

P3027



Health Survey for England 2010

Interviewer Project Instructions



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1 General information

These instructions are designed to give you all the key information you need to work on the Health Survey for England (HSE). They are a reference for both experienced interviewers and for those who have not worked on HSE before.

Contacts

If you have a query, your first port of call should be your team leader or the purple team. They will then pass you on to a researcher if they cannot answer your question. Your health manager may also be able to help with queries about the project.

The Health Survey Team

NatCen	UCL	
Researchers	Purple team	
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Website

The Health Survey for England has its own website. It is designed to give respondents more information about the survey. The website address will also be on advance letters and information leaflets.

The website address is:

www.healthsurveyforengland.org

Background and aims

The Health Survey for England is the title of a series of annual surveys commissioned by The NHS Information Centre for health and social care (the IC).

Their objective is to monitor trends in the nation's health.

In summary the survey aims to:

- Obtain good population estimates of particular health conditions and associated risk factors
- Monitor change overall and among certain groups
- Monitor indicators of progress towards the goals of the government's health strategy
- Inform policy on preventative and curative health.

The Health Survey for England is carried out by **the National Centre for Social Research** and the **UCL Medical School**.

2 Overview of HSE 2010

What's in 2010

Sample

- General population sample of around 8,000 adults, 2,000 children
- Child boost (4,000 children)

Question topics

- Core questions on general health, doctor-diagnosed hypertension, adult diabetes, fruit and vegetables, smoking, drinking, classification
- **Special topics** in 2010: dental health, respiratory disease, swine flu, kidney disease
- Self completions:
 - for children 8-12, 13-15 years,
 - male young adults, female young adults
 - Men 16-69, Women 16-69, Adults aged 70 +
 - SDQ
- Heights and weights

Nurse visits

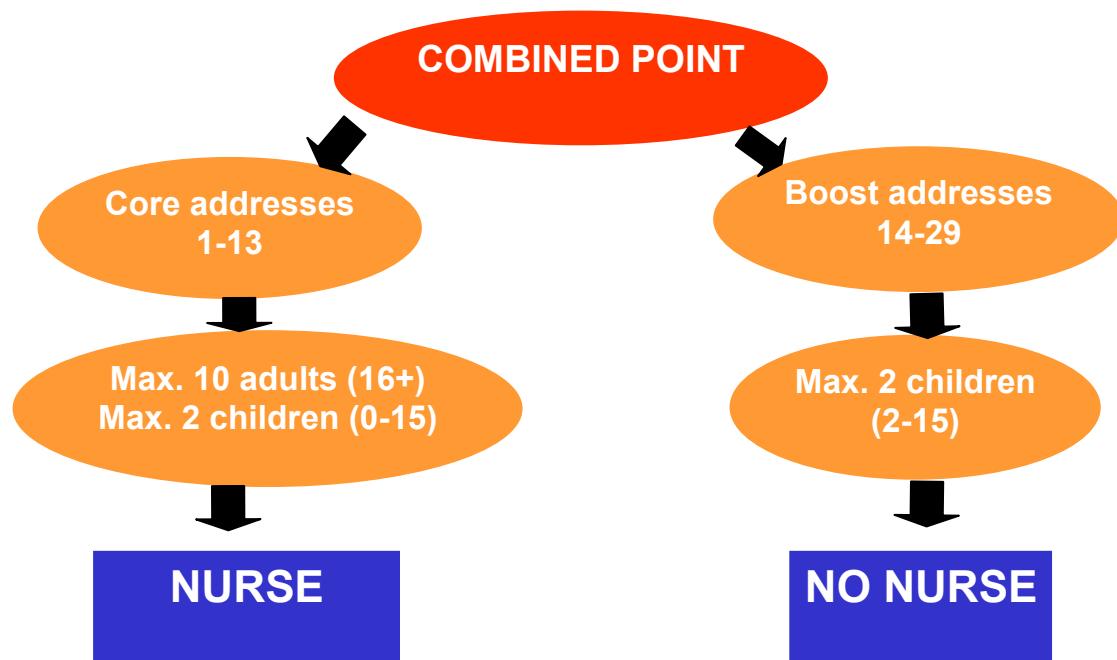
- Nurse visit for everyone aged 0+ in **core** addresses only

3 2010 Survey Design

3.1 Overview of the sample and interviewer workload

The following diagrams summarise the two different types of sample:

Sample type 1



Sample type 2



3.2 The interviewer visit

For each household there is a short ***Household Questionnaire***. The household reference person or spouse/partner should answer this questionnaire.

