either 45 or 47 addresses were then systematically selected, yielding a total of 14,358 addresses.⁴

The 312 PSUs were systematically allocated to months, with 26 points issued every month and 78 each quarter.

1.4.3 Deadwood

On inspection by interviewers, 1553 addresses, which is 11% of selected addresses, contained no private households, for example because they were businesses or institutions, vacant properties, buildings which had been recently demolished or were still being built, etc. These addresses were excluded from the sample (see Section 1.5 on response rates).

1.4.4 Selecting households

The sample was designed so as to give all households within a region the same chance of selection. A small proportion of addresses on PAF contain more than one dwelling and/or more than one household - the proportion of private addresses at which interviewers called which contained more than one household was 12%. It is important that each of these households has the same chance of inclusion. This problem can largely be solved by use of the MOI. At an address where the MOI is greater than 1, interviewers were instructed to randomly select only *one* of the households at the address concerned. In order to carry out a random selection the interviewers were given a special procedure to follow, using computer-generated selection digits provided to them. In most cases this preserves the property of equal probability of selection of address units. Where the number of households actually found diverges from the MOI figure, equal probability is restored by applying a correction factor at the analysis stage equal to the ratio of the actual to the MOI count (see Section 1.7 on weighting).

There is still a residual problem with addresses where the MOI equals 1, but which actually contain more than one household. Two methods were used to correct for this and restore equal chances of selection. First, where the number of household units was three or less, all units were included in the sample. Second, where the number of households exceeded three, three units were randomly selected by the interviewer (using the special procedure described above) and a corrective weight was applied at the analysis stage. In all, more than one household was selected at 73 addresses. This increased the total in-scope issued sample size to 12,878.

1.4.5 Selection within the household

Only one individual was to be included in the survey within each sampled household and moreover, that person must be between the ages of 16 and 64 (inclusive); the 24% of private households found to contain no persons within the eligible age range were excluded from the sample.

Selection of individuals was made using the Kish Grid technique. This involved the interviewer listing all eligible persons living at the household in alphabetic order of first name and then selecting one at random using selection digits provided to the interviewer. (Where the household contained only one eligible person that individual was automatically selected.)

Using this design, individuals do not have equal chances of selection because, for example, a person living in a household with two eligible residents aged 16-64 has a one in two chance of selection, while someone living in a household with three eligible residents has a one in three chance, and so on. This procedure therefore requires weighting at the analysis stage to correct for the differing probabilities of selection according to the number of eligible persons at a particular address (see Section 1.7 on weighting).

1.5 SURVEY RESPONSE

The individuals selected for the survey were asked to co-operate with a number of operations, starting with a face-to-face interview, followed by a nurse visit, and ending with a request for a blood sample. This section looks at response rates, firstly, by the number of informants eligible for each stage and, secondly, by the total number of in-scope addresses.

1.5.1 Response to the interview

Overall, 9842 households were assumed to be in-scope of the survey (that is, after excluding addresses at which there were no private households and households where there were no residents within the relevant age range). Face-to-face interviews were achieved with 7932 informants, giving an achieved response rate of 81%.⁵

Table 1.1 shows response rates for the seven regions. In most regions, response was near the average of 81%, with four of the regions showing levels of response between 79% and 82%. In two regions, response was above this range - Highland & Islands (85%) and Forth Valley, Argyll & Clyde (83%); it fell below this range in one region - Borders, Dumfries & Galloway (77%). **Table 1.1**

For all in-scope addresses interviewers coded type of area and type of dwelling within area. Response varied according to these, with the proportion of co-operating individuals as follows:

86% in rural areas

82% in small town or suburban areas

77% in urban and city centre areas

85% of those living in a house or bungalow

77% of those living in a purpose built flat on the first to third floors

69% of those living in a purpose built flat on the fourth floor or above

77% of those living in a flat conversion or rooms in a house

Nearly all those who were interviewed agreed to having their height and weight measured (97% and 93% respectively).

1.5.2 Response to nurse visit

All those who were interviewed were eligible for the second stage comprising a visit by a nurse. The nurse visited 6958 informants, which represents 88% of those interviewed. The proportions of those interviewed who were then visited by a nurse were similar in most regions (between 87%-90%), with the exception of Greater Glasgow which had a slightly lower response at this stage (84%). **Table 1.2**

The nurse obtained blood pressure, waist-hip and lung function measurements from nearly all of those co-operating with the nurse visit (98% for these three measurements).

1.5.3 Response to the blood sample

As Table 1.3 shows a blood sample was obtained from 6183 informants, 89% of those seen by the nurse. A further 3% were willing to give blood, but the nurse did not succeed in obtaining a sample. Of the rest, 2% were ineligible to give blood (e.g., because of pregnancy or clotting disorders) and 6% refused to have a blood sample taken. **Table 1.3**

The proportions of those giving blood samples varied between regions from 86% to 91%.

1.5.4 Response by sex

Response rates to the first stage interview were higher among women than men.⁶

Among those taking part in the first stage, men and women were similarly likely to participate in the nurse visit: 88% and 87% respectively. Of those visited by the nurse men were more willing than women to give blood samples: blood samples were obtained from 92% of men and 86% of women who were seen by a nurse. This was partly due to a higher refusal rate among women to give blood, but also because pregnant women were not asked to give a blood sample (so 3% of women were ineligible to give blood compared with 1% of men). **Table 1.4**

1.5.5 Response by age

Response rates also varied by age: younger informants were more likely than older ones to refuse to participate in the Health Survey altogether.⁷

As Table 1.4 shows, of those taking part in the interview, informants in the youngest age group (16-24 year olds) were the least likely to participate in the nurse visit (86%). Those aged 35-54 were the most likely to be visited by the nurse (89%), while response for those aged 25-34 and 55-64 was 87%.

Of those visited by the nurse, again it was the youngest age groups who were the least likely to give blood: 78% of 16-24 year olds and 86% of 25-34 year olds. Among those aged 35-64 92% gave a blood sample.

1.5.6 Net response rates

Table 1.5 summarises the *net* response rates for each stage of the Health Survey by region. Net response, which is based on the (estimated) total number of in-scope addresses (rather than on the number eligible for each stage of the survey), will be lower for the second and subsequent stages because of the accumulation of non-response through the survey stages. **Table 1.5**

As described above, response to the first interview stage was 81% of all households assumed to be in-scope of the Health Survey. With an achieved response rate to the second stage of 88% of all those interviewed, net response to the nurse visit was 71%. All regions but two had a net response rate to the nurse visit between 68% and 74%. The Highland and Islands had the highest net response rate to the nurse visit of 75%, having had the highest response at the first stage and the second highest at the second stage. Lowest net response to the second stage was in Greater Glasgow (67%).

Overall net response for obtaining a blood sample was 63%. All but three regions had net response rates within three percentage points of this overall mean (between 60% and 66%); again, the Highland and Islands had the highest net response (at 67%), while Greater Glasgow and Borders, Dumfries and Galloway had the lowest rates (of 59%).

1.5.7 Response by Carstairs index

Table 1.6 shows response for the different stages of the survey by the Carstairs index. Looked at by quartiles on the Carstairs index, response showed little variation, except for slightly lower response in the fourth quartile (i.e., the most deprived areas). **Table 1.6**

1.6 WEIGHTING

As described in Section 1.4, the sample of individuals selected for inclusion in the Health Survey did not have equal chances of selection for a number of reasons: two regions were over-sampled; some postcode sectors were selected with certainty (i.e., some of the islands and some very large inland sectors); only one person aged 16-64 was selected within a household; and the MOI was incorrect for some households. For these reasons, before the data can be used as a representative sample of the relevant population (adults in Scotland aged 16-64), the imbalances created by the use of different probabilities of selection must be removed. This was done by applying two sets of weights: the first is needed in order to correct for the unequal probabilities of selection of addresses, and the second to correct for the unequal probabilities of selection of households and of individuals within households. These corrections are made by applying weights which are inversely proportional to the selection probabilities for the relevant postcode sectors and addresses, and are described in turn below (weights 1 and 2).

However, this weighting does not correct for variations in response level by region or by different groups of people. If there are such variations a further stage of weighting can be applied. For the Health Survey data it was decided to apply two further weights: the first to correct for differing rates of response between the seven regions; and the second to correct for the under-representation of men and young people in the achieved sample, so that the age and sex distribution of the sample would resemble that for the Scottish population. These two weights are described more fully below (weights 3 and 4).

1.6.1 Weight 1

This weight was used to correct for different probabilities of selection at the first stage for postcode sectors. The weights vary by sector as follows:

<i>Region</i>	<i>Postcode sector</i>	<i>Weight 1</i>
Highland & Islands	IV2 3	89.3
	IV1 2	97.9
	IV2 4	99.8
	IV3 6	106.6
	Orkney	69.1
	Shetland	82.5
	Western Isles	68.2
	all other sectors	77.4
Grampian & Tayside	all sectors	174.0
Lothian & Fife	all sectors	179.2
Borders, Dumfries & Galloway	DG1 4	96.5
	all other sectors	80.7
Greater Glasgow	all sectors	175.7
Lanarkshire, Ayrshire & Arran	G74 5	160.7
	all other sectors	160.1
Forth Valley, Argyll & Clyde	all sectors	174.7

Within the same region, a minority of sectors have different weights because they were selected with certainty rather than with strict probability proportional to size (see Section 1.4).

1.6.2 Weight 2

This weight corrects for differing selection probabilities of households and individuals at the address level, and is composed of two elements as follows:

$$\frac{\text{number of hholds living at address}}{\text{number of hholds selected} \times \text{MOI}} \times \frac{\text{number of persons aged 16-64 at address}}{\text{number of persons selected} (=1)}$$

The first element is an adjustment for the number of households ('hholds') actually resident at the address by using the data obtained by the interviewer to correct the information held on PAF (i.e., the MOI). This part of the weight will always equal 1 whenever the MOI matches the number of households found by the interviewer. If the MOI was smaller than the number of households resident at the address, this element of "weight 2" will usually be greater than 1.⁸ On the other hand, if the MOI was larger than the number of households living at the address this part of the weight will be less than 1.

Because only one adult aged 16-64 is selected at any address, the chance of an individual being selected for the sample decreases in inverse proportion to the number of eligible residents. The second element of 'weight 2' corrects for this and is simply the number of household residents aged 16-64: that is, it is 1 in a one person household, 2 in households with two residents aged 16-64, and so on.

After application of the first stage of weighting (weights 1 and 2), comparison with the mid-1995 population estimates showed that the achieved sample distribution did not fully reflect that for the regional, or for the age and sex, distributions for Scotland. As a comparison of columns a) and c) in Table 1.7 shows, young people, especially men, were slightly under-represented in the sample, while older informants were over-represented. So it was decided to apply two further sets of weights.

Table 1.7

1.6.3 Weight 3

The first was to correct for differences in response between the seven regions, so that the sample would be distributed in the same proportion as the estimated regional population of Scotland.

This weight was calculated by dividing the regional proportion using the population data by the survey proportion for that region, as follows:

<i>Region</i>	<i>Mid-1995</i>	<i>Sample after</i>	
	<i>population estimates</i>	<i>weights 1 and 2</i>	<i>Weight 3</i>
	%	%	
Highland & Islands	5.3	5.0	1.06
Grampian & Tayside	18.1	17.1	1.06
Lothian & Fife	22.1	22.6	0.98
Borders, Dumfries & Galloway	4.8	4.6	1.03
Greater Glasgow	17.8	16.3	1.09
Lanarkshire, Ayrshire & Arran	18.3	19.2	0.95
Forth Valley, Argyll & Clyde	13.7	15.1	0.91

1.6.4 Weight 4

After applying weights 1,2 and 3, the sample distribution for age within sex was compared with the mid-1995 population estimates for Scotland as a whole, and a further set of weights was applied so that the age and sex distribution of the achieved sample would match that for the estimated population. This weight was calculated by dividing the population proportion for each age/sex group by the sample proportion:

	<i>Mid-1995</i>	<i>Sample after</i>	
	<i>population estimates</i>	<i>weights 1 - 3</i>	<i>Weight 4</i>
	%	%	
Men			
16-24	9.1	8.1	1.13
25-34	12.4	9.9	1.26
35-44	10.7	9.7	1.11
45-54	9.5	9.8	0.97
55-64	7.6	8.4	0.91
Women			
16-24	8.8	8.6	1.03
25-34	12.5	12.7	0.98
35-44	11.0	12.4	0.88
45-54	9.9	11.6	0.85
55-64	8.4	8.8	0.96

Finally, a compound weight was calculated as the product of these four weights. The weighted sample size was then scaled to a total of 7900 on the data set.⁹ (While the total weighted sample size is arbitrary, it is conventional to set it so that it is similar to that of the unweighted sample size.) All analyses contained in the report are based on weighted data.¹⁰

Table 1.7 compares the age and sex distribution of the estimated population for Scotland as a whole (column a) with that of responders to the interview in three ways: firstly, the unweighted achieved sample (column b); secondly, the weighted

achieved sample using only the weights (i.e., weights 1 and 2) needed to adjust for the different probabilities of selection (column c); and thirdly, the achieved sample with the additional weighting (weights 3 and 4) used to correct for differences in response by region and by age and sex (column d).

1.7 COMPARISON OF THE RESPONDING SAMPLE WITH THE GENERAL POPULATION

In surveys involving a number of different stages, problems of non-response bias are compounded because of the potential for informants to drop out at each stage. This section compares the achieved sample at three survey stages (interview, nurse visit and blood sample obtained) with the general population in terms of age and sex. The population data used is taken from the mid-1995 population estimates. The mid-1995 population estimates have been adjusted to exclude the estimated institutional population so that comparisons of the private residential population could be made with the survey.¹¹

Table 1.8 compares the weighted age and sex distribution of the sample with the mid-1995 population estimates. As described above, the achieved sample at the first (interview) stage was weighted to match the age and sex distribution of the mid-1995 population estimates for Scotland. **Table 1.8**

The slightly higher response rates of men agreeing to the nurse visit and to giving blood samples meant that, overall, men were slightly over-represented at these two stages. The lower response among young women giving blood resulted in their slight under-representation for this part of the Health Survey.

As Table 1.9 shows, the slight over-representation of men responding to the nurse visit was confined to two age categories: 25-34 and 55-64 year olds. Among responders providing blood samples, however, men were over-represented in all age groups except that of 45-54 year olds; men were most likely to be over-represented in the two youngest age categories. **Table 1.9**

For both men and women, the age distribution of those co-operating with the nurse visit was similar to the population estimates. However, young men and women were under-represented among responders providing a blood sample. **Table 1.10**

These patterns are reflected to a greater or lesser degree in each of the seven regions. **Table 1.11**

In practice, additional sets of weights could have been applied so that the age and sex distribution of the achieved samples at the nurse visit and for those giving blood matched that of the estimated population; however, it was decided not to use additional weighting factors at these stages given that the differences in the age distribution were quite small and that most analysis of the Health Survey data tends to be carried out separately for men and women.

1.8 THE ACCURACY OF THE SURVEY RESULTS

1.8.1 Sampling error

There are two types of error which affect sample survey results: systematic error (or bias) and random error. If there were a very large number of simultaneous surveys carried out in order to estimate a particular population characteristic (for example, the proportion of the population who are current cigarette smokers), each individual survey would produce its own estimate of this proportion. If the average of all of these estimates coincided with the true proportion of current cigarette smokers in the population, then the survey estimates for this particular characteristic would be *unbiased* - i.e., there would be no systematic error. However, even though the simultaneous surveys would be unbiased, each survey would provide slightly different estimates. The estimates would vary around their average value because of the part that chance plays in the selection of sampling units (*random sampling error*). Random sampling error - that is, the variation of estimates around the average - decreases as sample size increases.

The series of estimates that would be produced from carrying out a large number of simultaneous surveys is known as the *sampling distribution* of the population parameter being estimated. It would be *normally distributed*, with 95% of the estimates lying within 1.96 standard deviations of the overall mean. The standard deviation of this distribution is called the *standard error* of the estimate of the parameter, and can be estimated from a single survey.

A particular survey contains just one sample which has been randomly selected from all the possible samples that could have been drawn. The estimate provided by a particular survey will be closer to the true population figure as the variability of the sampling distribution decreases (providing there is no bias).

1.8.2 Bias

There are many potential sources of survey bias. Sampling biases arise from the sampling process itself - for example, due to a deficient sampling frame, or a sample design which gives some people a greater chance of being included than others. The most important sampling biases arise from non-response, if the people who do not take part differ from those who do. This type of bias has greater effects when analysing sub-groups of the main sample - for example, the sub-sample for informants who gave blood.

Bias can also arise in other ways, most commonly through inaccurate responses given during the interview. Sometimes these inaccuracies will cancel out across the whole sample, in which case they lead to an increase in variability, but not to bias. However, if the inaccuracies tend to vary in a particular direction, then there will be bias. For example, it is known that people have a tendency to telescope events in time, and this can lead to over-estimates of particular events (such as the proportion suffering an accident in the last 12 months). Of course, there may also be the opposite bias at work, whereby people forget about particular events (e.g., accidents).

Unlike sampling variation which can be estimated using various formulae, the effects of bias generally are unknown unless there exists external data against which the survey results can be compared - and such external data is rare except for a few known population characteristics. Nevertheless, some, if not all, of the bias in the survey will have been removed by the post-stratification of the responding sample in terms of age and sex.

1.8.3 Simple random sampling formulae

The standard error for a particular parameter can be estimated from a single survey. There is a 95% chance that the true population figure will lie within (about) 2 standard errors of the survey estimate.

Textbook formulae can be easily applied to surveys which involve a *simple random sample*, that is, one in which every member of the population has an equal and independent chance of inclusion. In this case, the standard error of a percentage is estimated as:

$$s.e.(p) = \sqrt{\frac{pq}{n}}$$

where p is the percentage, $q = 100 - p$, and n is the sample size.

In the case of a mean \bar{x} of a variable x , the standard error is:

$$s.e.(\bar{x}) = \sqrt{\frac{\text{var}(x)}{n}}$$

where $\text{var}(x)$ is the variance of x estimated from the sample.

1.8.4 Estimating errors in complex sample designs: design factors

The Health Survey used a multi-stage, unequal probability, sample design. The first stage involved a stratified selection of postcode sectors. Only addresses within the selected postcode sectors could be included in the sample, which is referred to as a *clustered* design. Clustered designs are almost always used in large-scale national surveys for reasons of cost. Although, for a given sample size, clustered designs have larger standard errors than those of a simple random sample, the lower cost per interview of a clustered design allows for a larger sample (within the same budget) and is therefore usually more cost-effective than a simple random sample.

Estimates from a clustered sample generally have larger standard errors than those from a simple random sample of the same size because members of the same cluster are more likely to resemble one another, in some respects at least, than are members of an independently selected sample. The extent to which they do so is measured by the intra-cluster correlation coefficient for the variable concerned. An alternative way of expressing this concept is to say that increasing the sample by adding another person from the same cluster adds less new information than would a completely independent selection. Thus, the clustered sample will be less precise than a simple random sample of the same size. Nevertheless, the effect of clustering is reduced if a high percentage of all possible postcode sectors are included in the sample. This was the case in the Health Survey where about one-third of sectors were included in the survey.

The other aspects of the sample design that affect sampling errors are:

postcode sectors were stratified by the Carstairs index prior to selection, which has the effect of reducing standard errors;

because the probability of selection differed by region, there is an increase in standard errors for 'all Scotland' estimates (although standard errors for regions are not affected);

since just one person was selected per household, the probability of selection decreased in inverse proportion to household size, and this has the effect of increasing standard errors;

the responding sample was poststratified by age and sex (i.e., the sample was constrained to mid-1995 population estimates), and this tends to reduce standard errors.

Details of the sample design, and weighting to compensate for the unequal probabilities of selection, are described in Sections 1.4 and 1.6 respectively.

The net result of all these factors is that the standard errors from a 'complex' sample design like the Health Survey tend to be larger than those of a simple random sample of the same size. The ratio of the standard error of the complex sample to the simple random sample is called the *design factor*, or 'deft' for short. The deft is the factor by which the standard error of an estimate from a simple random sample has to be multiplied to give the true standard error of the complex design.

The standard errors and design factors shown in Tables 1.12 - 1.31 have been estimated using balanced repeated replication (BRR) which, in essence, works by taking a large number of sub-samples of postcode sectors from the full survey sample, calculates the weighted statistic of interest for each sub-sample, and then calculates the variance amongst these sub-samples.¹² BRR was designed for samples taken from populations that have been divided into a large number of strata with exactly two clusters (postcode sectors in this case) selected per stratum. To mimic this design, the postcode sectors in the sample were ordered firstly by region, then by month,¹³ and finally by Carstairs index. Consecutive sectors were then divided into pairs.

The tables deal with several groups of variables used in the analysis in the main volume of the report. For each variable, the first column shows the proportion (or mean) for that variable as estimated by the sample. The second column shows the (unweighted) sample size on which it is based. The third shows its estimated true standard error. The fourth shows the range of values within which the population figure can, with 95% confidence, be expected to fall; this range is calculated by taking the original percentage (or mean), deducting 1.96 times the standard error from it to get the lower bound, and adding 1.96 times the standard error to get the upper bound. The final column shows the deft, that is, the estimated ratio of the true standard error to the error for a simple random sample of the same size.

Of the defts shown in Tables 1.12 to 1.31, 69% are less than 1.20 (which are usually considered to be small) and 79% are less than 1.30.

The standard errors and design factors calculated may still be underestimates of the true standard errors and design factors because systematic¹⁴ variability in the 'measurements'¹⁵ taken by interviewers, nurses or equipment is not taken into account. This component of variance cannot be estimated from the survey data and so cannot be easily added to estimates of the standard errors. However some research has been undertaken to estimate this extra component of variance for a few survey variables. Details are given in Appendix D.

1.8.5 Allowing for sampling error when using the data

Standard error of a percentage

The most important factor affecting the accuracy of a percentage is the size of the sample base: simply, the larger the sample base, the smaller the error. The size of the standard error can be estimated by using the simple random sampling formula shown above and making an additional allowance for deft. If the value of deft is known, this can be done directly by applying the following formula:

$$s.e.(p) = \text{deft.} \sqrt{\frac{pq}{n}}$$

As an example, Table 4.1 shows that 34% of 3523 men said they were current cigarette smokers. Ignoring design factors, the standard error of this percentage is estimated as the square root of $(34 \cdot 66)/3523$, or 0.80%. Since about 95% of a series of identical surveys would produce results within two standard errors of their overall mean (the true population figure), it can be said with 95% confidence that the true population figure is within two standard errors of the estimate. That is, we estimate that it will fall between $34\% - (2 \cdot 0.80\%)$ and $34\% + (2 \cdot 0.80\%)$, which is between 32.40% and 35.60%. The *confidence level* is 95%, the *confidence limits* are 32.40% and 35.60%, and the interval between them is the *confidence interval*.

The above calculation does not take account of the design factor, or deft. While it requires special software to estimate it, a reasonable rule of thumb would be to assume a value 1.30 for the design factor. Increasing the standard error by this amount gives estimated confidence limits of 31.92% and 36.08%.

The example of current cigarette smokers is also of interest because the blood sample analysis provides evidence that some men who said they did not smoke were in fact likely to be smokers, thus biasing replies downwards by perhaps 3%. This emphasises the point that the data collection method and the nature of the data must be kept in mind as well as the actual statistics. However, for the purpose of this and the following examples, bias has not been taken into account.

Comparing two proportions based on different samples

A comparison between two percentages based on different sub-groups requires a different formula:

$$s.e.(p_1 - p_2) = \text{deft.} \sqrt{\frac{p_1 q_1}{n_1} + \frac{p_2 q_2}{n_2}}$$

Taking physical activity as an example, Table 2.1 shows that 44% of 3499 men and 36% of 4381 women were classified in levels 3-5 on the frequency-intensity activity scale. The difference between men and women is 8%. Ignoring deft, the standard error of the difference can be computed using the above formula to be 1.11. The observed difference is over seven times as large as the standard error and therefore is significant (it would be significant at the 95% level if it were twice the standard error). Making an additional allowance for deft would not affect the significance of this particular difference.

Standard error of the mean

The standard error of a *mean* is affected by the amount of variability there is in the values whose mean has been calculated as well as the size of the sample base. The standard error of a mean of a variable is estimated by the formula:

$$s.e.(\bar{x}) = \text{deflt.} \sqrt{\frac{\text{var}(\bar{x})}{n}}$$

where $\text{var}(\bar{x})$ is the variance of the distribution of x assuming a simple random sample.

Tables in the report which include standard errors of the mean assume simple random sampling means, not adjusted for survey design. For example, Table 4.2 shows that 1256 men who were current cigarette smokers smoked an average of 18.1 cigarettes per day. With a standard error of 0.31, we can be 95% confident that the true population figure (if the estimate is unbiased) will lie between $18.1 - (2 \times 0.31)$ and $18.1 + (2 \times 0.31)$, i.e., between 17.48 and 18.72.

Comparing two means

As in the case of two percentages, a comparison of two means from sub-groups requires a different formula:

$$s.e.(\bar{x}_1 - \bar{x}_2) = \text{deflt.} \sqrt{\frac{\text{var}(\bar{x}_1)}{n_1} + \frac{\text{var}(\bar{x}_2)}{n_2}}$$

This calculation can be made from a table in the report by using the standard errors presented with the means. As an example, we can compare the mean number of cigarettes smoked per day for men and women smokers. The figure for men quoted above can be compared with 15.4 cigarettes per day for the 1665 women smokers, with a standard error of 0.21. The difference between the sexes is 2.7. The standard error of this difference is estimated by squaring the two standard errors, adding these squares, and taking their square roots. For this example, the standard error of the difference would be 0.37. Since the observed difference is more than twice this amount, it is significant; it would remain significant if the standard errors were increased by 30% or so to allow for defts.

1.9 Social class variables

Social class was based on the Registrar General's Standard Occupational Classification. Derived variables for social class were defined on two bases: the first was based on the social class of the informant's own current or last occupation; the second was based on the current or last occupation of the chief income earner within the informant's household. Details of these categorisations may be found in the Glossary (Appendix E).

For informant's own social class, details of current or last occupation were recorded for 7036 informants, which is 92% of the total achieved sample. Of the rest, 511 informants said they had never had a job (6%), and for the remaining 115 informants insufficient details were provided to assign a social class (1%).

For the social classification for the chief income earner, details of current or last occupation were recorded for 7613 informants (96% of the sample); there was insufficient information to classify the occupations of 96 chief income earners (1%), while the remainder of chief income earners had never had a job (223 cases, which is 3% of the total sample).

References and notes

- 1 A few very small postcode sectors were combined with neighbouring sectors, so the actual number of sectors selected was somewhat higher than 312.
- 2 Where postcode sectors had been subdivided into smaller units, the Carstairs index for the sector was applied to all units within that sector.
- 3 For further details on how scores are constructed see: *Carstairs Scores for Scottish Postcode Sectors From the 1991 Census*, Public Health Research Unit, University of Glasgow.
- 4 In Lothian & Fife, Lanarkshire, Ayrshire & Arran, and Argyll & Clyde, 45 addresses were selected per sector; 47 addresses were selected in the other four regions of Highland & Islands, Grampian & Tayside, Borders, Dumfries & Galloway, and Greater Glasgow.
- 5 The assumed in-scope addresses include some where no information was obtained for reasons of non-contact or because all information was refused. As it is possible that some of these households did not contain any individuals within the eligible age range for the survey, the actual response rate is likely to be marginally higher.
- 6 While the higher response rate among women compared with men cannot be directly measured, it can be inferred using two items of information. Firstly, interviewers were asked to code the sex of non-respondents where known; of the 1335 cases where sex could be ascertained, 53% were men and 47% were women. Secondly, comparisons made with the population estimates for Scotland show that men were under-represented in the achieved sample, while women were over-represented.
- 7 As for sex, differences in response by age can also be inferred by: a) using information provided by interviewers which showed that, among the 1090 non-responders whose age was estimated, 38% were aged 16-34, 34% were aged 35-49, and 28% were aged 50-64; and b) making comparisons with population estimates for the country as a whole.
- 8 However, in cases where the MOI equals 1, but there are 2 or 3 resident households, this element of the weight will equal 1.
- 9 After examining the distribution of the composite weight, it was decided to set a minimum weight of 0.15 so that any weights lower than 0.15 were rounded up to that figure; this affected 1.8% of the sample. Although truncating the weights in this way could possibly add small biases to the survey estimates, the standard errors of estimates will generally be decreased. After scaling the sample size to 7900, the smallest weight was 0.15 and the largest was 4.47.
- 10 The only analysis in the report which is based on unweighted data is that for the blood level results for vitamins A, C and E and carotenoids, as these related only to a small sub-sample of informants.
- 11 The mid-1995 population estimates include both the institutional and private residential populations of Scotland. The national age and sex distribution was adjusted to take account of the number of people within each age and sex band estimated to be living in institutions (using data for Scotland as a whole).
- 12 The software package used was WesVarPC. This package can handle most of the complications of the Health Survey design, including the clustering, weighting and post-stratification. It does not, however, allow for the fact that a large percentage (37%) of postcode sectors in Scotland were included in the sample. The design factor incorporating this extra constraint can, however, be estimated if a random sub-sample of 63% of informants per postcode sector is selected. The design factor is calculated for this sub-sample using WesVarPC, and, once calculated, this design factor can then be applied to the whole sample. In terms of an analysis of variance, this approach utilises the identity:

$$(deft)^2 \approx \frac{(1-f) \frac{\sigma_l^2}{l} + \frac{\sigma_w^2}{n}}{\frac{\sigma_l^2 + \sigma_w^2}{n}} = \frac{\frac{\sigma_l^2}{l} + \frac{\sigma_w^2}{(1-f)n}}{\frac{\sigma_l^2 + \sigma_w^2}{(1-f)n}}$$

where σ_l^2 is the between postcode sector component of variance, σ_w^2 is the within postcode sector component of variance, l is the number of postcode sectors in the sample, n is the total sample size, and f is the proportion of all postcode sectors selected for the survey.

- 13 The sorting by month prevents any ‘between-month’ variance being added to the estimate of the sample variance. Because the survey ran for a 12 month period, all ‘between-month’ variance is automatically controlled for, and ‘month’ effectively becomes another stratifier.
- 14 ‘Systematic variability’ will arise if some interviewers, nurses or items of equipment systematically under- or over-record measurements.
- 15 ‘Measurements’ is used here in a very broad sense, covering responses to questions put to respondents as well as physical measurements.

CHAPTER 1 LIST OF TABLES

Table 1.1	Response to interview stage, by region
Table 1.2	Response to nurse visit, by region
Table 1.3	Response to blood sample, by region
Table 1.4	Response to survey stages, by age and sex
Table 1.5	Overall response to all survey stages, by region
Table 1.6	Response to interview stage, by Carstairs index
Table 1.7	Sex and age distribution of responding sample compared with mid-1995 population estimates
Table 1.8	Sex and age distribution (weighted) of responding sample compared with mid-1995 population estimates
Table 1.9	Sex distribution (weighted) of responding sample compared with mid-1995 population estimates, by age
Table 1.10	Age distribution (weighted) of responding sample compared with mid-1995 population estimates, by sex
Table 1.11	Age distribution (weighted) of responding sample compared with mid-1995 population estimates, by region and sex
Table 1.12	True standard errors and 95% confidence intervals for physical activity variables
Table 1.13	True standard errors and 95% confidence intervals for smoking variables
Table 1.14	True standard errors and 95% confidence intervals for drinking variables
Table 1.15	True standard errors and 95% confidence intervals for blood pressure measurements
Table 1.16	True standard errors and 95% confidence intervals for blood pressure measurements
Table 1.17	True standard errors and 95% confidence intervals for blood pressure measurements
Table 1.18	True standard errors and 95% confidence intervals for mean values of anthropometric measurements
Table 1.19	True standard errors and 95% confidence intervals for distribution of anthropometric measurements
Table 1.20	True standard errors and 95% confidence intervals for distribution of anthropometric measurements
Table 1.21	True standard errors and 95% confidence intervals for body mass index (BMI) within region
Table 1.22	True standard errors and 95% confidence intervals for lung function variables
Table 1.23	True standard errors and 95% confidence intervals for blood analytes
Table 1.24	True standard errors and 95% confidence intervals for blood analytes
Table 1.25	True standard errors and 95% confidence intervals for CVD conditions
Table 1.26	True standard errors and 95% confidence intervals for CVD symptoms
Table 1.27	True standard errors and 95% confidence intervals for general health variables
Table 1.28	True standard errors and 95% confidence intervals for general health variables
Table 1.29	True standard errors and 95% confidence intervals for GHQ12 score
Table 1.30	True standard errors and 95% confidence intervals for prevalence and accident rates
Table 1.31	True standard errors and 95% confidence intervals for social class of chief income earner

Table 1.1 Response to interview stage, by region

1995

Responding sample	Region														Total	
	Highland & Islands		Grampian & Tayside		Lothian & Fife		Borders, Dumfries & Galloway		Greater Glasgow		Lanarkshire & Arran		Forth Valley, Argyll & Clyde		n	%
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
Selected addresses	1410	-	2303	-	2745	-	1410	-	2350	-	2385	-	1755	-	14358	-
Ineligible addresses ^a	222	-	280	-	269	-	175	-	287	-	166	-	154	-	1553	-
Eligible addresses	1188	-	2023	-	2476	-	1235	-	2063	-	2219	-	1601	-	12805	-
Extra households sampled at multi-household address	19	-	10	-	20	-	15	-	1	-	0	-	8	-	73	-
No residents aged 16-64 in household	283	-	511	-	548	-	356	-	509	-	455	-	374	-	3036	-
Total in-scope households	924	100	1522	100	1948	100	894	100	1555	100	1764	100	1235	100	9842	100
Reason for no interview:																
- no contact	22	2	43	2	84	4	31	3	74	5	84	5	39	3	377	4
- refusal	88	10	193	13	283	15	150	17	188	12	228	13	143	12	1273	13
- other reasons	33	4	45	3	47	2	24	3	48	3	41	2	22	2	260	3
Completed interviews	781	85	1241	82	1534	79	689	77	1245	80	1411	80	1031	83	7932	81

^aAddresses where no private households were found.

Table 1.2 Response to nurse visit, by region

1995

Responding sample	Region														Total	
	Highland & Islands		Grampian & Tayside		Lothian & Fife		Borders, Dumfries & Galloway		Greater Glasgow		Lanarkshire & Arran		Forth Valley, Argyll & Clyde		n	%
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
Interviewed at first stage	781	100	1241	100	1534	100	689	100	1245	100	1411	100	1031	100	7932	100
Did not agree to nurse visit	32	4	62	5	81	5	32	5	54	4	40	3	39	4	340	4
Agreed to nurse visit	749	96	1179	95	1455	95	656	95	1190	96	1371	97	992	96	7592	96
Reason for no nurse visit:																
- refused to nurse	36	5	48	4	81	5	28	4	62	5	55	4	34	3	344	4
- other reasons	20	3	34	3	47	3	16	2	83	7	50	4	40	4	290	4
Responder to nurse visit	693	89	1097	88	1327	87	612	89	1045	84	1266	90	918	89	6958	88
Responded to:																
- waist-hip measurement	685	88	1086	88	1300	85	596	87	1016	82	1243	88	902	87	6828	86
- blood pressure measurement	686	88	1088	88	1305	85	597	87	1025	82	1248	88	902	87	6851	86
- lung function measurement	680	87	1083	87	1288	84	592	86	1015	82	1238	88	892	87	6788	86
- blood sample obtained	615	79	977	79	1193	78	527	76	918	74	1151	82	802	78	6183	78

Table 1.3 Response to blood sample, by region

1995

Responding sample	Region														Total	
	Highland & Islands		Grampian & Tayside		Lothian & Fife		Borders, Dumfries & Galloway		Greater Glasgow		Lanarkshire & Arran		Forth Valley, Argyll & Clyde		n	%
Responder to nurse visit	693	100	1097	100	1327	100	612	100	1045	100	1266	100	918	100	6958	100
Reason for no blood sample:																
- ineligible	12	2	13	1	31	2	18	3	25	2	25	2	22	2	146	2
- attempted, not obtained	17	2	30	3	26	2	39	6	31	3	23	2	28	3	194	3
- refused	49	7	77	7	77	6	28	5	71	7	67	5	66	7	435	6
Blood sample taken	615	89	977	89	1193	90	527	86	918	88	1151	91	802	87	6183	89

Table 1.4 Response to survey stages, by age and sex

1995

Responding sample	Age										Total	
	16-24		25-34		35-44		45-54		55-64			
	n	%	n	%	n	%	n	%	n	%	n	%
Men												
Completed interviews	475	100	840	100	811	100	709	100	689	100	3524	100
Responder to nurse visit	407	86	745	89	717	88	631	89	610	89	3110	88
Responded to:												
- height measurement	466	98	821	98	782	96	688	97	667	97	3424	97
- weight measurement	461	97	799	95	759	94	664	94	655	95	3338	95
- waist-hip measurement	406	85	742	88	713	88	629	89	609	88	3099	88
- blood pressure measurement	407	86	742	88	716	88	630	89	609	88	3104	88
- lung function measurement	405	85	738	88	713	88	621	88	598	87	3075	87
- blood sample obtained	343	72	679	81	680	84	589	83	564	82	2855	81
- blood sample attempted, not obtained	9	2	12	1	12	1	14	2	12	2	59	2
Women												
Completed interviews	547	100	1160	100	992	100	825	100	884	100	4408	100
Responder to nurse visit	472	86	986	85	895	90	737	89	758	86	3848	87
Responded to:												
- height measurement	537	98	1136	98	968	98	800	97	849	96	4290	97
- weight measurement	494	90	1028	89	922	93	773	94	814	92	4031	91
- waist-hip measurement	446	82	923	80	881	89	729	88	750	85	3729	85
- blood pressure measurement	447	82	928	80	887	89	731	89	754	85	3747	85
- lung function measurement	445	81	918	79	881	89	722	88	747	85	3713	84
- blood sample obtained	342	63	818	71	811	82	680	82	677	77	3328	75
- blood sample attempted, not obtained	24	4	27	2	30	3	25	3	29	3	135	3
All adults												
Completed interviews	1022	100	2000	100	1803	100	1534	100	1573	100	7932	100
Responder to nurse visit	879	86	1731	87	1612	89	1368	89	1368	87	6958	88
Responded to:												
- height measurement	1003	98	1957	98	1750	97	1488	97	1516	96	7714	97
- weight measurement	955	93	1827	91	1681	93	1437	94	1469	93	7369	93
- waist-hip measurement	852	83	1665	83	1594	88	1358	89	1359	86	6828	86
- blood pressure measurement	854	84	1670	84	1603	89	1361	89	1363	87	6851	86
- lung function measurement	850	83	1656	83	1594	88	1343	88	1345	86	6788	86
- blood sample obtained	685	67	1497	75	1491	83	1269	83	1241	79	6183	78
- blood sample attempted, not obtained	33	3	39	2	42	2	39	3	41	3	194	2

Table 1.5 Overall response to all survey stages, by region

1995

Responding sample	Region														Total	
	Highland & Islands		Grampian & Tayside		Lothian & Fife		Borders, Dumfries & Galloway		Greater Glasgow		Lanarkshire & Ayrshire & Arran		Forth Valley, Argyll & Clyde		n	%
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
Total in-scope households	924	100	1522	100	1948	100	894	100	1555	100	1764	100	1235	100	9842	100
Completed interviews	781	85	1241	82	1534	79	689	77	1245	80	1411	80	1031	83	7932	81
Responder to nurse visit	693	75	1097	72	1327	68	612	68	1045	67	1266	72	918	74	6958	71
Responded to:																
- height measurement	762	82	1208	79	1510	78	674	75	1180	76	1382	78	998	81	7714	78
- weight measurement	744	81	1171	77	1440	74	638	71	1101	71	1312	74	963	78	7369	75
- waist-hip measurement	685	74	1086	71	1300	67	596	67	1016	65	1243	70	902	73	6828	69
- blood pressure measurement	686	74	1088	71	1305	67	597	67	1025	66	1248	71	902	73	6851	70
- lung function measurement	680	74	1083	71	1288	66	592	66	1015	65	1238	70	892	72	6788	69
- blood sample obtained	615	67	977	64	1193	61	527	59	918	59	1151	65	802	65	6183	63
- blood sample attempted, not obtained	17	2	30	2	26	1	39	4	31	2	23	1	28	2	194	2

Table 1.6 Response to interview stage, by Carstairs index

1995

Responding sample	Carstairs index (quartiles)								Total	
	1 (lowest)		2		3		4 (highest)		n	%
	n	%	n	%	n	%	n	%		
Total in-scope households	2484	100	2435	100	2529	100	2394	100	9842	100
Reason for no interview:										
- no contact	76	3	80	3	94	4	127	5	377	4
- refusal	328	13	313	13	330	13	302	13	1273	13
- other reasons	58	2	57	2	68	3	77	3	260	3
Completed interviews	2022	81	1985	82	2037	81	1888	79	7932	81
Responder to nurse visit	1783	72	1773	73	1772	70	1630	68	6958	71
Responded to:										
- height measurement	1981	80	1944	80	1996	79	1793	75	7714	78
- weight measurement	1880	76	1862	76	1928	76	1701	71	7371	75
- waist-hip measurement	1755	71	1744	72	1736	69	1593	67	6828	69
- blood pressure measurement	1760	71	1744	72	1742	69	1605	67	6851	70
- lung function measurement	1750	70	1722	71	1731	68	1585	66	6788	69
- blood sample obtained	1584	64	1554	64	1583	63	1463	61	6183	63
- blood sample attempted, not obtained	49	2	66	3	42	2	37	2	194	2

Table 1.7 Sex and age distribution of responding sample compared with mid-1995 population estimates

1995

Responding sample	(a)	(b)	(c)	(d)
	Mid-1995 population estimates	Responder to interview (unweighted)	Responder to interview (weights 1 & 2)	Responder to interview (weights 3 & 4)
	%	%	%	%
All men	49	44	46	49
16-24	9	6	8	9
25-34	12	11	10	12
35-44	11	10	10	11
45-54	9	9	10	9
55-64	8	9	8	8
All women	51	56	54	51
16-24	9	7	9	9
25-34	12	15	13	12
35-44	11	13	12	11
45-54	10	10	12	10
55-64	8	11	9	8
All				
16-24	18	13	17	18
25-34	25	25	23	25
35-44	22	23	22	22
45-54	19	19	21	19
55-64	16	20	17	16

Table 1.8 Sex and age distribution (weighted) of responding sample compared with mid-1995 population estimates

Responding sample	Age					1995
	16-24	25-34	35-44	45-54	55-64	Total
	%	%	%	%	%	%
At interview						
Men	9	12	11	9	8	49
Women	9	12	11	10	8	51
<i>Bases (weighted)</i>	1418	1969	1721	1527	1265	7900
At nurse visit						
Men	9	13	11	10	8	50
Women	9	12	11	10	8	50
<i>Bases (weighted)</i>	1238	1718	1550	1373	1101	6980
Providing blood sample						
Men	9	13	12	10	8	52
Women	7	11	12	10	8	48
<i>Bases (weighted)</i>	981	1505	1447	1284	1001	6219
Mid-1995 population estimates						
Men	9	12	11	9	8	49
Women	9	12	11	10	8	51
<i>Bases^a</i>	582	808	703	626	520	3240

^aBase figures shown in thousands.

