



**Medical Research Council**

Your reference

Our reference

**MRC National Survey of Health and Development  
University College London and The Middlesex  
Hospital Medical School  
Department of Community Medicine  
66—72 Gower Street  
London WC1E 6EA**

telephone 01 387 7050 ext: 7607

direct line 380 7607

NURSE MANUAL

## Confidentiality

We shall ask you, 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 as soon as 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 tell them 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 and does not identify individuals.

## A link with survey members

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 contact 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. You are the National Survey's representative when you visit a survey member.

## Arranging a visit

Fill in the gaps in the letter of introduction to give your name and to suggest a time and date. Add your telephone number if you are hoping for it to be used. Put a name and address label (without serial number) on the reply card before you send it along with a self-addressed and stamped reply envelope and the letter of introduction, to the survey member.

## Calling back

Do not make more than 2 visits, or plan to make any trips involving an overnight stay without first discussing it with us.

## Before you arrive at the house

When you go on the agreed day for the visit, use the check list which is on the back page of this manual to make sure you have all the things you need. Carry out the necessary amendments to the questionnaires in accordance with the contact sheet. Correct the A questionnaire as follows: (i) Q3(c) the routing should go to Q6 not Q8, (ii) after Q51(b) the routing for self-employed should go to Q51(d) not Q52, (iii) on Q80(a) the routing after "No distance"

should go to (c) not Q81, (iv) the 4th column of Qs 81-83 and the 5th column of Q84 the heading should read "On average, how long do you spend doing this per week", (v) cross out Q104-Q105.

### Personal safety

Let someone know where you are going and when you expect to return before you leave for an interview.

### On arrival at the house

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

Guidance notes for questionnaire A

- Q1. As this is a memory test make sure you do not indicate in advance when the last interview took place. Try to discourage anyone else present from answering or helping the survey member to remember.
- Q2. A "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.
- Individuals who are absent temporarily should be included e.g. someone working away or a child who is a student. Make a note of their absence on the questionnaire.
- Check that the individuals listed in Q2 add up to the number specified in Q2(a).
- Q2(b). A spouse/partner always goes in the first box. After that one person is written per box.
- Q3(b). "Single" means never married. "Married" includes those in a second or subsequent marriage.
- Q5(b). If the survey member was interviewed in 1982 we will know about earlier marriages that had ended, therefore the "1st Marriage" might not be the survey member's first ever marriage.
- Q6. A partner must be part of the household.
- Q6(b). Code 01 is below an 'O' level pass  
Code 02 is 'O' level pass equivalent  
Code 03 is 'A' level pass equivalent
- Q7. Information on jobs must be clear and unambiguous. Write down the full job title (indicating professional status of applicable) and a description of the person's main activity in the job. Use precise terms such as radio mechanic, woodworking machinist, primary schoolteacher, district surveyor, production engineer, chartered accountant rather than terms like mechanic, machinist, teacher, surveyor, engineer, accountant. If the occupation is known in the trade or profession by a special name, record that name. If spouse or partner is in H.M. Forces record rank. For civil servants and government officials record grade, and check for professional activity.
- Q7(d). Answers to the question on what the firm does help us to define the exact nature of the work. Record what is the main activity in the place (establishment) where the survey member works. For those working in



manufacturing industries probe for the main product made and the main material used in its manufacture; for those in the distributive trades probe whether it is retail or wholesale and the main product distributed. For those working in offices find out exactly what the office does. There are some situations where the industry to be probed for is not the place where the survey member is actually working. This situation arises where the survey member works, for example, for an agency, e.g. a cleaner working in a bank, who is employed by a firm of contract cleaners. The firm's activity entered would be cleaning rather than banking.