For each household member eligible for interview there is an ***Individual Questionnaire*** which includes a self-completion section for those aged 8 and over. Joint (concurrent) interviews may be conducted simultaneously where this is practical with up to four individuals at a time.

Towards the end of the interview, you measure each person's height and weight.

Estimated Timings

The interview length will vary depending on the individual's age and circumstances. The table below gives estimated timings for one and two adult sessions, including the household questionnaire, based on data from the dress rehearsal:

Session Type	Average interview length
One adult aged 16+	50 minutes
Two adults aged 16+	60 minutes

3.3 The nurse visit

Stage 2 is a visit carried out by a qualified nurse/midwife. At the end of the Individual Interview you will introduce the nurse visit and make an appointment using the availability that the nurse has given you. See Section 7.3 for information about the nurse visit.

If you need to give respondents an idea of how long the nurse visit will be:

Respondent	Average nurse visit length
Adult (16+)	50 minutes
Children (0-15)	5-20 minutes (length varies depending on age)

3.4 Summary of data collected

Interviewer questions in the individual interview:

Module/Section	Children 0-15	Adults aged 16+
General health including self-care	●	●
Doctor-diagnosed hypertension		●
Dental Health		●
Adult Diabetes		●
Kidney disease		●
Respiratory disease (7+)	●	●
Swine flu	●	●
Fruit and vegetable consumption (5+)	●	●
Smoking (8+)	●	●
Drinking (8+)	●	●
Classification: employment status, education		●
Classifications: Ethnic origin Reported birth weight	●	●
Self completions (8+)	●	●
Height (2+) and weight (0+)	●	●
Consents (16+)		●

Nurse schedule:

Nurse Measurements & Questionnaire	Respondent Ages
Prescribed medications	All ages
Folic acid supplements	Women 18-49
Nicotine replacement therapies	16+
Blood pressure	5 +
Lung function	7 +
Waist and hip circumference	11+
Blood sample	16 +
Saliva sample (for cotinine)	4+
Urine	16+

4 Who to interview

4.1 No proxy interviews

On HSE we do not take any proxy interviews for adults or children aged 13-15 – the questions are about personal health and should not be answered for somebody else. For children aged 0-12, parents answer on their behalf but the child should be present to help with the interview if possible.

4.2 Screening for children at boost addresses

Tips

At screening addresses, you need to think carefully about your doorstep approach and be ready with explanations if questioned by household members.

- ◆ This survey is on behalf of The NHS Information Centre for health and social care.
- ◆ You have registered at the local police station before starting to work in this area. You can inform them that you have CRB clearance, this may also help to reassure people.
- ◆ The main reason we are targeting people in this age group is to get an accurate picture of health and lifestyles from all different people, including those who are younger.
- ◆ The health of children is very important to us so we need to interview more people of this age to get accurate data. This is why in some areas we will be focusing our attention on children.
- ◆ Interviewers all over the country are looking at the health of people of different ages. You have been asked to focus on children's health.
- ◆ Make it clear to parents that you can only interview children if the parent or legal guardian is present.
- ◆ There is a freephone number on the advance letter if the respondents want further clarification. Members of the Purple Team and the research team would be happy to answer any questions they may have.

In 2010 there is a separate Stage 1 leaflet for the boost, explaining why we are interviewing children. There is also a leaflet for children themselves, explaining about the survey.

★REMINDER – IF NO PARENT SPEAKS ENGLISH IN THE HOUSEHOLD:

If there is no parent who speaks English but there is an English-speaking **adult** relative (e.g. sibling aged 16+ or aunt) and the child speaks English:

- If the child is aged 13-15 the adult relative can answer the household questionnaire and the child can do the individual questionnaire **providing the child's parent gives permission and is present**. This permission will need to be obtained by using another family member as an interpreter and you should only proceed if you feel confident that the parent has given **informed consent**.
- If the child is aged 12 or younger, then the interview cannot be carried out and you should code **540** on your ARF.

