

MEDICAL RESEARCH COUNCIL  
NATIONAL SURVEY OF HEALTH AND DEVELOPMENT

Canynge Hall  
Whiteladies Road  
BRISTOL  
BS8 2PR

Telephone: (0272) 24161 ext 1197  
(0272)738785

NURSE-INTERVIEWER MANUAL

### Confidentiality

You will be required, as a condition of work, to sign a form undertaking to keep the strictest confidence about the work that you do, both on the training sessions and in the interviews. Please take great care to ensure that all the information in your charge is kept securely in your home and be sure to post each interview back to us when it is completed and you have checked it through. Do not discuss interviews or any aspects of your work that involves contact with survey members with anyone else.

If it is necessary to reassure survey members about confidentiality please say that the research team regards all information as strictly confidential, it is all kept under lock and key, and all the data that we work with is in statistical form.

### Making contact

We shall explain at the training course how we will use introductory letters that describe the study and allow you to make a convenient appointment for your visit. Always remember that you will be our vital link with the survey members, and you are vital in two ways.

1. You control the accuracy of the data with which we shall work.
2. You are responsible for re-establishing and maintaining our long standing links with each individual. You must therefore establish a good relationship with each person you visit, and respect the confidence which he or she has placed in you.

### Calling back

If you are, for any reason, unable to carry out the interview and measuring even after you've made an appointment, arrange another mutually convenient time and try again. If that also fails please contact Sally Winter (0272 24161 ext.1197) to discuss what to do next. Do not make more than 2 visits to a person without first discussing it with Sally.

### Before you arrive at the house

Be sure that you have filled in the Contact sheet with all the appropriate information.

Before you arrive at the house label Questionnaire A with a computer label giving serial number, name and address, and with the label about last known hospital admissions and job. Write the identical serial number onto Questionnaire B, C and D and label the dietary diary D, on the inside front cover. Write your name on the front of Questionnaires A & B. Then transfer information about last known hospital admission from the computer label to question 17 on page 5 and information about jobs to question 40 on page 9 and to question 41 on page 10.

Be sure that you have

- a. All the parts of the questionnaire with the same serial number on each one
- b. The dietary diary
- c. The consent form
- d. One or two blank sheets and
- e. all the measuring equipment
- f. Your identity card

### On arrival at the house

Introduce yourself by name and say that you have an appointment with the survey member. It is usually best not to discuss what you have come for with anyone other than the survey member.

### The interview

The interview is designed to flow as naturally as possible, and to progress from topic to topic in an easy way. Please remember that it is always essential to go through the questions in order, and to ask each question exactly as printed.

Note the starting time of the interview on the front page.



## Questionnaire A

### Q1-Q5

The questionnaire begins with questions about the household and present family circumstances of the survey member. This will help you to establish rapport with him or her, and give you important information which will be helpful at later points in the interview.

"Household " is defined as a person living alone, or a group of individuals who live at the same address, having that as their main residence and regularly sharing at least one main meal a day. Having joint or common housekeeping also counts as constituting a household. When you have completed the first question about household members check that the total you have written in at the beginning of the question tallies with the number of individuals about whom you have collected information.

### Q6-Q9

These questions are about the survey member's current or, if living alone, the most recent spouse or partner. When asking for information on educational qualifications make sure that if possible you actually get qualifications and not simply courses attended.

Information about jobs must be clear and unambiguous. For example "works in a bank" is not at all clear: it would be necessary to know what task the person did in the bank, together with information about their status. Deputy bank manager, or head cleaner, would be appropriate answers.

Answers to the question on what the firm does (8d) help us to define the exact nature of the work.

### Q10

This question is about the survey member's biological children and includes those who may now no longer live with the survey member, as well as any who have died. Only still births should be omitted.

### Q11-Q15

These questions are about accommodation. Living rooms include kitchens if they are also used as living rooms, dining rooms and studies.

Q 16

This question is included to up date our records about living abroad.

Note especially that Q16 is about the survey member's whole life, and this is because we feel that we have not had a good record of time spent living abroad: this question refers to where the survey member's home or main residence was situated, and therefore, for example, those whose parents lived abroad but who were themselves at school in this country should be counted as living abroad.