Table 1.9 Sex distribution (weighted) of responding sample compared with mid-1995 population estimates, by age

Responding sample	Age					1995
	16-24	25-34	35-44	45-54	55-64	Total
	%	%	%	%	%	%
At interview						
Men	51	50	49	49	47	49
Women	49	50	51	51	53	51
<i>Bases (weighted)</i>	1418	1969	1721	1527	1265	7900
At nurse visit						
Men	51	51	49	49	49	50
Women	49	49	51	51	51	50
<i>Bases (weighted)</i>	1238	1718	1550	1373	1101	6980
Providing blood sample						
Men	55	53	50	49	50	52
Women	45	47	50	51	50	48
<i>Bases (weighted)</i>	981	1505	1447	1284	1001	6219
Mid-1995 population estimates						
Men	51	50	49	49	47	49
Women	49	50	51	51	53	51
<i>Bases^a</i>	582	808	703	626	520	3240

^aThousands

Table 1.10 Age distribution (weighted) of responding sample compared with mid-1995 population estimates, by sex

Age	Health Survey responding sample			1995
				Mid-1995 population estimates
	At interview	At nurse visit	Providing blood sample	
	%	%	%	%
Men				
16-24	19	18	17	19
25-34	25	25	25	25
35-44	22	22	23	22
45-54	19	19	20	19
55-64	15	15	16	15
<i>Bases (weighted)</i>	3902	3483	3206	1601
Women				
16-24	17	17	15	17
25-34	25	24	23	25
35-44	22	23	24	22
45-54	19	20	22	19
55-64	17	16	17	17
<i>Bases (weighted)</i>	3997	3495	3012	1639

Table 1.11 Age distribution (weighted) of responding sample compared with mid-1995 population estimates, by region and sex

1995

Age	Health survey responding sample			Mid-1995 population estimates
	At interview	At nurse visit	Providing blood sample	
	%	%	%	%
Highland & Islands				
Men				
16-24	18	17	16	17
25-34	26	26	26	23
35-44	22	21	21	23
45-54	18	18	19	21
55-64	17	18	18	16
<i>Bases (weighted)</i>	<i>214</i>	<i>187</i>	<i>170</i>	<i>87</i>
Women				
16-24	15	15	11	15
25-34	25	24	24	23
35-44	22	23	24	23
45-54	19	19	20	21
55-64	19	19	21	17
<i>Bases (weighted)</i>	<i>209</i>	<i>189</i>	<i>162</i>	<i>86</i>
Grampian & Tayside				
Men				
16-24	19	19	17	19
25-34	25	24	24	25
35-44	24	24	25	22
45-54	19	19	20	20
55-64	13	13	14	15
<i>Bases (weighted)</i>	<i>753</i>	<i>685</i>	<i>630</i>	<i>293</i>
Women				
16-24	18	18	15	18
25-34	24	23	21	24
35-44	20	21	22	22
45-54	23	23	25	20
55-64	15	15	16	16
<i>Bases (weighted)</i>	<i>680</i>	<i>587</i>	<i>502</i>	<i>293</i>

Continued...

Table 1.11 - continued

1995

Age	Health survey responding sample			Mid-1995 population estimates
	At interview	At nurse visit	Providing blood sample	
	%	%	%	%
Lothian & Fife				
Men				
16-24	20	20	18	19
25-34	27	28	28	26
35-44	21	22	23	22
45-54	18	17	18	19
55-64	13	13	13	14
<i>Bases (weighted)</i>	896	778	723	354
Women				
16-24	21	21	19	18
25-34	25	24	24	26
35-44	22	23	24	22
45-54	17	18	20	19
55-64	15	13	14	16
<i>Bases (weighted)</i>	862	750	652	360
Borders, Dumfries & Galloway				
Men				
16-24	15	16	15	16
25-34	21	20	21	23
35-44	25	24	24	22
45-54	23	25	26	22
55-64	15	15	14	18
<i>Bases (weighted)</i>	179	158	144	76
Women				
16-24	15	15	12	15
25-34	24	25	23	22
35-44	22	22	24	22
45-54	21	20	22	22
55-64	18	18	19	19
<i>Bases (weighted)</i>	194	175	143	78

Continued...

Table 1.11 - continued

1995

Age	Health survey responding sample			Mid-1995 population estimates
	At interview	At nurse visit	Providing blood sample	
	%	%	%	%
Greater Glasgow				
Men				
16-24	18	18	17	19
25-34	25	24	23	27
35-44	20	19	20	21
45-54	20	21	22	17
55-64	17	17	18	15
<i>Bases (weighted)</i>	629	556	516	281
Women				
16-24	17	17	14	19
25-34	23	23	22	27
35-44	23	23	25	21
45-54	18	20	21	17
55-64	19	18	18	17
<i>Bases (weighted)</i>	764	646	554	294
Lanarkshire, Ayrshire & Arran				
Men				
16-24	17	16	16	18
25-34	25	25	24	25
35-44	21	20	21	22
45-54	20	21	21	20
55-64	18	18	18	16
<i>Bases (weighted)</i>	703	656	611	291
Women				
16-24	14	15	12	17
25-34	27	26	26	24
35-44	20	21	22	22
45-54	21	21	23	20
55-64	17	17	17	17
<i>Bases (weighted)</i>	732	651	572	302
Forth Valley, Argyll & Clyde				
Men				
16-24	20	19	15	18
25-34	23	24	26	24
35-44	23	23	25	22
45-54	18	18	19	20
55-64	16	15	15	16
<i>Bases (weighted)</i>	528	467	419	219
Women				
16-24	17	16	13	17
25-34	24	24	24	24
35-44	24	25	26	22
45-54	18	19	20	20
55-64	17	16	17	17
<i>Bases (weighted)</i>	556	501	428	226

Bases for the estimated population are in thousands. The population estimates exclude those living in institutions by applying the figures for each age group for Scotland as a whole to each region.

Table 1.12 True standard errors and 95% confidence intervals for physical activity variables

1995

Base	Characteristic	%	Sample size (unweighted)	True standard error	95% confidence interval	Deft
<i>Frequency - intensity activity level</i>						
Men	Level 0	22.7	3499	0.67	21.4 - 24.0	1.05
	Level 1	16.3	3499	0.82	14.7 - 17.9	1.17
	Level 2	17.1	3499	0.72	15.7 - 18.5	1.12
	Level 3	20.4	3499	0.84	18.7 - 22.0	1.22
	Level 4	9.9	3499	0.60	8.7 - 11.1	1.26
	Level 5	13.7	3499	0.63	12.4 - 14.9	1.08
	Levels 3 - 5	43.9	3499	1.19	41.6 - 46.2	1.32
Women	Level 0	26.2	4381	0.56	25.1 - 27.3	1.06
	Level 1	18.0	4381	0.52	17.0 - 19.0	1.03
	Level 2	20.2	4381	0.59	19.0 - 21.3	1.08
	Level 3	22.1	4381	0.75	20.6 - 23.6	1.21
	Level 4	8.6	4381	0.46	7.6 - 9.5	1.02
	Level 5	5.0	4381	0.48	4.0 - 5.9	1.26
	Levels 3 - 5	35.6	4381	0.86	33.9 - 37.3	1.25
<i>Moderate/vigorous activity of different types</i>						
Men	Home activity	45.0	3524	0.95	43.1 - 46.8	1.19
	Sports and exercise	54.0	3520	1.01	52.0 - 56.0	1.23
	Work activity	14.1	3511	0.97	12.2 - 16.0	1.54
Women	Home activity	61.6	4407	1.07	59.5 - 63.7	1.44
	Sports and exercise	51.0	4401	1.00	49.0 - 52.9	1.39
	Work activity	8.5	4388	0.49	7.5 - 9.4	1.23
<i>Maximum intensity level</i>						
Men	Inactive	7.2	3513	0.69	5.8 - 8.5	1.42
	Light activity	15.2	3513	0.82	13.6 - 16.8	1.28
	Moderate activity	40.8	3513	0.87	39.1 - 42.5	1.12
	Vigorous activity	36.8	3513	0.99	34.9 - 38.8	1.24
	Total vigorous or moderate activity	77.6	3513	0.86	76.0 - 79.3	1.28
Women	Inactive	7.1	4389	0.37	6.3 - 7.8	1.09
	Light activity	9.4	4389	0.58	8.3 - 10.5	1.23
	Moderate activity	56.7	4389	1.04	54.7 - 58.7	1.31
	Vigorous activity	26.8	4389	0.85	25.2 - 28.5	1.30
	Total vigorous or moderate activity	83.5	4389	0.71	82.2 - 84.9	1.30

Table 1.13 True standard errors and 95% confidence intervals for smoking variables

						1995
Base	Characteristic	Mean/%	Sample size (unweighted)	True standard error	95% confidence interval	Deft
Men	Mean number of cigarettes smoked per day	18.1	1252	0.33	17.5 - 18.8	1.11
Women	Mean number of cigarettes smoked per day	15.4	1663	0.23	14.9 - 15.8	1.20
<i>Smoking status</i>						
Men	<i>Non - smoker</i>					
	Never smoked at all	31.5	3523	1.24	29.1 - 33.9	1.55
	Never smoked regularly	11.6	3523	0.69	10.2 - 12.9	1.29
	Ex - smoker who stopped:					
	15 or more years ago	6.0	3523	0.42	5.2 - 6.9	1.06
	10 - 14 years ago	3.3	3523	0.36	2.6 - 4.0	1.14
	5 - 10 years ago	2.8	3523	0.30	2.2 - 3.4	1.11
	Less than 5 years ago	5.3	3523	0.47	4.4 - 6.2	1.22
	Don't know how many years	0.2	3523	0.08	0.0 - 0.3	1.24
	<i>Smoker</i>					
	Cigar or pipe only	5.5	3523	0.41	4.7 - 6.3	1.13
	Cigarette smoker:					
	Less than 10 per day	5.7	3523	0.55	4.6 - 6.8	1.39
	10, less than 20 per day	12.6	3523	0.64	11.4 - 13.9	1.21
	20 or more per day	15.4	3523	0.75	13.9 - 16.8	1.24
	Don't know how many years	0.1	3523	0.03	0.0 - 0.1	0.80
Women	<i>Non - smoker</i>					
	Never smoked at all	38.4	4406	0.84	36.7 - 40.1	1.22
	Never smoked regularly	11.6	4406	0.63	10.3 - 12.8	1.31
	Ex - smoker who stopped:					
	15 or more years ago	4.6	4406	0.31	3.9 - 5.2	1.05
	10 - 14 years ago	2.7	4406	0.20	2.3 - 3.1	0.90
	5 - 10 years ago	2.8	4406	0.26	2.3 - 3.3	1.09
	Less than 5 years ago	5.5	4406	0.45	4.6 - 6.4	1.21
	Don't know how many years	0.1	4406	0.05	0.0 - 0.2	1.25
	<i>Smoker</i>					
	Cigar or pipe only	0.1	4406	0.05	0.0 - 0.2	1.05
	Cigarette smoker:					
	Less than 10 per day	7.2	4406	0.44	6.4 - 8.1	1.11
	10, less than 20 per day	15.2	4406	0.67	13.9 - 16.5	1.28
	20 or more per day	13.2	4406	0.66	11.9 - 14.5	1.32
	Don't know how many years	0.0	4406	0.02	0.0 - 0.1	0.80

Table 1.14 True standard errors and 95% confidence intervals for drinking variables

						1995
Base	Characteristic	%	True standard Sample size	error	95% confidence interval	Deft
<i>Alcohol consumption level (number of units per week)</i>						
Men	Have never drunk	3.1	3513	0.37	2.4 - 3.8	1.28
	Ex - drinker	2.6	3513	0.29	2.0 - 3.2	1.07
	Current drinker:					
	Under 1	7.3	3513	0.46	6.4 - 8.2	1.05
	Over 1 - 10	27.5	3513	0.94	25.6 - 29.3	1.24
	Over 10 - 21	26.4	3513	0.83	24.8 - 28.0	1.11
	Over 21 - 28	10.9	3513	0.57	9.8 - 12.0	1.09
	Over 28 - 35	6.7	3513	0.49	5.7 - 7.7	1.16
	Over 35 - 50	7.5	3513	0.54	6.4 - 8.5	1.21
	Over 50	8.1	3513	0.50	7.1 - 9.0	1.09
Women	Have never drunk	6.7	4399	0.46	5.8 - 7.6	1.23
	Ex - drinker	3.3	4399	0.29	2.8 - 3.9	1.09
	Current drinker:					
	Under 1	16.7	4399	0.61	15.5 - 17.9	1.08
	Over 1 - 7	41.4	4399	0.88	39.7 - 43.1	1.18
	Over 7 - 14	18.8	4399	0.71	17.4 - 20.2	1.21
	Over 14 - 21	8.1	4399	0.52	7.0 - 9.1	1.26
	Over 21 - 35	4.0	4399	0.35	3.3 - 4.7	1.19
	Over 35	1.0	4399	0.24	0.6 - 1.5	1.56

Table 1.15 True standard errors and 95% confidence intervals for mean values of blood pressure measurements

							1995
Base	Characteristic	Mean	Sample size (unweighted)	True standard error	95% confidence interval	Deft	
Men	Systolic	131.2	2580	0.34	130.6 - 131.9	1.13	
	Diastolic	72.8	2580	0.24	72.3 - 73.2	1.07	
Women	Systolic	123.9	3188	0.32	123.3 - 124.6	1.07	
	Diastolic	68.3	3188	0.25	67.8 - 68.8	1.19	
<i>Systolic</i>							
Men	Highland & Islands	130.3	262	0.93	128.4 - 132.1	1.05	
	Grampian & Tayside	131.1	477	1.03	129.1 - 133.1	1.39	
	Lothian & Fife	130.5	508	0.46	129.6 - 131.4	0.88	
	Borders, Dumfries & Galloway	132.2	227	0.58	131.1 - 133.4	0.87	
	Greater Glasgow	132.2	324	0.69	130.9 - 133.6	0.95	
	Lanarkshire, Ayrshire & Arran	131.5	447	0.84	129.9 - 133.2	1.15	
	Forth Valley, Argyll & Clyde	131.1	335	0.81	129.5 - 132.7	1.07	
Women	Highland & Islands	124.2	327	1.60	121.0 - 127.3	1.48	
	Grampian & Tayside	124.1	505	0.53	123.1 - 125.1	0.96	
	Lothian & Fife	122.5	598	0.77	121.0 - 124.0	1.25	
	Borders, Dumfries & Galloway	126.2	305	1.01	124.3 - 128.2	1.20	
	Greater Glasgow	124.4	470	0.88	122.7 - 126.1	1.05	
	Lanarkshire, Ayrshire & Arran	125.8	552	0.69	124.4 - 127.2	1.04	
	Forth Valley, Argyll & Clyde	122.1	431	0.73	120.6 - 123.5	0.95	
<i>Diastolic</i>							
Men	Highland & Islands	72.0	262	0.79	70.4 - 73.5	0.90	
	Grampian & Tayside	73.1	477	0.61	71.9 - 74.3	1.24	
	Lothian & Fife	72.0	508	0.49	71.0 - 73.0	0.93	
	Borders, Dumfries & Galloway	73.4	227	1.01	71.4 - 75.4	1.39	
	Greater Glasgow	74.5	324	0.41	73.7 - 75.3	0.78	
	Lanarkshire, Ayrshire & Arran	72.8	447	0.76	71.3 - 74.2	1.29	
	Forth Valley, Argyll & Clyde	71.6	335	0.69	70.3 - 73.0	1.10	
Women	Highland & Islands	68.1	327	1.25	65.6 - 70.5	1.60	
	Grampian & Tayside	69.0	505	0.58	67.9 - 70.1	1.37	
	Lothian & Fife	68.3	598	0.62	67.1 - 69.5	1.55	
	Borders, Dumfries & Galloway	69.7	305	0.70	68.3 - 71.1	1.21	
	Greater Glasgow	68.4	470	0.76	66.9 - 69.9	1.32	
	Lanarkshire, Ayrshire & Arran	69.0	552	0.53	68.0 - 70.0	1.07	
	Forth Valley, Argyll & Clyde	66.0	431	0.43	65.1 - 66.8	0.98	

Table 1.16 True standard errors and 95% confidence intervals for distribution of systolic and diastolic blood pressure measurements.

1995

Base	Characteristic	%	Sample size (unweighted)	True standard error	95% confidence interval	Deft
<i>Systolic</i>						
Men	Less than 120	19.8	2580	0.90	18.0 - 21.5	1.17
	120 - 129	31.1	2580	0.83	29.5 - 32.7	1.03
	130 - 139	26.5	2580	0.98	24.5 - 28.4	1.12
	140 - 149	13.2	2580	0.72	11.8 - 14.6	1.17
	150 - 159	5.2	2580	0.58	4.1 - 6.3	1.28
	160 - 169	2.5	2580	0.25	2.0 - 2.9	0.88
	170 - 179	0.9	2580	0.17	0.6 - 1.3	0.96
	180 or more	0.9	2580	0.20	0.5 - 1.3	1.04
Women	Less than 120	45.4	3188	0.96	43.5 - 47.3	1.03
	120 - 129	25.9	3188	0.74	24.4 - 27.3	1.08
	130 - 139	13.9	3188	0.74	12.5 - 15.4	1.14
	140 - 149	7.3	3188	0.53	6.2 - 8.3	1.11
	150 - 159	3.7	3188	0.34	3.0 - 4.4	1.02
	160 - 169	2.1	3188	0.37	1.3 - 2.8	1.29
	170 - 179	1.0	3188	0.15	0.7 - 1.3	0.90
	180 or more	0.8	3188	0.14	0.5 - 1.1	1.04
<i>Diastolic</i>						
Men	Less than 60	13.6	2580	0.87	11.9 - 15.3	1.24
	60 - 64	11.7	2580	0.68	10.4 - 13.0	1.23
	65 - 69	16.5	2580	0.96	14.6 - 18.4	1.28
	70 - 74	16.0	2580	0.72	14.6 - 17.4	1.04
	75 - 79	14.6	2580	0.83	13.0 - 16.3	1.17
	80 - 84	11.7	2580	0.77	10.2 - 13.2	1.15
	85 - 89	7.6	2580	0.65	6.3 - 8.9	1.13
	90 - 94	4.6	2580	0.40	3.8 - 5.3	1.05
	95 - 99	1.8	2580	0.28	1.2 - 2.3	1.08
	100 or more	2.0	2580	0.30	1.4 - 2.6	1.03
Women	Less than 60	22.7	3188	0.81	21.1 - 24.3	1.09
	60 - 64	17.0	3188	0.70	15.6 - 18.4	1.08
	65 - 69	18.8	3188	0.93	17.0 - 20.6	1.19
	70 - 74	15.6	3188	0.80	14.0 - 17.1	1.17
	75 - 79	11.3	3188	0.51	10.3 - 12.3	0.98
	80 - 84	7.0	3188	0.44	6.1 - 7.9	1.00
	85 - 89	3.8	3188	0.41	3.0 - 4.6	1.08
	90 - 94	2.1	3188	0.25	1.6 - 2.6	1.00
	95 - 99	1.0	3188	0.16	0.7 - 1.3	0.98
	100 or more	0.8	3188	0.15	0.5 - 1.1	1.13

Table 1.17 True standard errors and 95% confidence intervals for blood pressure level

1995

Base	Characteristic	%	Sample size (unweighted)	True standard error	95% confidence interval	Deft
	<i>Blood pressure level</i>					
Men	Normotensive untreated	89.0	2572	0.56	87.9 - 90.1	0.96
	Normotensive treated	5.1	2572	0.50	4.1 - 6.0	1.14
	Hypertensive untreated	1.5	2572	0.27	1.0 - 2.1	1.04
	Hypertensive treated	4.4	2572	0.39	3.6 - 5.1	1.00
Women	Normotensive untreated	87.1	3178	0.67	85.8 - 88.4	1.17
	Normotensive treated	8.4	3178	0.48	7.4 - 9.3	1.11
	Hypertensive untreated	1.2	3178	0.15	0.9 - 1.5	0.93
	Hypertensive treated	3.3	3178	0.37	2.6 - 4.0	1.09
	<i>Blood pressure monitoring</i>					
Men	Ever had blood pressure measured	89.4	3519	0.58	88.2 - 90.5	1.18
	<i>Last time blood pressure measured</i>					
	Less than 1 year ago	42.9	3519	0.85	41.3 - 44.6	1.12
	1 year, less than 3 years ago	24.7	3519	0.86	23.0 - 26.4	1.13
	3 years ago or more	21.8	3519	0.64	20.5 - 23.0	0.96
	Never	10.6	3519	0.58	9.5 - 11.8	1.18
	<i>Blood pressure monitoring</i>					
Women	Ever had blood pressure measured	97.0	4407	0.28	96.5 - 97.6	1.22
	<i>Last time blood pressure measured</i>					
	Less than 1 year ago	62.9	4407	0.88	61.2 - 64.6	1.29
	1 year, less than 3 years ago	20.0	4407	0.62	18.8 - 21.2	1.09
	3 years ago or more	21.8	4407	0.62	20.5 - 23.0	1.22
	Never	10.6	4407	0.28	10.1 - 11.2	1.22
	<i>High blood pressure</i>					
Men	Not high BP	89.0	2572	0.56	87.9 - 90.1	0.96
	High BP	11.0	2572	0.56	9.9 - 12.1	0.96
Women	Not high BP	87.1	3178	0.67	85.8 - 88.4	1.17
	High BP	12.9	3178	0.67	11.6 - 14.2	1.17

Table 1.18 True standard errors and 95 % confidence intervals for mean values of anthropometric measurements

						1995
Base	Characteristic	Mean	Sample size (unweighted)	True standard error	95% confidence interval	Deft
<i>Measurement</i>						
Men	Height	175.1	3404	0.12	174.8 - 175.3	1.10
	Weight	79.7	3323	0.29	79.1 - 80.3	1.21
	Body mass index	26.0	3303	0.09	25.8 - 26.2	1.19
	Waist hip ratio	0.9	3061	0.0019	0.8864 - 0.8936	1.21
Women	Height	161.4	4284	0.10	161.1 - 161.6	1.19
	Weight	66.7	4019	0.18	66.3 - 67.0	0.96
	Body mass index	25.7	4005	0.07	25.5 - 25.8	0.98
	Waist - hip ratio	0.8	3661	0.0016	0.7768 - 0.7832	1.26

Table 1.19 True standard errors and 95 % confidence intervals for distribution of height and weight

						1995
Base	Characteristic	%	Sample size (unweighted)	True standard error	95% confidence interval	Deft
<i>Height</i>						
Men	Less than 160	1.3	3404	0.16	0.9 - 1.6	0.98
	160, less than 165	5.6	3404	0.42	4.7 - 6.4	1.09
	165, less than 170	15.8	3404	0.70	14.4 - 17.2	1.13
	170, less than 175	25.9	3404	0.88	24.1 - 27.6	1.11
	175, less than 180	26.7	3404	0.75	25.3 - 28.2	1.03
	180 or more	24.8	3404	0.82	23.2 - 26.4	1.14
Women	Less than 155	15.7	4284	0.47	14.8 - 16.6	0.96
	155, less than 160	25.0	4284	0.75	23.5 - 26.5	1.22
	160, less than 165	30.8	4284	0.78	29.3 - 32.3	1.08
	165, less than 170	19.5	4284	0.66	18.2 - 20.8	1.14
	170 or more	9.1	4284	0.47	8.1 - 10.0	1.17
<i>Weight</i>						
Men	Less than 60	5.3	3323	0.48	4.4 - 6.3	1.22
	60, less than 70	18.8	3323	0.76	17.3 - 20.2	1.12
	70, less than 80	29.8	3323	0.99	27.9 - 31.8	1.17
	80, less than 90	26.0	3323	0.85	24.3 - 27.7	1.18
	90 or more	20.1	3323	0.97	18.2 - 22.0	1.27
Women	Less than 50	5.6	4019	0.42	4.8 - 6.4	1.15
	50, less than 60	27.3	4019	0.72	25.8 - 28.7	1.05
	60, less than 70	33.8	4019	0.82	32.2 - 35.4	1.09
	70, less than 80	19.4	4019	0.77	17.8 - 20.9	1.26
	80 or more	14.0	4019	0.67	12.7 - 15.3	1.15

Table 1.20 True standard errors and 95 % confidence intervals for distribution of anthropometric measurements

1995

Base	Characteristic	%	Sample size	True standard error	95% confidence interval	Deft
	<i>Waist hip ratio</i>					
Men	Less than 0.80	8.5	3061	0.58	7.4 - 9.7	1.23
	0.80, less than 0.85	18.1	3061	0.77	16.6 - 19.6	1.16
	0.85, less than 0.90	27.3	3061	0.96	25.5 - 29.2	1.17
	0.90, less than 0.95	26.3	3061	0.87	24.6 - 28.0	1.10
	0.95, less than 1.00	14.0	3061	0.87	12.2 - 15.7	1.20
	1.00 or more	5.8	3061	0.58	4.7 - 6.9	1.19
Women	Less than 0.70	9.6	3661	0.62	8.4 - 10.8	1.29
	0.70, less than 0.75	24.1	3661	0.86	22.4 - 25.8	1.35
	0.75, less than 0.80	31.2	3661	0.79	29.7 - 32.8	1.12
	0.80, less than 0.85	20.9	3661	0.73	19.4 - 22.3	1.12
	0.85, less than 0.90	9.6	3661	0.48	8.7 - 10.6	1.08
	0.90 or more	4.6	3661	0.33	4.0 - 5.3	0.98
	<i>Body mass index</i>					
Men	20 or less	4.9	3303	0.46	4.0 - 5.8	1.19
	Over 20 - 25	39.0	3303	0.85	37.3 - 40.6	1.01
	Over 25 - 30	39.9	3303	0.90	38.2 - 41.7	1.13
	Over 30	16.2	3303	0.73	14.7 - 17.6	1.15
Women	20 or less	8.3	4005	0.54	7.3 - 9.4	1.23
	Over 20 - 25	44.1	4005	0.78	42.6 - 45.6	1.08
	Over 25 - 30	30.1	4005	0.84	28.5 - 31.8	1.14
	Over 30	17.5	4005	0.71	16.1 - 18.9	1.12

Table 1.21 True standard errors and 95% confidence intervals for body mass index (BMI) within region 1995

Base	Characteristic	Mean/%	Sample size (unweighted)	True standard error	95% confidence interval	Deft
Men						
Highland & Islands	Mean BMI	26.6	342	0.21	26.1 - 27.0	1.13
	% Obese (BMI over 30)	17.2	342	2.24	12.8 - 21.5	1.15
Grampian & Tayside	Mean BMI	26.0	559	0.23	25.6 - 26.5	1.15
	% Obese (BMI over 30)	15.3	559	2.08	11.2 - 19.4	1.13
Lothian & Fife	Mean BMI	25.7	668	0.16	25.4 - 26.0	1.09
	% Obese (BMI over 30)	14.6	668	1.55	11.6 - 17.7	1.19
Borders, Dumfries & Galloway	Mean BMI	26.4	281	0.37	25.7 - 27.1	1.22
	% Obese (BMI over 30)	16.6	281	2.75	11.2 - 22.0	1.07
Greater Glasgow	Mean BMI	25.7	451	0.36	25.0 - 26.4	1.36
	% Obese (BMI over 30)	16.6	451	2.21	12.2 - 20.9	1.16
Lanarkshire, Ayrshire & Arran	Mean BMI	26.4	573	0.15	26.1 - 26.7	1.07
	% Obese (BMI over 30)	18.0	573	1.79	14.4 - 21.5	1.08
Forth Valley, Argyll & Clyde	Mean BMI	26.0	429	0.15	25.7 - 26.3	0.93
	% Obese (BMI over 30)	16.5	429	2.09	12.4 - 20.6	1.04
Women						
Highland & Islands	Mean BMI	26.2	398	0.42	25.4 - 27.0	1.47
	% Obese (BMI over 30)	21.5	398	2.57	16.4 - 26.5	1.31
Grampian & Tayside	Mean BMI	25.8	602	0.23	25.4 - 26.3	1.08
	% Obese (BMI over 30)	20.3	602	2.70	15.0 - 25.6	1.29
Lothian & Fife	Mean BMI	25.4	758	0.18	25.0 - 25.7	1.13
	% Obese (BMI over 30)	15.0	758	1.28	12.5 - 17.5	1.06
Borders, Dumfries & Galloway	Mean BMI	25.7	353	0.18	25.4 - 26.0	0.93
	% Obese (BMI over 30)	17.9	353	1.97	14.0 - 21.8	1.14
Greater Glasgow	Mean BMI	25.3	636	0.06	25.2 - 25.4	0.82
	% Obese (BMI over 30)	15.0	636	1.49	12.1 - 17.9	1.02
Lanarkshire, Ayrshire & Arran	Mean BMI	26.1	733	0.24	25.6 - 26.6	1.11
	% Obese (BMI over 30)	19.5	733	1.65	16.3 - 22.8	1.13
Forth Valley, Argyll & Clyde	Mean BMI	25.5	525	0.19	25.2 - 25.9	0.96
	% Obese (BMI over 30)	16.6	525	2.05	12.5 - 20.6	1.20

Table 1.22 True standard errors and 95 % confidence intervals for lung function variables

1995

Base	Characteristic	%	(Sample size unweighted)	True standard error	95% confidence interval	Deft
	<i>Lung function levels</i>					
	<i>FEV₁</i>					
Men	Mean	3.9	2979	0.02	3.9 - 4.0	1.00
Women	Mean	2.8	3586	0.01	2.8 - 2.8	1.03
	<i>FVC</i>					
Men	Mean	4.9	2979	0.02	4.9 - 4.9	1.12
Women	Mean	3.5	3586	0.01	3.4 - 3.5	1.12
	<i>Peak flow</i>					
Men	Mean	571.0	2979	2.61	565.5 - 575.8	1.20
Women	Mean	385.5	3586	2.09	381.6 - 389.8	1.49

Table 1.23 True standard errors and 95% confidence intervals for blood analytes

1995

Base	Characteristic	Mean/%	Sample size (unweighted)	True standard error	95% confidence interval	Defl
<i>Total cholesterol (mmol/l)</i>						
Men	Mean	5.6	2831	0.03	5.6 - 5.7	1.18
	Less than 5.2	36.7	2831	0.88	35.0 - 38.5	1.06
	5.2 less than 6.5	40.4	2831	1.00	38.4 - 42.3	1.15
	6.5 less than 7.8	18.4	2831	0.81	16.8 - 20.0	1.21
	7.8 or more	4.5	2831	0.40	3.7 - 5.3	1.09
Women	Mean	5.6	3300	0.02	5.5 - 5.6	1.10
	Less than 5.2	39.1	3300	1.10	36.9 - 41.2	1.19
	5.2 less than 6.5	39.5	3300	0.84	37.9 - 41.1	1.04
	6.5 less than 7.8	17.0	3300	0.90	15.2 - 18.8	1.26
	7.8 or more	4.5	3300	0.38	3.7 - 5.2	1.00
<i>HDL - cholesterol (mmol/l)</i>						
Men	Mean	1.3	2782	0.01	1.3 - 1.3	1.19
	Up to 0.9	14.0	2782	0.77	12.5 - 15.5	1.18
	Over 0.9	86.0	2782	0.77	84.5 - 87.5	1.18
Women	Mean	1.5	3253	0.01	1.5 - 1.6	1.07
	Up to 0.9	4.2	3253	0.41	3.4 - 5.0	1.13
	Over 0.9	95.8	3253	0.41	95.0 - 96.6	1.13
<i>Haemoglobin (g/dl)</i>						
Men	Mean	15.1	2787	0.02	15.1 - 15.1	1.02
	Less than 13.0	1.9	2787	0.23	1.4 - 2.3	0.95
	13.0 less than 14.0	9.8	2787	0.51	8.8 - 10.8	0.93
	14.0 less than 15.5	52.1	2787	1.03	50.1 - 54.1	1.09
	15.5 or more	36.2	2787	0.75	34.8 - 37.7	0.98
Women	Mean	13.3	3233	0.03	13.3 - 13.4	1.24
	Less than 12.0	8.0	3233	0.55	6.9 - 9.1	1.12
	12.0 less than 13.0	25.4	3233	0.91	23.6 - 27.2	1.07
	13.0 less than 14.0	39.6	3233	0.86	38.0 - 41.3	0.99
	14.0 or more	27.0	3233	0.78	25.4 - 28.5	1.04
<i>Ferritin (ng/ml)</i>						
Men	Mean	124.7	2792	3.23	118.3 - 131.0	1.16
Women	Mean	50.3	3234	0.87	48.6 - 52.0	1.04

Table 1.24 True standard errors and 95 % confidence intervals for blood analytes

1995

Base	Characteristic	Mean/%	Sample size (unweighted)	True standard error	95% confidence interval	Deft
	<i>Gamma gt (iu/l)</i>					
Men	Mean	37.3	2800	0.91	35.5 - 39.1	0.99
	Less than 10	2.2	2800	0.34	1.6 - 2.9	1.29
	10, less than 15	9.7	2800	0.60	8.5 - 10.9	1.14
	15, less than 25	35.3	2800	0.91	33.6 - 37.1	1.09
	25, less than 35	22.2	2800	0.76	20.7 - 23.7	1.05
	35, less than 45	11.1	2800	0.71	9.7 - 12.5	1.15
	45, less than 55	4.9	2800	0.45	4.0 - 5.8	1.08
	55 or over	14.5	2800	0.83	12.9 - 16.2	1.15
Women	Mean	22.9	3261	0.70	21.5 - 24.2	1.14
	Less than 10	8.8	3261	0.52	7.8 - 9.8	1.12
	10, less than 15	30.2	3261	0.81	28.6 - 31.8	1.09
	15, less than 25	38.8	3261	1.03	36.8 - 40.8	1.26
	25, less than 35	10.7	3261	0.65	9.4 - 11.9	1.21
	35, less than 45	4.2	3261	0.40	3.4 - 4.9	1.18
	45, less than 55	2.6	3261	0.33	2.0 - 3.3	1.11
	55 or over	4.8	3261	0.34	4.1 - 5.4	1.06
	<i>Cotinine (ng/ml)</i>					
Men	Mean	104.4	2638	3.75	97.0 - 111.7	1.26
	Less than 8	37.5	2661	1.17	35.2 - 39.8	1.35
	8 less than 20	1.7	2661	0.25	1.2 - 2.2	1.04
	20 or more	60.8	2661	1.21	58.4 - 63.1	1.37
Women	Mean	92.7	3125	3.51	85.8 - 99.6	1.42
	Less than 8	35.4	3151	1.05	33.3 - 37.4	1.36
	8 less than 20	1.9	3151	0.30	1.3 - 2.5	1.26
	20 or more	62.7	3151	0.99	60.7 - 64.6	1.30
	<i>Fibrinogen (g/l)</i>					
Men	Mean	3.3	2692	0.02	3.3 - 3.3	1.03
Women	Mean	3.6	3114	0.01	3.6 - 3.6	1.06
	<i>Cholesterol monitoring</i>					
Men	Ever measured	31.1	3524	0.83	29.5 - 32.7	1.09
	Last time measured:					
	Less than 1 year ago	34.3	1127	1.88	30.6 - 38.0	1.23
	1 year, less than 3	35.9	1127	1.76	32.4 - 39.3	1.15
	3 years, less than 5	17.7	1127	1.10	15.5 - 19.8	1.08
	5 years ago or more	12.1	1127	1.09	10.0 - 14.3	1.10
Women	Ever measured	23.3	4408	0.67	21.9 - 24.6	1.10
	Last time measured:					
	Less than 1 year ago	32.3	1062	1.34	29.7 - 35.0	1.05
	1 year, less than 3	37.9	1062	1.68	34.6 - 41.2	1.10
	3 years, less than 5	19.0	1062	1.52	16.1 - 22.0	1.13
	5 years ago or more	10.7	1062	1.11	8.6 - 12.9	1.16

Table 1.25 True standard errors and 95% confidence intervals for CVD conditions

							1995
Base	Characteristic	%	Sample size	True standard error	95% confidence interval	Deft	
<i>CVD conditions</i>							
Men	Ever had hypertension	13.3	3524	0.60	12.1 - 14.4	1.04	
	Ever had angina	3.1	3524	0.34	2.4 - 3.8	1.13	
	Ever had a heart attack	2.4	3524	0.26	1.9 - 2.9	1.03	
	Ever had a heart murmur	2.1	3524	0.30	1.5 - 2.7	1.08	
	Ever had abnormal heart rhythm	2.9	3524	0.31	2.3 - 3.5	1.15	
	Ever had other heart trouble	0.7	3522	0.14	0.4 - 0.9	0.92	
	Ever had a stroke	1.0	3524	0.15	0.7 - 1.3	1.01	
	Ever had diabetes	1.5	3524	0.26	1.0 - 2.0	1.11	
	Had cardiovascular disorder	19.3	3477	0.64	18.0 - 20.5	1.00	
	No cardiovascular disorder	80.7	3477	0.64	79.5 - 82.0	1.00	
<i>Ischaemic heart disease or stroke</i>							
	Angina or heart attack or stroke	4.0	3522	0.42	3.2 - 4.9	1.20	
	Angina or heart attack but not stroke	4.6	3522	0.44	3.7 - 5.5	1.18	
<i>CVD conditions</i>							
Women	Ever had hypertension	13.9	4403	0.59	12.7 - 15.1	1.10	
	Ever had angina	2.5	4408	0.31	1.9 - 3.1	1.16	
	Ever had a heart attack	1.1	4408	0.17	0.8 - 1.4	1.01	
	Ever had a heart murmur	3.2	4405	0.36	2.5 - 3.9	1.28	
	Ever had abnormal heart rhythm	4.0	4406	0.35	3.3 - 4.7	1.15	
	Ever had other heart trouble	0.8	4402	0.12	0.5 - 1.0	0.91	
	Ever had a stroke	0.5	4408	0.11	0.3 - 0.7	1.02	
	Ever had diabetes	1.5	4408	0.20	1.1 - 1.9	1.11	
	Had cardiovascular disorder	20.2	4380	0.66	18.9 - 21.5	1.13	
	No cardiovascular disorder	79.8	4380	0.66	78.5 - 81.1	1.13	
<i>Ischaemic heart disease or stroke</i>							
	Angina or heart attack or stroke	2.9	4408	0.30	2.3 - 3.5	1.04	
	Angina or heart attack but not stroke	3.2	4408	0.31	2.6 - 3.8	1.00	

Table 1.26 True standard errors and 95 % confidence intervals for CVD symptoms

1995

Base	Characteristic	%	Sample size	True standard error	95% confidence interval	Deft
	<i>CVD symptoms</i>					
Men	Grade 1 angina	1.5	3522	0.19	1.2 - 1.9	0.96
	Grade 2 angina	1.2	3522	0.21	0.8 - 1.6	1.06
	No angina	97.2	3522	0.30	96.6 - 97.8	1.03
	Intermittent claudication grade 1	1.0	3503	0.16	0.7 - 1.3	0.98
	Intermittent claudication grade 2	0.7	3503	0.17	0.4 - 1.0	1.13
	No intermittent claudication	98.3	3503	0.24	97.8 - 98.8	1.04
Women	Grade 1 angina	1.9	4401	0.18	1.5 - 2.2	1.03
	Grade 2 angina	0.8	4401	0.14	0.6 - 1.1	1.04
	No angina	97.2	4401	0.23	96.7 - 97.7	1.02
	Intermittent claudication grade 1	1.3	4389	0.20	0.9 - 1.7	1.12
	Intermittent claudication grade 2	0.6	4389	0.10	0.4 - 0.8	0.98
	No intermittent claudication	98.1	4389	0.21	97.7 - 98.6	1.03
	<i>Respiratory symptoms</i>					
Men	Phlegm	12.8	3522	0.46	11.9 - 13.7	1.04
	Breathlessness	19.8	3512	0.78	18.2 - 21.3	1.10
	Wheezing	20.3	3524	0.68	19.0 - 21.6	1.10
Women	Phlegm	8.5	4406	0.55	7.4 - 9.6	1.23
	Breathlessness	30.3	4397	0.87	28.6 - 32.0	1.24
	Wheezing	20.3	4408	0.68	19.0 - 21.6	1.16

Table 1.27 True standard errors and 95 % confidence intervals for general health variables

1995

Base	Characteristic	%	Sample size (unweighted)	True standard error	95% confidence interval	Deft
Men	Self - reported long - standing illness	34.0	3524	1.08	31.9 - 36.1	1.34
	No long - standing illness	66.0	3524	1.08	63.9 - 68.1	1.34
	Self - reported acute sickness	13.1	3524	0.72	11.7 - 14.5	1.20
	Self - reported gastroenteritis	11.3	3109	0.68	10.0 - 12.6	1.12
Women	Self - reported long - standing illness	35.7	4408	0.85	34.0 - 37.4	1.17
	No long - standing illness	64.3	4408	0.85	62.6 - 66.0	1.17
	Self - reported acute sickness	16.7	4408	0.64	15.4 - 17.9	1.22
	Self - reported gastroenteritis	16.1	3843	0.57	15.0 - 17.2	1.02
Men	Very Good	34.4	3524	0.89	32.7 - 36.2	1.18
	Good	42.5	3524	0.89	40.8 - 44.3	1.13
	Fair	17.5	3524	0.66	16.1 - 18.7	1.06
	Bad	4.2	3524	0.34	3.5 - 4.8	1.08
	Very Bad	1.4	3524	0.20	1.1 - 1.8	1.09
Women	Very Good	35.0	4408	1.00	33.1 - 37.0	1.41
	Good	42.3	4408	0.87	40.6 - 44.0	1.19
	Fair	18.2	4408	0.84	16.5 - 19.8	1.32
	Bad	3.5	4408	0.35	2.8 - 4.2	1.17
	Very Bad	1.1	4408	0.21	0.6 - 1.5	1.25
Men with CVD	In - patient in last 12 months	15.4	753	1.50	12.5 - 18.4	1.13
	Out - patient in last 12 months	43.7	753	2.48	38.8 - 48.6	1.31
	GP consultation in last 2 weeks	20.9	753	1.76	17.5 - 24.4	1.16
Women with CvD	In - patient in last 12 months	14.9	950	1.35	12.2 - 17.5	1.14
	Out - patient in last 12 months	47.4	950	2.04	43.4 - 51.4	1.23
	GP consultation in last 2 weeks	26.5	950	1.64	23.3 - 29.8	1.09

Table 1.28 True standard errors and 95 % confidence intervals for dental health variables

						1995	
Base	Characteristic	%	Sample size (unweighted)	True standard error	95% confidence interval	Deft	
Men	All false teeth	9.2	3524	0.49	8.3 - 10.2	0.98	
	Uses a fluoride toothpaste	90.4	3115	0.66	89.1 - 91.7	1.22	
	<i>Brushes teeth:</i>						
	More than once a day	60.5	3115	0.96	58.6 - 62.4	1.07	
	Once a day	30.8	3115	0.85	29.2 - 32.5	1.08	
	Less than once a day	8.7	3115	0.56	7.6 - 9.8	1.19	
	<i>Visits dentist:</i>						
	Every 6 months or more	50.4	3115	0.91	48.6 - 52.2	1.13	
	Every 12 months	14.4	3115	0.60	13.2 - 15.6	1.10	
	Every 24 months	4.0	3115	0.36	3.3 - 4.7	1.06	
Women	At longer intervals	14.8	3115	0.73	13.3 - 16.2	1.27	
	Never	16.4	3115	0.82	14.8 - 18.0	1.39	
	All false teeth	13.0	4408	0.53	11.9 - 14.0	1.06	
	Uses a fluoride toothpaste	92.0	3754	0.56	90.9 - 93.1	1.22	
	<i>Brushes teeth:</i>						
	More than once a day	82.2	3754	0.68	80.9 - 83.5	1.22	
	Once a day	15.9	3754	0.71	14.5 - 17.3	1.32	
	Less than once a day	1.9	3754	0.23	1.5 - 2.3	1.14	
	<i>Visits dentist:</i>						
	Every 6 months or more	66.0	3754	1.01	64.0 - 68.0	1.33	
Every 12 months	12.4	3754	0.59	11.3 - 13.6	1.13		
Every 24 months	3.8	3754	0.43	2.9 - 4.6	1.28		
At longer intervals	9.8	3754	0.67	8.5 - 11.1	1.41		
Never	8.0	3754	0.73	6.6 - 9.4	1.63		

Table 1.29 True standard errors and 95% confidence intervals for GHQ12 score

						1995
Base	Characteristic	%	Sample size (unweighted)	True standard error	95% confidence interval	Deft
<i>GHQ12 score</i>						
Men	0	60.1	3448	0.78	58.5 - 61.6	1.03
	1 to 3	26.7	3448	0.66	25.4 - 28.0	0.97
	4 or more	13.2	3448	0.63	12.0 - 14.4	1.13
Women	0	54.6	4326	0.92	52.8 - 56.4	1.17
	1 to 3	26.0	4326	0.76	24.5 - 27.4	1.12
	4 or more	19.4	4326	0.69	18.1 - 20.8	1.16

Table 1.30 True standard errors and 95% confidence intervals for accident prevalence and accident rates

						1995
Base	Characteristic	%	Sample size (unweighted)	True standard error	95% confidence interval	Deft
Men	Percentage having at least one accident in previous 12 months	18.3	3524	0.723	16.9 - 19.7	1.11
	Annual accident rate per 100 persons	23.8	3524	1.166	21.5 - 26.1	1.15
	Annual work - based accident rate per 100 persons in work	11.9	3524	1.076	9.8 - 14.0	1.23
	Annual non - work accident rate per 100 persons	15.3	3524	0.930	13.5 - 17.1	1.10
Women	Percentage having at least one accident in previous 12 months	12.6	4408	0.662	11.3 - 13.9	1.33
	Annual accident rate per 100 persons	14.6	4408	0.814	13.0 - 16.2	1.25
	Annual work - based accident rate per 100 persons in work	4.4	4408	0.694	3.0 - 5.8	1.39
	Annual non - work accident rate per 100 persons	12.0	4408	0.729	10.6 - 13.4	1.23

Table 1.31 True standard errors and 95 % confidence intervals for social class of chief income earner

						1995
Base	Characteristic	%	Sample size (unweighted)	True standard error	95% confidence interval	Deft
<i>Social class</i>						
Men	I & II	34.7	3327	1.10	32.5 - 36.9	1.54
	III NM	12.2	3327	0.51	11.2 - 13.2	1.11
	III M	33.8	3327	1.04	31.8 - 35.8	1.33
	IV & V	19.3	3327	0.74	17.9 - 20.7	1.22
Women	I & II	33.2	4119	1.09	31.1 - 35.3	1.69
	III NM	18.5	4119	0.57	17.4 - 19.6	1.06
	III M	28.0	4119	1.01	26.0 - 30.0	1.43
	IV & V	20.3	4119	0.80	18.7 - 21.9	1.36

2 BLOOD ANALYTES, QUALITY CONTROL AND QUALITY ASSESSMENT

2

*Wei Dong, Vasant Hirani and Paola Primatesta
with Patricia Fitzsimmons and David I Thurnham (for Section 2.9)*

2.1 INTRODUCTION

This chapter describes the assay of blood analytes, quality control and quality assessment that were carried out during the survey period. Details of procedures used in the collection, processing and transportation of the blood specimens are described in Appendix B.