4.3 Interviewing children

Please read the Natcen guidelines on Interviewing Children and Young People

When interviewing children:

0 to 7 year olds	<ul style="list-style-type: none">Interview parent / guardian about the childChild must be present for heights and weightsChild should ideally be present during the interview, as they may be able to provide information about themselves that the parent does not know or has forgotten
8 to 12 year olds	<ul style="list-style-type: none">Interview parent / guardian about the childChild must be present throughout interview because of self completions and heights and weights
13 to 15 year olds	<ul style="list-style-type: none">With parental consent, interview child directlyParent must be at home
16 to 17 year olds	<ul style="list-style-type: none">Parental agreement desirable but not compulsory



What should I do if there is a child in the household who is away from home for the whole of the fieldwork period?

This may apply to children away at boarding school (who do not come home at weekends), on an extended visit / holiday away from home, or ill in hospital. In this situation you should do the following:

Child aged 13-15	Code as unproductive.
Child aged 0-12	Carry out the CAPI interview for this child with one of his/her parents. Obviously you will not be able to measure the child's height or weight. You can however get estimated information.
At RespHts & RespWts	Enter "Height/Weight not attempted". At NoHtBC and NoWtBC code "Child away from home during fieldwork period" and enter a note in a remark to say why.
At Scomp3 & Scomp6	If the child is aged 8-12 (s)he will be unable to complete the self-completion booklet. At SComp3 code "Not completed" and at SComp6 code "child away from home during fieldwork period" and enter a note in the notepad to say why.
At SComp6, NoHitM & NoWaitM	Children who are ill at home for the whole of the period should be treated in the same way, except that at SComp6, NoHtBC and NoWtBC code "other" and enter a note in the notepad.

Surprise packs for children and young people

Given the large demand we are making on the household, particularly in households with children, we offer a small present to each of the children and young people helping with the survey. You will be given a selection of small 'surprise packs' that contain **stickers** for younger children (NB these are not suitable for children under 3). There are **pens** for older children.

SENDING ADVANCE LETTERS

You will be sending advance letters to each address before you visit. You should include a red leaflet with each advance letter (this has been requested by our Ethics Committee).

There are different versions of the letter for core and boost addresses. Addresses are mail merged on to the letters, and there is space for you to add your name.

In 2010, for **core** addresses (numbers 1-13), you should include a £5 voucher with the advance letter. Note that there is no voucher for the child boost.

You will be given extra copies of the advance letter to show as a reminder for respondents, as well as a laminated copy to show on the doorstep.

If you know that you are not going to be able to get out to addresses at the start of the month you can delay sending your letters for a few days – but you must still complete the assignment within the deadline you have been set.

5 THE ARF

5.1 Changes to the ARF

The ARF for HSE 2010 has been slightly restructured so that you can now do child selection on the doorstep.

You will receive an ARF for each of the addresses in your sample point. These will be different colours depending on the type of address and point.

- The Core ARF is **Light Green**
- The Boost ARF is **Grey**

5.2 Dwelling Unit selection

★ REMINDER: DEFINITION OF A DWELLING UNIT

A dwelling unit is a living space with its own locked front door. This can be either a street door or a door within a house or block of flats. Usually there is only one dwelling unit at an address.



★ EXAMPLE – DWELLING UNITS

The selected address on the ARF label is

123 High Street

But you find doorbells for these flats: 123a, 123b, 123c, 123d.

This is called a '**Divided address**'. You must first establish whether the extra dwelling units (flats a, b, c, d) were on the PAF or not by checking the address list you have been given.

If the address list looks like this:

Serial Number 101011G 123 High Street, London, SW15 6HY

Prev: 122 High Street, London, SW15 6HY

Next: 124 High Street, London, SW15 6HY

Then it is clear that 123a, 123b, 123c and 123d High Street were **not** on the PAF, and so did not have a chance of selection for the survey. You will therefore need to ensure they have this chance, by listing them and making a selection.



What do I do if there is more than one dwelling unit at the address?

HSE only allows **one dwelling unit** within an address to be selected. If there is more than one dwelling unit a **random selection** has to be made:

- List all the addresses at B.3 on the ARF.

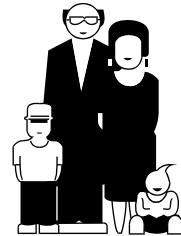
- Looking along the selection label on the front of the ARF, go along the first row called DU/HH (number of dwelling units / households at the address) until you reach the right number of dwelling units.
- The code below this (SEL) tells you which dwelling unit to choose.

5.3 Household Unit selection

★ REMINDER: DEFINITION OF A HOUSEHOLD

A household is one person or a group of people living in a dwelling unit who either **share a meal a day or share living accommodation** in a household.

Shared kitchens and bathrooms do not count as shared living accommodation.