- Q7(e). The size of the firm is the number of employees in the actual establishment where the survey member works. By manager we mean someone whose primary function is to plan, organise, co-ordinate and control work resources on a long term basis. They may directly supervise staff but it is not essential that they do this. By supervisor we mean someone whose primary function is the immediate day to day control of the basic production of work and the supervision of workers carrying out that particular work. If there is any doubt as to which code applies indicate possible options by ringing more than one rather than specifying unknown.
- Q8 & 10. These refer to all survey member's natural, biological children. Exclude other 'non-biological' children. Also exclude stillbirths and miscarriages.
- Q10(h). Primary includes middle school.
- Q10(l). Note that this is about the survey member's first born child, not their grandchild.
- Q13(a). Kitchens are only included if they are also used as a living room, e.g. for meals. The "total" is the sum of the bedrooms and living rooms.
- Q16. More than one country can be given for each "time" spent abroad.
- Q17. Please give as much detail as you can about reasons for admissions to hospital.
- Q17(b)-(c). Only include overnight stays in hospital. Check the number of stays after completing (c).
- Q18(a)-(b). This is about hospital outpatient clinic treatment but not a GP clinic or health centre (which is covered in Q21).
- Q18(c). Sterilization includes hysterectomy.
- Q19-Q20. These refer to the natural (biological) mother and father.

- Q21. In this question a recurring illness is one which was experienced more than once, and includes illnesses which have recurred in the past but are now over, as well as those still recurring. "Once" means for only one episode. Do not use the "specify" spaces for parents' problems. Other professional includes pharmacist. If survey member does not know whether a parent suffered from a particular health problem ring "No". Trouble with gums and mouth does not include teeth.
- Q22(d). For "other medicines" do not count those already given in Q21.
- Q28-Q37. 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 am not really sure" - the answer should be recorded as "no". The only exception to this is in question 28 and 29, and if in doubt here go on with the question.
- Q42. The code 'the last year' in Q.42(a) means that the woman has not taken the pill for at least a year prior to interview. Questions 42(g) and (h) are for women who have not been able to give the length of their longest and shortest cycle.
- Q46. It may be necessary to explain what hormone replacement therapy is.
- Q48. Those not visited in 1982 who were, at that time, housewives (or househusbands) not seeking paid work should be coded 2.
- Q49. If survey member has more than one paid job give the details in column 2 of the job in which they spend most of their time. Please refer to question 7 for notes on recording occupation, what the firm does and employment status. Only the reasons for leaving a job that we are particularly interested in are specified. Other reasons, such as promotion or general dissatisfaction with job, should be coded 7. A job change is counted where there has been a definite change in the type of work or the employer or where the job has changed from full-time to part-time (or vice versa).
- Q51(a)-(d). If survey member has more than one job the hours worked Q51(a) and earnings Q51(d) refer to both jobs. In Q51(c) if either job provides a particular benefit the answer is yes; if neither job provides the benefit, the answer is no.

- Q51(d). This question applies to all survey members with a current paid job, including the self employed. Give survey members time to provide their earnings. If they do not know how much they earn encourage them to give an estimate. If they still cannot provide an answer indicate whether they do not know or have refused.
- Q51(e). For those in part-time or seasonal work include all the hours worked with respect to their job, including, for example preparation time, which may not be paid for.
- Q52(b). The first column is only for those who are not in paid work at the time of interview. Being off work to have a baby is not recorded as a health problem unless there were complications which affected the survey member's return to work. An "occupation" here does not mean a job but any other main activity e.g. attending a daycentre or doing voluntary work.
- Q55. Deductions other than tax and national insurance, such as superannuation or the employee's contribution towards a company car, should be included. Do not forget child benefit. The income bands at the lower end of the scale are narrower than the upper bands as it is more important to be precise in households with less income. Give time for survey members to provide an answer. Indicate if they refuse to answer the question. An estimate is much better than a don't know. At least try to record an answer such as "well, at least as much as ...." or "no more than ...."
- Q57. "Currently involved" means activities in the last year.
- Q59(a). Do not include eyesight problems.
- Q59(b). Do not include physical disability which affects writing. (These questions should give an indication of those who are likely to have difficulty with the self-completion questionnaire or the tests.)
- Q62. Do not count talking on the telephone. "Regularly" means once a month or more often.
- Q66(a)-(b). The survey member may have difficulty answering these questions if the spouse/partner is present.
- Q66(b). "Others" could be someone in the household. If so give name and relationship.
- Q68(c). Burglary does not count as robbery.
- Q68(l)-(o). Do not repeat information about events relating to the spouse/partner or to children; that should have come up in questions 68(g)-(k).