In brief, following written consent from eligible informants, three blood samples (one 9 ml plain tube (no anticoagulant), one 2 ml EDTA (ethylene diamine tetra-acetic acid) tube and one 4 ml citrate (1:9) tube) were collected and despatched to the West Middlesex University Hospital NHS trust (WMUH) Biochemistry Laboratory. In addition, one 6 ml plain tube was also taken for a sub-group of informants for analysis of vitamins A, C and E, and carotenoids (see Section 2.9).

2.1.1 Samples collected in the 9 ml plain tube for serum

Total cholesterol, HDL-cholesterol, ferritin and gamma glutamyl transferase (gamma gt) were measured by the Biochemistry Department, WMUH. In addition, approximately 0.5 ml serum samples were removed, frozen and transported in dry ice to the Nicotine Laboratory of the Institute of Psychiatry, where cotinine analysis was carried out. If written consent was given by the informant, approximately a minimum of 0.5 ml of the remaining serum was stored in a freezer at $-70^{\circ}\text{C} \pm(5^{\circ}\text{C})$ for possible future analysis.

2.1.2 Samples collected in the 2 ml EDTA tube

Haemoglobin was measured by the Haematology Department, WMUH. If written consent was given by the informant, approximately 1 ml of whole blood was stored in a freezer at $-20^{\circ}\text{C} \pm(5^{\circ}\text{C})$ for possible future analysis.

2.1.3 Samples collected in the 4 ml citrate tube

Fibrinogen was measured by the Haematology Department, WMUH.

2.2 BIOCHEMISTRY

All analyses were carried out according to Standard Operating Procedures by State Registered Medical Laboratory Scientific Officers (MLSOs) under the supervision of the Senior MLSO. All results were routinely checked by the duty Biochemist and seriously abnormal results were immediately faxed to the Survey Doctor. The informants and their General Practitioners were notified and advised as appropriate.

2.2.1 Total cholesterol

Analysis of total cholesterol was carried out on an ICS Summit analyser, using the cholesterol oxidase/peroxidase method.

2.2.2 HDL cholesterol

Following precipitation of LDL and VLDL cholesterol with dextran sulphate-magnesium and centrifugation, HDL cholesterol was estimated in the supernatant using the cholesterol oxidase/peroxidase method on a Bayer Axon analyser.

2.2.3 Gamma gt

Analysis of gamma gt was carried out on an ICS Summit analyser, using the gamma-glutamyl-nitroanilide method.

2.2.4 Ferritin

Analysis of ferritin was carried out on a Boehringer ES300 analyser, using the Boehringer Enzymun immunoassay method.

2.3 COTININE

Analysis of cotinine was carried out on a Hewlett Packard HP5890 gas chromatograph machine, using a rapid-liquid chromatography technique.

2.4 HAEMATOLOGY

2.4.1 Haemoglobin

Analysis of haemoglobin was carried out on a Bayer H2 analyser, using the Direct Colorimetric method on the EDTA sample.

2.4.2 Fibrinogen

Analysis of fibrinogen was carried out on a IL ACL2000 analyser, using the Nephelometric (clot turbidity) method on the citrate sample.

2.5 QUALITY CONTROL

The laboratories in this study carry out internal quality control (IQC) for all analytes and participate in external quality assessment (EQA) schemes where available.

2.5.1 Internal quality control

One purpose of IQC is to estimate errors in an analytical run and to prevent release of data if the errors are unacceptably high. A second purpose is to monitor the performance of the assay over a period of time and detect trends.

For each analyte or group of analytes, the laboratory obtains a supply of quality control materials, usually at more than one concentration of analyte. A target (mean) value and target standard deviation are assigned for each analyte. Target assignment includes evaluation of values obtained by the laboratory from replicate measurements (over several runs) in conjunction with target values provided by manufacturers of IQC materials, if available. The standard deviation and the coefficient of variation (C.V.) are measures of random error and are presented here.

Standard deviation (S.D.) is calculated as
$$\sqrt{\frac{\sum (x-\bar{x})^2}{n-1}}$$

Coefficient of variation (C.V.) is calculated as
$$\frac{\text{standard deviation}}{\text{mean}} \times 100\%$$

IQC samples are analysed at the start and end of a run and also between informant samples if the run is long. The results for an analytical run are released if the IQC values obtained meet acceptability criteria: the validation process is carried out by a senior member of staff, a senior MLSO for example.

This report includes summaries of IQC data expressed as the mean values, S.D and C.V. obtained.

2.5.2 External quality assessment

EQA enables comparison of results between laboratories measuring the same analyte. An EQA scheme for an analyte or group of analytes distributes aliquots of the same samples to participating laboratories, who are blind to the concentration of the analytes. The usual practice is to participate in a scheme for a full year during which samples are distributed at regular frequency (monthly or bimonthly for example); the number of samples in each distribution and the frequency differ between schemes. The samples contain varying concentrations of analytes. The same samples may or may not be distributed more than once.

Samples are assayed shortly after they arrive at the laboratory. Depending on the frequency of distribution there may be weeks or months in which no EQA samples are analysed. Results are returned to the scheme organisers, who issue a laboratory specific report giving at least the following data:

- mean values, usually for all methods and for method groups
- a measure of the between-laboratory precision
- the bias of the results obtained by that laboratory

EQA is a retrospective process of assessment of performance, particularly of inaccuracy or bias with respect to mean values; unlike IQC, it does not provide control over the release of results at the time of analysis.

The United Kingdom National External Quality Assessment Schemes (UKNEQAS) is a network of EQA schemes run by UK clinical laboratories. Schemes run by companies are also available, for example the Randox International Quality Assessment Schemes (RIQAS). During the survey period the laboratories at WMUH participated in UKNEQAS and RIQAS schemes as indicated in the tables below.

2.6 QUALITY ASSESSMENT RESULTS

2.6.1 Total cholesterol, HDL-cholesterol, gamma gt and ferritin

Tables 2.1 to 2.4 show the internal quality control results for total cholesterol, HDL- cholesterol, gamma gt and ferritin for alternate months.

Tables 2.5 to 2.8 show the external quality assessment results for total cholesterol, HDL-cholesterol, gamma gt and ferritin for alternate months. The target and achieved values across the range of each analyte are shown. **Tables 2.1 - 2.8**

2.6.2 Cotine

Various concentrations of cotinine from low to high values are used at the Nicotine Laboratory to assess assay performance. A summary of these results for alternate months are outlined in Table 2.9. **Table 2.9**

There was no external quality assessment scheme available in 1995 to analyse cotinine. However, the Nicotine Laboratory does participate in inter-laboratory split analyses to ensure comparable results.

2.6.3 Haemoglobin and fibrinogen

Tables 2.10 and 2.11 show the internal quality control analysis of haemoglobin and fibrinogen for alternate months.

Tables 2.12 and 2.13 show the external quality assessment analysis of haemoglobin for alternate months and fibrinogen for July and October 1995. **Tables 2.10 - 2.13**

2.6.4 Conclusions

It can be concluded from the IQC and EQA that results of all these blood analytes are acceptable for the Health Survey.

2.7 REFERENCE INTERVALS

Table 2.14 shows the reference intervals (by sex) for the analytes measured in the Health Survey by the WMUH. **Table 2.14**

Results of blood analytes which are outside the laboratory reference intervals are not necessarily indicative of abnormalities, although further investigation is recommended (and see Chapter 9 in Volume 1).

2.8 MAINTENANCE

Each analyser has a schedule of Planned Preventative Maintenance carried out jointly by the manufacturers and the laboratories. Records are kept of when maintenance is due and carried out.

2.9 VITAMINS C, A AND E, AND CAROTENOIDS

2.9.1 Sampling, storage and transportation

In a sub-sample of over 1,000 informants, an extra tube of blood was taken to be analysed for vitamins A, C and E, and carotenoids. After venepuncture, the 6 ml plain tube was put in a Jiffy bag to avoid excessive exposure to heat and light, and delivered within four hours to one of seven laboratories in Scotland (local laboratories) for immediate processing.

Samples were centrifuged and two tubes of serum samples were prepared at the local laboratories: Tube A, a 0.5 ml serum sample was immediately stabilised with 1 ml meta-phosphoric acid (10% V/V) for vitamin C analysis; Tube B, approximately 2ml serum, was stored for analysis of vitamins A and E, and carotenoids.

Throughout the processing, samples were kept at 4⁰C and protected from sunlight. Both tubes were then stored at -40⁰C or below, before they were sent in dry ice to

the assay laboratory (the Human Nutrition Studies Group, School of Biomedical Sciences, University of Ulster at Coleraine) for analysis.

About one-tenth of the survey samples were analysed in April 1995 (i.e., about one month after they were collected). Samples collected between April and November 1995 were stored at the local laboratories until they were transferred to the assay laboratory at the beginning of December 1995. Thereafter, samples were transferred on a monthly basis until the end of fieldwork in March 1996. The majority of vitamin C samples were analysed between December 1995 and April 1996; for vitamins A and E and carotenoids, the majority of samples were analysed between May and August 1996. The results presented here apply to the above time period when most samples were analysed. A few samples (about 70) had accidentally thawed during transportation from the local laboratory to the assay laboratory, and were therefore excluded from the analysis for vitamin C (see Volume I, Chapter 9, Part II for further details).

2.9.2 Assay methods

Vitamin C in metaphosphoric acid extracts of serum was measured using an ion-pairing technique and electrochemical detection by High Pressure liquid Chromatography (HPLC).¹

Serum vitamins A and E and carotenoids were analysed by High Pressure liquid Chromatography (HPLC).²

2.9.3 Quality control and assessment for vitamin C

Internal quality control

Several control samples were used during the course of the study. Two standard controls (sample stored in liquid nitrogen and an European Prospective Investigation into Cancer (EPIC) sample) and one serum control were placed at ten-sample intervals during each run. The EPIC controls have been shown to be very reliable as quality control. Results of IQC are shown in Table 2.15. **Table 2.15**

External quality assessment

The assay laboratory has participated in the NIST programme for vitamin C. However, this external quality assessment scheme is less well-established, runs less frequently than that for fat soluble vitamins and it has fewer participants. The NIST EQA report indicated a mean bias of 0.8% for vitamin C.

2.9.4 Quality control and assessment for vitamins A and E and carotenoids

Internal quality control

The internal control samples were Blood Transfusion Samples (BTS3) which were placed at the beginning and end of each batch of samples. These in-house control materials were standardised and validated against NIST Standard Reference Material (SRM). **Table 2.16**

External quality assessment

External quality assurance for analysis of retinol, tocopherols and β -carotene was arranged by participation in the NIST Round Robin quality control system in the USA. This also applied to the other carotenoids, but as the number of participants is much smaller, target data for lutein, lycopene and β -cryptoxanthin is less reliable.

NIST EQA indicated that the mean difference from the NIST assigned value was 3% for retinol, -2% for α -tocopherol, 8% for γ -tocopherol, and 16% for β -carotene at the time of the survey. Precision for these analytes was 6%, 4%, 5%

and 6% respectively. These EQA data, and data for other less frequently measured carotenoids (not presented here), are considered to be acceptable.

It can be concluded that results of the analyses for vitamins C, A and E and carotenoids are all acceptable for the Health Survey.

References and notes

- 1 Modification of methods described by F.Heiliger. *Current Separations* 1980; **2**(3), Pub. B.A.S. Inc.
- 2 Concurrent liquid-chromatographic assay of retinol, α -tocopherol, β -carotene, α -carotene, lycopene, and β -cryptoxanthin in plasma, with tocopherol acetate as an internal standard. 1988, Thurnham DI, Smith E, Flora PS. *Clinical Chemistry* 1988; **34**(2), 377-81.

CHAPTER 2 LIST OF TABLES

Table 2.1	Internal quality control results for total cholesterol
Table 2.2	Internal quality control results for HDL-cholesterol
Table 2.3	Internal quality control results for gamma gt
Table 2.4	Internal quality control results for ferritin
Table 2.5	External quality assessment results for total cholesterol
Table 2.6	External quality assessment results for HDL-cholesterol
Table 2.7	External quality assessment results for gamma gt
Table 2.8	External quality assessment results for ferritin
Table 2.9	Internal quality control results for cotinine
Table 2.10	Internal quality control results for haemoglobin
Table 2.11	Internal quality control results for fibrinogen
Table 2.12	External quality assessment results for haemoglobin
Table 2.13	External quality assessment results for fibrinogen
Table 2.14	Reference intervals for analytes in 1995 Scottish Health Survey
Table 2.15	Internal quality control for vitamin C
Table 2.16	Internal quality control for vitamins A and E and carotenoids

Table 2.1 Internal quality control results for total cholesterol

1995

Date	Level (mmol/l) Target/Achieved	S.D. (mmol/l) Target/Achieved	C.V. (%) Achieved
March 1995	2.80/2.80 6.70/6.70	0.10/0.08 0.30/0.14	2.8 2.1
May	3.90/3.90 5.90/6.10	0.13/0.11 0.16/0.16	2.8 2.6
July	3.70/3.70 5.90/5.80	0.13/0.11 0.16/0.16	2.9 2.7
September	3.70/3.70 5.90/5.80	0.13/0.10 0.16/0.15	2.8 2.6
November	3.80/3.70 6.00/5.90	0.13/0.08 0.16/0.14	2.2 2.4
January 1996	3.80/3.80 6.40/6.30	0.13/0.09 0.15/0.19	2.3 3.1

Table 2.2 Internal quality control results for HDL-cholesterol

1995

Date	Level (mmol/l) Target/Achieved	S.D. (mmol/l) Target/Achieved	C.V. (%) Achieved
March 1995	2.20/2.39	0.10/0.11	4.7
May	2.50/2.42	0.20//0.17	6.8
July	2.50/2.54	0.20/0.20	7.9
September	2.50/2.34	0.20/0.10	4.3
November	2.50/2.41	0.20/0.10	4.2
January 1996	2.50/2.19	0.20/0.09	4.0

Table 2.3 Internal quality control results for gamma gt

1995

Date	Level (iu/l) Target/Achieved	S.D. (iu/l) Target/Achieved	C.V. (%) Achieved
March 1995	28/28	1.50/1.20	4.4
	79/78	2.52/2.25	2.9
May	26/25	1.50/1.08	4.3
	136/138	2.80/2.48	1.8
July	25/24	1.50/1.38	5.7
	137/134	2.80/2.70	2.0
September	25/24	1.8/1.40	5.7
	137/134	3.8/3.40	2.5
November	25/25	1.8/1.70	6.7
	137/133	3.8/3.10	2.3
January 1996	25/24	1.8/1.40	5.9
	132/131	3.0/3.10	2.4

Table 2.4 Internal quality control results for ferritin

1995

Date	Level (ng/ml) Target/Achieved	S.D. (ng/ml) Target/Achieved	C.V. (%) Achieved
March 1995	60/63	8.0/4.7	7.5
	150/153	10.0/10.6	7.0
	295/299	21.0/22.4	7.5
May	60/60	8.0/5.9	9.9
	150/149	10.0/7.3	4.9
	295/293	21.0/11.9	4.1
July	60/58	8.0/3.2	5.5
	150/148	10.0/7.5	5.1
	295/311	21.0/17.2	5.5
September	60/60	8.0/3.8	6.3
	150/152	10.0/5.1	3.4
	295/300	21.0/13.7	4.6
November	60/62	8.0/2.55	4.2
	150/149	10.0/10.1	6.8
	295/286	21.0/15.2	5.3
January 1996	50/49	8.0/3.8	7.8
	127/134	10.0/7.6	5.7
	357/345	21.0/12.4	3.6

Table 2.5 External quality assessment results for total cholesterol

1995

Date	Scheme	Target value (mmol/l)	Assayed value (mmol/l)		
March 1995	RIQAS	3.25	3.50		
		4.38	4.60		
		4.93	5.20		
		5.36	5.50		
	UKNEQAS	3.21	3.30		
		4.60	4.70		
May	RIQAS	3.47	3.60		
		3.82	3.90		
		4.23	4.30		
		5.66	5.60		
	UKNEQAS	3.10	3.30		
		3.55	3.60		
		4.80	5.00		
		6.48	6.50		
		July	RIQAS	3.93	3.80
				4.64	4.50
5.54	5.50				
UKNEQAS	2.98		2.90		
	3.10		3.00		
	September		RIQAS	4.21	4.20
4.60		4.10			
5.55		5.30			
UKNEQAS		3.50	3.30		
		4.20	4.10		
		November	RIQAS	3.82	4.00
4.47	4.40				
5.62	5.60				
UKNEQAS	1.83		1.80		
	3.53		3.50		
	January 1996		RIQAS	3.84	3.80
4.65		4.60			
5.00		5.10			
7.37		7.50			
UKNEQAS		2.83	2.90		
		5.53	5.50		

Table 2.6 External quality assessment results for HDL-cholesterol

1995

Date	Scheme	Target value (mmol/l)	Assayed value (mmol/l)
March 1995	RIQAS	0.44	0.50
		0.59	0.80
		0.76	0.90
		0.77	0.90
May	RIQAS	0.50	0.70
		0.70	0.90
		0.90	1.10
	UKNEQAS	1.10	1.10
		1.50	1.60
July	RIQAS	0.59	0.80
		0.72	0.90
		1.00	1.10
September	RIQAS	0.69	0.80
		0.70	0.90
		0.96	1.10
	UKNEQAS	1.10	1.20
		1.30	1.40
November	RIQAS	0.63	0.80
		0.85	1.10
		0.88	1.10
		1.21	1.30
January 1996	RIQAS	0.62	0.70
		0.91	1.10
		1.01	1.20
		1.34	1.40
	UKNEQAS	1.25	1.50
		1.57	1.60

Table 2.7 External quality assessment results for gamma gt

1995

Date	Scheme	Target value (iu/l)	Assayed value (iu/l)
March 1995	RIQAS	23	24
		50	48
		99	98
		115	117
	UKNEQAS	57	58
		244	265
May	RIQAS	36	36
		37	40
		47	48
		144	144
		152	146
	UKNEQAS	23	24
		411	402
July	RIQAS	56	56
		89	86
		95	97
		144	144
	UKNEQAS	246	233
		249	260
September	RIQAS	11	154
		47	49
		90	88
		95	96
	UKNEQAS	47	48
		115	113
November	RIQAS	50	50
		80	82
		103	104
		153	156
	UKNEQAS	154	161
		407	404
January 1996	RIQAS	57	58
		103	102
		113	117
		200	201
	UKNEQAS	83	81
		131	131

Table 2.8 External quality assessment results for ferritin

1995

Date	Scheme	Target value (ng/ml)	Assayed value (ng/ml)
March 1995 ^a	UKNEQAS	37.1	32.0
		3382.0	>2250
May	UKNEQAS	18.0	14.0
		21.0	18.0
July	UKNEQAS	12.5	13.0
		54.0	57.0
September	UKNEQAS	38.0	38.0
		38.0	38.0
November	UKNEQAS	31.8	34.0
		32.1	36.0
January 1996	UKNEQAS	48.0	55.0
		101.9	106.0

^a For the purposes of the survey, a protocol was agreed for dilution of samples with high ferritin concentration, to enable results to be expressed as >2250 ng/mL. The EQA sample shown here was treated according to the agreed protocol; the target value of 3382 ng/mL would have been obtained from other laboratories carrying further dilutions.

Table 2.9 Internal quality control results for cotinine

1995

Date	Target/Achieved (ng/ml)	S.D. achieved (ng/ml)	C.V. achieved (%)
March 1995	0.5/0.47	0.06	12.15
	1.2/1.17	0.08	7.05
	5.0/5.01	0.13	2.54
	20.0/19.93	0.75	3.76
	100.0/100.82	2.81	2.79
	300.0/300.01	1.85	0.62
May	0.50/0.50	0.07	14.72
	1.2/1.14	0.13	11.02
	5.0/4.98	0.15	3.05
	20.0/20.33	0.70	3.43
	100.0/100.27	3.15	3.14
	300.0/300.03	3.61	1.20
July	0.5/0.53	0.14	26.57
	1.2/1.14	0.14	12.24
	20.0/20.53	0.88	4.30
	100.0/97.47	3.18	3.26
	600.0/604.89	23.41	3.87
	September	0.5/0.52	0.11
1.2/1.17		0.14	11.68
20.0/20.33		0.69	3.41
100.0/98.64		3.61	3.66
600.0/603.96		10.80	1.79
November		0.5/0.51	0.13
	1.2/1.12	0.13	11.84
	20.0/20.66	0.83	4.01
	100.0/100.45	3.83	3.81
	600.0/602.86	14.59	2.42
	January 1996	0.5/0.50	0.07
1.2/1.18		0.07	5.86
20.0/19.93		0.42	2.11
100.0/101.09		2.24	2.22
600.0/606.62		15.20	2.51

Table 2.10 Internal quality control results for haemoglobin

1995

Date	Target value (g/dl)	Mean assayed value (g/dl)	C.V. (%)
March 1995	5.85	5.87	1.1
	5.90	5.99	1.4
	13.50	13.50	0.9
	13.60	13.64	1.1
	17.65	17.75	0.7
	17.70	17.72	0.9
May	5.90	5.94	1.3
	5.80	5.66	1.6
	13.10	13.00	0.9
	13.50	13.40	1.6
	17.90	17.66	1.1
	18.00	17.58	0.9
July	6.00	6.06	2.0
	5.90	6.07	0.8
	13.00	13.23	0.8
	13.80	13.51	2.4
	17.70	17.15	2.0
	17.60	17.63	1.8
September	5.70	5.91	1.1
	5.90	6.01	1.0
	13.30	13.53	1.1
	13.00	13.19	0.9
	17.70	18.39	1.2
	18.40	18.39	1.0
November	5.90	6.00	1.6
	13.40	13.45	1.6
	17.70	17.59	1.5
	18.20	18.16	0.4
January 1996	5.80	5.98	1.2
	5.90	6.06	1.2
	13.10	13.25	1.0
	13.70	13.71	1.1
	17.60	17.42	0.7
	18.10	18.00	0.5

Table 2.11 Internal quality control results for fibrinogen

1995

Date	Target value (g/l)	Mean assayed value (g/l)	C.V. (%)
March 1995	2.73	2.72	6.0
May	2.70	2.90	6.9
July	2.62	2.66	6.6
September	2.62	2.81	6.4
November	2.62	2.73	6.8
January 1996	2.64	2.76	8.5

Table 2.12 External quality assessment results for haemoglobin

1995

Date	Scheme	Target value (g/dl)	Assayed value (g/dl)
March 1995	UKNEQAS	11.9 12.1	12.0 12.20
May	UKNEQAS	12.8 13.6	12.9 13.6
July	UKNEQAS	11.2 11.9	11.2 11.6
September	UKNEQAS	12.7 12.3	12.8 12.3
November	UKNEQAS	11.8 10.8	11.9 10.8
January 1996	UKNEQAS	13.0 12.4	13.1 12.3

Table 2.13 External quality assessment results for fibrinogen

1995

Date	Scheme	Target value (g/l)	Assayed value (g/l)
July 1995	UKNEQAS	4.40	4.70
October	UKNEQAS	2.60	2.47

Table 2.14 Reference intervals for analytes in 1995 Scottish Health Survey

1995

Analyte	Sex	Reference interval	Units
Ferritin	M/F	15-300	ng/ml
Total cholesterol	M/F	3.5 - 6.5	mmol/l
HDL cholesterol	M/F	>0.9	mmol/l
Gamma gt	M: F:	7 - 42 6 - 22	iu/l
Haemoglobin	M: F:	13.0 - 18.0 11.5 - 16.5	g/dl
Fibrinogen	M/F	1.8 - 4.7	g/l

Table 2.15 Internal quality control for vitamin C

1995

($\mu\text{mol/l}$)	Achieved mean	S.D.	C.V.(%)	Targeted mean
Standard QC stored in liquid nitrogen	74.23	5.056	6.8	75.15
Standard QC (EPIC1)	31.67	0.793	2.5	32.00
Standard QC (EPIC2)	50.33	0.793	1.6	49.50
Serum QC	93.03	1.763	1.9	93.40
Serum QC	73.94	2.099	2.8	73.28

Table 2.16 Internal quality control for vitamins A and E and carotenoids

1995

($\mu\text{mol/l}$)	Achieved mean	S.D.	C.V.(%)	Targeted mean
Retinol	1.61	0.094	5.8	1.56
Lutein/Zeaxanthin	0.15	0.014	9.7	0.13
γ -tocopherol	1.46	0.097	6.6	1.41
α -cryptoxanthin	0.07	0.007	10.7	0.06
α -tocopherol	18.76	1.004	5.3	18.10
β -cryptoxanthin	0.14	0.012	8.5	0.13
α -carotene	0.13	0.014	10.7	0.15
β -carotene	0.55	0.058	10.5	0.65
Lycopene	0.31	0.040	12.8	0.34

APPENDIX A: FIELDWORK DOCUMENTS



Stage 1 leaflet - Interviewer

Stage 2 leaflet - Nurse

CAPI Questionnaire

Show Cards

Self-completion booklet for 16-17 year olds

Self-completion booklet for 18-64 year olds

Nurse Schedule

Consent Booklet



THE SCOTTISH HEALTH SURVEY

*T*his survey is being carried out for the Scottish Office Home and Health Department, by SCPR (Social & Community Planning Research), an independent research institute, and the Department of Epidemiology and Public Health at UCL (University College London).

This leaflet tells you more about the survey and why it is being done.

■ *What is it about?*

The Scottish Office has for some time been concerned about the lack of information available about the health of the population in Scotland. Better and more complete information will be very valuable in developing ways of improving both people's health and the provision of health services. That is why the Scottish Office commissioned this health survey

The survey is concentrating on heart disease and related behaviour such as smoking, drinking and exercise. The survey will also collect some physical measurements such as height and weight, blood pressure, respiration and, if you agree, a blood sample, all of which are important to health. Some personal details are needed to interpret this information such as age, sex and employment. The Scottish Office is particularly interested in having this information because at the present time Scotland has one of the highest rates of heart disease in the world.

■ *Why have we come to your household?*

*T*o visit every household in Scotland would take too long and cost too much money. Therefore we select a sample of addresses from the Postcode Address File. The Postcode Address File is compiled by the Post Office and lists all addresses to which mail is delivered. We choose the addresses in a way that gives everyone the same chance of being selected: this is how your address was selected. Once an address is selected, we randomly select one person aged between 16 and 64 at that address. We cannot substitute one address with another, nor one individual with anyone else. If we did so, we could not be sure that all types of people were represented in the survey.

Some people **think** that they are not typical enough to be of any help in the survey, or that they are very different from other people and would distort the findings. On the contrary, it is essential to include such people. The community consists of a great many different types of people and we need to represent them all in our sample survey. It will therefore give better results if everyone we approach agrees to take part, and we hope you will.

■ *Is the survey confidential?*

Yes. We take very great care to protect the confidentiality of the information we are given. The survey results will not be in a form which can reveal your or your family's identity. This will only be known to the SCPR and UCL research teams.

If you agree, however, your name, address and date of birth, but no other information, will be passed to National Health Service registers. This would help us if we wanted to follow you up in future.

■ *Is the survey compulsory?*

No. In all our surveys we rely on voluntary co-operation. The success of the survey depends on the goodwill and co-operation of those asked to take part. The more people who do take part the more representative and accurate the results will be. However, you are free to withdraw from any part of the survey at any time.

■ *Do I get anything from the survey?*

If you wish, you may have a record of your physical measurements and blood pressure. Also, if you wish, results from the blood pressure and blood sample will be sent to your GP who will be able to interpret them for you and give you advice if necessary. Your GP may also want to include the results in any future report about you.

Other benefits from the survey will be indirect and in due course will come via any improvements in health and in health services which result from the survey.

■ *What will happen next?*

After the interview, if you agree, the interviewer will arrange for a qualified nurse to visit - at a time convenient for you - so that some measurements can be taken. The nurse will measure your blood pressure and respiration, your waist and hip circumferences, and if you agree, take a blood sample. The analysis of all the measurements and blood samples will tell us a lot about the health of the population.

We hope this leaflet answers some of the questions you might have, and that it shows the importance of the survey. If you have any questions please do not hesitate to ring one of the contacts listed below.

Your co-operation is very much appreciated.

Dr. Wei Dong
Department of Epidemiology
and Public Health
UCL Medical School
1-19 Torrington Place
London WC1E 6BT

Tel: 0171 391 1730

Becky Gray
SCPR
35 Northampton Square
London
EC1V 0AX

Tel: 0171 250 1866



THE SCOTTISH HEALTH SURVEY

This survey is being carried out for the Scottish Office, by SCPR (Social & Community Planning Research) and the Department of Epidemiology and Public Health at UCL (University College London). You have already participated in the first stage of the survey which consisted of an interview and some measurements (height and weight).

This leaflet tells you more about the second stage of the survey.

THE SECOND STAGE

A nurse will ask you some further questions and will ask permission to take some measurements. The measurements are described below. You need not have any measurements taken if you do not wish but, of course, we very much hope you will agree to them as they are a very important part of this survey. If the survey results are to be useful to the Scottish Office, it is important that we obtain information from all types of people in all states of health.

MEASUREMENTS

■ *Blood pressure*

High blood pressure can be a problem. However, blood pressure is difficult to measure accurately. A person's blood pressure is influenced by age and can vary from day to day and moment to moment with emotion, meals, tobacco, alcohol, medication, temperature and pain. Although the nurse can tell you your blood pressure and give an indication of its meaning, a diagnosis cannot be made on a measurement taken on a single occasion. Blood pressure is measured using an inflatable cuff that goes around the upper arm.

■ *Lung function*

We would like to measure the amount of air you can breathe out of your lungs (FVC) and how quickly you can get it out (FEV). This involves blowing into a tube. The amount of air you are able to breathe out depends partly upon your height, your age, and how fit you are. Your result can only be interpreted in the light of these factors. These measures will give the Scottish Office valuable information on whether the population is becoming more healthy or not.

■ *Waist-to-hip ratio*

Lately there has been much discussion about the relationship between weight and health. We have already recorded your weight and height but another important factor is thought to be how weight is distributed over the body. The ratio of your waist to hip measurements is most useful for assessing this.

■ *Blood sample*

We would be very grateful if you would agree to provide us with a sample of blood. This is an important aspect of the survey, as the analysis of the blood samples will tell us a lot about the health of the population. You are, of course, free to choose not to give a blood sample.

This part of the survey involves taking a small amount of blood from your arm by a qualified nurse (no more than 25ml). The blood sample will be sent to a medical laboratory to determine the amounts of the following: total cholesterol, HDL cholesterol, fibrinogen, haemoglobin, ferritin, Gamma GT and serum cotinine. Some of the blood samples will also be tested for vitamins and fatty acids. A small amount of blood will be stored for future analysis. The sample will **not** be tested for viruses such as the HIV (AIDS) virus.

Cholesterol is a type of fat present in the blood, related to our diet. Too much cholesterol in the blood increases the risk of heart disease. But HDL cholesterol is a good type of cholesterol which is thought to be protective. Fibrinogen is a protein necessary for blood clotting and high levels are also associated with a higher risk of heart disease.

Haemoglobin is the red pigment in the blood which carries oxygen. A low level of haemoglobin in the blood is called anaemia. One reason for a low level of haemoglobin may be a shortage of iron. Ferritin is a measure of the body's iron stores.

Gamma GT is an enzyme present in the liver and its level in the blood can provide an indication of alcohol consumption and health of the liver. Serum cotinine is related to intake of cigarette smoke and is of particular interest to see whether non-smokers may have raised levels as a result of 'passive' smoking.

Vitamins are important for good health, and a lack of them can cause disorders. It is now thought that some vitamins might offer protection against certain diseases. Fatty acids reflect the type of fat eaten in the diet.

LETTING YOUR GP KNOW THE RESULTS

With your agreement we would like to send your blood pressure, lung function and blood sample results to your GP because we believe that this may help you to take steps to keep in good health. Your GP can interpret the results in the light of your medical history. We believe that this may help to improve your health.

If your results showed, for example, that your blood pressure or cholesterol levels were above what is usual for someone of your sex and age, your GP may wish to test you again. This may help to see whether you have any condition that would benefit from treatment. Often it is possible to reduce blood pressure or cholesterol levels by treatment or by changing your diet. It is for you and your GP to decide what is the best action to take, if any.

If the GP considers your results to be satisfactory then nothing further will be done.

Might there be implications for insurance cover?

If you agree to your results being sent to your GP then s/he may use them in medical reports about you. This may occur if you apply for a new life assurance policy or for a new job. Insurance companies may ask those who apply for new policies if they have had any medical tests. If so, the insurance company may ask if they can obtain a medical report from the GP. Because of the Access to Medical Reports Act 1988, an insurance company cannot ask your GP for a medical report on you without your permission. Having given your permission, you then have the right to see the report before your GP sends it to the insurance company and you can ask for the report to be amended if you consider it to be incorrect or misleading. The purpose of this report is for the company to judge whether to charge normal premiums, whether to charge higher premiums or whether, in exceptional circumstances, to turn down life insurance on account of the person's health.

Insurance companies look for a history of illness or factors affecting health and some things concern them more than others. While an insurance company could be influenced by the test results, one measurement from the survey is very unlikely by itself to affect the company's decision. Please remember that we are not testing for the AIDS virus (HIV) or for any other virus.

We believe that the chances of anyone being refused life insurance or being charged higher premiums on life insurance as a result of the survey are very small. Existing life insurance policies would **not** be affected in any way. We hope that you will be willing to have your results sent to your GP. If you have any questions please discuss them with the nurse.

ANSWERING OTHER QUESTIONS

We hope this leaflet answers many of the questions you might have. If you have others, please contact one of the people listed below.

Dr Wei Dong
Department of Epidemiology
and Public Health
UCL Medical School
1-19 Torrington Place
London WC1E 6BT
Tel: 0171 391 1730

Ms Becky Gray
SCPR
35 Northampton Square
London EC1V 0AX
Tel: 0171 250 1866

Thank you very much for your help with this important survey.

on behalf of

The Scottish Office ■ Home and Health Department



THE SCOTTISH HEALTH SURVEY 1995

CAPI QUESTIONNAIRE DOCUMENTATION

INTRODUCTION

All:**Area**

Sample Point Number.

Range : 1..997

Address

Address Number.

Range : 1..47

Hhold

Household Number.

Range : 1..3

First

INTERVIEWER: FOR INFORMATION... You are in the questionnaire for

Area No.: (*Area number*)Address No: (*Address number*)Household No: (*Household number*)**IntDate**

PLEASE ENTER DATE OF INTERVIEW

Date

StrtTime

INTERVIEWER: PLEASE ENTER THE CURRENT TIME. USE A 24 HOUR CLOCK.

Range : 0..23.59

NAdults

I would like to start by asking some details about your household. Including yourself, how many people are there aged 16 or older in this household? (HOUSEHOLD = PEOPLE SHARING AT LEAST 1 MEAL A DAY, OR SHARING LIVING ACCOMMODATION)

Range : 1..12

NChild

How many children aged under 16 live in this household?

Range : 0..10

TotPersSo altogether, there is/are (*number of people recorded*) people in your household?

1 Yes

2 No

Name

INTERVIEWER: TYPE IN FORENAME OF RESPONDENT

FORENAME

Text : Maximum [15] characters

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

If 2 or more adults in household:What is the name of the (*nth person*) aged 16 or over in the household?**If Person Number > 1:****ReltoRsp**What is (*NAME'S*) relationship to you?

- 01 Wife
- 02 Husband
- 03 Partner
- 04 Child (incl. step or adopted or non-related foster)
- 05 Son-in-law or daughter-in-law
- 06 Parent/Step-parent
- 07 Parent-in-law
- 08 Brother or sister (including step)
- 09 Grandchild
- 10 Other relative by blood, marriage or adoption
- 11 Non-relative

For all adults in household:**Sex**INTERVIEWER: CODE (*NAME'S*) SEX

- 1 Male
- 2 Female

If Person Number=1:**DoB**

What is your date of birth?

ENTER DAY OF MONTH IN NUMBERS. NAME OF MONTH IN WORDS (FIRST THREE LETTERS).

YEAR IN NUMBERS. Eg. 2 Jan 72

For all adults in household:**Age**Can I check, what was *your*(*NAME'S*) age last birthday?

Range : 0..120

MarStatWhat is *your*(*NAME'S*) marital status... READ OUT AND CODE FIRST TO APPLY...

- 1 ...married.
- 2 co-habiting.
- 3 widowed.
- 4 divorced.
- 5 separated.
- 6 or single and never married?

If NChild=>1, then for each child:**Name**Enter name of (*next*) eldest child (aged under 16)

Text : Maximum [15] characters

ReltoRspWhat is (*NAME'S*) relationship to you?

- 01 Wife
- 02 Husband
- 03 Partner
- 04 Child (incl. step or adopted or non-related foster)
- 05 Son-in-law or daughter-in-law
- 06 Parent/Step-parent
- 07 Parent-in-law
- 08 Brother or sister (including step)
- 09 Grandchild
- 10 Other relative by blood, marriage or adoption
- 11 Non-relative

SexINTERVIEWER: CODE (*NAME'S*) SEX

- 1 Male
- 2 Female

AgeCan I check, what was (*NAME'S*) age last birthday?