What do I do if there are different households at an address?

On HSE in 2010, you should select only **one household per dwelling unit** to be included in the survey. As with dwelling units, if there is more than one household, a random selection has to be made:

- list the name of one of the people from each household at **C.2** on the ARF (in alphabetical order).
- Looking at the same **selection label** as you would use to select dwelling units on the front of the ARF, go along the row called DU/HH (the number of households and that address) until you reach the correct number.
- The code below this (SEL) tells you which households to choose.

5.4 Individual outcome

The grids for recording individual outcomes are located on page 2 of the ARF, the inside of the front page, in section AA. There are two grids; A for productive individuals and B for unproductive individuals.

The example below is from the Core ARF where agreement to the nurse visit is also recorded.

Person No		Age	Title	Full initials	Surname	Outcome code	Agreed nurse	
							Yes	No
0	1	37	Mr	G	Brown	110	1	2
							1	2

It is very important to transfer the information on this grid into the CAPI admin block accurately, otherwise we may follow up the wrong respondent, for example by sending blood pressure results to the wrong person.

- Please always check spelling of names – it's really annoying to receive a letter with your name spelled wrongly
- Always check children's surnames – they may not be the same as their parent's

5.5 Child selection procedure

On HSE 2010 we have introduced child selection on the doorstep. Therefore, rather than using CAPI as in previous years the front page of the ARF now has a separate selection label if you encounter two or more children in the household.

If there are more than two children in a household, list the children in descending order of age at **D.3** on the ARF.

Looking at the **child selection label** on the front of the ARF, go along the row called No. Child (the number of children at that address) until you reach the correct number. The two codes below this (Child 1 and Child 2) tell you which two children to choose.

Serial no:	601 08 1 D
No. Child:	3 4 5 6 7 8 9 10 11 12
Child 1:	1 3 1 2 4 2 5 7 4 10
Child 2:	3 4 2 6 7 8 9 9 10 12

Shredding your ARFs

Once you have completed all interviews at an address, and completed and transmitted the admin block, you should shred the front page of your ARF (and any other pages if you have noted any information that might help to identify a household). Double check you have all the information you need before you shred!

6 CAPI

The CAPI questionnaire is easy to follow and most questions give instructions on the screen. If you have any queries about the CAPI questionnaire please contact your supervisor or team leader, or a member of the research team, who will be happy to help and explain the questions.

Please refer to your **NatCen Laptop Instructions** for help with using the laptop and the CAPI program.

You cannot open up an Individual Questionnaire until you have completed the Household Questionnaire.



Who should answer the questions in the Household Questionnaire?

Wherever possible, complete the Household Questionnaire with the household reference person or his/her spouse/partner. If neither household reference person nor spouse/partner is available during the fieldwork period you can complete the Household Questionnaire with any responsible adult. However this is not ideal as there are some questions that can only be asked of the householder.

6.1 Adding and deleting household members

While you are filling in the household grid for the first time, you can make any changes you like. It sometimes happens, however, that you only discover later in the interview that you have been given incorrect information for the grid.

★ REMINDER – ADDING A HOUSEHOLD MEMBER

1. Select code 2 ('No – more people') at *SizeConf*.
2. This takes you back to the last *More* question in the household grid. Change this from 'no' to 'yes' and continue by completing details of the person you wish to add to the grid.

★ REMINDER – DELETING A HOUSEHOLD MEMBER

1. Select code 3 ('No – fewer people') at *SizeConf*.
2. This takes you to a new screen, which displays the people you have entered in the grid so far.
3. Select the person and delete them from the grid

Once you have begun allocating household members to Individual Questionnaire sessions, you will not be able to change the household grid in this way. If you discover errors after this point, use <Ctrl> + <M> to make a note to explain what happened.

Other information in the Household Grid (e.g. marital status) can be changed at any point if you should later discover an error.

6.2 Setting up interviewing sessions

6.2.1 Joint or concurrent interviewing

The CAPI program allows up to four people to be interviewed at the same time (*in the same session*). You allocate the respondents to sessions at the end of the Household Questionnaire.

6.2.2 Allocating individuals to sessions

You allocate respondents to sessions at the screen *EndDisp*. Here you press **<Ctrl> + <Enter>** at the same time to bring up the parallel block. Select “Individual_Session” from the parallel block. This is an empty session to which you can allocate the people you want to interview.