- Q69-Q73. These questions are about the survey member's natural parents if they are still alive and their whereabouts known. Otherwise these questions apply to alternative mother or father figures.
- Q73(a)-(b). A parent is able to look after himself/herself if they do not need help with personal tasks (such as getting in and out of a bed or chair, dressing and undressing, washing hands and face, washing all over, feeding, getting to and using the toilet) or household tasks (such as cooking, cleaning, shopping and washing clothes). Help with hair washing should not be counted in 73(b) and should be recorded in 73(f) as "other", if the survey member does this task. Other household tasks are also recorded in 73(f).
- Q78. The answer key given at the top of this page should be used for (a)-(r).
- Q78(e). Do not include hangovers or the effects of physical illness.
- Q78(i)-(j). Do not include 'noisy neighbours' etc. Do not include shift-workers where the time change is the problem.
- Q78(t). Do not count neurological complaints such as 'sciatica' or 'trapped nerve' here.
- Q79-80. This includes walking and cycling as part of normal day to day activities, including travelling to and from work, and walking/cycling as part of work. Part (b) of each question allows survey member to specify if it's done at certain times of year - e.g. summer only would be '3 months or less'.
- Q81-83. These refer to physical activities other than those to do with occupation. Record time spent to nearest 10 minutes; (e.g. 12 minutes would be coded as 10 minutes, 15 minutes = 10, but 17 minutes = 20).
- Q84. These refer to regular leisure activities requiring physical effort. Record time spent to nearest 10 minutes.

Q86. Pegboard

The pegboard task is to measure speed of movement. The task is repeated five times with the right and left hand, each "trial" being timed separately. The pegs are moved from the far row to the near row starting at the right for the right hand and the left for the left hand. Demonstrate the task saying,

"The task is to move the pegs from the top row to the bottom row like this, as fast as you can. It does not matter if you drop a peg. We will just start the trial again. The idea is to be as fast as possible, trying each hand in turn. Don't talk while moving the pegs as that slows you up".



Start the trial by placing one finger on top of the first peg and saying "ready, steady, go". Release the peg and start the stopwatch on "go". Stop the stop watch when the survey member releases the last peg. Write down the time to 1/100th second, reset the stopwatch and turn the board around ready for the next trial. Repeat as before. If the survey member drops a peg or moves the board or is distracted restart the trial.

You can steady the board by holding a cross bar but do not obstruct the survey member. The survey member can hold the other cross bar.

Then turn the board around ready for the survey member to begin.

#### Q87. Memory word list

Model instructions. "I want to see how well you remember a list of 15 words. I will show you one word at a time and when I reach the end of the list you have one minute to write down as many words as you can. Write them here (show place on Questionnaire B) in any order you like. At the end of the minute turn over to the next page. It is best not to talk to me/anyone while you are doing this."

Show the survey member the place to write answers on page 3. Show the words at 2 second intervals using the appropriate word list (A or B). Make sure the last word is shown for 2 seconds. At the end of the list indicate to the survey member that they should start writing. Try not to distract or interrupt the survey member when doing this. At the end of one minute ask the survey member to turn the page (p.5) and repeat the administration. The third presentation is the same and uses page 7 of Questionnaire B.

#### Q.85 Visual search

This is a test of speed of working. The survey member uses pages 2-3 of the self-completion questionnaire (B).

The test is timed for 3 minutes altogether and the task is for the survey member to cross out as many letter "P"s and "W"s as possible in that time. Make sure the survey member understands the instructions before starting the task.