IF LESS THAN ONE YEAR, CODE 0

Range:0...15

GENERAL HEALTH**All:****GenHlth**

Now I'd like to ask you some questions about your health. How is your health in general? Would you say it is

...READ OUT...

- 1 ...very good.
- 2 good.
- 3 fair.
- 4 bad, or
- 5 very bad?

LongIll

Do you have any long-standing illness, disability or infirmity? By long-standing I mean anything that has troubled you over a period of time, or that is likely to affect you over a period of time?

- 1 Yes
- 2 No

If LongIll (or More)=Yes:**IllsM (Maximum of 6 illnesses)**

What (else) is the matter with you?

INTERVIEWER: RECORD FULLY. PROBE FOR DETAIL.

Text. Maximum [50] characters

Variable names for text are IllsM1 - IllsM6**Limit**

Does this limit your activities in any way?

- 1 Yes
- 2 No

More

Anything else?

- 1 Yes
- 2 No

Illcod01 - Illcod45 Type of longstanding illness**Up to 6 2-digit entries coded from IllsM1-IllsM6****All:****LastFort**Now I'd like you to think about the two weeks ending yesterday. During those two weeks did you have to cut down on any of the things you usually do about the house (*or at school/work*) or in your free time because of (*a condition you have just told me about or some other*) illness or injury?

- 1 Yes
- 2 No

If LastFort=Yes:**DaysCut**

How many days was this in all during these 2 weeks, including Saturdays and Sundays?

Range: 1..14

SYMPTOMS OF THE CHEST**All:****Chest**

I am now going to ask you some questions mainly about symptoms of the chest. Do you have any pain or discomfort in your chest?

- 1 Yes
- 2 No

If Chest=Yes:**Uphill**

Do you get it when you walk uphill or hurry?

- | | | |
|---|----------|-------------------------------|
| 1 | Yes | Yes |
| 2 | No | No |
| 3 | SomeTime | Sometimes/Occasionally |
| 4 | NoUp | Never walks uphill or hurries |
| 5 | No Walk | (Cannot walk) |

If Uphill=Sometime:**MostI**

Does this happen on most occasions?

- 1 Yes
- 2 No

If Uphill=Yes/Sometime/NoUp:**OrdPace**

Do you get it when you walk at an ordinary pace on the level?

- | | | |
|---|----------|--|
| 1 | Yes | Yes |
| 2 | No | No |
| 3 | SomeTime | Sometimes/Occasionally |
| 4 | NoPace | Never walks at an ordinary pace on the level |

If OrdPace=SomeTime:

Most2

Does this happen on most occasions?

- 1 Yes
- 2 No

If Uphill=Yes or OrdPace=Yes or Most1=Yes or Most2=Yes:

WalkDo

What do you do if you get it while you are walking? Do you stop, slow down or carry on?

IF RESPONDENT UNSURE. PROBE: What do you do on most occasions?

- 1 Stop Stop
- 2 SlowDown Slow down
- 3 CarryOn Carry on

If WalkDo=Stop/SlowDown:

PainAway

If you stand still does the pain go away or not?

IF RESPONDENT UNSURE. PROBE: What happens to the pain on most occasions?

- 1 Away Pain goes away
- 2 Stays Pain doesn't go away

If PainAway=Away:

SoonAway

How soon does the pain go away? Does it go in ... READ OUT ...

- 1 TenLess . 10 minutes or less.
- 2 MoreTen or more than 10 minutes?

If SoonAway=TenLess:

ShowPain {multicode} Showpai1 - Showpai6

Will you show me where you get this pain or discomfort?

INTERVIEWER: USE CARD A TO HELP CODE POSITION OF PAIN OR DISCOMFORT

CODE ALL THAT APPLY. PROBE: Where else?

- 1 Sternum (upper or middle)
- 2 Sternum lower
- 3 Left anterior chest
- 4 Left arm
- 5 Right anterior chest
- 6 Right arm
- 7 (Somewhere else)

If Chest=Yes:

SevPain

Have you ever had a severe pain across the front of your chest lasting for half an hour or more?

- 1 Yes
- 2 No

If SevPain=Yes:

DocSee

Did you see a doctor because of this pain?

- 1 Yes
- 2 No

If DocSee=Yes:

DocWhat {multicode} DocWhat1 - DocWhat2

What did the doctor say it was?

CODE ALL THAT APPLY

- 1 Angina
- 2 Heart attack
- 3 Did not say
- 4 Other

All:

ECGEver

Have you ever had an electrical recording of your heart (ECG) performed?

- 1 Yes
- 2 No

If ECGEver=Yes:

WhereECG {multicode} Whereec1 - Whereec4

Where did you have it? CODE ALL THAT APPLY. PROBE: Where else?

- 1 Hospital (inpatient)
- 2 Hospital (outpatient)
- 3 GP Surgery
- 4 Other

WhenECG

How long ago was this?

TYPE IN NUMBER OF YEARS AGO. IF MORE THAN ONE, TAKE LAST OCCASION.

LESS THAN ONE YEAR = 0.

Range : 0, 64

CARDIOVASCULAR PROBLEMS

All:

Flegm

Do you usually bring up any phlegm from your chest, first thing in the morning in winter?

- 1 Yes
- 2 No

If Flegm=No/Don't know:

FleDa

Do you usually bring up any phlegm from your chest, during the day or at night in the winter?

- 1 Yes
- 2 No

If Flegm=Yes or FleDa=Yes:

FreFl

Do you bring up phlegm like this on most days for as much as three months each year?

- 1 Yes
- 2 No

If Uphill<NoWalk:**SoBUp**

Are you ever troubled by shortness of breath when hurrying on level ground or walking up a slight hill?

- | | | |
|---|-------|--------------------------------|
| 1 | Yes | Yes |
| 2 | No | No |
| 3 | NevWk | Never walks up hill or hurries |
| 4 | NotWk | Cannot walk |

If SoBUp = Yes/NevWk/Don't know:**SoBAG**

Do you get short of breath walking with other people of your own age on level ground?

- | | |
|---|--|
| 1 | Yes |
| 2 | No |
| 3 | Never walks with people of own age on level ground |

If SoBAG=Yes/No:**SoLev**

Do you have to stop for breath when walking at your own pace on level ground?

- | | |
|---|-----|
| 1 | Yes |
| 2 | No |

All:**Wheeze**

Have you had attacks of wheezing or whistling in your chest at any time in the last 12 months?

- | | |
|---|-----|
| 1 | Yes |
| 2 | No |

ShBrth

Have you at any time in the past 12 months been woken at night by an attack of shortness of breath?

- | | |
|---|-----|
| 1 | Yes |
| 2 | No |

WhzAttk

Have you ever had attacks of shortness of breath with wheezing?

- | | |
|---|-----|
| 1 | Yes |
| 2 | No |

If WhzAttk=Yes:**Normal**

Is/Was your breathing absolutely normal between attacks?

- | | |
|---|-----|
| 1 | Yes |
| 2 | No |

If Uphill<>NoWalk and SoBUp <> NotWk:**LegPain**

Do you get a pain or discomfort in either of your legs which comes on when you walk?

INTERVIEWER, EXCLUDE NON-CARDIOVASCULAR PROBLEMS SUCH AS RHEUMATISM AND SCIATICA

- | | |
|---|-------------|
| 1 | Yes |
| 2 | No |
| 3 | Cannot walk |

If LegPain=Yes:**StanSit**

Does this pain ever begin when you are standing still or sitting?

- | | |
|---|-----|
| 1 | Yes |
| 2 | No |

WalkUp

Do you get it if you walk uphill or hurry?

- | | |
|---|-------------------------------|
| 1 | Yes |
| 2 | No |
| 3 | Never walks uphill or hurries |

LevelOrd

Do you get it when you walk at an ordinary pace on the level?

- | | |
|---|--|
| 1 | Yes |
| 2 | No |
| 3 | Never walks at an ordinary pace on the level |

Still

What happens if you stand still? Does the pain usually ...READ OUT

- | | |
|---|--|
| 1 | ...continue for more than 10 minutes. |
| 2 | ...or disappear in 10 minutes or less? |

WhereP [multicode] Wherep1-Wherep3

Where do you get this pain or discomfort?

CODE ALL THAT APPLY.

- | | |
|---|-------------------|
| 1 | Calf muscle |
| 2 | Thigh or buttocks |
| 3 | Other area |

All:**CVD1**

You have already talked to me about your health, and now I would like to go on and talk in more detail about some particular conditions. (They may include some of the things you have already mentioned).

Do you now have, or have you ever had, ...READ OUT... high blood pressure (sometimes called hypertension)?

- | | |
|---|-----|
| 1 | Yes |
| 2 | No |

CVD2

Have you ever had angina?

- | | |
|---|-----|
| 1 | Yes |
| 2 | No |

CVD3

Have you ever had a heart attack (including myocardial infarction or coronary thrombosis)?

- | | |
|---|-----|
| 1 | Yes |
| 2 | No |

CVD4

And do you now have, or have you ever had...READ OUT...

...a heart murmur?

- | | |
|---|-----|
| 1 | Yes |
| 2 | No |

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

CVD5

...abnormal heart rhythm/beat?

- 1 Yes
- 2 No

CVD6

...any other heart trouble?

- 1 Yes
- 2 No

If CVD6=Yes:

CVD0th

What is that condition?

INTERVIEWER: RECORD FULLY. PROBE FOR DETAIL.

Text : Maximum [50] characters

Backcoded into CVD1-8 if appropriate

All:

CVD7

Have you ever had a stroke?

- 1 Yes
- 2 No

CVD8

Do you now have, or have you ever had diabetes?

- 1 Yes
- 2 No

If CVD2=Yes:

DocTold2

You said that you had angina. Were you told by a doctor that you had angina?

- 1 Yes
- 2 No

If DocTold2=Yes:

AgeTold2

Approximately how old were you when you were first told by a doctor that you had angina?

TYPE IN AGE IN YEARS

Range : 0..64

PastYr2

Have you had angina during the past 12 months?

- 1 Yes
- 2 No

If CVD3=Yes:

DocTold3

Were you told by a doctor that you had a heart attack (including myocardial infarction or coronary thrombosis)?

- 1 Yes
- 2 No

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

If DocTold3=Yes:

AgeTold3

Approximately how old were you when you were first told by a doctor that you had a heart attack (including myocardial infarction and coronary thrombosis)?

TYPE IN AGE IN YEARS

Range : 0..64

PastYr3

Have you had a heart attack (including myocardial infarction and coronary thrombosis) during the past 12 months?

- 1 Yes
- 2 No

If CVD5=Yes:

DocTold5

Were you told by a doctor that you had abnormal heart rhythm/beat?

- 1 Yes
- 2 No

If DocTold5=Yes:

AgeTold5

Approximately how old were you when you were first told by a doctor that you had abnormal heart rhythm/beat?

TYPE IN AGE IN YEARS IF BORN WITH IT, CODE 0

Range : 0..64

PastYr5

Have you had abnormal heart rhythm/beat during the past 12 months?

- 1 Yes
- 2 No

If CVD6=Yes:

DocTold6

Were you told by a doctor that you had (other heart trouble)?

- 1 Yes
- 2 No

If DocTold6=Yes:

AgeTold6

Approximately how old were you when you were first told by a doctor that you had (other heart trouble)?

TYPE IN AGE IN YEARS IF BORN WITH IT, CODE 0

Range : 0..64

PastYr6

Have you had (other heart trouble) during the past 12 months?

- 1 Yes
- 2 No

If CVD7=Yes:

DocTold7

Were you told by a doctor that you had a stroke?

- 1 Yes
- 2 No

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

If DocTold7=Yes:

AgeTold7

Approximately how old were you when you were first told by a doctor that you had a stroke?

TYPE IN AGE IN YEARS

Range : 0..64

PastYr7

Have you had a stroke during the past 12 months?

- 1 Yes
- 2 No

If CVD2/3/5/6/7=Yes:

Medicin

Are you currently taking any medicines, tablets or pills because of your (*heart condition/stroke*)?

- 1 Yes
- 2 No

If CVD2/3/5/6=Yes:

Surgery

Have you ever undergone any surgery or operation because of your heart condition?

- 1 Yes
- 2 No

If Surgery=Yes:

WhenSur

How long ago was this? TYPE IN NUMBER OF YEARS AGO. IF MORE THAN ONE OPERATION, TAKE LAST OCCASION. LESS THAN ONE YEAR = 0.

Range : 0..64

If CVD2/3/5/6=Yes:

Waiting

Can I just check, are you currently on a waiting list for any such surgery or operation?

- 1 Yes
- 2 No

If CVD2/3/5/6/7=Yes:

OthTrt

Are you currently receiving any (*other*) treatment or advice because of your (*heart condition/stroke*)?

INCLUDE REGULAR CHECK-UPS

- 1 Yes
- 2 No

If OthTrt=Yes:

WhatOth [*multicode*] **Whatoth1-Whatoth3**

What (*other*) treatment or advice are you currently receiving because of your (*heart condition/stroke*)?

PROBE: What else? CODE ALL THAT APPLY

- 1 Special diet
- 2 Regular check-up with GP/hospital/clinic
- 3 Other (RECORD AT NEXT QUESTION)
- 4 Taking medication

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

If WhatOth=Other:

WhatOSp

PLEASE SPECIFY

Text: Maximum [50] characters

Backcoded into WhatOth

If CVD1=Yes:

DocBP

You mentioned that you have had high blood pressure. Were you told by a doctor or nurse that you had high blood pressure?

- 1 Yes
- 2 No

If DocBP=Yes and Sex=Female:

PregBP

Can I just check, were you pregnant when you were told that you had high blood pressure?

- 1 Yes
- 2 No

If PregBP=Yes:

OthBP

Have you ever had high blood pressure apart from when you were pregnant?

- 1 Yes
- 2 No

If DocBP=Yes and OthBP<>No:

AgeBP

Approximately how old were you when you were first told by a doctor or nurse that you had high blood pressure?

ENTER AGE IN YEARS:

Range : 0..64

MedBP

Are you currently taking any medicines, tablets or pills for high blood pressure?

- 1 Yes
- 2 No

If MedBP=No/Don't know/Refusal:

BPstill

ASK OR RECORD: Do you still have high blood pressure?

- 1 Yes
- 2 No

EverMed

Have you ever taken medicines, tablets, or pills for high blood pressure in the past?

- 1 Yes
- 2 No

If EverMed=Yes:

StopMed [multicode] **StpMed1-StpMed2**

Why did you stop taking (medicines/tablets/pills) for high blood pressure? PROBE: What other reason?

TAKE LAST OCCASION. CODE ALL THAT APPLY

- 1 Doctor advised me to stop due to: - improvement
- 2 - lack of improvement
- 3 - other problem
- 4 Respondent decided to stop because: - felt better
- 5 - other reason

If DocBP=Yes and OthBP<>No:

OthAdv

Are you receiving any (other) treatment or advice because of your high blood pressure?

INCLUDE REGULAR CHECK-UPS.

- 1 Yes
- 2 No

If OthAdv=Yes:

WhatTrt [multicode] **WhatTrt1-WhatTrt4**

What (other) treatment or advice are you currently receiving because of your high blood pressure?

PROBE: What else? CODE ALL THAT APPLY

- 0 *Advised to stop smoking*
- 1 Blood pressure monitored by GP/nurse
- 2 Advice or treatment to lose weight
- 3 Blood tests
- 4 Other (RECORD AT NEXT QUESTION)
- 5 *Lifestyle in general*
- 6 *Reduce stress*
- 7 *Dietary advice*

If WhatTrt=Other:

WhatTSp

PLEASE SPECIFY...

Text : Maximum [50] characters

Backcoded into **WhatTrt**

If CVD8=Yes:

Diabetes

Were you told by a doctor that you had diabetes?

- 1 Yes
- 2 No

If Diabetes=Yes and Sex=Female:

DiPreg

Can I just check, were you pregnant when you were told that you had diabetes?

- 1 Yes
- 2 No

If DiPreg=Yes:

DiOth

Have you ever had diabetes apart from when you were pregnant?

- 1 Yes
- 2 No

If Diabetes=Yes and DiOth<>No:

DiAge

Approximately how old were you when you were first told by a doctor that you had diabetes?

ENTER AGE IN YEARS:

Range : 0..64

Insulin

Do you currently inject insulin for diabetes?

- 1 Yes
- 2 No

DiMed

Are you currently taking any medicines, tablets or pills (other than insulin injections) for diabetes?

- 1 Yes
- 2 No

OthDi

Are you currently receiving any (other) treatment or advice for diabetes?

INCLUDE REGULAR CHECK-UPS. INCLUDE DIETARY TREATMENT/ADVICE

- 1 Yes
- 2 No

If OthDi=Yes:

OtherDi [multicode] **OtherDi1-OtherDi3**

What (other) treatment or advice are you currently receiving for diabetes?

PROBE: What else? CODE ALL THAT APPLY

- 1 Special diet
- 2 Regular check-up with GP/hospital/clinic
- 3 Other (RECORD AT NEXT QUESTION)

If OtherDi=Other:

WhatDSp

PLEASE SPECIFY...

Text : Maximum [50] characters

Backcoded into **OtherDi**

If CDV4=Yes:

Murmur

You mentioned that you have had a heart murmur. Were you told by a doctor that you had a heart murmur?

- 1 Yes
- 2 No

If Murmur=Yes and Sex=Female:

PregMur

Can I just check, were you pregnant when you were told that you had a heart murmur?

- 1 Yes
- 2 No

If PregMur=Yes:

NoPregM

Have you ever had a heart murmur apart from when you were pregnant?

- 1 Yes
- 2 No

If Murmur=Yes and NoPregM<=No:

AgeMur

Approximately how old were you when you were first told by a doctor that you had a heart murmur?

ENTER AGE IN YEARS. IF BORN WITH IT ENTER 0

Range 0...64

MurYr

Have you had a heart murmur during the past twelve months?

- 1 Yes
- 2 No

MedMur

Are you currently taking any medicines, tablets or pills because of your heart murmur?

- 1 Yes
- 2 No

SurgMur

Have you ever undergone any surgery or operation because of your heart murmur?

- 1 Yes
- 2 No

If SurgMur=Yes:

LongMur

How long ago was this?

ENTER NUMBER OF YEARS AGO. IF MORE THAN ONE OPERATION, TAKE LAST OCCASION. LESS THAN ONE YEAR AGO = 0.

Range : 0, 64

If Murmur=Yes and NoPregM<=No:

WaitMur

Can I just check, are you currently on a waiting list for any such surgery or operation?

- 1 Yes
- 2 No

OthMur

Are you currently receiving any (*other*) treatment or advice because of your heart murmur?

INCLUDE REGULAR CHECK-UPS

- 1 Yes
- 2 No

If OthMur=Yes:

MurOth

What (*other*) treatment or advice are you currently receiving because of your heart murmur?

INTERVIEWER: RECORD FULLY. PROBE FOR DETAIL.

Text : Maximum (50) characters

USE OF HEALTH SERVICES

If any CVD1/2/3/4/5/6/7/8=Yes (any CVD condition):

DocTalk

During the 2 weeks ending yesterday, apart from any visit to a hospital, have you talked to a doctor on your own behalf, either in person or by telephone?

EXCLUDE CONSULTATIONS MADE ON BEHALF OF OTHERS.

- 1 Yes
- 2 No

If DocTalk=Yes:

DocNum

How many times have you talked to a doctor in these 2 weeks?

ENTER NUMBER

Range : 0..14

Consul [*multicode*] **Consul1-Consul3**

\$TEXT about your (\$CONDITION/S) (CODE ALL THAT APPLY)

- 01 No
- 02 Yes, about: high blood pressure
- 03 angina
- 04 heart attack
- 05 heart murmur
- 06 abnormal heart rhythm
- 07 other heart trouble
- 08 stroke
- 09 diabetes

If DocNum>1, then \$TEXT= Were any of these consultations

If DocNum=1, then \$TEXT= Was this consultation

\$CONDITION/S= high blood pressure/angina/heart attack/heart murmur/abnormal heart rhythm/other heart trouble/stroke/diabetes

If DocTalk <=Yes or Consul=No:

LastDoc

Apart from any visit to a hospital, when was the last time you talked to a doctor on your own behalf about your (\$CONDITION/S)? PROMPT IF NECESSARY

- 1 Week2 Less than 2 weeks ago
- 2 Wk2Mth1 2 weeks ago but less than a month ago
- 3 Mth1Mth3 1 month ago but less than 3 months ago
- 4 Mth3Mth6 3 months ago but less than 6 months ago
- 5 Mth6Yr1 6 months ago but less than 1 year ago
- 6 YrPlus 1 year or more ago
- 7 NoDoc Never consulted a doctor

If (LastDoc in (WR2Mh1...YrPlus) and (more than one CVD condition):

ConCon [multicode] **Concon1-Concon4**

Which condition was the consultation about? CODE ALL THAT APPLY

- 01 High blood pressure
- 02 Angina
- 03 Heart attack
- 04 Heart murmur
- 05 Abnormal heart rhythm
- 06 Other heart trouble
- 07 Stroke
- 08 Diabetes

If any CVD1/2/3/4/5/6/7/8=Yes (any CVD condition):

OutPat

During the last 12 months, that is since (date 12 months ago), did you attend hospital as an out-patient, day patient or casualty?

- 1 Yes
- 2 No

If OutPat=Yes:

WhyOutP

Was this because of your (CONDITIONS)?

- 1 Yes
- 2 No

If any CVD1/2/3/4/5/6/7/8=Yes (any CVD condition):

InPat

During the last 12 months, that is since (date 12 months ago), have you been in hospital as an in-patient, overnight or longer?

- 1 Yes
- 2 No

If InPat=Yes:

WhyInP

Was this because of your (CONDITIONS)?

- 1 Yes
- 2 No

CONDITIONS= high blood pressure/angina/heart attack/heart murmur/abnormal heart rhythm/other heart trouble/stroke/diabetes

If CVD1-CVD8 all=No (no CVD conditions):

DocTalkN

During the 2 weeks ending yesterday, apart from any visit to a hospital, have you talked to a doctor on your own behalf, either in person or by telephone?

EXCLUDE CONSULTATIONS MADE ON BEHALF OF OTHERS.

- 1 Yes
- 2 No

If DocTalkN=Yes:

DocNumN

How many times have you talked to a doctor in these 2 weeks?

ENTER NUMBER

Range : 0..14

If DocTalkN<>Yes:

LastDocN

Apart from any visit to a hospital, when was the last time you talked to a doctor on your own behalf? PROMPT

IF NECESSARY

- 1 Less than 2 weeks ago
- 2 2 weeks ago but less than a month ago
- 3 1 month ago but less than 3 months ago
- 4 3 months ago but less than 6 months ago
- 5 6 months ago but less than 1 year ago
- 6 1 year or more ago
- 7 Never consulted a doctor

If CVD1-CVD8 all=No (no CVD conditions):

OutPatN

During the last 12 months, that is since (date 12 months ago), did you attend hospital as an out-patient, day-patient or casualty?

- 1 Yes
- 2 No

InPatN

During the last 12 months, that is since (date 12 months ago), have you been in hospital as an in-patient, overnight or longer?

- 1 Yes
- 2 No

All:

BPMeas

May I just check, have you ever had your blood pressure measured by a doctor or nurse?

- 1 Yes
- 2 No

If BPMeas=Yes:

LastBP

When was the last time your blood pressure was measured by a doctor or nurse? Was it ... READ OUT ...

- 1 ...during the last 12 months,
- 2 at least a year but less than 3 years ago,
- 2 at least 3 years but less than 5 years ago,
- 4 or 5 years ago or more?

NormBP

Thinking about the last time your blood pressure was measured, were you told it was ... READ OUT ...

- 1 Normal ...normal (alright/fine),
- 2 High higher than normal,
- 3 Low lower than normal,
- 4 NoTold or were you not told anything?

If NormBP=High and CVD1<>Yes:

OnlyHi

Is this the only time your blood pressure has been higher than normal or has it been higher than normal a number of times?

- 1 Only time
- 2 A number of times

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

If NormBP=Normal/High/Low:

Numeric

Were you told the numerical value of your blood pressure measurement?

- 1 Yes
- 2 No

If Numeric=Yes:

Rememb

Can you remember the numerical value of your blood pressure measurement?

- 1 Yes
- 2 No

If Rememb=Yes:

Systol

What was the numerical value?

RECORD SYSTOLIC AT THIS QUESTION AND DIASTOLIC AT NEXT QUESTION.

ENTER SYSTOLIC IN mmHg.

Range : 0..999

Diastol ENTER DIASTOLIC IN mmHg.

Range : 0..999

All:

CHMeas

May I just check, have you ever had your blood cholesterol level measured by a doctor or nurse?

- 1 Yes
- 2 No

If CHMeas=Yes:

LastCH

When was the last time your blood cholesterol level was measured by a doctor or nurse? Was it ... READ OUT...

- 1 ...during the last 12 months.
- 2 at least a year but less than 3 years ago.
- 3 at least 3 years but less than 5 years ago.
- 4 or 5 years ago or more?

NormCH

Thinking about the last time your blood cholesterol level was measured, were you told it was ... READ OUT...

- 1 Normal ..normal (alright/fine).
- 2 High higher than normal.
- 3 Low lower than normal.
- 4 NoTold or were you not told anything?

If NormCH=Normal/High/Low:

NumCH

Were you told the numerical value of your blood cholesterol measurement?

- 1 Yes
- 2 No

If NumCH=Yes:

RemCH

Can you remember the numerical value of your blood cholesterol level measurement?

- 1 Yes
- 2 No

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

If RemCH=Yes:

CHValue

What was the numerical value?

RECORD VALUE USING DECIMAL POINT IF NECESSARY. (VALUES RECORDED IN mmol/l).

Range : 0..100

All:

HNotAsk

Can I check, do you have any other health problems that I have not asked you about?

- 1 Yes
- 2 No

If HNotAsk = Yes:

HNotWhat

What are these health problems? DO NOT PROBE

Text : Maximum [100] characters

If Sex=Female and Age>24:

HRTCurr

Can I check, are you currently on Hormone Replacement Therapy (HRT)?

- 1 Yes
- 2 No

If HRTCurr=Yes:

HRTLLong

How many years have you been on Hormone Replacement Therapy?

ENTER NUMBER OF YEARS; LESS THAN ONE YEAR = 0

Range : 0..64

If HRTCurr=No:

HRTPast

Can I check, have you been on Hormone Replacement Therapy in the past?

- 1 Yes
- 2 No

If HRTPast=Yes:

HRTAge

At what age did you start Hormone Replacement therapy?

Range : 0..64

PastHRT

How many years were you on Hormone Replacement Therapy?

ENTER NUMBER OF YEARS; LESS THAN ONE YEAR = 0

Range : 0..64

PHYSICAL ACTIVITY

All:

Activa [multicode] Activa01-Activa12

SHOW CARD B

I'd like to ask you about some of the things you do at work or in your free time that involve physical activity.

Which of the activities on this card would you normally take part in during an average week?

CODE ALL THAT APPLY. PROBE 'Which others?' UNTIL 'None'.

- 01 Cycle Cycling/exercise bike
- 02 Exercise Exercises (press ups, sit ups, etc)
- 03 Aerobics Aerobics/keep fit/gymnastics/dance for fitness
- 04 Othdance Other types of dancing
- 05 Weight Weight training
- 06 Swim Swimming
- 07 Run Running/jogging
- 08 Football Football/rugby
- 09 Badm Badminton/tennis
- 10 Squash Squash
- 11 Golf Golf/hillwalking
- 12 Walk Other walking of 1 mile or more
- 13 Other Other
- 14 None None of these

If Activa=Other:

OthAct1

INTERVIEWER: BRIEFLY DESCRIBE WHAT 'Other' ACTIVITY WAS:

Text : Maximum (40) characters

Backcoded to Activa

If Activa=Cycle:

CycNum

On how many occasions per week do you usually go cycling/use your exercise bike?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

CycTim

How much time do you usually spend cycling/using your exercise bike on each occasion?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

CycGasp

When you go cycling/use your exercise bike do you usually find yourself ...READ OUT...

- 1 ...breathing normally,
- 2 breathing faster than normal,
- 3 or gasping for breath?

If Activa=Exercise:

ExNum

On how many occasions per week do you usually do exercises (press ups, sit ups, etc.)?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

ExTim

How much time do you usually spend doing exercises (press ups, sit-ups, etc.) on each occasion?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

ExGasp

When you do exercises (press-ups, sit-ups, etc.) do you usually find yourself ...READ OUT...

- 1 ...breathing normally,
- 2 breathing faster than normal,
- 3 or gasping for breath?

If Activa=Aerobics:

AerNum

On how many occasions per week do you usually do aerobics/keep fit/dance for fitness?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

AerTim

How much time do you usually spend doing aerobics/keep fit/dance for fitness on each occasion?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

AerGasp

When you do aerobics/keep fit/dance for fitness do you usually find yourself ...READ OUT...

- 1 ...breathing normally,
- 2 breathing faster than normal,
- 3 or gasping for breath?

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

If ActivA=OthDance:

DanNum

On how many occasions per week do you usually go dancing?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

DanTim

How much time do you usually spend dancing?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

DanGasp

When you go dancing do you usually find yourself ...READ OUT...

- 1 ...breathing normally,
- 2 breathing faster than normal,
- 3 or gasping for breath?

If ActivA=Weight:

WgtNum

On how many occasions per week do you usually do weight training?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

WgtTim

How much time do you usually spend doing weight training?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

WgtGasp

When you do weight training do you usually find yourself ...READ OUT...

- 1 ...breathing normally,
- 2 breathing faster than normal,
- 3 or gasping for breath?

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

If ActivA=Swim:

SwiNum

On how many occasions per week do you usually go swimming?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

SwiTim

How much time do you usually spend swimming?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

SwiGasp

When you go swimming do you usually find yourself ...READ OUT...

- 1 ...breathing normally,
- 2 breathing faster than normal,
- 3 or gasping for breath?

If ActivA=Run:

RunNum

On how many occasions per week do you usually go running/jogging?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

RunTim

How much time do you usually spend going running/jogging?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

RunGasp

When you go running/jogging do you usually find yourself ...READ OUT...

- 1 ...breathing normally,
- 2 breathing faster than normal,
- 3 or gasping for breath?

If ActivA=Football:

FooNum

On how many occasions per week do you usually play football/rugby?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

FooTim

How much time do you usually spend playing football/rugby?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

FooGasp

When you play football/rugby do you usually find yourself ...READ OUT...

- 1 ...breathing normally,
- 2 breathing faster than normal,
- 3 or gasping for breath?

If ActivA=Badminton:

BadNum

On how many occasions per week do you usually play badminton or tennis?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

BadTim

How much time do you usually spend playing badminton or tennis?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

BadGasp

When you play badminton or tennis do you usually find yourself ...READ OUT...

- 1 ...breathing normally,
- 2 breathing faster than normal,
- 3 or gasping for breath?

If ActivA=Squash:

SqaNum

On how many occasions per week do you usually play squash?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

SqaTim

How much time do you usually spend playing squash?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

SqaGasp

When you play squash do you usually find yourself ...READ OUT..

- 1 ...breathing normally,
- 2 breathing faster than normal,
- 3 or gasping for breath?

If ActivA=Golf:

GolNum

On how many occasions per week do you usually play golf/go hillwalking?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

GolTim

How much time do you usually spend playing golf/going hillwalking?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

GolGasp

When you play golf/go hillwalking do you usually find yourself ... READ OUT...

- 1 ...breathing normally,
- 2 breathing faster than normal,
- 3 or gasping for breath?

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

If ActivA=Walk:

WalNum

On how many occasions per week do you usually go for walks of 1 mile or more?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

WalTim

How much time do you usually spend walking?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

WalGasp

When you go walking do you usually find yourself ...READ OUT...

- 1 ...breathing normally,
- 2 breathing faster than normal,
- 3 or gasping for breath?

If ActivA=Other

OthNum1

On how many occasions per week do you usually do (other activity)?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

OthTim1

How much time do you usually spend doing (other activity)?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

OthGasp1

When you do (other activity) do you usually find yourself ...READ OUT...

- 1 ...breathing normally,
- 2 breathing faster than normal,
- 3 or gasping for breath?

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

All:

ActivB

SHOW CARD C.

During an average week, would you normally do any heavy housework of the kind listed on this card, or any similar type of heavy housework?

- 1 Yes
- 2 No

If ActivB=Yes:

HWNum

On how many occasions per week do you usually do this kind of heavy housework?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

HWTim

How much time do you usually spend doing this kind of heavy housework?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

All:

ActivC

SHOW CARD D.

During an average week in the spring or summer, would you normally do any heavy gardening or DIY of the kind listed on this card, or any similar type of heavy gardening or DIY?

- 1 Yes
- 2 No

If ActivC=Yes:

Gar1Num

During the spring or summer, on how many occasions per week do you usually do this kind of heavy gardening or DIY?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

Gar1Tim

How much time do you usually spend doing this kind of heavy gardening or DIY during the spring or summer?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

All:

ActivD

SHOW CARD D.

During an average week in the autumn or winter, would you normally do any heavy gardening or DIY of the kind listed on this card, or any similar type of heavy gardening or DIY?

- 1 Yes
- 2 No

If *ActivD=Yes*:

Gar2Num

During the autumn or winter, on how many occasions per week do you usually do this kind of heavy gardening or DIY?

- 1 Less than once a week
- 2 Once a week
- 3 2-3 times a week
- 4 4-5 times a week
- 5 6-7 times a week or more

Gar2Tim

How much time do you usually spend doing this kind of heavy gardening or DIY during the autumn or winter?

IF VARIES, ASK RESPONDENT TO GIVE AN AVERAGE TIME

- 1 Less than 10 minutes
- 2 10 minutes, less than 20 minutes
- 3 20 minutes, less than 30 minutes
- 4 30 minutes, less than 2 hours
- 5 2 hours or longer

All:

MostEx

Considering all the exercise that you get, would you say that you get most of it. READ OUT

- 1 ...at work,
- 2 going to and from work,
- 3 at home,
- 4 at a recreational facility,
- 5 or elsewhere? (SPECIFY IN NEXT QUESTION)
- 6 (Does not consider self to get any exercise)
- 7 walking about generally
- 8 at school/college
- 9 outdoors (eg. stables, allotments)

If *MostEx=Elsewhere*:

ElsSpec

PLEASE SPECIFY

Text: Maximum [50] characters

All:

Enough

Do you think you get enough exercise for your age and health?

- 1 Yes
- 2 No

MoreEx

Would you like to take more exercise?

- 1 Yes
- 2 No

ConsEx [*multicode*] **ConsEx1-ConsEx6**

SHOW CARD E

Would you consider taking more exercise for any of the reasons shown on this card?

CODE ALL THAT APPLY. PROBE. What other reason?

- 1 To feel healthier or fitter
- 2 To lose weight
- 3 To look better
- 4 To prevent disease or ill-health
- 5 To enjoy myself
- 6 To reduce stress
- 7 None of these reasons

EATING HABITS

All:

UsBread

What kind of bread do you usually eat? Is it ... READ OUT AND CODE ONE ONLY.

- 1 White ...white.
- 2 Brown brown, granary, wheatmeal.
- 3 Wmeal wholemeal.
- 4 SoftGro soft grain.
- 5 Other or some other kind of bread* (RECORD AT NEXT QUESTION)
- 6 NoUsual SPONTANEOUS.(Does not have usual type)
- 7 NoBread (Does not eat any type of bread)

INTERVIEWER NOTE: SODA BREAD, CHOLLAH = CODE 1;

WHEATGERM, RYE, GERMAN = CODE 2; HIGHBRAN = CODE 3

If *UsBread=Other*:

BreadOth

PLEASE SPECIFY...

Text: Maximum [15] characters

Backcoded into UsBread

If *UsBread<>NoBread*:

Spr

What do you usually spread on your bread?

CODE ONE ONLY FROM CODING LIST 1

- 1 Butter
- 2 Hard margarine/block margarine
- 3 Soft margarine
- 4 Reduced fat spread
- 5 Low fat spread
- 6 SPONTANEOUS: (Does not have usual type)
- 7 (Does not use fat spread on bread)

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

All:

Milk

What kind of milk do you usually use for drinks, in tea or coffee and on cereals etc? Is it ... READ OUT AND CODE ONE ONLY...

- 1 ...whole milk,
- 2 semi-skimmed (INCLUDE DRIED),
- 3 skimmed (INCLUDE DRIED),
- 4 or some other kind of milk? (RECORD AT NEXT QUESTION)
- 5 (Evaporated/Condensed milk)
- 6 (Soya/Veg-based milk)
- 7 SPONTANEOUS: (Does not have usual type)
- 8 (Does not drink milk)

If Milk=Other:

MilkOth

PLEASE SPECIFY...

Text : Maximum [15] characters

Backcoded into Milk

All:

SugTea

Do you usually have sugar in your tea?

- 1 Yes, have sugar in tea
- 2 No
- 3 Does not drink tea

SugCoff

Do you usually have sugar in your coffee?

- 1 Yes, have sugar in coffee
- 2 No
- 3 Does not drink coffee

AtTable

At the table do you ... READ OUT AND CODE ONE ONLY...

- 1 ...generally add salt to your food without tasting it first.
- 2 taste the food, but then generally add salt.
- 3 taste the food, but only occasionally add salt.
- 4 rarely, or never, add salt at the table?

Cereal

Which type of breakfast cereal do you normally eat?

CODE ONE ONLY FROM CODING LIST 2

- 1 High fibre (eg, All Bran, Branflakes, Shredded Wheat, Muesli, Porridge, Weetabix)
- 2 Other cereal with bran, oats or wheat NOT on coding list (PLEASE RECORD NAME OF CEREAL IN A NOTE)
- 3 Others (eg, Cornflakes, Rice Krispies, Special K, Sugar Puffs, Honey Smacks)
- 4 SPONTANEOUS: (Does not have usual type)
- 5 (Does not eat breakfast cereal)

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

Cereals

SHOW CARD F

I would like to ask you about some foods which you may eat. Can you tell me how often on average you eat each of these foods by choosing your answer from this card.

How often do you eat breakfast cereals, including porridge?

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

Fruit

SHOW CARD F

How often do you eat fresh fruit?

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

Chips

SHOW CARD F

How often do you eat chips?

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

Potatoes

SHOW CARD F

Other than chips, how often do you eat potatoes, pasta or rice?

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

GreenVeg

SHOW CARD F

How often do you eat cooked green vegetables, such as peas, broccoli, cabbage, spinach, cauliflower, green beans and so on?

INCLUDE FROZEN VEG. DO NOT INCLUDE CANNED.

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

RootVeg

SHOW CARD F

How often do you eat cooked root vegetables, such as carrots, parsnips, turnips and so on?

INCLUDE FROZEN VEG. DO NOT INCLUDE CANNED. EXCLUDE POTATOES.

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

RawVeg

SHOW CARD F

How often do you eat raw vegetables or salad?

INCLUDE TOMATOES. EXCLUDE SALAD IN A SANDWICH.

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

Meat

SHOW CARD F

How often do you eat meat such as beef, lamb, pork etc?

DO NOT INCLUDE POULTRY.

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

MeatProd

SHOW CARD F

How often do you eat meat products such as sausages, meat pies, briedies, corned beef, or burgers?

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

Poultry

SHOW CARD F

How often do you eat poultry such as chicken or turkey?

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

WFish

SHOW CARD F

How often do you eat white fish such as cod, haddock, whiting, sole or plaice?

INCLUDE FRESH,FROZEN OR CANNED

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

FishOil

SHOW CARD F

How often do you eat other types of fish such as herring, tuna, mackerel, salmon or kippers?

INCLUDE FRESH, FROZEN OR CANNED

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

Cheese

SHOW CARD F

How often do you eat cheese not including cottage cheese or other reduced fat cheeses?

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

Pulses

SHOW CARD F

How often do you eat beans or pulses (such as baked beans, dried beans and lentils)?

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

Confec

SHOW CARD F

How often do you eat sweets or chocolates?

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

IceCream

SHOW CARD F

How often do you eat ice cream?

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

Crisps

SHOW CARD F

How often do you eat crisps or other savoury snacks?

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

SoftDr

SHOW CARD F

How often do you drink soft drinks, not including diet or low-calorie drinks?

INCLUDE CANS, BOTTLES, MIXERS. DO NOT INCLUDE FRESH FRUIT JUICE

- 1 6 or more times a day
- 2 4 or 5 times a day
- 3 2 to 3 times a day
- 4 Once a day
- 5 5 or 6 times a week
- 6 2 to 4 times a week
- 7 Once a week
- 8 1 to 3 times per month
- 9 Less often or never

CakesEtc

SHOW CARD F

How often do you eat cakes, scones, sweet pies or pastries?

- 1 SixPlus 6 or more times a day
- 2 Day4to5 4 or 5 times a day
- 3 Day2to3 2 to 3 times a day
- 4 Daily Once a day
- 5 Week5to6 5 or 6 times a week
- 6 Week2to4 2 to 4 times a week
- 7 Weekly Once a week
- 8 Mth1to3 1 to 3 times per month
- 9 LessNev Less often or never

Biscuits**SHOW CARD F**

How often do you eat biscuits?

- | | | |
|---|----------|------------------------|
| 1 | SixPlus | 6 or more times a day |
| 2 | Day4to5 | 4 or 5 times a day |
| 3 | Day2to3 | 2 to 3 times a day |
| 4 | Daily | Once a day |
| 5 | Week5to6 | 5 or 6 times a week |
| 6 | Week2to4 | 2 to 4 times a week |
| 7 | Weekly | Once a week |
| 8 | Mth1to3 | 1 to 3 times per month |
| 9 | LessNev | Less often or never |

If UsBread<>NoBread:**BrSlice**

Now looking at SHOW CARD G, how many slices of bread, or how many rolls, do you usually eat on any one day? IF VARIES, ASK FOR AN AVERAGE

- | | |
|---|-----------------------|
| 1 | 6 a day or more |
| 2 | 4-5 a day |
| 3 | 2-3 a day |
| 4 | One a day |
| 5 | Less than one per day |

If Biscuits in (SixPlus...Daily):**Biscuit****SHOW CARD G.**

How many biscuits do you usually eat on any one day?

IF VARIES, ASK FOR AN AVERAGE

- | | |
|---|-----------------------|
| 1 | 6 a day or more |
| 2 | 4-5 a day |
| 3 | 2-3 a day |
| 4 | One a day |
| 5 | Less than one per day |

If CakesEtc in (SixPlus...Daily):**CakeScon****SHOW CARD G.**

How many cakes, scones, sweet pies or pastries do you usually eat on any one day?