The screen will display all eligible respondents. When you have finished allocating people to a session you can press ‘**97**’ to indicate that you do not want to allocate any more people to that session.

You will be asked to confirm that the right people have been allocated to a session. If you have entered the wrong information here press ‘**2**’. Once you enter ‘**1**’ to confirm that the session set up is correct you **cannot** go back and change it.

6.3 Individual Questionnaire

6.3.1 Presentation of the self-completions

For HSE 2010 there are different self-completion booklets depending on the age and sex of the respondent. Instructions are given in CAPI about which booklets to use

Questionnaire	Colour	Content	Code
8-12	Yellow	Smoking, drinking, perception of weight, cycling.	10-15i
13-15	Green	Smoking, drinking perception of weight, general health.	10-16i
Young adult male, female	Light blue, light pink	Smoking, drinking, general health, wellbeing, contraception/sexual health (different versions of contraception questions for men and women).	10-17i 10-18i
Men 18-69, Women 18-69	Dark blue, dark pink	General health, well being, contraception/sexual health (different versions of contraception questions for men and women).	10-19i 10-20i
Adults 70+	Grey	General health, well being.	10-21i
SDQ	Cream	Children’s strengths and difficulties. Answered by parents of children aged 4-15.	10-22i

6.3.2 Measurements

We are responsible for providing the official statistics on the population's height and weight. It is **vital** that you learn to administer these protocols properly and systematically.

Detailed protocols of how to take height and weight are appended to these instructions. If you have any problems in either administering the protocols or with the equipment, contact your Supervisor or Area Manager immediately.

If possible, measure height and weight on a floor which is **level and not carpeted**. If the entire house is carpeted, choose a floor with the thinnest and hardest carpet (usually the kitchen or bathroom).

When you have taken the respondent's height and weight, fill out a **Measurement Record Card** and give it to the respondent. There is room on the Measurement Record Card to write height and weight in both metric and imperial units if the respondent wants both. The computer does the conversion for you. **The Measurement Record Card should be left with the respondent.**



Are there any respondents who should not have their height and weight measured?

You should be able to measure the height and weight of most respondents. However, in some cases it may not be possible or appropriate to do so.

Examples of people who should **not** be measured are:

- **Children under the age of 2 years** do not have a **height** measurement taken, but should be weighed.
- **Pregnant women** are not eligible for **weight**
- **Respondents in a wheelchair/ not able to get out of a chair**
- If after discussion a respondent is too **unsteady on their feet** for these measurements
- If the respondent finds it **painful** to stand or stand straight
- If an **elderly respondent is too stooped** to obtain a reliable **height** measurement
- **Respondents weighing more than 130kg (20½ stone)**. You will be asked to obtain an estimate instead

6.4 Admin block

The admin block is very similar to the standard NatCen admin block.

The admin block will prompt you to fill in the Nurse Record Form (NRF) if necessary. The information on this screen will be fed forward to the nurse via the nurse link so it is important that you provide enough detail.

6.5 Consents

Respondents aged 16 and over are asked if they will consent to have their name flagged on three separate registers: the **NHS Central Register**, the **Cancer Registry** and the **Hospital Episode Statistics Register**. Ideally we would like permission for all, but respondents may choose to give permission for NHS Central Register and the Cancer Registry but not for the Hospital Episodes Statistics or vice versa. Respondents must give permission jointly for NHS Central Register and Cancer Registry together because if they are flagged for one they are flagged for the other.

A signature on a consent form is only valid where the respondent is properly informed and capable of understanding. It is important that you allow respondents ample time to read consent forms and that you check and are confident that they understand what they are agreeing to. You should also be prepared to answer any questions they might have (using the information below).

Note that the consent forms have changed for 2010. You need to ask the respondent to write their name clearly, then date and sign the form. You should then write your own name, and date and sign the form as well.

Once the respondent has signed the consent form please return the top copy to the office. The bottom copy is for the respondent to keep.

6.5.1 Consents for people who are blind/can't read

For a respondent who is blind and cannot read:

Add at the bottom of the consent form

For the respondent:

"This form has been read to me and I confirm that I understand the information and give consent to my information being linked."

Respondent's signature
(write in their name if they cannot sign)

For yourself:

"I confirm that I read this consent form word for word to [insert name] who understood the information and gave informed consent to having their data linked."