Q17

This question deals with the survey member's admissions to hospital. Having already inserted the month and year of the last admission that we have on record, ask them to recall the next admission (if any) and record the details in the first row. Ask the survey member to be as specific as possible as to the reason for the admission. If they cannot remember the name of the doctor in charge of the case, then ask for the name or number of the ward - this will assist us in tracing the admission so that we can verify the details. If there has been more than one admission, repeat this procedure for each one, in order, up to the present time.

Q18-19

These questions will help us establish family histories of certain diseases. Again, be as specific as possible about the cause of death e.g. many old people die of pneumonia although the underlying disease was cancer - in this case give both causes.

Q20

Q20 and Q21a are to identify specific chronic diseases in the survey member or their parents. It is worth stressing in the question that for you to record a named disease it must be there all the time or keep recurring. The question will also have to be modified according to whether a parent is alive or dead before it is asked.

Q21

These questions are concerned with cancer incidence. Again, be as specific as possible about the nature of the disease.

Q22-26

The questions are designed to identify those with chronic respiratory illness such as chronic bronchitis. The three parts of Q22 and Q23 provide a grading of severity, of cough and sputum production respectively. If a response is equivocal the answer should be recorded as "No".

Q27-37

This series of questions is designed to identify those survey members who have angina or who have had a myocardial infarction. Ask the questions exactly as printed and in order, but as soon as a response indicates moving onto Q37, do so without asking the intervening questions. If a response is equivocal - such as "Do you get it when you walk uphill or hurry" and the response is something like "I don't know, I think I might but I'm not really sure" - the answer should be recorded as "No". The only exception to this is with Q27 - if in doubt, go on with the series.

Q38-39

This section is about the survey member's current work. Like the answers to question 8 these job descriptions and the descriptions of what the firm does must be as specific as possible.

Q38b is an important definition question and gives you the information to decide on whether later to ask Q43-55 or QN43-QN53 or QL43-QL53.

The question about working hours (Q39f) is about all kinds of work activity, including clerical work taken home.

In Q39g the second option "do you do some of it (your work) at home?" applies to those who are obliged or expected to do some work at home, and to those who frequently and regularly do so.

Q40-42

Q40 and Q41 aim to update our records about employment, and unemployment, either since our last contact in 1977, when survey members were 30-31 years old, or failing that since 1972 when they were 21. Again job descriptions must be quite specific.

Q40c and Q41c are checking questions to enable you to be sure that you have all the information. Be sure that you have covered all the time periods concerned.

Q42 is about training and it is important to have the most specific answers you can get to Q42b and Q42d.



These questions are for those who are either working full time or part time.

Q43b and Q43c are not defined and you should simply write down what the survey member says in answer. Give a little time if you sense that it is necessary.

Q46 includes both mental and physical effort.

Q49b & Q49d usually require a little extra time, and the survey member should not be rushed.

Q56f hand the survey member the card as you ask the question and circle the appropriate code as answer. In practice most survey members will happily answer this question, but do not press those who do not wish to do so to give an answer.

QN43-QN 53

These questions are for those who are now neither working nor looking for work. You will know who they are by reference to Q38b.

These questions are comparable where possible, with those for people who are working, and therefore the comments on Q43-56 given above apply equally here. For example, comments on Q43b and c apply equally to QN43b & c, and so on.

QL43-QL53

These questions are only for those who say in answer to Q38b that they are not working now but are actively looking for work.

They are comparable with Q43-Q56, and comments given about these questions apply here too.

Q57

This question relies on the survey member's own definition, that is we want to know what he or she feels.

Q65-Q73

By this time in the interview you will have established a good rapport with the survey member and so it is an appropriate moment to ask these rather more thought provoking questions. They all, naturally, require you to allow the survey member more time to think about them, but don't let that time continue for long enough to break the flow of the interview.

Q66b if there are more than 2 answers write them on a separate sheet.

Q58c as it says on the questionnaire be discrete about this question.

It applies to family life from the survey member's earliest childhood until the present.

Q69a "brought up in" means brought up in a household where religious belief of some kind was manifest in the way of life, for example, as going to church or chapel, or in the belief of one or other parent. It is not necessary for the survey member to have had a personal belief or faith in childhood.

Q71-73 These questions are specifically about the survey member's personal beliefs now.