IF VARIES, ASK FOR AN AVERAGE

- | | |
|---|-----------------------|
| 1 | 6 a day or more |
| 2 | 4-5 a day |
| 3 | 2-3 a day |
| 4 | One a day |
| 5 | Less than one per day |

ACCIDENTS**All:****DrAcc**

Now I would like to ask you about accidents that may have happened to you recently. By this I mean accidental events which resulted in injury or physical harm to you personally.

INTERVIEWER: INCLUDE ALL TYPES OF ACCIDENTS AS WELL AS FALLS, ROAD ACCIDENTS ETC. THIS INCLUDES CUTS, BURNS, INSECT BITES, ACCIDENTAL EXPOSURE TO DANGEROUS SUBSTANCES ETC INCLUDE ACCIDENTS OCCURRING ABROAD.

In the last 12 months, that is since (*date 12 months ago*), have you had any kind of accident which caused you to see a doctor, nurse or other health professional, or to take time off work (*or school*)?

- | | |
|---|-----|
| 1 | Yes |
| 2 | No |

If DrAcc=Yes:**NDrAcc**

How many accidents have you had in the last 12 months where you saw a doctor or went to hospital?

Range : 1..10

DrWyr**SHOW CARD H**Now can we talk about the (*most recent*) accident. Where did the accident happen?

CODE ONE ONLY

- | | |
|---|---|
| 0 | Outdoors at work |
| 1 | On a pavement or a pedestrian area |
| 2 | On a road |
| 3 | In a home or garden (either your own or someone else's) |
| 4 | In a place used for sports, play or recreation (including sports facility at a school or college) |
| 5 | In some other part of a school or college |
| 6 | In an office, factory, shop, pub, restaurant or other public building |
| 7 | Other (SPECIFY AT NEXT QUESTION) |
| 8 | Outdoors - not work-related |

If DrWyr=Other:**WyrOth**

PLEASE SPECIFY ...

Text : Maximum [50] characters

Backcoded into DrWyr**If DrAcc=Yes:****AxCaus [multicode] AxCaus1-AxCaus2**

What caused this accident? CODE ALL THAT APPLY

- | | |
|----|--|
| 01 | Hit by a falling object |
| 02 | Fall, slip or trip |
| 03 | Road traffic accident |
| 04 | Sports or recreational accident |
| 05 | Caused by tool, implement or piece of electrical or mechanical equipment |
| 06 | Burn/scald |
| 07 | Animal/insect bite or sting |
| 08 | Caused by another person (e.g. attacked) |
| 09 | Other (SPECIFY AT NEXT QUESTION) |
| 10 | Lifting |

If AxCause=Other:**CauseOth**

PLEASE SPECIFY...

Text : Maximum [50] characters

Backcoded into AxCaus**If DrAcc=Yes:****DrJob**

At the time of the accident, did you have a paid job?

- 1 Yes
- 2 No

If DrJob=Yes:**DrWrk**

(Can I check.) did the accident happen while you were at work?

- 1 Yes
- 2 No

If DrWrk=Yes:**InOut**

Did the accident happen outdoors or indoors?

- 1 Outdoors
- 2 Indoors

If DrJob=Yes:**TimeOff**

As a result of the accident did you have to take any time off work?

- 1 Yes
- 2 No

If DrAcc=Yes:**DrInj [multicode] DrInj01-DrInj07**

SHOW CARD I

(Can I check.) which of the types of injury described on this card did you suffer?

PROBE: What else? CODE ALL THAT APPLY

- 01 Broken bones
- 02 Dislocated joints
- 03 Losing consciousness
- 04 Straining or twisting a part of the body
- 05 Cutting, piercing or grazing a part of the body
- 06 Bruising, pinching or crushing a part of the body
- 07 Swelling or tenderness in some part of the body
- 08 Getting something stuck in the eye, throat, ear or other part of the body
- 09 Burning or scalding
- 10 Poisoning
- 11 Other injury to internal parts of the body
- 12 Animal or insect bite or sting
- 13 Other

If DrInj=Other:**InjOth**

PLEASE SPECIFY...

Text : Maximum [50] characters

Backcoded into DrInj**If DrAcc=Yes:****DrAid [multicode] DrAid01-DrAid06**

SHOW CARD J

(Can I check.) from which of the people on this card did you get help or advice about the injury you suffered?

PROBE: Who else? CODE ALL THAT APPLY.

- 01 Hospital
- 02 GP/Family Doctor
- 03 Nurse at GP surgery
- 04 Nurse at place of work, school or college
- 05 Doctor at place of work, school or college
- 06 Other doctor or nurse
- 07 Ambulance staff
- 08 Volunteer first aider
- 09 Chemist or pharmacist
- 10 Family, friends, colleagues, passers-by
- 11 Looked after self
- 12 Other person/s

Prevent [multicode] Prevent1-Prevent2

Thinking back to the way the accident happened, do you think anything could have been done to prevent it?

CODE ALL THAT APPLY

- 1 Yes - by respondent
- 2 Yes - by others
- 3 No

SMOKING**If Age>=18:****SmokEver**

May I just check, have you ever smoked a cigarette, a cigar or a pipe?

- 1 Yes
- 2 No

If SmokEver=Yes:**SmokeNow**

Do you smoke cigarettes at all nowadays?

- 1 Yes
- 2 No

If SmokeNow=Yes:**DlySmoke**

About how many cigarettes a day do you usually smoke on weekdays?

IF RESPONDENT CAN ONLY GIVE RANGE, TAKE THE MID-POINT. IF LESS THAN ONE A DAY, ENTER 0. IF SMOKES ROLL-UPS AND CANNOT GIVE CIGARETTE NO., CODE 97

Range : 0..97

If DlySmoke=97:**RolDly**

How much tobacco do you usually smoke on weekdays?

CODE HERE WHETHER THE AMOUNT IS TO BE CODED IN GRAMS OR OUNCES. ENTER THE AMOUNT AT THE NEXT QUESTION¹

- 1 Grams
- 2 Ounces

If RolDly=Grams:**GramRol**

ENTER AMOUNT IN GRAMS

Range : 0..100

If RolDly=Ounces:**OuncRol**

ENTER AMOUNT IN OUNCES

Range : 0..100

If SmokeNow=Yes:**WkndSmok**

And about how many cigarettes a day do you usually smoke at weekends?

IF RESPONDENT CAN ONLY GIVE RANGE, TAKE THE MID-POINT. IF LESS THAN ONE A DAY, ENTER 0 IF SMOKES ROLL-UPS AND CANNOT GIVE CIGARETTE NO., CODE 97

Range : 0..97

If WkndSmok=97:**RolWknd**

How much tobacco do you usually smoke on weekends?

CODE HERE WHETHER THE AMOUNT IS TO BE CODED IN GRAMS OR OUNCES. ENTER THE AMOUNT AT THE NEXT QUESTION

- 1 Grams
- 2 Ounces

If RolWknd=Grams:**GramWknd**

ENTER AMOUNT IN GRAMS

Range : 0..100

If RolWknd=Ounces:**OuncWknd**

ENTER AMOUNT IN OUNCES

Range : 0..100

If SmokeNow=Yes:**Tar**

What is the tar level of the cigarettes you usually smoke?

- 1 High tar (over 18mg)
- 2 Middle tar (15 < 18mg)
- 3 Low to middle tar (10 < 15 mg)
- 4 Low tar (0 < 10mg)
- 5 (Varies)

¹ For analyses purposes, grams or ounces of tobacco are converted to number of cigarettes and stored in the variables Dlysmoke and Wkndsmok

If SmokeNow=No:**SmokeCig**

Have you ever smoked cigarettes?

- 1 Yes
- 2 No

If SmokeCig = Yes:**SmokeReg**

Did you smoke cigarettes regularly, that is at least one cigarette a day, or did you smoke them only occasionally?

- 1 Reg Smoked cigarettes regularly, at least 1 per day
- 2 Occ Smoked them only occasionally
- 3 Nev SPONTANEOUS: Never really smoked cigarettes, just tried them once or twice

If SmokeReg=Reg:**NumSmok**

About how many cigarettes did you smoke in a day?

IF RESPONDENT CAN ONLY GIVE RANGE, TAKE THE MID-POINT. IF LESS THAN ONE A DAY, ENTER 0 IF SMOKES ROLL-UPS, AND CANNOT GIVE CIGARETTE NO., CODE 97

Range : 0..97

If NumSmok=97:**RolNum**

About how much tobacco did you smoke a day?

CODE HERE WHETHER THE AMOUNT IS TO BE CODED IN GRAMS OR OUNCES. ENTER THE AMOUNT AT THE NEXT QUESTION

- 1 Grams
- 2 Ounces

If RolNum = Grams:**GramExS**

ENTER AMOUNT IN GRAMS

Range : 0..100

If RolNum = Ounces:**OuncExS**

ENTER AMOUNT IN OUNCES

Range : 0..100

If SmokeReg=Reg:**TarEx**

What was the tar level of the cigarettes you usually smoked?

- 1 High tar (over 18mg)
- 2 Middle tar (15 < 18mg)
- 3 Low to middle tar (10 < 15 mg)
- 4 Low tar (0 < 10mg)
- 5 (Varied)

SmokYrs

And for approximately how many years did you smoke regularly?

INTERVIEWER: IF LESS THAN ONE YEAR, CODE 0.

Range : 0..64

If SmokeReg=Reg/Occ:**EndSmoke**

How long ago did you stop smoking cigarettes regularly?

INTERVIEWER: ENTER NO. OF YEARS. IF LESS THAN ONE YEAR AGO, CODE 0.

Range : 0..64

If EndSmoke=0:**LongEnd**

How many months ago was that?

- 1 Less than six months ago
- 2 Six months, but less than one year

If SmokeNow=Yes or SmokeReg=Reg:**StartSmk**

How old were you when you started to smoke cigarettes regularly?

INTERVIEWER: IF 'Never smoked regularly'. CODE 97.

Range : 0..97

If Sex=Female and Age=18-49 and (EndSmoke<>empty but <2):**IsPreg**

Can I check, are you pregnant now?

- 1 Yes
- 2 No

If IsPreg=Yes:**SmokePrg**

Have you smoked at all since you've known you've been pregnant? IF YES, PROBE: 'All the time or just some of the time?'

- 1 YesAll Yes, all the time
- 2 YesSome Yes, some of the time
- 3 No No, not at all

If SmokePrg=YesSome/No:**StopPreg**

Did you stop smoking specifically because of your pregnancy, or for some other reason?

- 1 Preg Because of pregnancy
- 2 Other For some other reason

If Sex=Female and Age=18-49 and ((IsPreg<>Yes) or (SmokeNow=Yes)):**PregRec**

Can I check, have you been pregnant in the last twelve months?

- 1 WasP Was pregnant in last twelve months but not now
- 2 NotP Not pregnant in last twelve months

If PregRec=WasP:**PregSmok**

Did you smoke at all during pregnancy? (I.E. DURING TIME WHEN KNEW SHE WAS PREGNANT)

IF YES, PROBE: All the time or just some of the time?

- 1 YesAll Yes, all the time
- 2 YesSome Yes, some of the time
- 3 No No, not at all

If PregSmok=YesSome/No:**PregStop**

Did you stop smoking specifically because of your pregnancy, or for some other reason?

- 1 Because of pregnancy
- 2 For some other reason

If SmokeNow=Yes or SmokeReg=Reg/Occ:**SmokeTry**

\$TEXT2 \$TEXT1 to give up smoking because of a particular health condition you had at the time?

INCLUDE PREGNANCY

- 1 Yes
- 2 No

If SmokeNow=Yes, then \$TEXT1=Have you ever tried**Else, \$TEXT1=** Did you ever try**If IsPreg=Yes, then \$TEXT2=** Apart from any attempts during this pregnancy**If PregRec=WasP, then \$TEXT2=** Apart from any attempts during that pregnancy**If SmokeTry=Yes:****SmokCond** [multicode] SmokCond01-SmokCond08

SHOW CARD K

Here is a list of health conditions that may lead people to try to give up smoking. Can you tell me which conditions you had? PROBE: What else? CODE ALL THAT APPLY

- 01 Heart trouble/problem
- 02 High blood pressure
- 03 Cancer
- 04 Bronchitis
- 05 Cough
- 06 Shortness of breath
- 07 Other respiratory problems (including asthma)
- 08 Cold/flu/virus
- 09 Pregnancy
- 10 Ulcer or other gastro-intestinal problem
- 11 Diabetes
- 12 Other (SPECIFY IN NEXT QUESTION)
- 13 Circulation problems/pain in the legs due to this

If SmokCond=Other:**SmokOth**

PLEASE SPECIFY...

Text : Maximum [40] characters

Backcoded into SmokCond**If SmokeTry=Yes:****AdSmoke**

(Has/Did)a medical person, for example a doctor or nurse ever advised you to stop smoking altogether because of your health?

- 1 Yes
- 2 No

*If AdSmoke=Yes:***AdGiven**

How long ago was that?

- 1 Within the last twelve months
- 2 Over twelve months ago

*If SmokEver=Yes:***CigEver**

Have you ever smoked cigars?

- 1 Yes
- 2 No

*If CigEver=Yes:***CigarNow**

Do you smoke cigars at all nowadays?

- 1 Yes
- 2 No

*If CigarNow=Yes:***CigarReg**

Do you smoke cigars regularly, that is at least one cigar a month, or do you smoke them only occasionally?

- 1 Reg Smoke at least one cigar a month
- 2 Occ Smoke them only occasionally

CigarWk

About how many cigars do you usually smoke in a week? ENTER NO. SMOKED A WEEK. IF CAN ONLY GIVE RANGE, TAKE MID-POINT IF LESS THAN ONE A WEEK. CODE 0

Range : 0..997

*If CigarNow=No or CigarReg=Occ:***CigReg**

Have you ever smoked cigars regularly, that is at least one cigar a month, or did you always smoke them only occasionally?

- 1 Regularly, that is at least one cigar a month
- 2 Always smoked them only occasionally

*If SmokEver=Yes and Sex=Male:***PipeEver**

Have you ever smoked a pipe?

- 1 Yes
- 2 No

*If PipeEver=Yes:***PipeNow**

Do you smoke a pipe at all nowadays?

- 1 Yes
- 2 No

*If SmokeNow=Yes:***SmokStop**

Can I check, how many times, if any, have you tried to give up smoking?

- 1 Never tried to stop smoking
- 2 Once or twice
- 3 Three times or more

StopWant

Would you like to give up smoking?

- 1 Yes
- 2 No

*If SmokeNow=No or SmokEver=No:***Passive** *[multicode]* **Passive1-Passive5****SHOW CARD L**

Are you regularly exposed to other people's tobacco smoke in any of these places?

PROBE: Where else? CODE ALL THAT APPLY

- 1 Home At own home
- 2 Work At work
- 3 OthHome In other people's homes
- 4 PubTrans On public transport
- 5 Pubs In pubs
- 6 Othpub In other public places
- 7 None No, none of these

*If Passive in (Home...Othpub):***Bother**

Does this bother you at all?

- 1 Yes
- 2 No

DRINKING*If Age>=18:***Drink**

I am now going to ask you a few questions about what you drink - that is if you drink. Do you ever drink alcohol nowadays, including drinks you brew or make at home?

- 1 Yes
- 2 No

*If Drink=No:***DrinkAny**

Could I just check, does that mean you never have an alcoholic drink nowadays, or do you have an alcoholic drink very occasionally, perhaps for medicinal purposes or on special occasions like Christmas and New Year?

- 1 Occ Very occasionally
- 2 Never Never

If Drink=Yes or DrinkAny=Occ:**Intro**

I'd like to ask you whether you have drunk different types of alcoholic drink in the last 12 months. I do not need to know about non-alcoholic or low alcohol drinks. (EMPTY)

Often0(Shandy)

SHOW CARD M.

How often have you had a drink of *shandy*, excluding bottle or cans during the last 12 months?

1	AED	Almost every day/Every day
2	Five	Five or six days a week
3	Three	Three or four days a week
4	OneWk	Once or twice a week
5	OneMth	Once or twice a month
6	CupMth	Once every couple of months
7	OneYr	Once or twice
8	NotYr	Not at all in the last 12 months

Often1(Beer)

SHOW CARD M.

How often have you had a drink of *beer, lager, stout or cider* during the last 12 months?

1	AED	Almost every day/Every day
2	Five	Five or six days a week
3	Three	Three or four days a week
4	OneWk	Once or twice a week
5	OneMth	Once or twice a month
6	CupMth	Once every couple of months
7	OneYr	Once or twice
8	NotYr	Not at all in the last 12 months

Often2(Spirits)

SHOW CARD M.

How often have you had a drink of *spirits or liquors such as gin, whisky, rum, brandy, vodka, advocat or cocktails* in the last 12 months?

1	AED	Almost every day/Every day
2	Five	Five or six days a week
3	Three	Three or four days a week
4	OneWk	Once or twice a week
5	OneMth	Once or twice a month
6	CupMth	Once every couple of months
7	OneYr	Once or twice
8	NotYr	Not at all in the last 12 months

Often3(Sherry)

SHOW CARD M.

How often have you had a question of *sherry or martini*, including port, vermouth, Cinzano and Dubonnet in the last 12 months?

1	AED	Almost every day/Every day
2	Five	Five or six days a week
3	Three	Three or four days a week
4	OneWk	Once or twice a week
5	OneMth	Once or twice a month
6	CupMth	Once every couple of months
7	OneYr	Once or twice
8	NotYr	Not at all in the last 12 months

Often4 (Wine)

SHOW CARD M.

How often have you had a drink of *wine*, including *Babyctam* and *champagne* in the last 12 months?

1	AED	Almost every day/Every day
2	Five	Five or six days a week
3	Three	Three or four days a week
4	OneWk	Once or twice a week
5	OneMth	Once or twice a month
6	CupMth	Once every couple of months
7	OneYr	Once or twice
8	NotYr	Not at all in the last 12 months

AlcOt

Have you drunk any other types of alcoholic drink in the last 12 months?

1	Yes
2	No

If AlcOt=Yes:**Other**

Which other type of alcoholic drink?

Text : Maximum [30] characters

All other alcoholic drinks recorded under Other are backcoded into Shandy-Wine.

Often(Other)

How often have you had a drink of *(name of drink recorded)* in the last 12 months?

01	AED	Almost every day/Every day
02	Five	Five or six days a week
03	Three	Three or four days a week
04	OneWk	Once or twice a week
05	OneMth	Once or twice a month
06	CupMth	Once every couple of months
07	OneYr	Once or twice
08	NotYr	Not at all in the last 12 months

If Often0 in (AED...OneYr):**DayQ0(Shandy)**

On average, how much shandy, excluding bottles or cans, would you usually drink on any one day?

CODE THE NUMBER OF HALF PINTS

Range : 0..97

If Often1 in (AED...OneYr):**BeerM [multicode] BeerM01-BeerM04**

On average, how much beer, lager, stout or cider would you usually drink on any one day?

INTERVIEWER: CODE MEASURES THAT YOU ARE GOING TO USE.

1	Half pints
2	Small cans
3	Large cans
4	Bottles

BeerQ [multicode] **BeerQ0-BeerQ3**

ASK OR CODE: On average, how many (*half pints/small cans/large cans/bottles*) of beer, lager, stout or cider would you usually drink on any one day?

Range : 0..97

BeerQ0 = Number of half pints

BeerQ1 = Number of small cans

BeerQ2 = Number of large cans

BeerQ3 = Number of bottles

If BeerM01-04=Bottles:

Bottle

ASK OR CODE: What make of beer, lager, stout or cider do you usually drink from bottles?

Text : Maximum [25] characters

(*Bottles coded as pint equivalent in variable Bottle. Translated to 1/2 pints for analysis.*)

If Often2 in (AED...OneYr):

DayQ1 (Spirits)

On average, how much spirits or liquors such as gin, whisky, brandy, rum, vodka, advocaat or cocktails would you usually drink on any one day?

CODE THE NUMBER OF SINGLES - COUNT DOUBLES AS TWO SINGLES

Range: 0..97

If Often3 in (AED...OneYr):

DayQ2 (Sherry)

On average, how much sherry or martini, including port, vermouth, Cinzano and Dubonnet would you usually drink on any one day?

CODE THE NUMBER OF GLASSES

Range: 0..97

If Often4 in (AED...OneYr):

DayQ3 (Wine)

On average, how much wine, including Babydam and champagne, would you usually drink on any one day?

CODE THE NUMBER OF GLASSES. 1 BOTTLE=6 GLASSES, 1 LITRE = 8 GLASSES

Range: 0..97

If AlcOt=Yes and Often(Other) in (AED...OneYr):

OthQM

On average, how much (*name of drink recorded*) would you usually drink on any one day?

INTERVIEWER: CODE MEASURES THAT YOU ARE GOING TO USE.

- 1 Half pints
- 2 Singles
- 3 Glasses
- 4 Other

If OthQM=Other:

OthQO

WHAT OTHER MEASURE?

Text : Maximum [12] characters

If AlcOt=Yes and Often(Other) in (AED...OneYr):

OthQ

ASK OR CODE: On average, how many (*type of measures*) of (*name of drink*) would you usually drink on any one day?

Range : 0..97

If Drink=Yes or DrinkAny=Occ:

DrinkOf

STILL LOOKING AT SHOWCARD M.

Thinking now about all kinds of drinks, how often have you had an alcoholic drink of any kind during the last 12 months?

01	AED	Almost every day/Every day
02	Five	Five or six days a week
03	Three	Three or four days a week
04	OneWk	Once or twice a week
05	OneMth	Once or twice a month
06	CupMth	Once every couple of months
07	OneYr	Once or twice
08	NotYr	Not at all in the last 12 months

If Age=>19:

DrAmount

Compared to five years ago, would you say that on the whole you drink more, less or about the same nowadays?

- 1 More nowadays
- 2 About the same
- 3 Less nowadays

If DrAmount=Less:

DrinkCut

Did you cut down on your drinking because of a particular health condition you had at the time?

(IF MENTIONS PREGNANCY CODE 'Yes')

- 1 Yes
- 2 No

If DrinkCut=Yes:

DrinCond [multicode] **DrnCon01-DrnCon04**

SHOW CARD N

Here is a list of health conditions that may lead people to cut down on drinking. Can you tell me which condition you had? CODE ALL THAT APPLY

- 01 Heart disease
- 02 Hardening of the arteries
- 03 High blood pressure
- 04 Liver disease
- 05 Ulcers or other gastro-intestinal problems
- 06 Cancer
- 07 Diabetes
- 08 Excess weight
- 09 Pregnancy
- 10 Other condition
- 11 SPONTANEOUS: Alcoholism
- 12 Asthma

If DrinkCond=Other:

DrConOth

PLEASE SPECIFY...

Text : Maximum [50] characters

Backcoded into DrinCond

If Drink=Yes or DrinkAny=Occ:

DrinkAd

Has a medical person (such as a doctor/nurse) ever advised you to cut down your drinking because of your health (or because you were pregnant)?

- 1 Yes
- 2 No

If DrinkAd=Yes:

AdLong

How long ago was that? PROMPT IF NECESSARY

- 1 Within the last 12 months
- 2 Over 12 months ago

If DrinkAny=Never:

AlwaysTT

Have you always been a non-drinker or did you stop drinking for some reason?

- 1 Always Always a non-drinker
- 2 Stopped Used to drink but stopped

If AlwaysTT=Stopped:

TTAgo

How long ago is it since you stopped drinking?

- 1 Less than a year ago
- 2 At least a year but less than 5 years ago
- 3 At least 5 years but less than 10 years ago
- 4 10 years ago or longer

BeforeTT**SHOW CARD O**

Before you stopped drinking, how often did you usually have a drink?

- 1 Almost every day/Every day
- 2 Five or six days a week
- 3 Three or four days a week
- 4 Once or twice a week
- 5 Once or twice a month
- 6 Once every couple of months
- 7 Once or twice a year

WhyTT

Did you stop drinking because of a particular health condition that you had at the time?

INTERVIEWER: IF RESPONDENT SAYS PREGNANCY, CODE YES.

- 1 Yes
- 2 No

If WhyTT=Yes:

TTCond *[multicode]* **TTCond01-TTCond05****SHOW CARD N**

Here is a list of health conditions that may lead people to stop drinking alcohol. Can you tell me which condition you had? PROBE: What else?

CODE ALL THAT APPLY

- 01 Heart disease
- 02 Hardening of the arteries
- 03 High blood pressure
- 04 Liver disease
- 05 Ulcers or other gastro-intestinal problems
- 06 Cancer
- 07 Diabetes
- 08 Excess weight
- 09 Pregnancy
- 10 Other condition
- 11 SPONTANEOUS: Alcoholism

If TTCond=Other:

TTConOth

PLEASE SPECIFY..

Text : Maximum (50) characters

Backcoded into TTCond

If AlwaysTT=Stopped:

TTAdvise

Did a medical person (such as a doctor or nurse) ever advise you to stop drinking alcohol because of your health (or because you were pregnant)?

- 1 Yes
- 2 No

If TTAdvise=Yes:

AdvLong

How long ago was that? PROMPT IF NECESSARY

- 1 Within the last 12 months
- 2 Over 12 months ago

DENTAL HEALTH

All:

FalseT

Can I check, do you have all your own teeth or are some of them false?

- 1 AllOwn All own teeth
- 2 SomeFal Some false/some own
- 3 AllFalse All false teeth

If FalseT=AllOwn/SomeFal/Don't know/Refusal:

ToothP

Now a couple of questions about your teeth. What type of toothpaste do you use...READ OUT...

- 1 ...fluoride
- 2 or non-fluoride?
- 3 (Don't use toothpaste)

TthFreq

How frequently do you brush your teeth?

- 1 More than once a day
- 2 Once a day
- 3 Less than once a day

Dentist

On average, how often do you attend a dentist for a routine check-up?

- 1 More frequently than once every six months
- 2 Every six months
- 3 Every 12 months
- 4 Every 24 months
- 5 At longer intervals
- 6 Never

ECONOMIC ACTIVITY

Alt:

Activ

SHOW CARD P

Which of these descriptions applies to what you were doing last week, that is in the seven days ending last Sunday? CODE FIRST TO APPLY.

- 01 School Going to school or college full-time (including on vacation)
- 02 Job In paid employment or self-employed (or away temporarily)
- 03 Wait Waiting to take up paid work already obtained
- 04 Look Looking for work
- 05 Intend Intending to look for work but prevented by temporary sickness or injury (CHECK 28 DAYS OR LESS)
- 06 Perm Permanently unable to work because of long-term sickness or disability (USE ONLY FOR MEN AGED 16-64 AND WOMEN AGED 16-59)
- 07 Retire Retired (FOR WOMEN CHECK AGE STOPPED WORK AND USE THIS CODE ONLY IF STOPPED WHEN 50 OR OVER)
- 08 Famlook Looking after the home or family
- 09 Other Doing something else (SPECIFY AT NEXT QUESTION)

If Activ=Other:

ActivO

PLEASE SPECIFY

Text : Maximum [40] characters

If Activ=School/Look/Intend/Perm/Retire/Famlook/Other:

EverJob

Have you ever been in paid employment or self-employed (apart from part time jobs or holiday jobs while a student)?

- 1 Yes
- 2 No

If Activ=Wait:

OthPaid

Apart from the job you are waiting to take up, have you ever been in paid employment or self-employed?

- 1 Yes
- 2 No

If (Activ=Job/Wait/Retire) or (EverJob=Yes):

JobTitle

I'd like to ask you some details about (the job you were doing last week/your most recent job/the job you are waiting to take up). What (is/was) the name or title of the job?

(IF 2+ JOBS, ASK ABOUT MAIN JOB)

Text : Maximum [50] characters

FtPtime

(Are/Were/Will) you (be) working full-time or part-time?

(FULL-TIME = 30 HOURS OR MORE, PART-TIME = LESS THAN 30 HOURS)

- 1 Full-time
- 2 Part-time

WtWork

What kind of work (do/did/will) you (be) doing) most of the time?

Text : Maximum [50] characters

MatUsed

IF RELEVANT, What materials or machinery (do/did/will) you use?

IF NONE USED, WRITE IN 'NONE'.

Text : Maximum [50] characters

SkilNeed

What skills or qualifications (are/were) needed for the job?

Text : Maximum [100] characters

Employee

(Are/Were/Will) you (be) ... READ OUT...

- 1 Employ ...an employee,
- 2 SelfEmp or, self-employed?

If Employee=SelfEmp:

Dirctr

Can I just check, in this job (are/were/will) you (be) a Director of a limited company?

- 1 Yes
- 2 No

If Employee=Employ or Dirctr=Yes:

EmpStat

(Are/Were/Will) you (be) a ...READ OUT...

- 1 ...manager,
- 2 foreman or supervisor,
- 3 or other employee?

NEmplee

Including yourself, about how many people (are/were) employed at the place where you (work/worked/will work)?

- 1 1 or 2
- 2 3-24
- 3 25-499
- 4 500+

If Employee=SelfEmp and Dirctr=No:

SNEmplee

(Do/Did/Will) you have any employees?

- 1 None
- 2 1-24
- 3 25-499
- 4 500+

If Employee=Employ:

Ind

What (does/did) your employer make or do at the place where you (work/worked)?

Text : Maximum [100] characters

If Employee=SelfEmp:

StfWtMad

What (do/did/will) you make or do in your business?

Text : Maximum [100] characters

If Activ=Wait/Look/Intend:

CurUnEmp

How long altogether have you been out of employment but wanting work (in this current period of unemployment)?

- 1 Less than six months
- 2 Six months but less than twelve months
- 3 Twelve months but less than two years ago
- 4 Two years or more

If Activ=Job:

MainSit

When you're at work are you mainly sitting down, standing up or walking about? CODE ONE ONLY

- 1 Sitting down
- 2 Standing up
- 3 Walking about
- 4 Equal time spent doing 2 or more of these

MovFloor

Does your work involve you moving between floors?

- 1 Yes
- 2 No

If MovFloor<>No:

Lift

Do you mainly take the lift or climb the stairs?

- 1 Lift
- 2 Stairs
- 3 (Lift up/stairs down)

If Activ=Job:

Climb

Do you do any (other) climbing in the course of your work (ladders, scaffolding etc.)?

- 1 Yes
- 2 No

LiftCarr

Do you usually have to lift or carry things at work which you find heavy?

IF YES, PROMPT: Is that just lifting or lifting and carrying?

- 1 Lift heavy loads
- 2 Lift and carry heavy loads
- 3 No

Demand

So overall, would you say that in terms of physical effort your work is .. READ OUT...

- 1 ... very demanding.
- 2 fairly demanding.
- 3 or not very demanding?

If NAdults>1:

CIncEarn

Which member of your household is the person with the largest income, whether from employment, pensions, state benefits, investments or any other source?

Person number from household grid

Range : 1..12

If CincEarn<>(respondent):

CIEAct

SHOW CARD P.

Which of these descriptions applies to what (name of chief income earner) was doing last week, that is in the seven days ending last Sunday? CODE FIRST TO APPLY.

- | | | |
|----|---------|---|
| 01 | School | Going to school or college full-time (including on vacation) |
| 02 | Job | In paid employment or self-employed (or away temporarily) |
| 03 | Wait | Waiting to take up paid work already obtained |
| 04 | Look | Looking for work |
| 05 | Intend | Intending to look for work but prevented by temporary sickness or injury (CHECK 28 DAYS OR LESS) |
| 06 | Perm | Permanently unable to work because of long-term sickness or disability (USE ONLY FOR MEN AGED 16-64 AND WOMEN AGED 16-59) |
| 07 | Retire | Retired (FOR WOMEN CHECK AGE STOPPED WORK AND USE THIS CODE ONLY IF STOPPED WHEN 50 OR OVER) |
| 08 | Famlook | Looking after the home or family |
| 09 | Other | Doing something else (SPECIFY AT NEXT QUESTION) |

If CIEAct=Other:

CIEActO

PLEASE SPECIFY

Text : Maximum [40] characters

If CIEAct=School/Look/Intend/Perm/Retire/Famlook/Other:

CIEEvJob

Has (name of chief income earner) ever been in paid employment or self-employed (apart from holiday jobs or part-time jobs while a student)?

- 1 Yes
- 2 No

If CIEAct=Wait:

CIEOthP

Apart from the job (name of chief income earner) is waiting to take up, has (he/she) ever been in paid employment or self-employed?

- 1 Yes
- 2 No

If CIEAct=Job/Wait/Retire or CIEEvJob=Yes:

CIETitle

I'd like to ask you some details about (the job (name of chief income earner) was doing last week/(name's) most recent job/the main job (name) had/ the job (name) is waiting to take up). What (is/was/will be) (the name or title of (his/her) job)? (IF 2+ JOBS, ASK ABOUT MAIN JOB)

Text : Maximum [50] characters

CIEFtPt

(Is/Was/Will) (name of chief income earner) (be) working full-time or part-time?

FULL-TIME = MORE THAN 30 HOURS, PART-TIME = 30 HOURS OR LESS

- 1 Full-time
- 2 Part-time

CIEWtWk

What kind of work (does/did/will) (name of chief income earner) (be) doing) most of the time?

Text : Maximum [50] characters

CIEMatUs

IF RELEVANT: What materials or machinery (does/did/will) (name of chief income earner) use?

IF NONE USED, WRITE IN 'NONE'.

Text : Maximum [50] characters

CIESkil

What skills or qualifications (are/were) needed for (his/her) job?

Text : Maximum [100] characters

CIEEmp

(Is/Was/Will) (name of chief income earner) (be) ...READ OUT...

- 1 Employ an employee.
- 2 SelfEmp or, self-employed?

If CIEEmp=SelfEmp:

CIEDir

Can I just check, in this job (is/was/will) (name of chief income earner) (be) a Director of a limited company?

- 1 Yes
- 2 No

If CIEEmp=Employ or CIEDir=Yes:

CIEEmpSt

(Is/Was/Will) (name of chief income earner) (be) a ...READ OUT...

- 1 ...manager,
- 2 foreman or supervisor,
- 3 or other employee?

CIEEmp

Including (name of chief income earner), about how many people (are/were) employed at the place where (he/she) (works/worked/will work)?

- 1 1 or 2
- 2 3-24
- 3 25-499
- 4 500+

If CIEEmp=SelfEmp and CIEDir=No:

CIESNEmp

(Does/Did/Will) (name of chief income earner) have any employees?

- 1 None
- 2 1-24
- 3 25-499
- 4 500+

If CIEEmp=Employ:

CIEInd

What (does/did) (name of chief income earner's) employer make or do at the place where (he/she) (works/worked/will work)?

Text : Maximum [100] characters

If CIEEmp=SelfEmp:

CIESIf

What (does/did/will) (name of chief income earner) make or do in (his/her) business?

Text : Maximum [100] characters

If CIEAct=Wait/Look/Intend:

CIEUnEmp

How long altogether has (name of chief income earner) been out of employment but wanting work (in this current period of unemployment)?

- 1 Less than six months
- 2 Six months but less than twelve months
- 3 Twelve months but less than two years ago
- 4 Two years or more

EDUCATION

All:

EducEnd

At what age did you finish your continuous full-time education at school or college?

- 01 Not yet finished
- 02 Never went to school
- 03 14 or under
- 04 15
- 05 16
- 06 17
- 07 18
- 08 19 or over

TopQual**SHOW CARD Q.**

Please look at this card and tell me whether you have any of the qualifications listed. Look down the list and tell me the first one you come to that you have got. CODE FIRST TO APPLY.

- 01 Degree or degree level qualification
- 02 SCE Higher/A-levels
- 03 SCE Ordinary (Bands A - C)
- 04 Standard Grade (Level 1 - 3)
- 05 SLC Lower
- 06 SUPE Lower or Ordinary
- 07 'O' level passes (Grade A - C if after 1975)
- 08 GCSE (grade A - C)
- 09 CSE Grade I
- 10 School Certificate or Matric
- 11 SCE Ordinary (Bands D & E)
- 12 Standard Grade (Level 4, 5)
- 13 CSE Grades 2 - 5
- 14 GCE 'O' Grades D & E (if after 1975)
- 15 GCSE (Grades D, E, F, G)
- 16 CSE ungraded
- 17 Foreign qualifications (SPECIFY AT NEXT QUESTION)
- 18 Other academic qualifications (SPECIFY AT NEXT QUESTION)
- 19 NO ACADEMIC QUALIFICATIONS

If TopQual=Other/Foreign:

AcOthSp

PLEASE SPECIFY....

Text : Maximum [25] characters

Backcoded into TopQual

All:

TopVocat [multicode] **TopVoc01-TopVoc09**

SHOW CARD R.

Please look at this card and tell me whether you have any of the qualifications listed. If you have more than one, please tell me about all of them. PROBE: What else? CODE ALL THAT APPLY.

- 01 HNC/HND, BEC/TEC Higher, BTEC Higher
- 02 ONC, OND, BEC/TEC not higher
- 03 City and Guilds Full Technological Certificate
- 04 City and Guilds Advanced/Final level
- 05 City and Guilds Craft/Ordinary level
- 06 Nursing qualifications (SRN, RGN, RMN, SEN, RSCN, RM, RHV)
- 07 Teaching qualification
- 08 SVQ/NVQ Level V
- 09 SVQ/NVQ Level IV
- 10 SVQ/NVQ Level III/Advanced level GNVQ
- 11 SVQ/NVQ Level II/Intermediate level GNVQ
- 12 SVQ/NVQ Level I/Foundation level GNVQ
- 13 SCOTVEC National Certificate Modules
- 14 Clerical or commercial qualifications (e.g. typing, bookkeeping, commerce)
- 15 Recognised Trade Apprenticeship completed
- 16 Other vocational or professional qualification (SPECIFY AT NEXT QUESTION)
- 17 NO VOCATIONAL / PROFESSIONAL QUALIFICATIONS
- 18 SVQ/NVQ - level not specified.
- 19 Nursery Nurse Examination Board Qualification

If TopVocat=Other:

VocothSp

PLEASE SPECIFY

Text: Maximum [25] characters

Backcoded into TopVocat

All:

PoB

In which country were you born?

- 1 Scotland
- 2 England
- 3 Wales
- 4 Northern Ireland
- 5 Outside UK

Ethnic

SHOW CARD S.

To which of the groups on this card do you consider you belong?

- 01 White
- 02 Black - Caribbean
- 03 Black - African
- 04 Black - Other
- 05 Indian
- 06 Pakistani
- 07 Bangladeshi
- 08 Chinese
- 09 Other (SPECIFY AT NEXT QUESTION)

If Ethnic=Other:

OthEthni

How would you describe the racial or ethnic group to which you belong?

Text : Maximum [15] characters

Backcoded into Ethnic

PARENTAL HISTORY

If (mother lives in household):

NatMum

May I just check, is (*mother's name*) your natural mother?

- 1 Yes
- 2 No

If (mother not in household) or NatMum=No:

MumAlive

Is your natural mother still alive?

- 1 Yes
- 2 No

If MumAlive=Yes:

MumAge

How old is your natural mother?

INTERVIEWER: ENTER AGE.

Range : 30..120

If MumAlive=No:

HowMum

SHOW CARD T.

Did your mother die from any of the conditions on this card? CODE ONE ONLY

- 1 High blood pressure (sometimes called hypertension)
- 2 Angina
- 3 Heart attack (including myocardial infarction and coronary thrombosis)
- 4 Stroke
- 5 Other heart trouble (incl. heart murmur, damaged heart valves, tachycardia or rapid heart)
- 6 Diabetes
- 7 None of the above conditions

DieMum

How old was your mother when she died?

INTERVIEWER: ENTER AGE.

Range : 14..120

If (father lives in household):

NatDad

May I just check, is (*father's name*) your natural father?

- 1 Yes
- 2 No

If (father not in household) or NatDad=No:

DadAlive

Is your natural father still alive?

- 1 Yes
- 2 No

If DadAlive=Yes:

DadAge

How old is your natural father?

INTERVIEWER: ENTER AGE.

Range : 30..120

If DadAlive=No:

HowDad

SHOW CARD T.

Did your father die from any of the conditions on this card? CODE ONE ONLY

- 1 High blood pressure (sometimes called hypertension)
- 2 Angina
- 3 Heart attack (including myocardial infarction and coronary thrombosis)
- 4 Stroke
- 5 Other heart trouble (incl. heart murmur, damaged heart valves, tachycardia or rapid heart)
- 6 Diabetes
- 7 None of the above conditions

DieDad

How old was your father when he died?

INTERVIEWER: ENTER AGE.

Range : 14..120

HOUSEHOLD QUESTIONS

All:

OwnORent

Now, I'd like to get some general information about your household.

Does your household own or rent this accommodation? PROBE FOR DETAILS.

- | | | |
|----|----------|-------------------------------------|
| 01 | Owns | Owns with mortgage/loan |
| 02 | Outright | Owns outright |
| 03 | Rents | Rents from local authority/new town |
| 04 | HouAss | Rents from housing association |
| 05 | PriNoFur | Rents - privately, unfurnished |
| 06 | PriFur | Rents - privately, furnished |
| 07 | RentEmp | Rents from employer |
| 08 | OtherPay | Rents - other with payment |
| 09 | Free | Rent free |

Bedrooms

How many bedrooms does your household have, including bedsitting rooms and spare bedrooms?

EXCLUDE BEDROOMS CONVERTED TO OTHER USES.

Range : 1..20

CentHeat

Does your household have any form of central heating, including electric storage heaters, in your (part of the) accommodation?

CENTRAL HEATING = 2 OR MORE ROOMS (INC. KITCHENS, HALLS, LANDINGS, BATH/WC) HEATED FROM ONE CENTRAL SOURCE.

- 1 Yes
- 2 No

SmkDet

Do you have at least one smoke detector in the household?

IF YES, PROBE FOR WHETHER MAIN OR BATTERY-OPERATED.

CODE ONE ONLY

- | | | |
|---|--------|---------------------------------|
| 1 | YMains | Yes - mains |
| 2 | YBatt | Yes - battery-operated |
| 3 | YBoth | Yes - at least one of each type |
| 4 | YDKnow | Yes - but don't know which |
| 5 | No | No |

If SmkDet in (YMains-YDKnow):

SmkWork

And can I check, is it (at least one) currently in working order?

- 1 Yes
- 2 No

All:

Car

Is there a car or van normally available for use by you or any members of your household?

INCLUDE: ANY PROVIDED BY EMPLOYERS IF NORMALLY AVAILABLE FOR PRIVATE USE BY RESPONDENT OR MEMBERS OF HOUSEHOLD.

- 1 Yes
- 2 No

If Car=Yes:

NumCars

How many are available?

- 1 One
- 2 Two
- 3 Three or more

All:

IncSup

At the present time, do you (or your partner) receive Income Support?

- 1 Yes
- 2 No

FamCred

And do you (or your partner) receive Family Credit?

- 1 Yes
- 2 No

CounTax

And do you (or your partner) receive Council Tax Benefit?