Interviewer signature and date

If someone else is available as a witness:

"I confirm that the interviewer read out the form and explained it to [insert name], and that [name] understood and agreed to having their data linked"

Witness signature and date

6.5.2 Information about the consents

We would like to flag the names of respondents on these three lists. A marker will be put against the respondent's name to show that they took part in the

Health Survey. As the survey is planned to continue for many years, it will be useful to be able to follow up what happens to respondents in the future. For example, if somebody who has taken part in the survey goes into hospital, dies or gets cancer, the reason for their visit, cause of death or type of cancer can be linked with their answers to the survey. Such information could be extremely helpful to future medical researchers.

It is important to understand that the only information that NatCen/UCL give to the NHS Register and the Cancer Registry is the respondent's full name, date of birth and address, and the fact that (s)he has taken part in the survey. The respondent's details are already on the register (they are put there when they receive their NHS number). We could ask respondents for their NHS number but not many people are likely to know this. For this reason we ask for other details which will help us identify them on the register.

The HES consent is slightly different. The names of respondents do not receive a 'flag' against their name on the HES database. If a respondent gives permission for their data to be linked to that of the HES database, then their NHS number will be stored in a separate file until a request is made to link HES data to Health Survey data. Before obtaining information from the Hospital Episode Statistics (HES) register, ethical approval would be required. A separate request for HES data would have to be obtained for each approved study.

Once ethical approval has been obtained, the NHS numbers of HSE respondents who have consented to linkage will be sent to the HES database.

No other information is given, not even the serial number used by the interviewer. A totally **different** case number is allocated to ensure anonymity.

If a respondent wishes to cancel this permission at any time in the future, they can do so by writing to us.

Further information on the three separate registers is given below.

NHS Central Register

The National Health Service has a Central Register, which lists all the people in the country and their NHS number. When the respondent dies, the NHS Register provides the Health Survey team with a replica of the respondent's Death Certificate (something that is publicly available). The information on the Death Certificate may then be attached to the data file.

Cancer Registry

The national Cancer Registry is run by the Information Centre, and collects details about all types of cancer. If a respondent is diagnosed with cancer, a code indicating which sort of cancer it is will be added to the data file.

Hospital Episode Statistics Register

This register collects information on in-patient care delivered by NHS hospitals in England since 1989, such as the length of stay, reason for visit, nature of illness, type of operation, maternity care and waiting time.

Although the information collected relates to individual patients, their confidentiality is protected as direct access to the Hospital Episode Statistics

is not allowed, and any data that might allow individuals to be identified would be removed before the data was released by HES.

The linking of HSE data with the Hospital Episodes Statistics will enable us to learn more from our HSE data - for example it will be possible to calculate the average number of hospital visits for respondents who report good or bad general health.

7 Introducing the different survey stages

7.1 Tips for introducing the survey:

- Do **not** mention measurements. The advance letter refers only to an interview. We do not want to risk losing an interview because a person is worried about being weighed or measured.
- Do **not** enter the house with your stadiometer and scales. Leave your car somewhere where you can retrieve them.
- Introduce the nurse visit at the end of the interview; do not mention it on the doorstep.

The key thing is to avoid too much detail too soon. Our experience shows us that nearly everyone is willing to proceed from one stage of the survey to the next, but that they may not have agreed to co-operate in the first place if they had been told about all the stages at the beginning.

7.2 Things you can mention on the doorstep:

Government Related	<ul style="list-style-type: none">• It is a national survey on behalf of The NHS Information Centre for health and social care.• It was set up as a result of a special recommendation in the government's White Paper "The Health of the Nation" and is also part of the more recent "Our Healthier Nation" White Paper.• It provides the government with accurate and up-to-date information on the health of the population.• It gives the government information on health trends, and monitors how well the health targets set by the Government (in the White Papers "Our Healthier Nation" and "Choosing Health") are achieved.• The information will be needed by whichever government is in office.• The information is available to all political parties.• It is used to help plan NHS services.
Confidentiality	<ul style="list-style-type: none">• Answers are treated in strictest confidence in accordance with the Data Protection Act 1998• No-one outside the research team will know who has been interviewed, or will be able to identify an individual's results.• Results are only published as aggregate statistics• Names and addresses are always kept separately from survey data
Signify its importance & status	<ul style="list-style-type: none">• It is a very important survey.• It is the largest national survey to look at the health of the general population. In 2010, about 14000 people will take part.• Results are published annually and reported in the national press.• It is carried out every year.