Questionnaire B (the PSE) is now administered in accordance with your training. Following the PSE, complete Questionnaire A:

Q74-77 are about habitual dietary habits, so if there is any hesitation, say that we are interested in people's usual eating patterns e.g. "On average in the last year or so, how often do you eat other fried food".

Q78-81

These questions are about tobacco consumption. Q78 is about current cigarette smoking and Q79 is for ex-cigarette smokers.



## QUESTIONNAIRE C

All the questions are for the survey members to complete themselves. Ask them to do so during the five minutes or so while you are setting up the equipment for the physical examination. For those in doubt, explain that with Qs 1-10, the survey member is to tick the boxes to the left of the line and you will deal with the ones next to them.

Q1-10 Leisure Time Activities - these questions are to determine the type and intensity of exercise that the survey members take in their spare time only (ie: not whilst working in paid employment).

Qs 1-5 deal with the major forms of exercise using a series of checklists. Explain that the survey members should consider each activity and tick the appropriate box if he or she has done any of them in the relevant time period (usually the preceeding month, sometimes the preceding week). For the majority of people, only a few items will apply.

To enable us to calculate the intensity of the exercise, we also need to know the number of times the exercise was carried out and the total time spent doing it during a set time period. There are two exceptions to this - Qs 3a and 3b, which ask about gardening in the summer and winter. Here, we are asking the survey member about their usual activities, so average number of times and average length of time spent on gardening is called for.

When the survey member has completed Questionnaire C, go back to the items that have been checked and write in the number of times and the length of time spent during the appropriate period.

Except where indicated record time spent on the activity to the nearest hour i.e. 1 hour 15 minutes = 01 hours; 3 hours 30mins = 03 hours; 10 hours 45 mins = 11 hours. Most people will report whole hours or hours and half hours spent on each activity - please note that hours and half hours are to be rounded down e.g. 3½ hours or 3 hours 30 minutes = 3 hours. If the time spent is 30 minutes or under (most unlikely) record it as one hour e.g. 20 minutes = 01 hours.

Q6-8 ask for any activity both at work or in the home or during leisure time that made the survey member feel warm, perspire or out of breath. If the survey member checks one of these questions, go back and write in the nature of the activity, the number of times it was done in the preceeding month and the average time spent on each occasion.

Q9 is about regular use of stairs, that is stairs used on most days. If the survey member has checked any of these boxes write in the average number of flights or stairs used regularly each day. One flight of stairs - 12-14 stairs and may be easier for the survey member to recall - record flights in the first two boxes or stairs in the last three boxes i.e. not both.

Q10 is about driving experience in the preceeding week. Record what has been written in, in the appropriate boxes.

Q11-13 - Stress and Personality - these questions should be self evident. Check that one number has been circled for each part.

Disability - the final part of Questionnaire C is about chronic disability as a result of illness, injury or ill health. If an item has been checked, go back and ascertain that the problem was a result of illness, etc., and that it has been present for at least the preceeding 2 weeks.

A very small number of our survey members may not be sufficiently literate to cope with a self-completion questionnaire or may be unable to because of disability. See how the survey member is getting on from time to time and if there are signs of difficulty administer questionnaire C as you did with questionnaire A.

## D. The Diet Diary

### 1. Introduction

Introduce this phase of the interview carefully to ensure cooperation. All dietary survey techniques depend heavily on the motivation of the person under study.

Explain that data has already been collected on nearly all aspects of health and lifestyle, but that one further very important part - the diet - remains to be recorded. In order to obtain dietary information, it is necessary to write down details of every single item of food and drink consumed and to give some idea of the amount consumed. The aim of the survey is to learn about the survey member's usual dietary pattern so the record has to be made over several days.

### 2. General Method

Firstly you will ask the survey members to recall everything that they ate or drank over the preceeding two days.

This will not only provide us with very useful information but will also demonstrate how we would like it to be set out in the special booklet.

Then the survey members will be asked to use the same methods to continue the diary for the next five days. When the booklet is full, it will contain a full 7 days' dietary information and the survey members will be asked to post it back to use in the envelope provided.

### 3. The 48 hour Dietary Recall

Begin by calculating the start of the 48 hour period prior to the morning of the interview. Write in the day and date of these two days in the first two sections in the booklet. Record all foods, drinks, snacks and alcohol consumed in that period beginning with the question:

"What was the first thing you ate or drank on .....day?"