- 1 Yes
- 2 No

If OwnORent <> Owns/Outright:

HouseBen

At the present time, do you (or your partner) get any Housing Benefit to help pay the rent? Please include any Housing Benefit paid directly to your landlord as well as any paid to you.

- 1 Yes
- 2 No

All:

Benefits {multicode} Benefit1-Benefit3

Can I check, do you personally receive any of these benefits...

READ OUT AND CODE ALL THAT APPLY...

- 1 ... Unemployment benefit,
- 2 Sickness/Invalidity Benefit,
- 3 Severe Disablement Allowance,
- 4 or Disability Living Allowance?
- 5 None of these

TelePhon

Does your household have a telephone in your (part of the) accommodation?

SHARED TELEPHONES LOCATED IN PUBLIC HALLWAYS TO BE INCLUDED ONLY IF THIS HOUSEHOLD IS RESPONSIBLE FOR PAYING THE ACCOUNT.

- 1 Yes
- 2 No

SELF-COMPLETION BOOKLETS

All:

SCIntro

PREPARE (YELLOW/GREEN) SELF-COMPLETION BOOKLET BY ENTERING SERIAL NUMBERS. Point/Address/Hhold/Check letter (EMPTY)

If Age 16-17 Yellow Booklet

If Age 18-64 Green Booklet

SComp2

I would now like you to answer some questions by completing this booklet on your own. The questions cover (smoking, drinking, and) general health. EXPLAIN HOW TO COMPLETE BOOKLET. When you have completed the questions, please give it back to me. (EMPTY)

SComp3

WAS THE (YELLOW/GREEN) BOOKLET COMPLETED?

- 1 Yes
- 2 No

If Scomp3=Yes:

SC3Acc {multicode} SC3Acc1 - SC3Acc3

Was it completed without assistance?

- 1 Ind Completed independently
- 2 AssHH Assistance from other household member
- 3 AssInt Assistance from interviewer
- 4 IntAdm Interviewer administered

If Scomp3=No or SC3Acc<>Ind:

SComp6 {multicode} SComp6_1 - SComp6_4

Why did the respondent (refuse to complete the booklet/need assistance)?

CODE ALL THAT APPLY.

- 1 Eyesight problems
- 2 Language problems
- 3 Reading difficulties
- 4 Writing difficulties
- 5 Comprehension problems
- 6 Other (SPECIFY AT NEXT QUESTION)
- 7 Refused

If Scomp6=Other:

SComp6O

PLEASE SPECIFY OTHER REASON

Text : Maximum [50] characters

Backcoded into Scomp6

MEASUREMENTS

All:

Intro

PREAMBLE. I would now like to measure your height and weight. There is interest in how people's weight, given their height, is associated with their health. SERIAL NUMBER THE MRC (EMPTY)

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

HtResp

INTERVIEWER CODE.

- | | | |
|---|-------|--------------------------------|
| 1 | Meas | Height measured |
| 2 | Ref | Height refused |
| 3 | Attmp | Height attempted, not obtained |
| 4 | NotAt | Height not attempted |

If HtResp=Meas:

Height

MEASURE HEIGHT AND ENTER.

Range : 1..244

RelHiteB

INTERVIEWER CODE ONE ONLY:

- | | |
|---|---|
| 1 | No problems experienced, reliable height measurement obtained |
| | Problems experienced - measurement likely to be: |
| 2 | - Reliable |
| 3 | - Unreliable |

MBookHt

INTERVIEWER: CHECK HEIGHT RECORDED ON MEASUREMENT RECORD CARD.

HEIGHT: (xx) cm OR (xx) feet and (xx) inches.

If HtResp=Ref:

ResNHi

GIVE REASONS FOR REFUSAL.

- | | |
|----|--|
| 01 | Doctor has measurement/will measure |
| 02 | Respondent too anxious/nervous/shy/embarrassed |
| 03 | Considered intrusive information |
| 04 | Respondent too ill/frail/tired |
| 05 | Cannot see point/height already known |
| 06 | Other |
| 97 | Refused to say |

If HtResp=Attempt/NotAt:

NoHitM [multicode] **NoHitM1** - **NoHitM4**

CODE REASON FOR NOT OBTAINING HEIGHT. CODE ALL THAT APPLY.

- | | |
|---|---|
| 1 | Respondent is unsteady on feet |
| 2 | Respondent cannot stand upright/too stooped |
| 3 | Respondent is chairbound |
| 4 | Ill or in pain |
| 5 | Stadiometer not working |
| 6 | Other - specify |

If NoHitM=Other:

NoHitMO

PLEASE SPECIFY OTHER REASON.

Text : Maximum [50] characters

Backcoded into **NoHitM**

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

If HtResp=Ref/Attempt/NotAt:

EHtCh

INTERVIEWER: ASK RESPONDENT FOR AN ESTIMATED HEIGHT. WILL IT BE GIVEN IN METRES OR IN FEET AND INCHES?

- | | | |
|---|-----|-----------------|
| 1 | m | Metres |
| 2 | Ftn | Feet and inches |

If EHtCh=m:

EHtm

PLEASE RECORD ESTIMATED HEIGHT IN METRES.

Range : 0..2

If EHtCh=Ftn:

EHft

PLEASE RECORD ESTIMATED HEIGHT. ENTER FEET.

Range : 0..7

EHtn

PLEASE RECORD ESTIMATED HEIGHT. ENTER INCHES.

Range : 0..11

If Sex=Female and Age=16-49:

PregNowB

May I check, are you pregnant now?

- | | |
|---|-----|
| 1 | Yes |
| 2 | No |

If PregNowB<>Yes:

WtResp

INTERVIEWER CODE. INTERVIEWER: IF RESPONDENT WEIGHS MORE THAN 130 KG (20 1/2 STONES) DO NOT WEIGH. CODE AS WEIGHT NOT ATTEMPTED.

- | | | |
|---|-------|--------------------------------|
| 1 | Meas | Weight obtained |
| 2 | Ref | Weight refused |
| 3 | Attmp | Weight attempted, not obtained |
| 4 | NotAt | Weight not attempted |

If WtResp=Meas:

Weight

MEASURE WEIGHT AND RECORD.

Range : 0..130

FloorM [multicode] **FloorM1** - **FloorM2**

SCALES PLACED ON?

- | | |
|---|--------------|
| 1 | Uneven floor |
| 2 | Carpet |
| 3 | Neither |

RelWaitB

INTERVIEWER CODE ONE ONLY.

- | | |
|---|---|
| 1 | No problems experienced, reliable weight measurement obtained |
| | Problems experienced - measurement likely to be: |
| 2 | - Reliable |
| 3 | - Unreliable |

MBookWt

INTERVIEWER: CHECK WEIGHT RECORDED ON MEASUREMENT RECORD CARD.

WEIGHT: (xx) kg OR (xx) stones and (x.x) pounds.

If WiResp=Ref:**ResNWt**

GIVE REASONS FOR REFUSAL.

- 1 Doctor has measurement/will measure
- 2 Respondent too anxious/nervous/shy/embarrassed
- 3 Considered intrusive information
- 4 Respondent too ill/frail/tired
- 5 Cannot see point/weight already known
- 6 Other
- 7 Refused to say

If WiResp=Attempt/NotAt:**NoWaitM** [multicode] **NoWaitM1** - **NoWaitM4**

CODE REASON FOR NOT OBTAINING WEIGHT. CODE ALL THAT APPLY.

- 1 Respondent is unsteady on feet
- 2 Respondent cannot stand upright
- 3 Respondent is chairbound
- 4 Respondent weighs more than 130 kg
- 5 Ill or in pain
- 6 Scales not working
- 7 Other (SPECIFY AT NEXT QUESTION)

If NoWaitM=Other:**NoWaitMO**

PLEASE SPECIFY OTHER REASON

Text : Maximum [50] characters

Backcoded into NoWaitM**If WiResp=Ref/Attempt/NotAt:****EWtCh**

INTERVIEWER: ASK RESPONDENT FOR AN ESTIMATED WEIGHT. WILL IT BE GIVEN IN KILOGRAMS OR IN STONES AND POUNDS?

- 1 kg Kilograms
- 2 StnPnd Stones and pounds

If EWtCh=kg:**EWtkg**

PLEASE RECORD ESTIMATED WEIGHT IN KILOGRAMS.

Range : 1..210

If EWtCh=StnPnd:**EWtSt**

PLEASE RECORD ESTIMATED WEIGHT. ENTER STONES.

Range : 1..32

EWtL

PLEASE RECORD ESTIMATED WEIGHT. ENTER POUNDS.

Range : 0..13

CONSENTS**All:****Nurse**

There are two parts to this survey. You have just helped us with the first part. We hope you will also help us with the second part. The second part is a visit by a qualified nurse to ask a few more questions and to carry out some measurements. I would like to make an appointment for the nurse to come round and explain some more about what is required. May I suggest some dates and times and see when you are free? IF ASKED FOR DETAILS: for example, to take your blood pressure, measure your lung capacity and take a small blood sample.

- | | | |
|---|--------|----------------------------|
| 1 | Agree | Agreed nurse could contact |
| 2 | Refuse | Refused nurse contact |

If Nurse=Refuse:**NurseRef** [multicode] **Nursere1** - **Nursere3**

RECORD REASON WHY RESPONDENT REFUSED NURSE CONTACT.

CODE BELOW AND RECORD AT Q 15 ON ARF

- 1 Given enough time already to this survey/expecting too much
- 2 Too busy, cannot spare the time (if code 1 does not apply)
- 3 Had enough of medical tests/medical profession at present time
- 4 Worried about what nurse may find out/might tempt fate
- 5 Scared of particular nurse procedures (eg blood sample)
- 6 Other reason (specify)

If NurseRef=Other:**NrsRefO**

PLEASE SPECIFY OTHER REASON FOR REFUSAL.

Text : Maximum [50] characters

Backcoded into NurseRef**All:****NHSCR**

There are National Health Service registers which hold information on hospital admissions, important diseases and causes of death. May we have your permission to pass your name, address, and date of birth to these registers?

- | | | |
|---|---------|------------------|
| 1 | Permiss | Permission given |
| 2 | Refuse | Refused |

If NHSCR=Permiss:**NHSNo**

May we have your NHS number which will assist in linking up your details with these registers? If

AVAILABLE, RECORD NUMBER ON THE FRONT PAGE OF THE ARF

- 1 NHS number given (RECORD ON ARF FRONT PAGE)
- 2 NHS number refused
- 3 NHS number not known/unavailable

All:**ReInter**

If at some future date we wanted to talk to you further about your health, may we contact you to see if you are willing to help us again?

- 1 Yes
- 2 No

THE SCOTTISH HEALTH SURVEY 1995 CAPI QUESTIONNAIRE DOCUMENTATION

Thank

That is the end of the interview. Thank you for your help. I do need however to collect a little more information for our records. (EMPTY)

TPhone

A few interviews on any survey are checked by a supervisor to make sure people are happy with the way the interview was carried out. In case my supervisor needs to contact you, it would be helpful if you could let me have your telephone number.

IF GIVEN, ENTER PHONE NUMBER ON FRONT OF ARF.

- 1 Number given
- 2 Number refused
- 3 No telephone

FullName

INTERVIEWER: NOW RECORD RESPONDENT'S FULL NAME ON FRONT PAGE OF ARF

EndTime

INTERVIEWER: PLEASE ENTER THE CURRENT TIME. USE A 24 HOUR CLOCK.

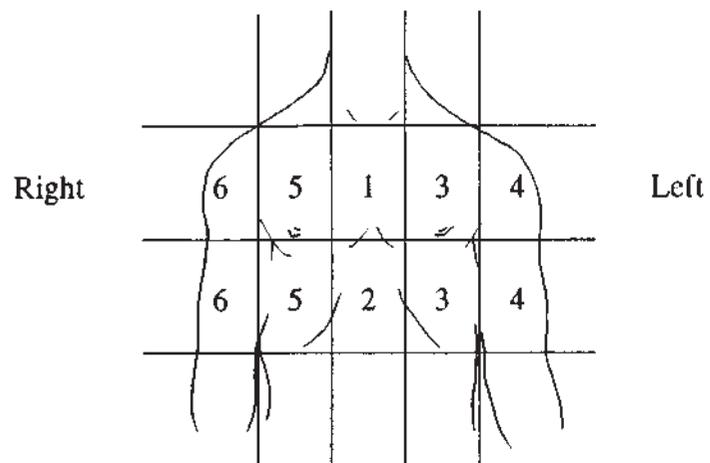
Range : 0..24

NOTES TO DOCUMENTATION:

- Bold** Question name
- Bold italics** Filter group for question (for statements that appear above a question name)
<=> refers to 'not equal to'
- italics* Response categories in italics have been added during coding

P1394

CARD A



P1394

CARD B

1. Cycling/exercise bike
2. Exercises (such as press-ups, sit ups)
3. Aerobics/keep fit/gymnastics/dance for fitness
4. Any other type of dancing
5. Weight training
6. Swimming
7. Running/jogging
8. Football/rugby
9. Badminton/tennis
10. Squash
11. Golf/hillwalking
12. Other walking of 1 mile or more
13. Any other sports or exercise

Please also include teaching, coaching and training/
practice sessions

P1394

CARD C

HEAVY HOUSEWORK

Moving heavy furniture
Spring cleaning
Walking with heavy shopping
(for more than 5 minutes)
Cleaning windows
Scrubbing floors with a scrubbing brush

P1394

CARD D

HEAVY GARDENING, DIY AND BUILDING WORK

Digging, clearing rough ground
Building in stone/bricklaying
Mowing large areas with a hand mower
Felling trees/chopping wood
Mixing/laying concrete
Moving heavy loads
Refitting a kitchen or bathroom

NB. All brands of butter - code 1.
All brands hard block margarine - code 2.
All brands of soft margarine - code 3

P1394

CARD E

1. To feel healthier or fitter
2. To lose weight
3. To look better
4. To prevent disease or ill-health
5. To enjoy myself
6. To reduce stress

Anchor Half Fat Spread	5	Sainsbury	
Anchor Low Fat Spread	5	Country Light	3
Asda Country Blend	4	Country Spread	4
Asda Golden Soft	5	Half Fat Spread	5
Asda Hi-Life	5	Luxury Soft Margarine	3
Asda Sunflower low fat sprd	5	Olive	4
Banquet soft margarine	3	Soft Spread	4
Blue band soft margarine	3	Sunflower Low	
Blue leaf soft margarine	3	Fat Spread	5
Butter (any variety)	1	Sunflower Very	5
Clover	4	Low Fat Spread	
Clover, lightly salted	4	Shape Sunflower Spread	5
Clover Extra Lite	5	Slimmers Gold Sunflower	
Co-op Good Life Low Fat		Low Fat Spread	3
Sunflower spread	5	Somerfield Low Fat	
Co-op Red Seal Soft Spread	4	Sunflower	5
Dairy Crest Willow	4	Somerfield Supersoft	3
Delight	5	Soya margarine (own brands)	3
Delight Extra Low	5	St Ivel Gold	5
Echo hard margarine	2	St Ivel Gold Lowest	5
Encore Sol	3	Stork	1
Encore Sol Light	5	Stork Light Blend	4
Encore Supersoft Luxury		Stork SE	3
margarine	1	Sunmer Country	4
Flora	3	Sunflower margarine	
Flora Extra Light	5	(own brands)	1
Flora reduced salt	3	Sunflower low fat	3
Gold (St. Ivel)	5	Sunflower very low fat	
Gold Lowest (St Ivel)	5	spreads (own brands)	5
Gold for cooking	4	Casto	
Golden Crown (Kraft)		Golden Blend	4
(Golden Churn)	4	Healthy Eating 1/2 Fat	
Golden Crown Light	4	Sunflower Spread	5
Golden Olive	5	Healthy eating Very	
Golden Vale	4	low fat spread	5
Granose	3	Healthy Eating Lowest	
Half Fat Anchor	5	Ever Soft Spread	5
Half Fat butters		Tomor hard margarine	1
(own brands)	5	Vitalite	4
Hard margarine (own brand)	2	Vitalite Light	4
"I can't believe it's not		Vitaquelle	3
butter"	4	Weight Watchers	5
Kerrygold Light	5	Willow (Dairy Crest)	4
Kraft Special Soft	4		
Krona (gold/silver label)	4		
Krona Spreadable	4		
Latta	5		
Marks and Spencer -			
English Churn	4		
Sunglow	5		
Sunflower Lite	5		
Meadowcup	4		
Mello	4		
Olive Gold (Sainsbury)	4		
Olivio	4		
Outline	5		
Safeway			
Golden Low Fat Spread	5		
Low Fat Sunflower			
Spread	5		
Meadow	4		
Olive	4		
Reduced Fat Soft Sprd	4		
Soft margarine	3		
Very Low Fat Spread			
(Simplex)	5		

P1394

**CODING LIST 2
FOR CODING BREAKFAST CEREALS**

NB. All the cereals listed on this card are high in fibre and should be coded 1. Any cereal not on the list with bran, oats or wheat in the name should be coded 2 and the name of it recorded in a note.

All Bran (any brand)	Oat Bran flakes (any brand)
Allinson's Tropical Break Wholeflakes	Oat Bran flakes with added fruit (any brand)
Alpen	Oat and wheat bran (any brand), eg Weetabix
Alpen with tropical fruit	Organically grown oat flakes (Sainsbury's)
Apricot Wheats (Sainsbury's)	Porridge oats (any brand)
Billington's Organic muesli	Porridge with bran (any brand)
Bran breakfast (Tesco's)	Quaker Harvest Oat Krunchies
Bran Buds	Quaker Oat Bran
Branflakes (any brand)	Quaker Oat Bran Crispies
Branflakes with sultanas	Quaker Oats
Cherry Wheats (Sainsbury's)	Raisin Splitz
Cheshire Natural Muesli	Raisin Wheats (Sainsbury's)
Cheshire Fruit and Fibre Muesli Clusters	Ryvitta Cornflakes - <u>High Fibre only</u>
Coco shreds	Scottish Oatflakes with wheatbran (Sainsbury's)
Common Sense (Kellog's)	Shredded Wheat (includes Bite Size)
Country store muesli	Shredded malt wheats (Tesco)
Crunch oat cereal (Sainsbury)	Shreddies (any brand)
Crunchy muesli	Squared malt Bites (Safeway)
Cubs (mini-shreddies)	Strawberry Wheats (Sainsbury's)
Deeside Apricot and Yoghurt Cereal	Sultana Bran (any brand)
Frosted shreds	Swiss Style Muesli
Fruit and Fibre (any brand)	Team (Nabisco)
Fruit and Nut Bran (Sainsbury's)	Toppas
Fruit filled mini-shredded wheat	Weetabix
Harvest Crunch Muesli	Weetaflakes
High Fibre Bran (Sainsbury's)	Wheatflakes (any brand)
Jordan's Crispy Muesli	Wheatflakes with fruit (any brand)
Jordan's Oat Bran Hearts	Whole wheat biscuits (eg Weetabix)
Jordan's Original Crunchy Muesli	Wholewheat mini-flakes
Jordan's Porridge Oats	Wholewheat muesli
Jordan's Special Recipe Muesli	
Malties	
Maple and Nut flakes (Sainsbury)	
Mini Shredded Wheat	
Mini Wheats	
Mornflakes Chocolate Fruit and Nut Crunch	
Muesli	
Nabisco Team	
Natural Bran	
Nut Feast (Kellog's)	
Oat and Bran flakes (any brand)	

P1394

CARD F

1. **6 or more times a day**
2. **4 - 5 times a day**
3. **2 - 3 times a day**
4. **Once a day**
5. **5 - 6 times a week**
6. **2 - 4 times a week**
7. **Once a week**
8. **1 - 3 times a month**
9. **Less often or never**

P1394

CARD G

1. 6 or more a day
2. 4 or 5 a day
3. 2 or 3 a day
4. One a day
5. Less than one a day

P1394

CARD H

1. On a pavement or a pedestrian area
2. On a road
3. In a home or garden (either your own or someone else's)
4. In a place used for sports, play or recreation (including sports facility at a school or college)
5. In some other part of a school or college
6. In an office, factory, shop, pub, restaurant or other public building
7. Somewhere else (PLEASE SPECIFY)

P1394

CARD I

1. Broken bones
2. Dislocated joints
3. Losing consciousness
4. Straining or twisting a part of the body
5. Cutting, piercing or grazing a part of the body
6. Bruising, pinching or crushing a part of the body
7. Swelling or tenderness in some part of the body
8. Getting something stuck in the eye, throat, ear or other part of the body
9. Burning or scalding
10. Poisoning
11. Other injury to internal parts of the body
12. Animal or insect bite or sting
13. Other (PLEASE SPECIFY)

P1394

CARD J

1. Hospital
2. GP/Family Doctor
3. Nurse at GP surgery
4. Nurse at place of work or school
5. Doctor at place of work or school
6. Other doctor or nurse
7. Ambulance staff
8. Volunteer first aider
9. Chemist or pharmacist
10. Family, friends, colleagues, passers-by
11. Looked after self
12. Other person/s

P1394

CARD K

1. Heart trouble/problem
2. High blood pressure
3. Cancer
4. Bronchitis
5. Cough
6. Shortness of breath
7. Other respiratory problems (incl. asthma)
8. Cold/flu/virus
9. Pregnancy
10. Ulcer or other gastro-intestinal problem
11. Diabetes
12. Any other condition (PLEASE SAY WHAT)

P1394

CARD L

1. At home
2. At work
3. In other people's homes
4. On public transport
5. Pubs
6. In other public places

P1394

CARD M

1. **Almost every day/Every day**
2. **5 or 6 days a week**
3. **3 or 4 days a week**
4. **Once or twice a week**
5. **Once or twice a month**
6. **Once every couple of months**
7. **Once or twice a year**
8. **Not at all in the last 12 months**

P1394

CARD N

1. **Heart disease**
2. **Hardening of the arteries**
3. **High blood pressure**
4. **Liver disease**
5. **Ulcers or other gastro-intestinal problems**
6. **Cancer**
7. **Diabetes**
8. **Excess weight**
9. **Pregnancy**
10. **Some other health condition (PLEASE SPECIFY)**

P1394

CARD O

1. Almost every day/Every day
2. 5 or 6 days a week
3. 3 or 4 days a week
4. Once or twice a week
5. Once or twice a month
6. Once every couple of months
7. Once or twice a year

P1394

CARD P

1. Going to school or college full-time (including on vacation)
2. In paid employment or self-employed (or away temporarily)
3. Waiting to take up paid work already obtained
4. Looking for work
5. Intending to look for work but prevented by temporary sickness
6. Permanently unable to work because of long-term sickness or disability
7. Retired
8. Looking after the home or family
9. Doing something else (PLEASE SPECIFY)

P1394

CARD Q

1. Degree or degree level qualification (incl. higher degree)
2. SCE Higher/A-levels
3. SCE Ordinary (Bands A - C)
4. Standard Grade (Level 1 - 3)
5. SLC Lower
6. SUPE Lower or Ordinary
7. 'O' level passes (Grade A - C if after 1975)
8. GCSE (grade A - C)
9. CSE Grade 1
10. School Certificate or Matric
11. SCE Ordinary (Bands D & E)
12. Standard Grade (Level 4, 5)
13. CSE Grades 2 - 5
14. GCE 'O' Grades D & E (if after 1975)
15. GCSE (Grades D, E, F, G)
16. CSE ungraded
17. Foreign qualifications
18. Other academic qualifications (PLEASE SAY WHAT)
19. NO ACADEMIC QUALIFICATIONS

P1394

CARD R

1. HNC/HND, BEC/TEC Higher, BTEC Higher
2. ONC, OND, BEC/TEC not higher
3. City and Guilds Full Technological Certificate
4. City and Guilds Advanced/Final level
5. City and Guilds Craft/Ordinary level
6. Nursing qualifications (SRN, RGN, RMN, SEN, RSCN, RM, RHV)
7. Teaching qualification
8. SVQ/NVQ Level V
9. SVQ/NVQ Level IV
10. SVQ/NVQ Level III/Advanced level GNVQ
11. SVQ/NVQ Level II/Intermediate level GNVQ
12. SVQ/NVQ Level I/Foundation level GNVQ
13. SCOTVEC National Certificate Modules
14. Clerical or commercial qualifications (such as typing, bookkeeping, commerce)
15. Recognised Trade Apprenticeship completed
16. Other vocational or professional qualification (PLEASE SAY WHAT)
17. NO VOCATIONAL/PROFESSIONAL QUALIFICATIONS

P1394

CARD S

1. **White**
2. **Black - Caribbean**
3. **Black - African**
4. **Black - Other**
5. **Indian**
6. **Pakistani**
7. **Bangladeshi**
8. **Chinese**
9. **None of these**

P1394

CARD T

1. **High Blood Pressure**
2. **Angina**
3. **Heart Attack**
4. **Stroke**
5. **Other Heart Trouble**
6. **Diabetes**

CARD U

1. **Income Support**
2. **Family Credit**
3. **Council Tax Benefit**
4. **Unemployment Benefit**
5. **Sickness or Invalidity Benefit**
6. **Severe Disablement Allowance**
7. **Disability Living Allowance**

INTERVIEWER CARD
Coding Frame for
Heart Murmur, Abnormal Heart Rhythm
and Other Heart Trouble

This is a list of conditions which might come up in the Cardiovascular Conditions section and in the Parental history section.

Coding Category	Medical Term	Lay term
	Heart Bruit	Heart Murmur
Heart Murmur	Valvular Heart Disease (most commonly mitral and aortic)	Damaged Heart Valves
	Rheumatic Heart Disease	Rheumatic Fever (affecting the heart)
	Palpitations (heart arrhythmias)	Palpitations
Abnormal Heart Rhythm	Tachycardia	Rapid Heart
	Bradycardia (heart block)	Slow Heart
	Heart Fibrillation	Flutter
Other Heart Trouble	Congestive Cardiac Failure	Heart Failure
	Right Sided Heart Failure	Weakening Heart
	Left Sided Heart Failure	
	Congenital Heart Disease	Born With Heart Problem
	Other	Various



P1394 Scottish Health Survey: 1995 ■ IN CONFIDENCE
SMOKING, DRINKING AND GENERAL HEALTH
16-17 YEAR-OLDS

Survey Month: _____

(1-3) POINT	(4-6) ADDRESS	(6) HH	CKL	o.u.o.	(7-8) Card Spare
□ □ □	□ □ □	□	□		1 1

Please read this before completing:

A. Most questions on the following pages can be answered simply by putting a tick in the box next to the answer that applies to you.

Example:

Yes ^(✓)
No ₍₂₎

Sometimes you are asked to write in a number or the answer in your own words. Please enter numbers as figures rather than words.

B. On most pages you should answer ALL the questions but sometimes you will find the box you have ticked has an arrow next to it with an instruction to go to another question.

Example:

Yes ^(✓)
No → GO TO Q3

By following the arrows carefully you will miss out questions which do not apply to you.

■ IN CONFIDENCE

SMOKING

1. Have you ever smoked a cigarette, a cigar or a pipe?

Yes ^(✓) → GO TO Q2
No ₍₂₎ → GO TO Q9 ON NEXT PAGE

2. Have you ever smoked a cigarette?

Yes ^(✓) → GO TO Q3
No ₍₂₎ → GO TO Q9 ON NEXT PAGE

3. How old were you when you first tried smoking a cigarette, even if it was only a puff or two?

Write in how old you were then

4. Do you smoke cigarettes at all nowadays?

Yes ^(✓) → GO TO Q6
No ₍₂₎ → GO TO Q5

5. Did you smoke cigarettes regularly or occasionally?

Regularly, that is at least one cigarette a day ^(✓) ₍₁₎
Occasionally ₍₂₎
I never really smoked cigarettes, just tried them once or twice ₍₃₎

}

GO TO Q9 ON NEXT PAGE

CURRENT SMOKERS

6. About how many cigarettes a day do you usually smoke on weekdays?

Write in number smoked a day

7. And about how many cigarettes a day do you usually smoke at weekends?

Write in number smoked a day → GO TO Q8 ON NEXT PAGE

CURRENT SMOKERS

8 Have you ever tried to stop smoking?

- 1
- Yes, once or twice 2
- Yes, three times or more 3
- No, but I would like to 4
- No, do not want to stop 5

GO TO DRINKING QUESTIONS ON NEXT PAGE

ALL WHO DO NOT CURRENTLY SMOKE

9 Do you find that you are regularly exposed to other people's tobacco smoke in any of these places?

Please tick all boxes which apply

- 1
- At home 2
- At work 3
- On public transport 4
- In other people's homes 5
- In pubs 6
- In other public places 7
- No, none of these 8

IF YOU HAVE TICKED ANY OF THESE BOXES GO TO Q10.

OTHERS GO TO DRINKING QUESTIONS ON NEXT PAGE

10. Does this bother you?

- Yes 1
- No 2

NOW GO TO DRINKING QUESTIONS ON NEXT PAGE

DRINKING

11 Do you ever drink alcohol nowadays, including drinks you brew or make at home?

- 1
- Yes 2 → **GO TO Q14**
- No 3 → **GO TO Q12**

12 Just to check, does that mean you never have an alcoholic drink nowadays, or do you have an alcoholic drink very occasionally, perhaps for medicinal purposes or on special occasions like Christmas and New Year?

- 1
- Very occasionally 2 → **GO TO Q14**
- Never 3 → **GO TO Q13**

13. Have you always been a non-drinker or did you stop drinking for some reason?

- 1
- Always a non-drinker 2 → **GO TO THE GENERAL HEALTH QUESTIONS ON PAGE 9**
- Used to drink but stopped 3 → **GO TO Q14**

14. How old were you the first time you ever had an alcoholic drink?

Write in how old you were then: → **GO TO Q15 ON NEXT PAGE**

16. Thinking now about all kinds of drinks, how often have you had an alcoholic drink of any kind during the last 12 months?
- Almost every day.... 1
 - Five or six days a week.... 2
 - Three or four days a week.... 3
 - Once or twice a week.... 4
 - Once or twice a month.... 5
 - Once every couple of months.... 6
 - Once or twice a year.... 7
 - Not at all in the last 12 months.... 8

PLEASE GO TO Q.17 ON PAGE 8

15. Here is a list of alcoholic drinks. Please tick (✓) the box that best describes how often you usually drink each of them in the last 12 months. For the ones you drank, write in how much you usually drank on any one day. EXCLUDE ANY NON-ALCOHOLIC OR LOW ALCOHOL DRINKS, EXCEPT SHANDY.

Example:

Beer	How often have you had this type of drink in the past year?								How much did you usually drink on any one day? (write in number)			
	Almost every day	Five or six days a week	Three or four days a week	Once or twice a week	Once or twice a month	Once every couple of months	Once or twice in last 12 months	Never in last 12 months	Glasses (count doubles as 2 singles)	Half pints	Large cans or bottles	Small cans or bottles
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5		11	

Shandy (exclude bottles or cans)	About how often have you had this type of drink in the past year?								How much did you usually drink on any one day? (write in number)			
	Almost every day	Five or six days a week	Three or four days a week	Once or twice a week	Once or twice a month	Once every couple of months	Once or twice in last 12 months	Never in last 12 months	Glasses (count doubles as 2 singles)	Half pints	Large cans or bottles	Small cans or bottles
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Beer, lager, stout, cider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Spirits or liqueurs, such as gin, whisky, rum, brandy, vodka, or cocktails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Sherry or martini (including port, vermouth, cinzano, dubonnet)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Wine (incl. baby/ham & champagne)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Other kinds of alcoholic drink (WRITE IN NAME OF DRINK)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

17. Please read each statement. Thinking about the last three months only, if you have had the experience tick (✓) the box next to the word 'yes'. If you have not had the experience in the last three months, tick (✓) the box next to the word 'no'.

A. I have felt that I ought to cut down on my drinking. Yes 1 No 2 92

B. I have felt ashamed or guilty about my drinking. Yes 1 No 2 93

C. People have annoyed me by criticising my drinking. Yes 1 No 2 94

D. I have found that my hands were shaking in the morning after drinking the previous night. Yes 1 No 2 95

E. I have had a drink first thing in the morning to steady my nerves or get rid of a hangover. Yes 1 No 2 96

F. There have been occasions when I felt that I was unable to stop drinking. Yes 1 No 2 97

G. I have been drunk at least once a week, on average, in the last three months. Yes 1 → GO TO GENERAL HEALTH SECTION ON PAGE 9 No 2 → GO TO H 98

H. Drinking has made me slightly (or very) drunk in the last three months. Yes 1 → GO TO (a) No 2 → GO TO GENERAL HEALTH SECTION ON PAGE 9 99

a) If yes, please tick one of the boxes to show how many times in the last 3 months. Once 1 Twice 2 Three times 3 } GO TO GENERAL HEALTH SECTION ON PAGE 9 100

GENERAL HEALTH OVER THE LAST FEW WEEKS

Please read this before you start this section:

We should like to know how your health has been in general, over the past few weeks. Please answer ALL the questions by putting a tick (✓) in the box containing the answer which you think most applies to you.

Have you recently:

18. been able to concentrate on whatever you're doing? Better than usual 1 Same as usual 2 Less than usual 3 Much less than usual 4 101

19. lost much sleep over worry? Not at all 1 No more than usual 2 Rather more than usual 3 Much more than usual 4 102

20. felt you were playing a useful part in things? More so than usual 1 Same as usual 2 Less useful than usual 3 Much less useful 4 103

21. felt capable of making decisions about things? More so than usual 1 Same as usual 2 Less so than usual 3 Much less capable 4 104

22. felt constantly under strain? Not at all 1 No more than usual 2 Rather more than usual 3 Much more than usual 4 105

23. felt you couldn't overcome your difficulties? Not at all 1 No more than usual 2 Rather more than usual 3 Much more than usual 4 106

Have you recently:

- | | | | | | | |
|-----|--|----------------------------|----------------------------|----------------------------|----------------------------|-----|
| | | More so
than usual | Same
as usual | Less so
than usual | Much less
than usual | |
| 24. | been able to enjoy your
normal day-to-day activities? | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 107 |
| 25. | been able to face up
to your problems? | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 108 |
| | | Not at
all | No more
than usual | Rather more
than usual | Much more
than usual | |
| 26. | been feeling unhappy
and depressed? | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 109 |
| | | Not at
all | No more
than usual | Rather more
than usual | Much more
than usual | |
| 27. | been losing confidence
in yourself? | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 110 |
| | | Not at
all | No more
than usual | Rather more
than usual | Much more
than usual | |
| 28. | been thinking of yourself
as a worthless person? | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 111 |
| | | More so
than usual | About same
as usual | Less so
than usual | Much less
than usual | |
| 29. | been feeling reasonably
happy, all things considered? | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 112 |

WOMEN ONLY PLEASE ANSWER

30. Are you currently taking the contraceptive pill or having a contraceptive injection? Yes 1 → **GO TO Q31**
 No 2 → **GO TO Q33** 113

31. What kind of contraceptive is this? Injection 1 → **GO TO Q33**
 Mini-pill 2 } **GO TO Q32** 114
 Combined pill 3 }
 Not sure 4 }

32. What is the brand name of the contraceptive pill you take?
 Please write the name below 115-119
 **GO TO Q33**

33. **Thank you for answering these questions. Now please return this booklet to the interviewer.**



P1394

Scottish Health Survey: 1995

IN CONFIDENCE

GENERAL HEALTH

ADULTS AGED 18+

Survey Month: _____

(1-3) POINT

(4-5) ADDRESS

(6) HHLID

CKL

o.u.o.

(7-8) Card

(9-10) Spare

Please read this before completing:

A. Most questions on the following pages can be answered simply by putting a tick in the box next to the answer that applies to you.

Example:

Yes

No

Sometimes you are asked to write in a number or the answer in your own words. Please enter numbers as figures rather than words.

B. On most pages you should answer ALL the questions but sometimes you will find the box you have ticked has an arrow next to it with an instruction to go to another question.

Example:

Yes → GO TO Q4

No → GO TO Q3

By following the arrows carefully you will miss out questions which do not apply to you.

GENERAL HEALTH OVER THE LAST FEW WEEKS

Please read this before you start:

We should like to know how your health has been in general, over the past few weeks. Please answer ALL the questions by putting a tick (✓) in the box containing the answer which you think most applies to you.

Have you recently:

	Better than usual	Same as usual	Less than usual	Much less than usual	
1. been able to concentrate on whatever you're doing?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	20
2. lost much sleep over worry?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	21
3. felt you were playing a useful part in things?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	22
4. felt capable of making decisions about things?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	23
5. felt constantly under strain?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	24
6. felt you couldn't overcome your difficulties?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	25

Have you recently:

- | | | | | | | |
|-----|--|---|---|---|---|----|
| | More so
than usual | Same
as usual | Less so
than usual | Much less
than usual | | |
| 7. | been able to enjoy your
normal day-to-day activities? | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 26 |
| 8. | been able to face up
to your problems? | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 27 |
| 9. | been feeling unhappy
and depressed? | Not at
all
<input type="checkbox"/> 1 | No more
than usual
<input type="checkbox"/> 2 | Rather more
than usual
<input type="checkbox"/> 3 | Much more
than usual
<input type="checkbox"/> 4 | 28 |
| 10. | been losing confidence
in yourself? | Not at
all
<input type="checkbox"/> 1 | No more
than usual
<input type="checkbox"/> 2 | Rather more
than usual
<input type="checkbox"/> 3 | Much more
than usual
<input type="checkbox"/> 4 | 29 |
| 11. | been thinking of yourself
as a worthless person? | Not at
all
<input type="checkbox"/> 1 | No more
than usual
<input type="checkbox"/> 2 | Rather more
than usual
<input type="checkbox"/> 3 | Much more
than usual
<input type="checkbox"/> 4 | 30 |
| 12. | been feeling reasonably
happy, all things considered | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 31 |

WOMEN ONLY PLEASE ANSWER

20. Are you still having periods (menstruating)?
- Yes 1 → **GO TO Q23**
- No 2 → **GO TO Q21**

21. Did your periods stop as a result of an operation?
- Yes 1 → **GO TO Q22**
- No 2 → **GO TO Q26**

22. Have you had any ovaries removed?
- Yes 1 } **GO TO Q26**
- No 2 }

23. Are you currently taking the contraceptive pill or
having a contraceptive injection?
- Yes 1 → **GO TO Q24**
- No 2 → **GO TO Q26**

24. What kind of contraceptive is this?
- Injection 1 → **GO TO Q26**
- Mini-pill 2 } **GO TO Q25**
- Combined pill 3 }
- Not sure 4 }

25. What is the brand name of the contraceptive pill
you take?
- Please write the name below**
- **GO TO Q26**

26. **Thank you for answering these questions. Now please return this
booklet to the interviewer.**



P1394

Scottish Health Survey

1995

NURSE SCHEDULE

Survey Month: _____				OUO
(1-3)	(4-5)	(6)		CARD 13 (7-9)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
POINT	ADDRESS	HH	CKL	
FIRST name: _____				
Date of Birth: (Check with respondent)				
(8-10)	(11-12)	(13-14)		
<input type="text"/>	<input type="text"/>	<input type="text"/>		
Day	Month (in words)	Year		

Time interview began:

(15-16)				
<input type="text"/>				
(24 hr clock)				

Space 18-38

ALL

2

1. NURSE CHECK: Respondent is -

Female, aged 16-49
Female, aged 50 or over
Male

1	ASK Q2
2	GO TO Q3
3	

WOMEN AGED 16-49

2. Can I check, are you pregnant at the moment?

Yes 1
No 2
Don't know 3

ALL

3. Are you taking or using any medicines, pills, ointments, puffers or injections prescribed for you by a doctor?

Yes	1	GO TO Q4
No	2	GO TO Q5

ALL

8a) Have you suffered from any illness involving diarrhoea or vomiting in the past 6 months?

CODE ONE ONLY

Diarrhoea = 3+ loose bowel movements in 24 hrs
Vomiting = 3+ times in 24 hours

- Yes - vomiting only 1
- Yes - diarrhoea only 2 **GO TO b)**
- Yes - both 3
- No 4 **GO TO Q9**
- Can't remember 8

b) How long did the diarrhoea/vomiting last - less than one week, 1 to 2 weeks, or more than 2 weeks?

MOST RECENT ILLNESS IF MORE THAN ONE

- Less than 1 week 1
- 1-2 weeks 2
- More than 2 weeks 3
- Can't remember 8

c) Did you consult your GP or another doctor about this illness, either by phone or by visiting the surgery or hospital?

- Did consult GP/doctor 1 **GO TO d)**
- GP/doctor not consulted 2 **GO TO g)**

d) Did your GP/doctor diagnose this illness as food poisoning, gastroenteritis, or some other illness?

CODE ONE ONLY

- Food poisoning 1
- Gastroenteritis 2
- Other (SPECIFY) _____ 3
- Respondent not given diagnosis 4
- Can't remember/don't know 8

e) Did the doctor ask you to supply a stool for testing?

- Yes 1 **GO TO f)**
- No 2 **GO TO g)**

f) Were you told what type of germ or bacteria was causing your illness?

IF YES: What was it?

CODE ONE ONLY

- No, not told 1
- Yes, told: - Salmonella 2
- Other (SPECIFY) _____ 3
- Can't remember 4
- Can't remember if told 8

g) Did you have to take any time off paid work as a result of this illness?

- Yes 1
- No/not working at the time 2

BLOOD PRESSURE

ALL

9a) **NURSE CHECK Q2:** Respondent is pregnant

- Yes 1 **GO TO b)**
- No/don't know 2 **GO TO Q10**

PREGNANT WOMEN

b) **NO MEASUREMENTS TO BE DONE**

NO BLOOD SAMPLE TO BE TAKEN

CIRCLE CONSENT CODES 02, 04, 06, 08, 10, AND 12, ON FRONT OF CONSENT BOOKLET

GO TO Q48

ALL EXCEPT PREGNANT WOMEN

10. (As I mentioned earlier) We would like to measure your blood pressure. The analysis of blood pressure readings will tell us a lot about the health of the population.

May I just check, have you eaten, smoked or drunk alcohol or done any vigorous exercise in the past 30 minutes?