Model instructions. "I want to see how quickly you can work through this list crossing out the "P"s and "W"s. Start at the top left where the arrow is and work along the row from left to right then go to the beginning of the next row and work from left to right again, like reading a page. Carry on this way crossing out any "P"s and "W"s with one mark of the pencil, like this (demonstrate). "I will tell you when one minute is up and if you have not finished the first block go straight to the next one (point) and carry on as before. After two minutes move to the final block (point) and carry on until I tell you to stop. Work as quickly and as accurately as you can."

Time the task for 3 minutes. At the end of each minute say "1 minute" or "2 minutes" and point to the next arrow.

Q89. Make sure the survey member demonstrates the handedness task using the props.

Q90. This is a test of memory so try not to give the survey member any clues about measurements.

#### Self completion

##### Section C Work characteristics

If survey member says that a particular question does not apply to them, for example they work completely alone so there are no colleagues to work with (Q.14), code 3 seldom/never. Encourage them to answer all the questions.

##### Section D Disability checklist

Don't forget to administer the appropriate disability supplementary questions (questionnaire C) to those who answered yes where there is a star (\*). Difficulties must have lasted for at least two weeks to be included. If the survey member is having difficulty with certain activities because he/she is convalescing after an operation or accident from which a complete recovery is expected please give details on questionnaire C.

Section E. If survey member has answered "Yes" to the last question on page 6 check that they have provided further information. Be discrete about this but ask further questions if necessary.

## Guidance notes for physical measures

### Q94. Blood pressure measurement

Ask the survey member to expose the upper right arm for the blood pressure cuff, and to sit at the end of a table near the front right-hand corner with the right arm resting comfortably, palm up, on the table. You should sit at the front of the table close to the right-hand end, facing the sphygmomanometer, which is positioned so that the readings cannot be seen by the survey member.

When the shirtsleeve is rolled or slid up to allow sufficient room to place the cuff, make sure that it does not constrict the arm. Locate the brachial pulse just medial to the biceps tendon, wrap the cuff round the arm like a tape measure and position the cuff so that the centre of the inflation bag (marked on the pocket) lies over the brachial artery. The lower edge should be 2 to 3 finger-breadths (about 1 inch) above the cubital fossa. Connect the cuff to the sphygmomanometer.

Then explain to the survey member that before you measure their blood pressure, which you will do twice, it is necessary to sit quietly for a few minutes with legs uncrossed to rest. Keep conversation to a minimum whilst you then unpack the rest of your measuring equipment and until after blood pressure measurements.

Then take the pulse rate and note it on the form.

Next, check that the sphygmomanometer diaphragm tap is turned fully to OPEN. Feel the participant's radial pulse with one hand and, keeping your hand on it, inflate the cuff slowly with your other hand until the radial pulse disappears. This is the **pulse obliteration pressure**. Deflate the cuff and remember, or if you prefer write down, the pulse obliteration pressure.

Now calculate the **peak inflation pressure** - the height to which you should pump the mercury - as:-

either pulse obliteration pressure + 20 mmHg

or 240 mmHg

whichever is the higher.

## Measurement of systolic and diastolic pressures

### Measurement 1

Spin the wheel at the side of the sphygmomanometer three times. Use the stethoscope with the opening turned to the bell side. Ear pieces should point forward when in your ears. Place the bell of the stethoscope over the brachial artery just below the cubital fossa. The stethoscope should not touch cuff, tubing or clothes and should make an airtight seal with the skin.

Inflate the cuff rapidly to a pressure equal to the peak inflation pressure which you have calculated. Using the bulb to hold the pressure constant, wait 5 seconds for the second reservoir to fill properly. Count to five slowly. Then turn diaphragm tap fully to CLOSE.