In order to describe the dietary intake we need to know what the food or drink was or what it was made from. We will then express it in terms of its constituent parts e.g. protein, polyunsaturated fats, carbohydrates, etc. To quantify these constituents it is essential that we know how much of the food or drink was consumed.

Refer to the first few pages of the diary. This sets out what we need to know about some common foods and drink and indicates the easiest measures to think of when recording the amounts. As you record the 48 hour history, use this reference, demonstrating to the survey member as you do so.

It is worth making sure that the survey member knows the difference between teaspoon, desertspoon and tablespoon and that a cup is a teacup (approx 8 fluid ounces.).

For some foods e.g. cheese, there is no handy measure. If weight cannot be estimated, use the term "helping" and say if it was large, medium or small.

At the end of each day, remind the survey member about snacks and beverages that are easily forgotten when thinking in terms of lunch, tea etc. Include here a discrete reminder about alcohol consumption and if not already recorded, put it in at the end of the relevant day section.



#### 4. The Five Day Diet Record

Put in the days and dates of the next five days in each section of the booklet and ask the survey members if they would fill them in as you did for the preceeding two days. Say that it is best if they do so as they go along so they should keep the booklet with them all the time during the period.

Ask the survey members to post the booklet in the prepaid envelope to us in Bristol.

## Physical Measurements

### 1. Timing and Examination Setting

1.1 Towards the end of the interview, after the subject has filled in Questionnaire C you should explain that the following simple and safe measurements will be taken: height, weight, body size and blood pressure, followed by a breathing test.

1.2 The equipment should be set up in a room that is neither too hot ( $>22^{\circ}\text{C}$ ) nor too cold ( $<15^{\circ}\text{C}$ ), that is free from excessive noise and bustle and that has a floor with a hard surface. If such a floor is unavailable (exclude the bathroom), the scales should be set on the board provided.

At this stage, the thermometer should be placed such that ambient temperature can be measured i.e. away from a source of heat or draughts.

The room should contain a straight-backed chair and a table high enough so that the left forearm can rest on it comfortably with the subject seated. There should be sufficient free space in the room to allow for the scales and the portable stadiometer.

1.3. At the end of the interview, that is immediately after the diet record has been taken and the diet diary explained, proceed to the examination.

### 2. The Examination

Briefly explain the purpose of each piece of equipment. The left upper arm,

chest and abdomen should not be constricted by clothing during the measurements. Explain this and if necessary (and the subject agrees) allow the subject to change into something more suitable. Remember to ask female survey members if they are, to their knowledge, pregnant. Record all measurements on the Examination form at the end of questionnaire A.

The measurements should be carried out in the following order.

2.1 Resting Pulse Rate and Blood Pressure - using the Random-Zero Sphygmomanometer. The subject should be seated with the left forearm resting on the table. Apply the cuff to left upper arm which must be free of clothing. Allow the subject to settle in this position for 3 minutes without changing posture. Take the resting pulse rate at the left radial artery over one minute. Record beats per minute.

If resting pulse rate is above 100/min, relax subject and repeat after further 3 mins.

Take two blood pressure measurements in succession and record systolic, diastolic and zero readings to nearest 2mm. below.

2.2 Peak Expiratory Flow Rate - using the Mini Wright's Peak Flow meter. The subject should be seated. Demonstrate the technique. Change the mouth-piece and have the subject perform the test. Record to the nearest 10 litres/min. below.

Correct technique if necessary and repeat and record as above.

Again correct technique if necessary. The subject should now achieve a satisfactory test and perform a further three times, each result recorded as above.



2.3 Standing Height - using the portable stadiometer. Ask the subject to remove his or her shoes. The foot plate is placed on the floor under the subject's heel. The end of the rule is clipped to the foot plate and the other end placed on the highest part of the head. Check that this end is horizontal using the spirit level. Check that the Frankfort Plane is horizontal (the top of the external auditory meatus is level with the lower part of the bony orbit) and that the feet are flat and back fully extended.

Record height to the nearest 0.5 cm below.