CODE ALL THAT APPLY

- Eaten 1
- Smoked 2
- Drunk alcohol 3 **GO TO Q11**
- Done vigorous exercise 4
- (None of these) 5

11a) RECORD DINAMAP SERIAL NUMBER: → HSS

b) SELECT CUFF
RECORD CUFF SIZE CHOSEN

Small adult (17-25 cm)	1
Adult (23-33 cm)	2 GO TO c)
Large adult (31-40 cm)	3

c) ENTER AMBIENT AIR TEMPERATURE . °C

d) TAKE THREE MEASUREMENTS FROM RIGHT ARM AND RECORD READINGS BELOW:

First reading:

MAP (mmHg)	<input type="text"/> <input type="text"/> <input type="text"/>	SYSTOLIC (mmHg)	<input type="text"/> <input type="text"/> <input type="text"/>
PULSE (bpm)	<input type="text"/> <input type="text"/> <input type="text"/>	DIASTOLIC (mmHg)	<input type="text"/> <input type="text"/> <input type="text"/>

Second reading:

MAP (mmHg)	<input type="text"/> <input type="text"/> <input type="text"/>	SYSTOLIC (mmHg)	<input type="text"/> <input type="text"/> <input type="text"/>
PULSE (bpm)	<input type="text"/> <input type="text"/> <input type="text"/>	DIASTOLIC (mmHg)	<input type="text"/> <input type="text"/> <input type="text"/>

Third reading:

MAP (mmHg)	<input type="text"/> <input type="text"/> <input type="text"/>	SYSTOLIC (mmHg)	<input type="text"/> <input type="text"/> <input type="text"/>
PULSE (bpm)	<input type="text"/> <input type="text"/> <input type="text"/>	DIASTOLIC (mmHg)	<input type="text"/> <input type="text"/> <input type="text"/>

160-162
163
164-167
168-178
180-191
192-203

12a) NURSE CHECK:

Blood pressure measurement obtained: CODE ONE ONLY

Three valid readings	1 GO TO Q13
Two valid readings	2
One valid reading	3 GO TO b)
Blood pressure measurement attempted but <u>not</u> obtained	4
Blood pressure measurement not attempted	5 GO TO c)
Blood pressure measurement refused	6

**MEASUREMENT ATTEMPTED, NOT OBTAINED/
ONE OR TWO READINGS ONLY OBTAINED**

b) RECORD WHY READING NOT OBTAINED/ONLY ONE OR TWO READINGS OBTAINED

CODE ALL THAT APPLY

Respondent was upset/anxious/nervous	1
'Error 844' reading	2 GO TO d)
Other (GIVE FULL DETAILS) _____	5

BLOOD PRESSURE READING NOT ATTEMPTED/REFUSED

c) GIVE REASON FOR REFUSAL/NOT ATTEMPTING MEASUREMENT WRITE IN BELOW.

**BLOOD PRESSURE READING NOT ATTEMPTED/REFUSED/
ATTEMPTED, NOT OBTAINED/1 OR 2 READINGS ONLY**

d) NURSE CHECK:

One or two readings obtained	1 GO TO Q13
Blood pressure measurement not attempted, attempted <u>not</u> obtained or refused	2 GO TO e)

e) CIRCLE CONSENT CODE 02 ON FRONT OF CONSENT BOOKLET

GO TO Q18

20
205-21
210-2

BLOOD PRESSURE OBTAINED

13. RECORD ANY PROBLEMS TAKING READINGS

CODE ALL THAT APPLY

No problems taking blood pressure

Reading taken on left arm because right arm not suitable

Respondent was upset/anxious/nervous

Other problems (GIVE FULL DETAILS) _____

- 1
- 2
- 3 **GO TO Q14**
- 4

219-227

OBTAINING CONSENT TO SEND RESULTS TO GP

14a) Are you registered with a GP?

Yes

1 **GO TO b)**

No

2 **GO TO Q15**

223

REGISTERED WITH GP

b) May we send your blood pressure readings to your GP?

Yes

1 **GO TO Q16**

No

2 **GO TO c)**

224

RESULTS CANNOT BE SENT TO GP

c) SPECIFY REASONS FOR REFUSALS

CODE ALL THAT APPLY

Hardly/never sees GP

GP knows respondent's BP level

Does not want to bother GP

Other (GIVE FULL DETAILS) _____

- 1
- 2 **GO TO Q15**
- 3
- 4

225-228

SPARE

229-230

15. CIRCLE CONSENT CODE 02 ON FRONT OF CONSENT BOOKLET

GO TO Q17

RESULTS CAN BE SENT TO GP

16a) COMPLETE "BLOOD PRESSURE TO GP CONSENT FORM (FORM BP)"

ASK RESPONDENT TO SIGN AND DATE IT.

b) CHECK GP NAME, ADDRESS AND PHONE NO. ARE RECORDED ON CONSENT FORM (Q7 ON FRONT PAGE).

CHECK NAME BY WHICH GP KNOWS RESPONDENT (Q3 ON FRONT PAGE).

c) CIRCLE CONSENT CODE 01 ON FRONT OF CONSENT BOOKLET.

BLOOD PRESSURE OBTAINED

17. OFFER BLOOD PRESSURE RESULTS TO RESPONDENT.

ENTER ON THEIR MEASUREMENT RECORD CARD (COMPLETE NEW RECORD CARD IF REQUIRED).

WAIST AND HIP CIRCUMFERENCES

ALL EXCEPT PREGNANT WOMEN

18a) I would now like to measure your waist and hips. The waist relative to hip measurement is very useful for assessing the distribution of weight over the body.

MEASURE THE WAIST AND HIP CIRCUMFERENCES TO THE NEAREST MM.

1st measurement:	Waist circumference (cms)	<input type="text"/> <input type="text"/> <input type="text"/> • <input type="text"/>	231-35
	Hip circumference (cms)	<input type="text"/> <input type="text"/> <input type="text"/> • <input type="text"/>	236-40
2nd measurement:	Waist circumference (cms)	<input type="text"/> <input type="text"/> <input type="text"/> • <input type="text"/>	241-45
	Hip circumference (cms)	<input type="text"/> <input type="text"/> <input type="text"/> • <input type="text"/>	246-50

b) NURSE CHECK: CODE ONE ONLY	Both measurements obtained	1 GO TO Q19	251
	Only one measurement obtained	2	
	Both measurements refused	3 GO TO c)	
	Measurement not attempted	4	

c) GIVE REASON FOR REFUSAL/NOT ATTEMPTING/WHY ONLY ONE OBTAINED CODE ALL THAT APPLY	Respondent is chairbound	1	252-55
	Other (Give full details below) _____	2	

19a) **RECORD IF ANY WAIST MEASUREMENT TAKEN:**

Waist measurement obtained: CODE ONE ONLY		
No problems experienced, reliable waist measurement	1	GO TO c)
Problems experienced-waist measurement likely to be:		
reliable	2	
slightly unreliable	3	GO TO b)
unreliable	4	
(NO waist measurement obtained)	7	GO TO c)

b) RECORD WHETHER PROBLEMS EXPERIENCED ARE LIKELY TO INCREASE OR DECREASE THE WAIST MEASUREMENT.		
Increases measurement	1	
Decreases measurement	2	

c) RECORD IF ANY HIP MEASUREMENT TAKEN:		
Hip measurement obtained: CODE ONE ONLY		
No problems experienced, reliable hip measurement	1	GO TO e)
Problems experienced, hip measurement likely to be:		
reliable	2	
slightly unreliable	3	GO TO d)
unreliable	4	
(NO hip measurement obtained)	7	GO TO e)

d) RECORD WHETHER PROBLEMS EXPERIENCED ARE LIKELY TO INCREASE OR DECREASE THE HIP MEASUREMENT.		
Increases measurement	1	
Decreases measurement	2	

e) **OFFER TO WRITE RESULTS OF WAIST AND HIP MEASUREMENTS, WHERE APPLICABLE, ONTO RESPONDENT'S MEASUREMENT RECORD CARD.**

LUNG FUNCTION

ALL EXCEPT PREGNANT WOMEN

20a) Can I check, have you had abdominal or chest surgery in the past three weeks?

- Yes 1 GO TO c)
- No 2 GO TO b)

IF NO AT a)

b) Have you been admitted to hospital for a heart complaint or stroke in the past six weeks?

- Yes 1 GO TO c)
- No 2 GO TO Q21

c) NO LUNG FUNCTION TEST TO BE CARRIED OUT. CIRCLE CONSENT CODE 04 ON FRONT OF CONSENT BOOKLET.

GO TO Q31

21. (As I mentioned earlier) We would like to measure your lung function. If you wish, I will write the result of the test on your Measurement Record Card. I will not, however, be able to tell you what the results mean. This has to be calculated using your age, sex and height. If you would like us to, we will also send your results to your GP who is better placed to interpret them.

IF ASKED: There is a wide range that can be considered acceptable. A low result can simply be due to unfitnes and does not necessarily indicate any disease. People's results vary from day to day, so a diagnosis cannot be made on the basis of measurements taken on a single occasion.

22a) In the past three weeks, have you had any respiratory infections such as influenza, pneumonia, bronchitis or a severe cold?

- Yes 1
- No 2

b) (Can I just check), have you used an inhaler, puffer or any medication for your breathing in the last 24 hours?

- Yes 1 GO TO c)
- No 2 GO TO Q23

IF YES AT b)

c) How many hours ago did you use it? RECORD NO. OF HOURS

23a) **NURSE CHECK: CALIBRATE THE SPIROMETER**

b) **RECORD SPIROMETER SERIAL NUMBER:**

HSS R

c) **RECORD AMBIENT AIR TEMPERATURE**

°C

24a) **RECORD THE RESULTS OF FIVE BLOWS BY THE RESPONDENT IN THE BOXES BELOW.**

RECORD EACH BLOW AS IT IS CARRIED OUT. FOR EACH BLOW, WRITE IN THE THREE MEASURES AND CODE WHETHER TECHNIQUE WAS SATISFACTORY.

DOUBLE CHECK THAT YOU HAVE ENTERED THE DATA IN THE APPROPRIATE BOX.

	MEASURES			TECHNIQUE SATISFACTORY?	
	FVC (LITRES)	FEV ₁ (LITRES)	PF (LITRES PER MIN)	YES	NO
1ST BLOW	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> 1	<input type="text"/> 2
2ND BLOW	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> 1	<input type="text"/> 2
3RD BLOW	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> 1	<input type="text"/> 2
4TH BLOW	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> 1	<input type="text"/> 2
5TH BLOW	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> 1	<input type="text"/> 2

b) **NURSE CHECK:**

At least one technically satisfactory blow **COMPLETE c)**
 No technically satisfactory blow 2 **GO TO Q25**

c) **FOR EACH MEASURE, ENTER HIGHEST TECHNICALLY SATISFACTORY VALUE**

FVC FEV₁ PF

d) Measurements taken while respondent was: Standing 1
Sitting 2

25a) NURSE CHECK: CODE ONE ONLY	All 5 blows obtained	1	GO TO Q26
	Some blows, but less than 5, obtained	2	GO TO b)
	All blows refused	3	GO TO c)
	No blows attempted	4	

b) GIVE REASONS WHY LESS THAN 5 BLOWS OBTAINED CODE ALL THAT APPLY	Refused to continue	1	GO TO Q26
	Breathless	2	
	Coughing fit	3	
	Other (GIVE FULL DETAILS) _____	4	

LUNG FUNCTION READING NOT OBTAINED			
c) GIVE REASON WHY LUNG FUNCTION MEASUREMENTS WERE NOT ATTEMPTED/REFUSED. CODE ONE ONLY	Temperature of house too cold	1	GO TO d)
	Temperature of house too hot	2	
	Equipment failure	3	
	Breathless	4	
	Unwell	5	
	Other reason why measurements not attempted/refused (Give full details) _____	6	

d) CIRCLE CONSENT CODE 04 ON FRONT OF CONSENT BOOKLET	GO TO Q31
--	------------------

OBTAINING CONSENT TO SEND RESULTS TO GP			
26a) NURSE CHECK: CODE ONE ONLY	No technically satisfactory blow	1	GO TO c)
	At least one technically satisfactory blow :-		
	Respondent registered with GP - Respondent <u>not</u> registered with GP	2 3	GO TO b) GO TO Q28

IF REGISTERED WITH GP			
b) May we send your lung function test results to your GP?	Yes	1	GO TO Q29
	No	2	GO TO Q27
c) IF NO TECHNICALLY SATISFACTORY BLOW, CIRCLE CONSENT CODE 04 ON FRONT OF CONSENT BOOKLET			GO TO Q31

RESULTS CANNOT BE SENT TO GP			
27. SPECIFY REASONS FOR REFUSAL			
CODE ALL THAT APPLY	Hardly/never sees GP	1	GO TO Q28
	GP knows respondent's lung function	2	
	Does not want to bother GP	3	
	Other (GIVE FULL DETAILS) _____	4	

28. CIRCLE CONSENT CODE 04 ON FRONT OF CONSENT BOOKLET.	GO TO Q30
--	------------------

RESULTS CAN BE SENT TO GP	
29a) COMPLETE "LUNG FUNCTION TO GP CONSENT FORM (FORM LF)"	
ASK RESPONDENT TO SIGN AND DATE IT.	
b) CHECK GP NAME, ADDRESS AND PHONE NO. ARE RECORDED ON FRONT OF CONSENT BOOKLET.	
CHECK NAME BY WHICH GP KNOWS RESPONDENT.	
c) CIRCLE CONSENT CODE 03 ON FRONT OF CONSENT BOOKLET.	

LUNG FUNCTION MEASURED	
30. OFFER LUNG FUNCTION RESULTS TO RESPONDENT.	
ENTER THEIR HIGHEST FVC AND HIGHEST FEV ₁ AND HIGHEST PEAK FLOW READINGS ON MEASUREMENT RECORD CARD. (COMPLETE NEW RECORD CARD IF REQUIRED).	

BLOOD SAMPLE

ALL EXCEPT PREGNANT WOMEN

31a) **NURSE CHECK:** Respondent is aged 16-17 **1 GO TO b)**
 Respondent is aged 18+ **2 GO TO Q32**

b) **NURSE CHECK:**
 Respondent lives with parent or person with legal parental responsibility ("Parent") **1 GO TO Q32**
 Does NOT live with parent or person with legal parental responsibility ("Parent") **2 NO BLOOD TO BE TAKEN GO TO Q47**

32. **EXPLAIN PURPOSE AND PROCEDURE FOR TAKING BLOOD**
 a) May I just check, do you have a clotting or bleeding disorder?
 Yes **1 NO BLOOD TO BE TAKEN GO TO Q47**
 No **2 GO TO b)**

IF NO AT a)
 b) Would you be willing to have a blood sample taken?
 Yes **1 GO TO Q33**
 No **2 GO TO c)**

BLOOD SAMPLE REFUSED
 c) **RECORD WHY BLOOD SAMPLE REFUSED**

CODE ALL THAT APPLY	Previous difficulties with venepuncture	01
	Dislike/fear of needles	02
	Respondent recently had blood test/health check	03 NO BLOOD TO BE TAKEN
	Refused because of current illness	04 BE TAKEN
	Worried about HIV or AIDS	05 GO TO Q47
Other (GIVE FULL DETAILS)		06

ALL WILLING TO GIVE BLOOD SAMPLE

33. **EXPLAIN NEED FOR WRITTEN CONSENT:** Before I can take any blood, I have to obtain written consent from you.

34a) **NURSE CHECK** Respondent is aged 16-17 **1 CHECK b)**
 Respondent is aged 18+ **2 GO TO Q35**

IF AGED 16-17
 b) **CHECK:** Is a parent or person with legal parental responsibility willing to give consent?
 Yes **1 GO TO Q35**
 No **2 GO TO c)**

IF NOT WILLING TO GIVE CONSENT
 c) **RECORD DETAILS OF WHY CONSENT REFUSED**

NO BLOOD TO BE TAKEN GO TO Q47

GETTING CONSENT TO GIVE BLOOD
 35a) **FILL IN RESPONDENT'S NAME AND YOUR NAME AT TOP OF "BLOOD SAMPLE CONSENT FORM (FORM BS)" IN CONSENT BOOKLET.**
ASK RESPONDENT TO READ AND SIGN AND DATE PART 1.
IF RESPONDENT IS 16-17, ENSURE PARENT/PARENT* SIGNS.
 b) **CIRCLE CONSENT CODE 05 ON THE FRONT OF THE CONSENT BOOKLET.**

OBTAINING CONSENT TO SEND RESULT TO GP

36a) NURSE CHECK:

Respondent registered with GP	1 GO TO b)
Respondent <u>not</u> registered with GP	2 GO TO Q38

390

IF REGISTERED WITH GP

b) May we send the results of your blood sample analysis to your GP?

Yes	1 GO TO Q39
No	2 GO TO Q37

391

RESULTS CANNOT BE SENT TO GP

37. Why do you not want your blood sample results sent to your GP?

CODE ALL THAT APPLY

Hardly/never sees GP	1
GP recently took blood sample	2
Does not want to bother GP	3
Other (GIVE FULL DETAILS) _____	4

392-395

38. CIRCLE CONSENT CODE 08 ON FRONT OF CONSENT BOOKLET. **GO TO Q40**

RESULT CAN BE SENT TO GP

39a) OBTAIN SIGNATURE FOR PART II OF "BLOOD SAMPLE CONSENT FORM".

IF RESPONDENT IS 16-17, ENSURE PARENT/"PARENT" SIGNS.

b) CHECK GP NAME, ADDRESS AND PHONE NO. ARE RECORDED ON FRONT OF CONSENT BOOKLET.

CHECK NAME BY WHICH GP KNOWS RESPONDENT.

c) CIRCLE CONSENT CODE 07 ON FRONT OF CONSENT BOOKLET.

GO TO Q40

GETTING CONSENT TO STORE BLOOD

40. ASK FOR CONSENT TO STORE ANY REMAINING BLOOD FROM THE SAMPLE FOR FUTURE ANALYSIS.

Storage consent given	1 GO TO Q41
Consent refused	2 GO TO Q42

396

STORAGE CONSENT GIVEN

41a) OBTAIN SIGNATURE AT PART III OF "BLOOD SAMPLE CONSENT FORM".

IF RESPONDENT IS 16-17 ENSURE PARENT/"PARENT" SIGNS.

SPARE

b) CIRCLE CONSENT CODE 09 ON FRONT OF CONSENT BOOKLET. **GO TO Q43**

397

STORAGE CONSENT REFUSED

42. CIRCLE CONSENT CODE 10 ON FRONT OF CONSENT BOOKLET. **GO TO Q43**

TAKING BLOOD SAMPLES

43. CHECK YOU HAVE ALL APPLICABLE SIGNATURES.

TAKE BLOOD SAMPLE

CHECK ADDRESS LABEL:

IF BT:S, TAKE 3 TUBES IN THE ORDER: Plain(red); EDTA(mauve); Citrate (blue).

IF BT:V, TAKE 4 TUBES IN THE ORDER: Plain(red); EDTA(mauve); Citrate(blue); plain.

44a) BLOOD SAMPLE OUTCOME:

Blood sample obtained	1 GO TO b)
<u>No</u> blood sample obtained	2 GO TO Q46

398

b) RECORD IF BLOOD SAMPLE TAKEN:

CODE ALL THAT APPLY

No problems taking blood sample	01
Incomplete sample	02
Collapsing/poor/unsuitable/no palpable veins	03
Second attempt necessary	04 GO TO Q45
Some blood obtained, but respondent felt faint/fainted	05
Unable to use tourniquet	06

399-410

Other (GIVE FULL DETAILS) _____

07

BLOOD SAMPLE OBTAINED

45a) **NURSE: CHECK ADDRESS LABEL**

BT: S 1 **GO TO c)**
 BT: V 2 **GO TO b)**

VITAMIN SAMPLE TAKEN

b) Can I check, when did you last have any cheese, butter, milk or ice-cream - within the last hour, 1-4 hours ago, or more than 4 hours ago?

RECORD IN GRID BELOW

REPEAT QUESTION FOR EACH TYPE OF FOOD (i-vi), AND RECORD IN GRID

	Within 1 hour	1-4 hours	More than 4 hours	Can't say
i) Cheese, butter, milk, or ice-cream?	1	2	3	8
ii) Meat, poultry or fish (beef, lamb, pork, chicken, turkey)?	1	2	3	8
iii) Any fried foods, including chips?	1	2	3	8
iv) Cakes, pastries, biscuits or chocolate?	1	2	3	8
v) Crisps?	1	2	3	8
vi) Fresh fruit or fruit juice?	1	2	3	8

c) Would you like to be sent the results of your blood sample analysis?

Yes 1 **GO TO d)**
 No 2 **GO TO e)**

WOULD LIKE RESULTS

d) **CIRCLE CONSENT CODE 11 ON FRONT OF CONSENT BOOKLET.**

GO TO Q48

WOULD NOT LIKE RESULTS

e) **CIRCLE CONSENT CODE 12 ON FRONT OF CONSENT BOOKLET.**

GO TO Q48

BLOOD SAMPLE NOT OBTAINED

46a) **RING REASONS NO BLOOD OBTAINED. CODE ALL THAT APPLY**

No suitable vein/collapsed veins 01
 Respondent was too anxious/nervous 02
 Respondent felt faint/fainted 03

GO TO b)

Other (GIVE FULL DETAILS): 04

b) **CROSS OUT CONSENT CODES 05, 07, AND 09 IF ALREADY CIRCLED ON FRONT OF CONSENT BOOKLET**

REPLACE WITH CONSENT CODES 06, 08, 10 AND 12 ON FRONT OF CONSENT BOOKLET.

GO TO Q48

IF NO BLOOD TO BE TAKEN

47. **CIRCLE CONSENT CODES 06, 08, 10 AND 12 ON FRONT OF CONSENT BOOKLET.**

ALL

48. **ENSURE THAT ALL DETAILS ARE COMPLETED ON FRONT OF CONSENT BOOKLET.**

MAKE SURE THAT THERE ARE SIX APPROPRIATE CONSENT CODES RINGED AT Q9 ON FRONT OF CONSENT BOOKLET.

49. **TIME AT END OF INTERVIEW** ^{24 hr clock}

LENGTH OF INTERVIEW **MINS**

DATE OF INTERVIEW
 DAY MONTH YEAR

NURSE NUMBER

NURSE SIGNATURE _____

on behalf of
The Scottish Office ■ Home and Health Department



**BLOOD PRESSURE TO GP
CONSENT FORM**

P1394

**Scottish Health Survey
CONSENT BOOKLET**

Please use capital letters and write in ink

ADDRESS Survey Month _____

POINT ADDRESS

HR OKI

DAY MONTH YEAR

1. Nurse number 2. Date schedule completed _____

3. Full name (of person tested) _____

Name by which GP knows person (if different) _____

4. Sex: Male 1 Female 2 5. Date of birth DAY MONTH YEAR

6. Full name of parent/guardian (if person is under 18) _____

7. **GP NAME AND ADDRESS**

Dr: _____

Practice Name: _____

Address: _____

Town: _____

County: _____

Postcode: _____

Telephone no: _____

8. NURSE USE ONLY

GP address complete 1

GP address incomplete 2

No GP 3

9. **SUMMARY OF CONSENTS - RING CODE FOR EACH ITEM**

	YES	NO
a) Blood pressure to GP	01	02
b) Lung function result to GP	03	04
c) Sample of blood to be taken	05	06
d) Blood sample result to GP	07	08
e) Blood sample to storage	09	10
f) Blood sample result to respondent	11	12

I, (name) _____

consent to the SCPR/UCL Joint Health Surveys Unit informing my General Practitioner (GP) of my blood pressure results. I am aware that the results of my blood pressure measurement may be used by my GP to help monitor my health and that my GP may wish to include the results in any future report about me.

Signed _____

Date _____

**LUNG FUNCTION TO GP
CONSENT FORM**

I, (name) _____

consent to the SCPR/UCL Joint Health Surveys Unit informing my General Practitioner (GP) of my lung function results. I am aware that the results of my lung function measurement may be used by my GP to help monitor my health and that my GP may wish to include the results in any future report about me.

Signed _____

Date _____

BLOOD SAMPLE CONSENT FORM

I, (name) _____

i. Consent to _____ (qualified nurse) taking a sample of my blood on behalf of the SCPR/UCL Joint Health Surveys Unit. This blood sample will not be used to test for viruses (eg HIV test). The sample will be tested for total cholesterol, HDL cholesterol, fibrinogen, ferritin, haemoglobin, gamma GT, and serum cotinine. Some samples will also be tested for vitamins A,C,E, carotenoids, and fatty acids.

The purpose and procedure have been explained to me by the nurse and I have had an opportunity to discuss this with him/her. I have received a written explanation of these matters.

Signed _____ Date _____

IF UNDER 18: Countersigned by Parent or Person with legal parental responsibility

Signed _____ Date _____

ii. I consent to the SCPR/UCL Joint Health Surveys Unit informing my General Practitioner (GP) of the results of the blood sample analysis. I am aware that the results of my blood sample analysis may be used by my GP to help him/her monitor my health and that my GP may wish to include the results in any future report about me.

Signed _____ Date _____

IF UNDER 18: Countersigned by Parent or Person with legal parental responsibility

Signed _____ Date _____

iii. I consent to any remaining blood being stored for future analysis. The sample will not be used to test for viruses (eg HIV test).

Signed _____ Date _____

IF UNDER 18: Countersigned by Parent or Person with legal parental responsibility

Signed _____ Date _____

APPENDIX B: MEASUREMENT PROTOCOLS



1 HEIGHT AND WEIGHT MEASUREMENTS

1.1 Eligibility for height and weight measurements

Informants who are chairbound should not have their height and weight taken. If after discussion with an informant it becomes clear that they are too unsteady on their feet for these measurements, do not attempt to take them. If the respondent finds it painful to stand or stand straight, do not attempt to measure height. Pregnant women are not eligible for weight as this is clearly affected by their condition.

1.2 Site

It is strongly preferable to measure height and weight on a floor which is level and not carpeted. If all the household is carpeted, choose a floor with the thinnest and hardest carpet (usually the kitchen or bathroom).

1.3 Height measurement

The equipment

Portable stadiometer - a collapsible device with a sliding head plate, a base plate and three connecting rods marked with a measuring scale.

Frankfort Plane Card

The protocol

1. Ask the respondent to remove their shoes in order to obtain a measurement that is as accurate as possible.
2. Assemble the stadiometer and raise the headplate to allow sufficient room for the respondent to stand underneath it. Double check that you have assembled the stadiometer correctly.
3. The respondent should stand with their feet flat on the centre of the base plate, feet together and heels against the rod. The respondent's back should be as straight as possible, preferably against the rod but NOT leaning on it. They should have their arms hanging loosely by their sides. They should be facing forwards.
4. Move the respondent's head so that the Frankfort Plane is in a horizontal position (ie parallel to the floor). The Frankfort Plane is an imaginary line passing through the external ear canal and across the top of the lower bone of the eye socket, immediately under the eye. This position is important if an accurate reading is to be obtained. An additional check is to ensure that the measuring arm rests on the crown of the head, ie the top back half.

To make sure that the Frankfort Plane is horizontal, you can use the Frankfort Plane Card to line up the bottom of the eye socket with the flap of skin on the ear. The Frankfort Plane is horizontal when the card is parallel to the stadiometer arm.

5. Instruct the respondent to keep their eyes focused on a point straight ahead, to breathe in deeply and to stretch to their fullest height. If after stretching up the respondent's head is no longer horizontal, repeat the procedure. It can be

difficult to determine whether the stadiometer headplate is resting on the respondent's head. If so, ask the respondent to tell you when s/he feels it touching their head.

6. Ask the respondent to step forwards. If the measurement has been done correctly the respondent will be able to step off the stadiometer without ducking their head. Make sure that the head plate does not move when the respondent does this.
7. Look at the bottom edge of the head plate cuff. There is a green arrowhead pointing to the measuring scale. Take the reading from this point and record the respondent's height in centimetres and millimetres, that is in the form 123.4, at the question "**Height**." You may at this time record the respondent's height onto their Measurement Record Card and at the question "**MbookHt**" you will be asked to check that you have done so. At that point the computer will display the recorded height in both centimetres and in feet and inches. At **RelHiteB** you will be asked to code whether the measurement you obtained was reliable or unreliable.
8. Note that you should record the measurement to the nearest even millimetre. This means that if the reading should fall over an odd number but not quite to the full even number, then you should record to the even number anyway. Eg. for a reading 165.1 where the measurement is actually over the one millimetre mark but not quite up to the two, you would nevertheless record 165.2.
9. Push the head plate high enough to avoid someone hitting their head against it when getting ready to be measured.

Additional points

1. If the respondent cannot stand upright with their back against the stadiometer and have their heels against the rod (eg those with protruding bottoms) then give priority to standing upright.
2. If the respondent has a hair style which stands well above the top of their head (or is wearing a turban), bring the headplate down until it touches the hair/turban. With some hairstyles you can compress the hair to touch the head. If you cannot lower the headplate to touch the head, and think that this will lead to an unreliable measure, record this at question "**HtAffM**." If it is a hairstyle that can be altered, eg a bun, if possible ask the respondent to change/undo it.
3. If the respondent is tall, it can be difficult to line up the Frankfort Plane in the way described. When you think that the plane is horizontal, take one step back to check from a short distance that this is the case.

1.4 Weight measurement

The equipment

Soehnle electronic bathroom scales

IMPORTANT WARNING

The scales have an inbuilt memory which stores the weight for 10 minutes. If during this time you weigh another object that differs in weight by less than 500 grams, the stored weight will be displayed and not the weight that is being measured. This means that if you make an error and need to weigh someone for a second time, you could be given the wrong reading.

So if you get an identical reading for a second reading when you would not expect one, make sure that the memory has been cleared. Clear the memory from the last reading by weighing an object that is more than 500 grams lighter (ie a pile of books, your briefcase or even the stadiometer). You will then get the correct weight when you weigh the second time.

The protocol

1. Turn the display on by pressing firmly with your hand or foot on the top of the scales (the scales will turn themselves off after a short while). The readout should display 888.8 momentarily as a check for the operation - if this is not displayed check the batteries, if this is not the cause you may need to report the problem to SCPR. While the scales read 888.8 do not attempt to weigh anyone.
2. Ask the respondent to remove shoes, heavy outer garments such as jackets and cardigans, heavy jewellery, loose change and keys.
3. Turn the scales on with your foot again. Wait for a beep and display of 0.0 before the respondent stands on the scales.
4. Ask the respondent to stand with their feet together in the centre and their heels against the back edge of the scales. Arms should be hanging loosely at their sides and head facing forward. Ensure that they keep looking ahead - it may be tempting for the respondent to look down at their weight reading. Ask them not to do this and assure them that you will tell them their weight afterwards if they want to know.

The posture of the respondent is important. If they stand to one side, look down, or do not otherwise have their weight evenly spread, it can affect the reading.

5. The scales will take a short while to stabilize and will read 'C' until they have done so. If the respondent moves excessively while the scales are stabilizing you may get a false reading. If you think this is the case reweigh, but first ensure that you have erased the memory.
6. The Soehnle scales have been calibrated in kilograms and 100 gram units (0.1 kg). Record the reading into the computer at the question "**Weight**" before the respondent steps off the scales. At question "**MBookWt**" you will be asked to check that you have entered the respondent's weight onto their Measurement Record Card. At that point the computer will display the measured weight in both kilos and in stones and pounds.

WARNING

The maximum weight registering accurately on the scales is 130kg (20½ stone). If you think the informant exceeds this limit, code them as “Weight not attempted” at “*WtResp*”. The computer will display a question asking them for an estimate. Do not attempt to weight them.

2 BLOOD PRESSURE MEASUREMENT AND HEART RATE READINGS

High blood pressure is an important risk factor for cardiovascular disease. During the first visit, the interviewer will have asked the respondent if he/she has ever had high blood pressure. If this is the case more detailed information will have been collected.

However, it is important that we look at the blood pressure of everyone in the survey using a standard method so we can see the distribution of blood pressure across the population. This is vital for monitoring change over time, and monitoring progress towards lower blood pressure.

The only people not eligible for blood pressure measurement are those who are pregnant. However, if a pregnant woman wishes to have her blood pressure measured, you may do so, but do not record the readings on the Nurse Schedule.

All other respondents are eligible, unless they do not wish to give their permission.

2.1 Equipment

Dinamap 8100 blood pressure monitor
Blue pneumatic hose
Small adult cuff (17-25 cm)
Standard adult cuff (23-33 cm)
Large adult cuff (31-40 cm)
Power cord
Operation Manual

Extra large cuffs are also available from Field Department in Brentwood, should you require one.

The Dinamap 8100 blood pressure monitor is an automated machine. It is designed to measure systolic blood pressure, diastolic blood pressure, mean arterial pressure (MAP) and pulse rate automatically at pre-selected time intervals. On this survey three readings are collected at one minute intervals.

The Dinamap is equipped with a rechargeable battery, which can run for a minimum of six hours when fully charged. It is essential to keep the battery charged as fully as possible. A yellow battery light will flash as a warning sign on the monitor to alert the user when the charge has fallen below 10%. To recharge the battery, connect the monitor to the mains and press the rear panel AC power switch to the **ON (I)** position. The green MAINS AC light will indicate that the battery is charging. An overnight charge (eight hours) will provide about four hours of operation.

!! PLEASE REMEMBER TO CHARGE THE BATTERY !!

When the Dinamap is switched on the monitor momentarily displays eights (888s) in all the digital displays and all indicators will flash as a check for the operation of all LEDs. The audio alarm is also sounded as a check for its operation. If on

turning on the monitor any of the displays fail to show the 888s, contact the nurse supervisor immediately and inform them that there is a problem with the monitor.

2.2 Preparing the respondent

The respondent should not have eaten, smoked or drunk alcohol in the 30 minutes preceding the blood pressure measurement.

Ask the respondent to remove outer garments (eg jumper, cardigan, jacket) and expose the right upper arm. The sleeve should be rolled or slid up to allow sufficient room to place the cuff. If the sleeve constricts the arm, restricting the circulation of blood, ask the respondent if they would mind taking their arm out of the sleeve for the measurement.

Selecting the correct cuff

Do **not** measure the upper arm circumference. Instead, choose the correct cuff size based on the acceptable range which is marked on the inside of the cuff. You will note that there is some overlap between the cuffs. If the respondent falls within this overlap range then use the **standard** cuff where possible.

The appropriate cuff should be connected via the blue pneumatic hose to the two cuff connectors at the bottom of the display. It is important to ensure these screw connectors are properly connected to avoid any air leak. However do not overtighten. The pneumatic seal is not made by tightening the connector.

2.3 Procedure

Wrap the correct sized cuff round the upper **right** arm and check that the index line falls within the range lines. Use the left arm only if it is impossible to use the right. If the left arm is used, record this on the schedule. Locate the brachial pulse just medial to the biceps tendon and position the arrow on the cuff over the brachial artery. The lower edge should be about 2 cm above the cubital fossa (elbow crease).

Do not put the cuff on too tightly as bruising may occur on inflation. Ideally, it should be possible to insert two fingers between cuff and arm. However the cuff should not be applied too loosely, as this will result in an inaccurate measurement.

The respondent should be sitting in a comfortable chair with a suitable support so that the right arm will be resting at a level to bring the antecubital fossa (elbow) to approximately heart level. They should be seated in a comfortable position with cuff applied, legs uncrossed and feet flat on the floor.

Explain that before the blood pressure measurement we need them to sit quietly for five minutes to rest. They should not smoke, eat, drink or read during this time. Explain that during the measurement the cuff will inflate three times and they will feel some pressure on their arm during the procedure.

After five minutes explain you are starting the measurement. Ask the respondent to relax and not to speak until the measurement is completed as this may affect their reading.

- a) Switch the monitor '**ON**'.
- b) Press the **SILENCE** button until the yellow triangle above it lights up.
- c) Press the **AUTO/MANUAL** button until the green triangle above it lights up. The cuff will now start to inflate and take the first measurement.

- d) Press the cycle **SET** button until the number **1** lights up in the minutes box. Blood pressure will then be recorded at one minute intervals thereafter. After each interval record the reading on the schedule.
- e) It is possible to retrieve any of the three readings if they need to be checked or if you didn't record them for any reason. To do this wait until the three readings have been taken then press the **AUTO/MANUAL** button followed by the **PRIOR DATA** button. This will display the previous reading ie the second blood pressure. Press the **PRIOR DATA** button again to display the first blood pressure reading, and once again to return to the final reading. The minutes display indicates how long ago the measurement was taken. **IT IS NOT POSSIBLE** to retrieve the readings once the monitor has been switched off.
- f) After the three measurements are complete and recorded on the schedule switch the monitor '**OFF**' and remove the cuff.

If there are any problems during the blood pressure measurements or the measurement is disturbed for any reason, press the red cancel button or the power OFF button and start the procedure again. If the respondent has to get up to do something, then ask them to sit and rest for five minutes again.

2.4 Error readings

The most common error reading is 844. This is displayed if one measurement exceeds 120 seconds. This is usually caused by the respondent moving during the measurement. Ask the respondent to sit as still as possible and take the measurement again. **Do not palpate the pulse and do not tell the respondent their pulse is erratic.** If you still get another 844 error reading, record that it wasn't possible to get a reading and explain to the respondent that this sometimes happens.

Other error readings are detailed on the side of the Dinamap itself.

2.5 Informing respondents of their blood pressure readings

If the respondent wishes, record details of the three readings on their Measurement Record Card.

In answering queries about the respondent's blood pressure, it is very IMPORTANT to remember that it is **not** the purpose of the survey to provide respondents with medical advice, nor are you in a position to do so as you do not have the respondent's full medical history. But you will need to say something. It is very important that **you make all the points relevant to the particular situation and that you do not provide a more detailed interpretation as this could be misleading.** Read the instructions below very carefully and make sure you always follow these guidelines. To help you remember, you have been given a *Blood Pressure Guide Card* which summarises these rules.

Base your comments on the last two of the three readings. If the first reading is higher than the other two, explain that the first reading can be high because people are nervous of having their pressure taken.

Definitions of raised blood pressure differ slightly. It has been decided to adopt the ones given below for this survey. It is important that you adhere to these definitions, so that all respondents are treated in an identical manner. These are shown overleaf.

Points to make to a respondent about their blood pressure

Normal:

`Your blood pressure is normal'

Mildly raised:

`Your blood pressure is a bit high today.'

`Blood pressure can vary from day to day and throughout the day so that one high reading does not necessarily mean that you suffer from high blood pressure.'

`You are advised to visit your GP within 3 months to have a further blood pressure reading to see whether this is a once-off finding or not.'

Moderately raised:

`Your blood pressure is a bit high today.'

`Blood pressure can vary from day to day and throughout the day so that one high reading does not necessarily mean that you suffer from high blood pressure.'

`You are advised to visit your GP within 2-3 weeks to have a further blood pressure reading to see whether this is a once-off finding or not.'

Severely raised:

`Your blood pressure is high today.'

`Blood pressure can vary from day to day and throughout the day so that one high reading does not necessarily mean that you suffer from high blood pressure.'

`You are strongly advised to visit your GP within 5 days to have a further blood pressure reading to see whether this is a once-off finding or not.'

Note: If the respondent is elderly and has severely raised blood pressure, amend your advice so that they are advised to contact their GP within the next week or so about this reading. This is because in many cases the GP will be well aware of their high blood pressure and we do not want to worry the respondent unduly. It is however important that they do contact their GP about the reading within 7 to 10 days. In the meantime, we will have informed the GP of their result (providing the respondent has given their permission).

SURVEY DEFINITION OF BLOOD PRESSURE RATINGS

For all women, and men aged less than 50

<u>Rating</u>	<u>Systolic</u>		<u>Diastolic</u>
Normal	less than 140	and	less than 85
Mildly raised	140 - 159	or	85 - 99
Moderately raised	160 - 179	or	100 - 114
Severely raised	180 or more	or	115 or more

Men aged 50 or over

Normal	less than 160	and	less than 95
Mildly raised	160 - 169	or	96 - 104
Moderately raised	170 - 179	or	105 - 114
Severely raised	180 or more	or	115 or more

2.6 Action to be taken by the nurse after the visit

The chart below summarises what action you should take as a result of the knowledge you have gained from taking the blood pressure readings. **For this purpose you should only take into account the last two readings** as the first reading from the Dinamap is prone to error for the reason stated above.

All apparently high or unusual readings will be looked at by the Survey Doctor when they reach the office. If the reading is judged to be high, then the Survey Doctor will contact the respondent's GP, drawing attention to the reading. In cases where the respondent is not registered with a GP, or has refused consent for us to contact their GP, the respondent will be contacted directly.

BLOOD PRESSURE	ACTION
Normal/mild/moderate bp Systolic < 180 mmHg and Diastolic < 115 mmHg	No further action necessary If you feel that the circumstances demand further action, inform the Survey Doctor who will then inform the respondent's GP immediately if he deems it necessary.
Severely raised bp Systolic \geq 180 mmHg or Diastolic \geq 115 mmHg	Contact the Survey Doctor at the earliest opportunity who will inform the respondent's GP. If the respondent has any symptoms of a hypertensive crisis* contact the Survey Doctor immediately or call an ambulance. The Survey Doctor must be informed as soon as possible.

* A hypertensive crisis is an extremely rare complication of high blood pressure. Its signs and symptoms include:

diastolic bp > 135 mmhg
 headache, confusion, sleepiness, stupor, visual loss, seizures, coma,
 cardiac failure, oliguria, nausea & vomiting.

3 MEASUREMENT OF WAIST AND HIP CIRCUMFERENCES

3.1 Purpose

There has been increasing interest in the distribution of body fat as an important indicator of increased risk of cardiovascular disease. The waist-to-hip ratio is a measure of distribution of body fat (both subcutaneous and intra-abdominal). Analyses suggest that this ratio is a predictor of health risk like the body mass index (weight relative to height).

3.2 Equipment

Insertion tape calibrated in mm, with a metal buckle at one end which is connected to a spring balance.

3.3 Eligibility

The respondent is ineligible for the waist and hip measurement if s/he is:

- a) Pregnant
- b) Chairbound
- c) Has a colostomy/ileostomy.

If any of the above apply, record this on the Schedule (Q18c on page 11). If there are any other reasons why the measurement was not taken, record this on the Schedule and note down the reason.

3.4 Preparing the respondent

The interviewer will have asked the respondent to wear light clothing for your visit. Explain to the respondent the importance of this measurement and that clothing can substantially affect the reading.

If possible, without embarrassing you or the respondent, ensure that the following items of clothing are removed:

- all outer layers of clothing, such as jackets, heavy or baggy jumpers, cardigans and waistcoats
- shoes with heels
- tight garments intended to alter the shape of the body, such as corsets, lycra body suits and support tights

If the respondent is wearing a belt, ask them if it would be possible to remove it or loosen it for the measurement.

Pockets should be emptied.

If the respondent is not willing to remove bulky outer garments or tight garments and you are of the opinion that this will significantly affect the measurement, record this on the Schedule at Q19b/d.

If possible, ask the respondent to empty their bladder before taking the measurement.