Allow the column of mercury to fall at 2 mm/second, using the valve on the left hand base of the sphygmomanometer. Listen for Korotkoff sounds with the stethoscope on the brachial pulse. Record systolic pressure (level of first sound in series of sounds) and phase V diastolic pressure (level of first absence of sound). Record to nearest 2 mmHg and write down these readings as (a) systolic and (b) diastolic. Release the remaining pressure by opening the bulb screw and disconnecting the tubing connecting the cuff to the sphyg. Note the level of the mercury. Read at eye level and, if necessary, tap the sphyg, to shake down any mercury which sticks to the sides of the tube. Record the top of the meniscus. Write down this false zero reading as (c) zero.

This completes Measurement 1.

#### Measurement 2

Now turn the diaphragm tap to OPEN and allow the mercury column to come into equilibrium (80 mm). Reconnect the tubing. You are now ready to start Measurement 2. Spin the diaphragm wheel again and repeat the procedure, using the peak inflation pressure obtained earlier. Write down the readings as (d) systolic, (e) diastolic and (f) zero.

This completes Measurement 2.

If the survey member asks about the readings explain that they can only be calculated at the MRC, and that if they wish we will be happy to send this information to their general practitioner. Make a note in answer to question 108 if this is so.

N.B. Occasionally participants become faint during blood pressure measurement: this is usually evident from the very low pressure readings and slow pulse. If this is happening disconnect the cuff and give participant a chance to recover before repeating the measurements.

#### Using the spirometer

Q95. Insert a fresh cardboard tube into the mouthpiece and connect the mouthpiece to the spirometer.

Explain to the survey member that you are going to measure breathing capacity. Use a cardboard mouthpiece on its own to demonstrate how this is to be done, by filling the lungs to capacity, making a tight seal with the lips around the tube, and then blowing as hard and as fast as possible until the lungs are empty.

Then insert a fresh tube, switch on the spirometer, set the readout switch to "FEV", press the reset button and hand the



mouthpiece to the survey member. Encourage them, at this first attempt, to keep blowing if possible until the dashes are replaced by a number. Then copy the FEV, onto the form, and move the readout switch across to enable you to copy PEF and the FVC onto the form.

Now repeat this procedure twice more.

Q96(a). Measuring height

Place the base plate against a skirting board. Ask the survey member to remove shoes and to stand with feet together, flat on the base plate and with heels against the back of the plate. Ask the survey member to stand as tall as possible. Arms should be held loosely at the side. Tilt the head to the Frankfort plane position, so that 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 would be parallel to the floor (i.e. horizontal). Raise the tape, place the head piece on the centre of the survey member's head and check the level using the spirit level. Lock the tape and take the reading which is on the red line in the window on the side of the measure's case.

Q96(b). To measure sitting height you will need a hard, dining or kitchen type chair with as flat a seat as you can find. If necessary use the board on which you stand the weighing scales.

Place the base plate of the height measure so that the survey member is sitting upright on it, and with feet on the floor. Make sure that the back is straight and the head in the Frankfort plane, and then place the headpiece on the centre of the survey member's head, and check the level using the spirit level. Lock the tape and take the reading as before.

Q97. Measure weight with the survey member wearing skirt or trousers and shirt, but no jacket or jersey and no shoes.

Switch the scales to measure Kg's, and place the scales on a hard floor, or on the board provided. When the zero shows ask the survey member to step on, without hesitation, and then read off the flashing answer, and record on the form.

Switch the scales off again before putting them away.

Q98. Right upper arm circumference

Ask the survey member to bend the right arm to a right angle and measure the right mid-arm level halfway between tip of acromion and tip of olecranon. Mark this level and then ask him/her to let the arm hang loosely semi-pronated at the elbow (with palm facing side of thigh). Measure the mid-arm circumference at the level marked. Tape measure should be just tight enough to take up slack but not to compress the skin.

Q99. Measure chest circumference underneath the shirt, or with shirt removed, in men at nipple level, and in women immediately below the breasts.

Q100-101. Waist (abdominal) and hip circumferences

Ask the survey member to face you and to stand straight with feet together and looking straight ahead. Stand to the right of the survey member. Hold the tape in your right hand with the side of the tape where the scale begins facing you. Pass the other end of the tape round the back flank with your left hand and ask the survey member to hold it whilst you retrieve the end of the tape from his left hand.