2.4 Weight - using digital readout scales. Weigh without shoes and record to the nearest 0.5 kg. below.

2.5 Girth Measurements - using special steel rule.

a. Right upper arm circumference is measured unclothed at a point midway between the tip of the shoulder and the olecranon (tip of the elbow) with the forearm flexed at  $90^\circ$ . The rule should be applied such that it fits snugly round the arm but does not indent the flesh. Measure twice and record to the nearest 1mm below.

b. Chest circumference is measured unclothed at the level of the nipples in men and just below the breasts in women. The rule is applied as above.

Measure twice and record to the nearest 1mm below.

c. Abdominal circumference is measured unclothed at the point of maximum girth for males and just above the navel at the point of minimum girth for females. The rule is applied as above. Measure twice and record to the nearest 1mm below.

2.6 Ambient temperature - read thermometer and record to the nearest  $1^\circ\text{C}$  below.

2.7 Finally record equipment set number and the time of day.

### 3. Questions from the Survey Member

Either during the examination or after it, survey members may wish to know the result. There is no reason why they should not be told the body size measurements but it is unwise to tell them the b.p or lung function results in case of misinterpretation. If asked for these, say (truthfully) that the equipment is designed so that true readings are worked out in Bristol by those who run the survey. Say, however, that if the survey member wishes, the results can be sent to his G.P. If this is the case, record the name and address of the G.P. in the space provided.

1. On the day of the interview or at the latest the next day, check that you have written in or coded an answer to each question including any change of address.
2. Check that you have each document from the interview and post it all to us. You should include

Questionnaire A

Questionnaire B

Questionnaire C

The hospital consent form

The contact sheet for this person

The personal consent form



### Questions that may arise

"I have told them all this before". - It may be that a survey member will say this in answer to one of the questions, for example Q10 about children. You should reply that in order to be sure that we have complete records, and to bring them up to date, we are asking everyone for these details.

"What's it all for anyway?" - Very occasionally a survey member will ask this when you ask a question which doesn't seem to him or her to be relevant to the study of health. The training session will show you the relevance of each question. You can be sure that we have tried as hard as we can to keep the numbers of questions down, and each one certainly ~~is~~ relevant.

Page 18 contained details of nurse pay and expenses; as such it has been removed.

Appendix 1Step by step instructions for Operation of the Random-Zero Sphygmomanometer

1. The left-hand bellows cock should be set at 'open' and the mercury reading above 60mm. Then prepare to take blood pressure in the usual way.
2. Before inflating the cuff, spin the wheel rim that projects from the right side of the rear cover. If the wheel is not free to spin in either direction, bellows are not completely deflated.
3. Apply pressure and the mercury will rise slowly.
4. When reading is 240mm. turn cock to 'Close'.
5. Release pressure at airflow valve on hand bulb to allow mercury column to fall at 2 mm./sec., adjusting valve to keep the rate of fall constant.
6. Observing systolic and diastolic pressure, release remaining pressure at air flow valve on hand bulb. Record Systolic and Diastolic pressures on Examination Form. Record the Zero reading. Pressures to be read to the nearest 2mm. below.
7. Open cock and start again at 1. for each blood pressure measurement.



## Appendix 2.

### Step by step Instruction for the Mini Wright Peak Flow Meter

The subject should be sitting comfortably. In the performance of the test it is essential that the subject (1) takes in a maximal inspiration and (2) then expires as hard and as fast as he/she can. Any explanation of the test to the subject must include these two points. It is suggested that the following words are used:

"This tells me how fast you can blow air out of your lungs. I want you to take in as deep a breath as you can and blow into the machine as hard and fast as you can, like this". At same time the technique is demonstrated.

A new disposable mouthpiece is fitted into the Peak Flow Meter for each subject. This mouthpiece must be placed in the mouth. The observer must ensure that the lips are placed tightly round it. Five consecutive expirations will be recorded to the nearest 10 litres/min. below. If the needle lies on a line, that is the reading to be recorded. If the needle is between two lines, the reading is that of the line below.

After each expiration the meter reading should be written down and the curser reset.

The performance of the Peak Flow Meters may change with time. The easiest way to detect this is to use oneself as a standard. Every morning, before starting work, perform while seated 5 consecutive forced expirations. If the mean of the last 3 differs by more than 40 litres/minute (in the absence of a respiratory illness) from you usual peak flow rate, the meter should be changed.

Condensation may accumulate. Please allow to dry out between subjects by leaving unboxed.