3.5 Using the insertion tape

All measurements should be taken to the nearest millimetre. If the length lies half-way between two millimetres, then round to the nearest **even** millimetre. For example, if the measurement is halfway between 68.3 and 68.4, round up to 68.4. And if the measurement is halfway between 68.8 and 68.9, round down to 68.8.

Ensure the respondent is standing erect in a relaxed manner and breathing normally. Weight should be evenly balanced on both feet and the feet should be about 25-30cm (1 foot) apart. The arms should be hanging loosely at their sides.

If possible, kneel or sit on a chair to the side of the respondent.

Pass the tape around the body of the respondent. To check the tape is horizontal you have to position the tape on the right flank and peer round the participant's back from his/her left flank to check that it is level. This will be easier if you are kneeling or sitting on a chair to the side of the respondent.

Hold the buckle flat against the body and flatten the end of the tape. At the same time pull the spring balance to the mark around 600g and then read the measurement from the outer edge of the buckle. Do not pull the tape towards you, as this will lift away from the respondent's body, affecting the measurement.

3.6 Measuring waist circumference

1. The waist is defined as the point midway between the iliac crest and the costal margin (lower rib). To locate the levels of the costal margin and the iliac crest use the fingers of the right hand held straight and pointing in front of the participant to slide upward over the iliac crest. Men's waists tend to be above the top of their trousers whereas women's waists are often under the waistband of their trousers or skirts.
2. Do not try to avoid the effects of waistbands by measuring the circumference at a different position or by lifting or lowering clothing items. For example, if the respondent has a waistband at the correct level of the waist (midway between the lower rib margin and the iliac crest) measure the waist circumference over the waistband.
3. Ensure the tape is horizontal. Ask the participant to breathe out gently and to look straight ahead (to prevent the respondent from contracting

their muscles or holding their breath). Take the measurement at the end of a normal expiration. Measure to the nearest millimetre and record this on the Schedule.

4. Repeat this measurement again.
5. If you are of the opinion that clothing, posture or any other factor is significantly affecting the waist measurement, record this on the Schedule.

3.7 Problems measuring the waist circumference

If you have problems palpating the rib, ask the respondent to breathe in very deeply. Locate the rib and as the respondent breathes out, follow the rib as it moves down with your finger.

If your respondent has a bow at the back of her skirt, this should be untied as it may add a substantial amount to the waist circumference.

Female respondents wearing jeans may present a problem if the waistband of the jeans is on the waist at the back but dips down at the front. It is essential that the waist measurement is taken midway between the iliac crest and the lower rib and that the tape is horizontal. Therefore in this circumstance the waist measurement would be taken on the waist band at the back and off the waist band at the front. Only if the waistband is over the waist all the way around can the measurement be taken on the waistband. If there are belt loops, the tape should be threaded through these so they don't add to the measurement.

3.8 Measuring hip circumference

1. The hip circumference is defined as being the widest circumference over the buttocks and below the iliac crest. To obtain an accurate measurement you should measure the circumference at several positions and record the widest circumference.
2. Check the tape is horizontal and the respondent is not contracting the gluteal muscles. Pull the tape, allowing it to maintain its position but not to cause indentation. Record the measurement on the schedule to the nearest millimetre, eg, 095.3.
3. If clothing is significantly affecting the measurement, record this on the schedule.
4. Repeat this measurement again.

3.9 General points

The tape should be tight enough so that it doesn't slip but not tight enough to indent clothing. If clothing is baggy, it should be folded before the measurement is taken.

If the respondent is large, ask him/her to pass the tape around rather than having to "hug" them. Remember though to check that the tape is correctly placed for the measurement being taken and that the tape is horizontal all the way around.

If the measurement falls between two millimetres, the measurement should be recorded to the nearest even millimetre.

3.10 Recording problems

We only want to record problems that will affect the measurement by more than would be expected when measuring over light clothing. As a rough guide only

record a problem if you feel it affected the measurements by more than 0.5cm. We particularly want to know if waist and hip are affected differently.

4 LUNG FUNCTION TESTING

4.1 Purpose of test

Lung function tests objectively assess respiratory impairment if it is present. We will be measuring forced expiratory volume in one second (FEV₁), forced vital capacity (FVC) and peak flow (PF). These measures can be reduced for a wide range of reasons, eg physical unfitnes, smoking, chronic bronchitis, those who have had poorly controlled asthma for many years, some muscular disorders and many others. At a population level, these measures tell us a lot about the respiratory health of the population, and are also indicators of general health.

The definition of an acceptable level of lung function depends on the person's age, sex and height. A diagnosis of abnormality is not based on measurement on a single occasion but is rather based on several measurements and on the person's clinical history. Prior to making the measurement, we wish you to explain this to the respondent. Q21 of the Nurse Schedule contains a statement you should **always** read out **before** carrying out this test. Explain to the respondent that we are very happy to send the results to their GP if they so wish and the GP can then interpret them in light of their knowledge about the respondent.

4.2 Equipment

The Vitalograph Escort spirometer and case
Power pack
1 litre calibration syringe
Disposable cardboard mouthpieces
2 spare mesh filters

4.3 Eligibility

All respondents, including those chairbound EXCEPT:

- a) Those who are pregnant.
- b) Those who have had abdominal or chest surgery in the preceding three weeks.
- c) Those who have been admitted to hospital with a HEART complaint or stroke in the preceding six weeks.

4.4 Procedure

Since air is a gas, its volume changes with changes in temperature. For this reason room temperature is of critical importance when measuring lung function. To take account of air temperature (and humidity) the spirometer **MUST** be calibrated in each household prior to the first measurement carried out. In addition, the room temperature must be noted and entered into the spirometer prior to measuring each respondent. It is also important that your equipment is at room temperature when you use it. For this reason, take it out of its container as soon as possible when you enter the house. Otherwise it will be too cold (or in summer too hot!) from being in the boot of your car.

Calibrating the spirometer

Remember, the spirometer **MUST** be calibrated in the household prior to measuring each respondent.

- 1 The first step is to circulate the room air through the calibration syringe and the spirometer. To do this, connect the syringe to the flow head and simply pump through a few litres of air.
- 2 Next you enter the calibration routine of the spirometer. To do this, *hold the spirometer level*, press the arrow button and blue "on" button at the same time, then release both buttons.
- 3 You will see an equipment number displayed, followed by the message "zeroing sensor", then "please wait". The message "pump air" is then displayed.
- 4 Making sure the syringe handle is fully extended, connect the syringe to the flow head. *The handle of the spirometer should be pointing upwards*. Pump in the volume of air from the syringe in a smooth swift stroke, taking approximately 1 second to do so. It is important that the air is pumped in smoothly and swiftly in this way. Be careful not to occlude the outlet of the spirometer with your hand.
- 5 During calibration the message "sampling flow" is displayed. Following this "*" is displayed if the spirometer is calibrated. If a volume is displayed rather than "*", then the unit is not fully calibrated and you must repeat the procedure again by pumping in another litre of air from the syringe. Do this until the "*" is displayed. If you encounter problems during calibration consult the "troubleshooting advice" at the end of this section. If after six attempts the spirometer has not calibrated, remove cone and end cap, check that you have not forgotten to insert a mesh and ensure the cone and end cap are replaced tightly. If calibration is still not possible, abandon procedure and record it on the schedule. Check the equipment later and contact the Field Office immediately for a replacement.
- 6 Then press the C button to switch off.

Performing the test

- 1 The first step is to measure the room temperature. Switch on your thermometer as before. Allow it to settle, then record the temperature on your Schedule and switch off.
- 2 Holding the spirometer level, press the blue ON button. The last temperature entered will be displayed. Enter the temperature you have just recorded to the nearest degree. Do this by pressing the arrow button until the correct temperature is displayed. The arrow button allows you to scroll through to 40⁰ C. Note that the lowest temperature you can enter is 10°C. If the temperature is lower than 10°C or higher than 40°C reliable measurements cannot be made and spirometry must be deferred until the room heats up/cool down or be abandoned. If the latter is the case, note it on the appropriate part of the Schedule.
- 3 When the correct temperature is displayed, press the on button again. The display will read "zeroing sensor" followed by "please wait", then " perform test".

- 4 Instruct the respondent to blow as described in the next section. As the respondent is blowing the message "sampling flow" is displayed. The FVC is then displayed in litres (L). Record this in your nurse schedule in the appropriate box. Press the arrow button again and the FEV₁ will be displayed. Record this too. Press the arrow again and the PF (Peak Flow) will be displayed. Record this. Then record whether the blow has been technically satisfactory (this is defined below).
- 5 Press the C button to clear the results and then press the ON button to start again. The temperature will be displayed again. This time you can ignore it as the room temperature will not have changed much from the first blow. **It is very important that you press the C button before the ON button. If you do not do this the screen will go on to tell you the results of the best blow rather than each individual blow.**
- 6 Press the on button again, and get the respondent to blow as before. Repeat the procedure until you have recorded five blows. Don't forget to switch off by pressing the C button .

Instructing the respondent to blow

- 1 The respondent should be in the standing position. If chair bound you can still carry out the test.
- 2 Tight clothing should be loosened.
- 3 Dentures should be worn unless they fit so badly that they become loose and obstruct the airflow.
- 4 Explain to the respondent that the aim of the test is to find out how much air they can blow out and how quickly it is blown out. Then explain that "you must try to blow out as much air as possible as hard and as fast and as completely as you can".
- 5 You should demonstrate the correct technique first, using a mouthpiece unconnected to the spirometer. Explain that the mouthpiece should be held in place by the lips rather than the teeth and the lips should be wrapped firmly around it. Demonstrate a blow.
- 6 Attach a clean disposable mouthpiece to the flow head. Explain to the respondent that they must now make their first attempt.
- 7 Instruct the respondent to take as deep a breath as possible and then to hold the mouthpiece with their lips. *The respondent should hold the spirometer with the handle downwards.*
- 8 Then say "now blow". As the respondent is blowing encourage her/him by saying "keep going, keep going, keep going".
- 9 It is important to observe the respondent closely during the blow so that you can note whether it was technically satisfactory and advise her/him how to do it better.
- 10 You must attempt to get five blows from each respondent. However, there will be some respondents, e.g. some elderly respondents or those with severe lung disease who are unable to complete five attempts. You must strike the right balance between encouragement and over-insistence. If five blows are not obtained you should record the reason for this on your schedule.

Technically unsatisfactory blows

A technically unsatisfactory blow is any of the following:

- 1 An unsatisfactory start, eg excessive hesitating or a "false start". If you see * on either side of the *FEV₁* then this tells you that it is an excessively slow start.
- 2 Laughing or coughing especially during the first second of the blow. Many people will cough a little towards the end of their effort but this is acceptable.
- 3 Holding the breath in (i.e. a valsalva manoeuvre).
- 4 A leak in the system or around the mouthpiece. This would include those where the mouthpiece is not firmly held by the lips.
- 5 An obstructed mouthpiece e.g. tongue in front of the mouthpiece or false teeth obstructing the mouthpiece.
- 6 Note that a result of 0.00 on an FEV₁ also means that the test has not been carried out properly.

5 BLOOD SAMPLE COLLECTION

5.1 Eligibility

Do not take a blood sample from respondents who are:

- a) Pregnant
- b) Have a clotting or bleeding disorder
- c) Aged 16 or 17 and do **not** live with a parent or guardian
- d) Not willing to give their consent in writing
- e) Are **currently** on Warfarin therapy

5.2 Purpose

The blood sample is being taken to obtain indicators of risk factors for cardiovascular disease and of other measures of health and nutrition.

For all respondents, the blood will be analysed for total serum cholesterol, HDL-cholesterol, fibrinogen, haemoglobin, ferritin, gamma GT and serum cotinine. For a sub-group of respondents (in 5 sampling points each month), the blood will also be analysed for vitamins A, C and E and carotenoids; respondents receiving these additional blood tests are shown as "BT:V" on the address label on the NRF.

Cholesterol and fibrinogen are being measured because raised levels are associated with higher risks of heart attacks. Haemoglobin and ferritin are being measured as indicators of iron status. Gamma GT and serum cotinine are indirectly linked to CVD in that gamma GT levels are affected by alcohol consumption and serum cotinine levels by smoking and passive smoking. This is not stressed to the respondents in the leaflets as we do not wish to worry them unduly. Vitamins are being measured because it is thought that they might offer protection against heart disease.

5.3 Equipment

All nurses will have the following equipment:

Tourniquet	Vacutainer holder
Alcohol swabs	Vacutainer needles 21G
Dental roll	Butterfly needles 23G
Rubber gloves	Needle disposal box
Adhesive dressing	Vacutainer 9 ml plain tube
Plastic postal containers	Vacutainer 2 ml EDTA tube
Padded envelopes	Vacutainer 4 ml citrate tube
Sealable plastic bags	
Kitchen roll	
Micropore tape	
Set of labels for blood sample tubes	

Nurses working in sampling points where "BT:V" is shown will also have:

cold box	Vacutainer 6 ml plain tube
cold packs	
plastic bags	

For all respondents, the tubes should be filled in the following order:

- Plain tube (red cap) (9ml)
- EDTA tube (lavender cap) (2ml)
- Citrate tube (blue cap) (4ml)

When vitamins/fatty acids are being analysed (BT:V sampling points), a fourth tube should then be filled:

- Plain tube (blue cap) (6ml)

The tubes must be filled in this order so that, if a situation arises where there will be insufficient blood to fill all the tubes, the analyses with the highest priority can still be undertaken.

5.4 Getting consent

Before taking blood from 16-17 year olds, you must make sure that you always get both the respondent's own signature and the signature of their parent or person who has legal parental responsibility. Remember that even if 16/17 year old respondents are married and not living with their parent or person who has legal parental responsibility, you cannot take blood until you have their parent's consent.

It is not sufficient to simply have one signature at item I-III on the BS page of the Consent Booklet. You must make sure you have all relevant signatures.

5.5 Preparing the respondent

Ask the respondent if they have had any problems having blood taken before.

- 1 Explain the procedure to the respondent. They should be seated comfortably in a chair, or if they wish, lying down on a bed or sofa.
- 2 Ask the respondent to roll up their left sleeve and rest their arm on a suitable surface. Ask them to remove their jacket or any thick clothing, if it is difficult for them to roll up their sleeve.

The antecubital fossae may then be inspected. It may be necessary to inspect both arms for a suitable choice to be made, and the respondent may have to be repositioned accordingly.

Do not ask the respondent to clench his/her fist.

- 3 Select a suitable vein and apply the tourniquet around the subject's arm. In certain cases the tourniquet may have to be applied to locate a reasonable vein. However, it is desirable to use the tourniquet applying minimal pressure and for the shortest duration of time. Do not leave the tourniquet in place for longer than 2 minutes.

Ask the respondent to keep his/her arm as still as possible during the procedure.

- 4 Put on your rubber gloves at this point.

Clean the venepuncture site gently with an alcohol swab. Allow the area to dry completely before the sample is drawn.

5.6 Taking the sample

- 5 Venepuncture is performed with a twenty one gauge vacutainer needle or butterfly.

Grasp the respondent's arm firmly at the elbow to control the natural tendency for the respondent to pull the arm away when the skin is punctured. Place your thumb an inch or two below the vein and pull gently to make the skin a little taut. This will anchor the vein and make it more visible. Ensure the needle is bevelled upwards, enter the vein in a smooth continuous motion.

Remember to take the tubes in the correct order. The first tube should always be the plain tube with the red cap followed by the lavender EDTA tube and then the blue citrate tube (and finally, in BT:V sampling points, the plain tube with the blue cap). The vacutainers should be filled to capacity in turn and inverted gently on removal to ensure complete mixing of blood and preservative.

- 6 Release the tourniquet (if not already loosened) as the blood starts to be drawn into the tube. Remove the needle and place a dental roll firmly placed over the venepuncture site. Ask the respondent to hold the pad firmly for three minutes to prevent haematoma formation.
- 7 If venepuncture is unsuccessful on the first attempt, make a second attempt on the other arm. If a second attempt is unsuccessful, do not attempt to try again unless the respondent is insistent that another attempt be made. Under no circumstances, should you make a fourth attempt. Record the number of attempts on the Nurse Schedule.
- 8 Remove the needle from the vacutainer holder by inserting it into the slot at the top of the needle disposal box. Push it towards the narrow end of the slot until the hub fins are engaged. Twist the holder anti-clockwise to unthread the needle. Then slide the holder towards the centre of the slot, allowing the needle to drop into the container.

IMPORTANT WARNING

Never re-sheath the needle after use.

Do not allow the disposal box to become overfull as this can present a potential hazard.

- 9 Check on the venepuncture site and affix an adhesive dressing, if the respondent is not allergic to them. If they are allergic, use a dental roll secured with micropore.

5.7 Fainting respondents

If a respondent looks or feels faint during the procedure, it should be discontinued. The respondent should be asked to place their head between their knees. They should subsequently be asked to lie down.

If they are happy for the test to be continued after a suitable length of time, it should be done so with the respondent supine and the circumstances should be recorded. They may wish to discontinue the procedure at this point, but willing to give the blood sample at a later time.

5.8 Disposal of needles and other materials

Place the used cotton wool balls, gloves, etc in the self-seal disposal bag. This bag, together with the needle disposable box, should be taken to your local hospital for incineration. Telephone them beforehand, if you are not sure where to go. If you come across any problems with the disposal, contact the Survey Doctor who will contact your local hospital.

5.9 Needle stick injuries

Any nurse who sustains such an injury should seek immediate advice from their GP. The nurse should inform his/her nurse supervisor of the incident, and the nurse supervisor should inform the Survey Doctor.

5.10 Respondents who are HIV or Hepatitis B positive

If a respondent **volunteers** that they are HIV or Hepatitis B positive, do **not** take a blood sample. Record this as the reason on the Schedule. **You should never, of course, seek this information.**

5.11 Sending blood samples to the West Middlesex Laboratory

The blood samples (first 3 tubes) are to be sent to the West Middlesex Laboratories. It is important that the blood is sent properly labelled and safely packaged and that it is despatched immediately after it has been taken. (If you are in a BT:V sampling point and have taken 4 tubes of blood, the following instructions apply to the first 3 tubes only; the fourth tube will be taken to a local processing laboratory.)

Labelling the Blood Tubes

Label the tubes as you take the blood. It is **vital** that you do not confuse respondents' blood tubes.

Use the set of serial number and date of birth labels (green) to label the vacutainer tubes. Attach a serial number label to **every** tube that you send to the lab. Enter the serial number and date of birth very **clearly** on each label. Make sure you use

black biro - it will not run if it gets damp. Check the date of birth with the respondent again verbally.

Stick the green label over the label already on the tube. The laboratory needs to be able to see on receipt how much blood there is in the tube.

We cannot stress too much the importance of ensuring that you label each tube with the correct serial number for the person from whom the blood was obtained. Apart from the risk of matching up the findings of the blood analyses to the wrong person's data, we will be sending the GP the wrong results. Imagine if we detect an abnormality and you have attached the wrong label to the tube!

Packaging the blood samples

Pack the tubes for each respondent separately from those of other respondents. All the tubes from one person can be packed together in one container.

The following procedures are designed to minimise accidental damage and, should there be any damage, any blood spillage.

- 1 You are supplied with plastic containers designed to take tubes. Place the filled tubes in a container. Press the two halves of the container firmly together.
- 2 Wrap a piece of kitchen towelling paper around the plastic container.
- 3 Place the wrapped container into the resealable plastic bag (in your supplies), with the opening of the bag covering the hinged part of the plastic container. Ensure that the bag is sealed.
- 4 Place the wrapped container into the pre-addressed envelope, inserting it so that the opening of the plastic bag goes in first (ie away from the entrance to the envelope).
- 5 Put the Blood Sample Despatch Note 2 in the envelope.
- 6 Fold over the end of the envelope, and seal firmly with **sellotape**. Wrap the tape right round the envelope.
NEVER use staples to seal the envelope

Staples can cut post office workers' hands. When blood is transported this can be dangerous.

- 7 Post the envelope immediately. It will go special delivery. This ensures that it arrives the next day.

If you do your interview too late to catch the last post, post it to catch the next post. If you miss the Saturday post collection, take the envelope to a box that has a Sunday collection. The blood should not be refrigerated.

- 8 When you have posted the blood samples, fill in the **time and date of posting** on the office copy of the Blood Sample Despatch Note 1.

5.12 Delivering blood to local processing laboratories

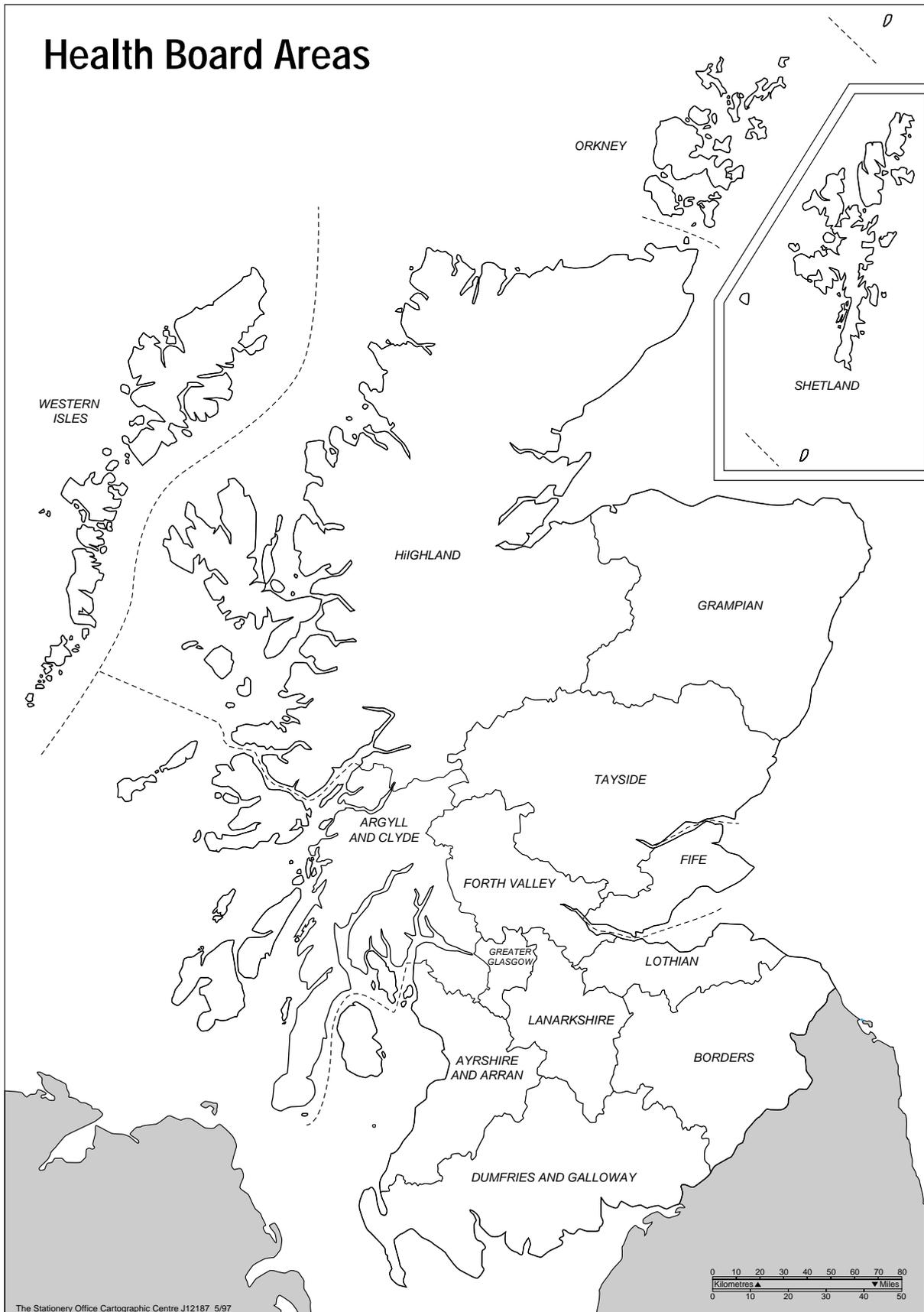
If you are working in a BT:V sampling point, you will have taken a fourth tube of blood which will be analysed for vitamins. This needs to be taken to one of the local processing laboratories within **4 hours** of venepuncture.

You will be given the name of your local processing laboratory and a contact name there before you start work. You should contact this person before delivering your first sample to warn him/her when to expect deliveries on a regular basis. If you require any assistance, contact your nurse supervisor for advice. Contact the Survey Doctor if you have any problems with the lab.

Packaging and delivering the blood sample

- 1 Label the fourth tube (which is a 6ml plain tube, blue cap) with a green serial number and date of birth label.
- 2 After venepuncture, the tube must immediately be placed inside the coffin (plastic container), then put in a plastic bag and finally in a jiffy bag. This will protect the sample from exposure to sunlight. (The containers may be re-used unless they become contaminated.)
- 3 It is vital to leave the tube at room temperature to clot. Do not let it become exposed to excessive heat (eg, in the back of your car).
- 4 Deliver the tube as soon as possible (and definitely within 4 hours of venepuncture) to your contact at the local hospital laboratory. If the named contact at the laboratory is unavailable for any reason, ask to speak to a colleague of the named person instead. Do **not** leave the sample in Reception, but always make sure that you hand them over to someone who can deal with them immediately.
- 5 You should also write the serial number and date of birth on **two** extra green labels; these should be left at the lab along with the despatch note.

APPENDIX C: HEALTH BOARDS



APPENDIX D: MEASUREMENT ERROR EXPERIMENTS



Measurement error and its effects

Many survey measurements are subject to some unreliability (or measurement error) in that repeated measures on the same person over relatively short time periods give slightly varying results. For example, if the blood pressure of an individual is measured several times over the space of a week, then the blood pressure level recorded will vary to some extent even if the true underlying blood pressure of the person has not changed.

Measurement errors on the Health Survey can be divided into three types:

- systematic observer errors;
- non-systematic (or random) observer errors;
- random respondent errors.

The 'observer' may be an interviewer, a nurse, or the equipment being used to take a measurement. Systematic observer errors arise if an observer consistently takes measurements that are biased in one direction (i.e., either too high or too low). Such errors might occur if, for example, a piece of equipment was poorly calibrated, or a nurse always used the equipment differently to other nurses, or an interviewer systematically misread a survey question. In order to minimise the likelihood of introducing systematic errors into a survey, interviewers and nurses are carefully briefed and regularly supervised, and survey equipment is regularly calibrated; however, it is still possible that such errors will occur at some point during the fieldwork period.

The other two types of errors - random observer and respondent errors - are much more difficult to control because their causes are far more numerous: they depend on factors such as the time of day the measurement is taken, air temperature, whether the respondent feels under stress, as well as on straightforward random variation in underlying conditions (e.g., small changes in weight over the space of a day or week).

Measurement errors are important for two main reasons:

- firstly, they reduce the precision (i.e., increase the standard errors) of survey estimates of means and totals;
- secondly, they lead to the under-estimation of survey-based correlation and regression coefficients.

The measurement error experiments

In order to estimate the extent of measurement error for some of the physical measurements taken as part of the Health Survey, two small-scale experiments were designed and run by SCPR/UCL. Both experiments were funded by The Scottish Office Department of Health.

The first of these was undertaken in the field, and was designed to estimate non-systematic or random observer error (such as random errors made by the nurse) and respondent error (such as changes in measurements due to the mood or anxiety of the respondent, etc.). It involved 622 respondents (aged 16-64) to the Health Survey for England (HSE) during a single month (March 1995) being visited again by the nurse

who took the original measurements after an interval of about one week. At the return visit, the nurse, using the same equipment as on the first visit, repeated the measurements for blood pressure and lung function.

The second study took place in SCPR's London office over two days in March 1995. Its aim was to collect information on systematic observer (i.e., nurse and equipment) error. Sixty volunteers were each measured by four different nurses on blood pressure, lung function, height, weight, waist and hip. Twenty nurses (all of whom had experience working on the HSE) took part in the study, ten per day.

The full results of both experiments have been written up in a report to The Scottish Office Department of Health (copies of which are available from SCPR on request).¹ Only a very brief summary of the results is given here. The fact that the data on measurement error was collected separately from the main fieldwork of the Scottish Health Survey, and that different nurses were used and only small sample sizes were available, means that the application of the results to the Health Survey data has to be treated with some caution; a full discussion of this issue may be found in the main report on the experiments.

The effect of measurement error on standard errors

The standard errors of survey estimates are almost always calculated as if the data is free of measurement error (largely because information concerning the variance of measurement errors is generally not available). This approach in fact will give correct estimates of the standard errors in cases where no systematic observer errors arise. However, when there are systematic observer errors, then the calculated standard errors (including those found in Chapter 1 of the Technical Report) will be too small.

Provided that data is available on the variance of systematic errors, we can estimate the extent to which standard errors should be increased. Using the data from the second experiment, such estimates can be made for blood pressure, lung function, height, weight, waist and hip measurements. Table D1 shows the estimated factor by which calculated standard errors should be increased to take into account systematic observer errors.

Table D1: Estimated factor by which calculated standard errors should be increased to take into account systematic observer errors

	Factor
Blood pressure	
Systolic	1.28
Diastolic	1.24
Map	1.00
Pulse	1.16
Lung function	
FEV ₁	1.06
FVC	1.10
PEF	1.04
Anthropometric measurements	
Waist	1.07
Hip	1.18
Height	1.00
Weight	1.00

¹ *Measurement Error in the Scottish and English Health Surveys: Susan Purdon, Bob Evans, Wei Dong, Helen Colhoun and Camilla ChaudBorg, SCPR/UCL, June 1997.*

It can be seen in Table D1 that, for example, the standard error calculated for mean systolic blood pressure should be increased by a factor of about 1.28. This implies that the standard error calculated directly from the survey data is underestimated by about 22%.

As the under-estimation is larger for systolic and diastolic blood pressure than it is for the lung function or the anthropometric measurements, this implies that systematic observer errors have smaller (relative) variance for these latter variables.

The under-estimation of correlation and regression coefficients

Both systematic and non-systematic measurement errors affect the *reliability* of estimates and, although unreliability impacts on survey results in various ways, one very important implication is that unreliability leads to the under-estimation of correlation and regression coefficients. For example, if the correlation between two variables X and Y is calculated, then the observed correlation is related to the true correlation through the equation:

$$\text{observed correlation} = \text{true correlation} \cdot \sqrt{\rho_x \rho_y}$$

where ρ_x and ρ_y are the reliability coefficients for X and Y respectively. Reliability coefficients always lie between 0 and 1 with 1 being “total reliability”, and so the observed correlation will be less than or equal to the true correlation. If a bivariate regression model is used to relate X and Y, with X the independent variable so that $Y = \alpha + \beta X$, then the relationship between the observed slope and the true slope is:

$$\text{observed } \beta = \text{true } \beta \cdot \rho_x$$

and if the reliability of X is less than 1, then the slope of the regression equation will be under-estimated from the survey data.

The calculation of reliability coefficients requires information about the extent of both systematic and non-systematic errors, which means they can only be estimated for the Health Survey for blood pressure and lung function (as these were the only measurements taken by nurses during the field experiment). Table D2 shows the estimated coefficients, from which it can be seen that blood pressure measurements are considerably less reliable than are lung function measurements. Pulse has a particularly low reliability coefficient of just 0.62.

Table D2: Reliability coefficients for blood pressure and lung function

	Reliability coefficient
Blood pressure	
Systolic	0.78
Diastolic	0.76
Map	0.70
Pulse	0.62
Lung function	
FEV ¹	0.94
FVC	0.93
PEF	0.91

From Table D1, it follows that if, for example, the correlation between systolic blood pressure and FEV₁ was calculated then the observed correlation would be just 85% of the true correlation (i.e. $\sqrt{0.78 * 0.93}$).² And if systolic blood pressure was used as the independent variable in a bivariate regression, then the beta coefficient would have to be adjusted up by a factor of 1.28 (=1/0.78) to compensate for the effect of measurement error. No such adjustments have been made in the main survey report.

² Such an adjustment would be over-simplistic were any two of the four blood pressure measurements or any two of the three lung function measurements to be correlated because, in these instances, the measurement errors themselves would be correlated (see the main report on the experiments).

APPENDIX E: GLOSSARY



This glossary explains terms used in the report. For those terms which are fully described in particular chapters, rather than repeat the definition, the reader is referred to the appropriate chapter.

Acute sickness An illness or injury which caused the informant to cut down on any of the things he or she usually does about the house, at work or school or in his or her free time (in the two weeks prior to the interview).

Age-standardisation When proportions are compared across different sub-groups in respect of a variable on which age has an important influence, any differences in age distributions between sub-groups are likely to affect the observed differences in the proportions of interest. The objective of the direct age-standardisation procedure used in this report was to enable proportions to be presented across sub-groups after adjusting for the effect of age. Direct standardisation estimates the values of the proportions of interest where the compared sub-groups have been adjusted to the same age distribution. However, it should be stressed that age-standardised proportions provide only a summary reflecting the average relationship between the variables across all age bands and that age-standardisation adjusts only for age and not for other factors that may affect the variable of interest.

Age-standardisation was carried out (separately for men and women) by ten-year age groups. The age distribution of sub-groups was adjusted to the overall (or average) weighted distribution by age.

The age-standardised proportion p' was calculated as follows, where p_i is the age specific proportion in age group i and N_i is the standard population size in age group i :

$$p' = \frac{\sum_i N_i p_i}{\sum_i N_i}$$

Therefore p' can be viewed as a weighted mean of p_i using the weights N_i . The age groups were: 16-24, 25-34, 35-44, 45-54, 55-64.

Alcohol consumption See Volume I, Chapter 5.

Analysis of variance One-way analysis of variance is a statistical technique for testing whether the means of sub-groups of a population differ significantly from one another.

Angina	See Volume I, Chapter 10.
Anthropometric measurements	For body mass index (BMI) and waist-hip ratio definitions see Volume I, Chapter 7.
Blood pressure	See Volume I, Chapter 6.
Blood analytes	For total cholesterol, HDL-cholesterol, fibrinogen, ferritin, haemoglobin, vitamins A, C and E and carotenoids, see Volume I, Chapter 9. For cotinine, see Volume I, Chapter 4. For gamma gt, see Volume I, Chapter 5.
Body Mass Index	See Volume I, Chapter 7.
Breathlessness	See Volume I, Chapter 8.
Cardiovascular disease and related conditions	See Volume I, Chapter 10.
Cardiovascular disorder	Those classified as having any CVD disorder are those who said they had ever been diagnosed by a doctor as having had angina, heart attack, stroke, heart murmur, abnormal heart rhythm, other heart trouble (hypertension or diabetes). Women who have hypertension, heart murmur or diabetes only when pregnant are not classified as having any CVD disorder.
Cholesterol	See Volume I, Chapter 9.
Cigarette smoking	See Volume I, Chapter 4.
Claudication	See Volume 1, Chapter 10.
Cotinine	See Volume I, Chapter 4.
Ferritin	See Volume I, Chapter 9.
Fibrinogen	See Volume I, Chapter 9.
Gamma gt	See Volume I, Chapter 5.
Gastroenteritis	See Volume I, Chapter 11.
Geometric mean	The geometric mean is a measure of central tendency. It is sometimes preferable to the arithmetic mean, since it is less influenced by very large outliers in the distribution. The geometric mean of a continuous variable is calculated as: $\bar{x} = (x_1 x_2 \dots x_n)^{\frac{1}{n}}$
GHQ 12	See Volume I, Chapter 12.
Haemoglobin	See Volume I, Chapter 9.
High blood pressure	Informants were classified in one of four groups based on their Systolic (SBP) and Diastolic Blood Pressure (DBP)

readings and current use of anti-hypertensive medication. For a definition of high blood pressure (informants who were normotensive treated, hypertensive treated, or hypertensive untreated) see Volume I, Chapter 6.

**Ischaemic
heart disease**

Ischaemic heart disease includes those who reported previous diagnosis of heart attack or angina.

Linear regression

Linear regression was used to investigate the linear association of two or more factors ('independent' or 'predictor' variables) with a continuous variable ('dependent' or 'outcome' variable), such as blood pressure. The independent variables can be continuous or categorical (grouped) variables. The parameter estimates for a particular variable from a linear regression model give an estimate of the association of that variable with the outcome variable, adjusted for all other variables in the model. For example, linear regression was used to assess the association of social class with systolic blood pressure, after adjusting for age (see Table 6.16).

For a *continuous* independent variable, the regression coefficient is the change that is predicated in the mean of the outcome variable for a one unit change in the independent variable, adjusted for all other variables in the model.

Parameter estimates for *categorical* independent variables have been presented in two ways. The standard method defined one category of a categorical independent variable as a baseline or reference category and compared all other categories to this reference category. Therefore there is no parameter estimate for the reference category and estimates for all other categories give the predicted mean difference in the outcome variable between each category and the reference category, adjusted for all other variables in the model. In terms of the above example, the parameter estimate for Social Class IINM would give the difference in mean systolic blood pressure between respondents in Social Class IINM and the reference category (usually Social Class I), after adjusting for age. An alternative method of presenting results for categorical independent variables was used for region where there was no obvious reference category. In this method an estimate for a given category of a categorical independent variable gives the deviation in the mean of the independent variable for that category compared to the overall mean.

The statistical significance of independent variables in models was assessed by the F-ratio and its associated p value. 95% confidence intervals were also calculated for parameter estimates. These can be interpreted as meaning there is a 95% chance that the given interval for the sample will contain the true population parameter of interest. In linear regression a 95% confidence interval which does not include zero indicates that the given parameter estimate is statistically significant.

Reference: Weisberg, S. *Applied linear regression*. John Wiley & Sons, New York, 1985.

Logistic regression

Logistic regression was used to investigate the association of two or more independent or predictor variables with a two-category (binary) outcome variable. The independent variables can be continuous or categorical (grouped) variables. The parameter estimates from a logistic regression model for each independent variable give an estimate of the association of that variable with the outcome variable, adjusted for all other independent variables in the model. For example, logistic regression was used to assess the association of social class with CVD condition, after adjusting for age.

Logistic regression models the log 'odds' of a binary outcome variable. The 'odds' of an outcome is calculated as the probability of its occurring divided by the probability of its not occurring. The parameter estimates obtained from a logistic regression model have been presented as odds ratios for ease of interpretation.

For *continuous* independent variables, the parameter estimate gives the change in the odds of the outcome occurring for a one unit change in the value of the predictor variable.

Parameter estimates for *categorical* independent variables have been presented in two ways. The standard method defines one category of the categorical variable as a baseline or reference category and compares all other categories to this reference category. Therefore there is no parameter estimate for the reference category and odds ratios for all other categories are the ratio of the odds of the outcome occurring between each category and the reference category, adjusted for all other variables in the model. In terms of the above example, the odds ratio estimate for Social Class IIINM can be interpreted as the likelihood of having a CVD condition for respondents in Social Class IIINM compared to those in the reference category (usually Social Class I), after adjusting for age. An alternative method of presenting results for categorical independent variables was used for region where there was no obvious reference category. In this method the odds ratios for a given category of a categorical independent variable gives the change in the odds of the outcome occurring compared to the overall odds.

The statistical significance of independent variables in models was assessed by the likelihood ratio test and its associated p value. 95% confidence intervals were also calculated for the odds ratios. These can be interpreted as meaning that there is a 95% chance that the given interval for the sample will contain the true population parameter of interest. In logistic regression, a 95% confidence interval which does not include one indicates the given parameter estimate is statistically significant.

References: Norusis MJ. *SPSS for Windows: Advanced statistics release 6.0*. SPSS Inc, Chicago, 1993.

Hosmer DW Jr. and Lemeshow. *Applied logistic regression*. John Wiley & Sons, New York, 1989.

Lung function function	For definitions of the three measures of respiratory (FEV ₁ , FVC and PEF), see Volume I, Chapter 8.
Mean	Unless otherwise stated, the 'means' presented in the report are arithmetic means: the sum of the values for all cases divided by the number of cases. See also 'geometric mean'.
Median	The central value of an ordered set of observations which divides the set into two equal parts such that half the cases have values below the median and half the cases have values above the median.
MRC Respiratory Questionnaire	See Volume I, Chapter 8 for definitions relating to the measures obtained from the MRC Respiratory Questionnaire (breathlessness, phlegm and wheeze).
Multiple linear regression	See linear regression.
Percentile	The value below which a specified percentage of values in an ordered set of observations fall. For example, the 20th percentile is the value below which 20 percent of the cases lie, while 80 percent lie above. The 50th percentile is the median.
Physical activity	For physical activity classification and summary measures (maximum intensity level and frequency-intensity activity level) see Volume I, Chapter 2.
p value	A p value is the probability that a difference or association as or more extreme than that observed would arise if there is no actual difference or association in the population. A p value of less than 5% is conventionally taken to indicate a statistically significant result ($p < 0.05$). It should be noted that the p value is dependent on the sample size, so that with large samples differences or associations which are very small may still be statistically significant. Results should therefore be assessed on the magnitude of the differences or associations as well as on the p value itself. The p values given in this report are based on the assumption of a simple random sample and do not take into account the complex sampling design of the survey.
Quintile	Quintiles are percentiles which divide an ordered set of observations into fifths, i.e., the 20th, 40th, 60th and 80th percentiles.
Region	Regional analyses are based on the 15 Health Boards grouped in the following seven regions: Highland & Islands; Grampian & Tayside; Lothian & Fife; Borders, Dumfries & Galloway; Greater Glasgow; Lanarkshire, Ayrshire & Arran; and Forth Valley, Argyll & Clyde.
Rose angina	See Volume I, Chapter 10.

Social class

Social class of chief income earner

Social class was assigned on the basis of the occupation of the 'chief income earner' within the informant's household. 'Chief income earner' was defined as the person within the household with the largest income, whether from employment, pensions, state benefits or any other source. Social class was based on the Registrar General's *Standard Occupational Classification* (Vol 3. OPCS, London: HMSO 1991). Occupations are assigned to six social class categories:

Social Class	Occupations
I	Professional occupations
II	Managerial and technical occupations
III	Skilled occupations (IIINM) non-manual (IIIM) manual
IV	Partly skilled occupations
V	Unskilled occupations

In some analyses, Social Classes I and II and Social Classes IV and V have been combined. In others, I, II and IIINM have been combined under the heading of 'non-manual', while IIIM, IV and V have been combined under the heading of 'manual'.

Where the chief income earner was not the informant, the social class of the chief income earner was derived from information obtained from the informant about the chief income earner's occupation. Chief income earners who were in the armed forces, whose occupation was not adequately described or who were full-time students were not allocated a social class and are not shown separately in the tables. They are, however, included in the total column.

Own social class

In some analyses, social class is based on the occupation of the informant rather than on the occupation of the chief income earner within the informant's household.

Waist-hip ratio

See Volume I, Chapter 7.