This should leave you standing slightly to the participant's left when you draw the tape taut.

Waist circumference

Apply tape at a point midway between costal margin and iliac crest and in line with the mid axilla (mark in pen if they do not mind!).

Hip circumference

Apply tape at widest part of hips (buttock line).

To check the levels you have to position the tape on the right flank and peer round the participant's back from his left flank to check that it is level.

While measuring ask participant to breath out gently, to let his arms hang loosely by his sides and to look straight ahead (to prevent him from contracting his muscles or holding his breath). Pull tape taut and measure to the nearest 0.1 cm and record. Try to take the measurement in mid-expiration when the abdominal muscles are maximally relaxed. If participant is tense, repeat the measurement and take the new reading if it is higher.

Q104-105. Neither of these measures is being taken because the equipment could not be delivered in time.

### Diet questions

- Q109. This refers to therapeutic diets whether self-imposed or prescribed.
- Q110. This refers to diet of choice or conviction.
- Q112. This may provoke a rather general reply. Examples of changes may be in types of milk, fats, breads and meats consumed, as well as increased or decreased intake.

### Diet diary

#### 3. The 48 hour dietary recall

Remember to put survey member's number on Diet Diary and each page from the diet pad. To begin establish that during the last two days and the next five the survey member is not on holiday. Then explain that you are going to ask about all food and drink consumed in the last two full days, and up to now on the present day.

Begin by going step by step through yesterday, writing the answers on to the carbon free copy sheet, giving the day and date at the top. Then do the same thing for the day before yesterday.

As you write in this information use the list of common foods and drink at the beginning of the diary, and the pictures, to work out the quantities of food and drink, and show the survey member how to do this whilst you do it. When you have finished writing in the food and drink for each day remind the survey member about snacks and drinks 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 at the end of the relevant days section.

After you have collected all the information about eating and drinking in the last two days tear-off the top copies of the carbon free sheets and put them inside the A Questionnaire, and staple the bottom copies to the survey member's diary. Then go through the food and drink consumed so far today with the survey member, before explaining that you would like him/her to go on keeping the diary in the same way now for all of today and then for four more days, before posting it back to us in the stamped and addressed envelope which we provide.

### Memory pictures

- Q113. Write down the first five answers. Do not show the pictures again until the survey member has given up or until 30 secs has passed.

At the end of the interview ask the survey member to sign and date the hospital records consent form and the consent to measurement and interview form, and then sign them yourself.

### After the interview

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. All the boxes on questionnaire A are for you to fill in except the boxes on the following questions: Q6(b), Q7(c), Q7(d), Q10(l), Q13(d), Q49(c), Q49(d), Q60(b), Q68(p), Q68(q), Q74(d), Q74(e), Q76(d), Q77(d), Q78(s), Q90 and Q113.
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, if appropriate  
 The 2 days of diet data  
 The contact sheet for this person  
 The hospital records consent form (if consent was not given note this on the contact sheet in the appropriate place)  
 The interview and measuring consent form  
 Any spare name and address labels and the reply card.

### Claims

The rates are

- (a) [redacted] per hour for travelling time, time spent on clerical work and on interviewing and measuring;
- (b) [redacted] a mile for travel;
- (c) [redacted] a day if you are away from home for over 5 and less than 10 hours.

### 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 in the question 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.

Checklist of materials to take to every visit

Identity card

Sphygmomanometer

Spirometer and 2 cardboard tubes

Girth tape

Height measure

Weighing machine and board to stand it on

Stethoscope

Thermometer

Timer

Pegboard and 12 pegs

Memory cards

Memory photographs

Matchbox

Income show card

Satisfaction rating card

Questionnaire A

Questionnaire B

Questionnaire C

Diet diary

Brown envelope with postage for survey member to return diet diary

2 sets of pages from each of the 2 diet pads

Hospital records consent form

Consent form for interviewing and measuring