<p>Describe population coverage & why certain groups should participate</p>	<ul style="list-style-type: none"> • The survey covers the whole population, including people who have little contact with the health services as well as people who make more use of them. • Each person selected to take part in the survey is vital to the success of the survey. Their address has been specially selected - not the one next door. No-one else can be substituted for them. • To get an accurate picture, we must talk to all the sorts of people who make up the population - the young and the old, the healthy and the unhealthy, those who use the NHS and those who use private medicine, and those who like the current government's policies and those who do not. • Young people might think that health services are not for them now - but they will want them in the future and it is the future that is now being planned. • Older people might think that changes will not affect them - but health services for the elderly are very important and without their help in this survey valuable information for planning these will be lost.
<p>What previous respondents have said about the survey</p>	<ul style="list-style-type: none"> • "I found the survey enjoyable and interesting!" • "I was happy to do the survey over a cup of coffee!" • "I found the survey quite friendly, sociable and good-natured. There was nothing where I thought mind your own business!" • "I think doing the survey is great!"

7.3 Introducing the nurse's visit

- Explain that the nurse is the best person to describe what (s)he wants to do. The respondent can always change his/her mind after hearing more about it
- Stress that by making an appointment to see the nurse the person is not committing themselves to helping with all, or any, of the measurements
- The nurse will ask for separate permission to carry out the various measurements
- We would still like a nurse to visit, even if a respondent says that (s)he will not want to consent to all of the measurements

If the respondent wishes, they and their GP can be given results from some of their measurements. If you feel that this will help you get an appointment for the nurse, please explain this. **However, be careful to avoid calling the nurse visit a 'health check' – it is not, and nurses cannot give health advice.** One of the most common reasons given for respondents refusing to see the nurse is 'I don't need a medical check - I have just had one'. Avoid getting yourself into this situation. You are asking the respondent to help with a survey.

REMEMBER – We don't access the medical records of the respondents, so the only way to obtain medical information on them is to have a nurse visit. As with the doorstep introduction, say as little as possible in order to gain co-operation.

Some of the things you might say when introducing the nurse visit:

- “(name of nurse) is a really lovely woman/man and is very professional”
- “I’m not a nurse so I can’t do the measurements, but the nurse is highly trained, and very experienced, and there is no need to worry about her/him visiting you”
- “NatCen have a team of professional nurses who are highly qualified. They all have extensive experience working in hospitals, health centres etc and have been specially trained for this survey”
- “the nurse is covered by the Data Protection Act and anything you say will be treated in the strictest confidence”
- “she/he will answer any questions you have, and you don’t have to do anything you don’t want to. The nurse will ask separate permission for each test, so you can decide at the time if you don’t want to help with a particular one”
- “If you want, you will be given the results of some of your measurements. Some measurements can also be sent to your GP if you would like”
- “A Research Ethics Committee has given approval for the survey”

7.3.1 The Stage 2 leaflet

You should give the Stage 2 leaflet to all respondents at core addresses who agree to a nurse visit. This gives details of some of the measurements and gives other information that respondents might need to know before the nurse arrives. It is not your job to explain this leaflet. The nurse will go through all of the measurements when he/she visits.

7.3.2 Appointment record card

The appointment record card is on the back of the CORE Measurement Record Card (purple). Complete this when you have made a nurse appointment. Remember always to fill in the household serial number in case a respondent has to telephone the office to rearrange the appointment. At the bottom of the appointment record card are some notes about what they should and shouldn’t do before the nurse visit.

8 Liaising with your nurse partner

Interviewers and nurses are assigned to a survey point as a team. As the nurse visit follows on from the interview, the workload of the nurse is entirely dependent on the interviewer getting agreement for the nurse visit during the interview.

8.1 What information do interviewers and nurses need from each other?

To make the survey work, interviewers and nurses need to know several things at different stages of fieldwork.

BEFORE FIELDWORK STARTS	
<p>You need to know...</p> <ul style="list-style-type: none">• Your nurse's name• Your nurse's availability for the fieldwork month (as much as they know at this stage).• The make, registration number, model and type of their car, to put on the police letter• Personal info such as their job or former job, whether they work as a nurse in a hospital/clinic/in the community (this information can be very reassuring for respondents)• How well they know the area you are both working in• How you are both going to keep in touch	<p>The nurse needs to know...</p> <ul style="list-style-type: none">• Whether you have any holiday planned• Whether there are any times you know you will definitely not be working on HSE, for example if you are working on a different project• How you are both going to keep in touch

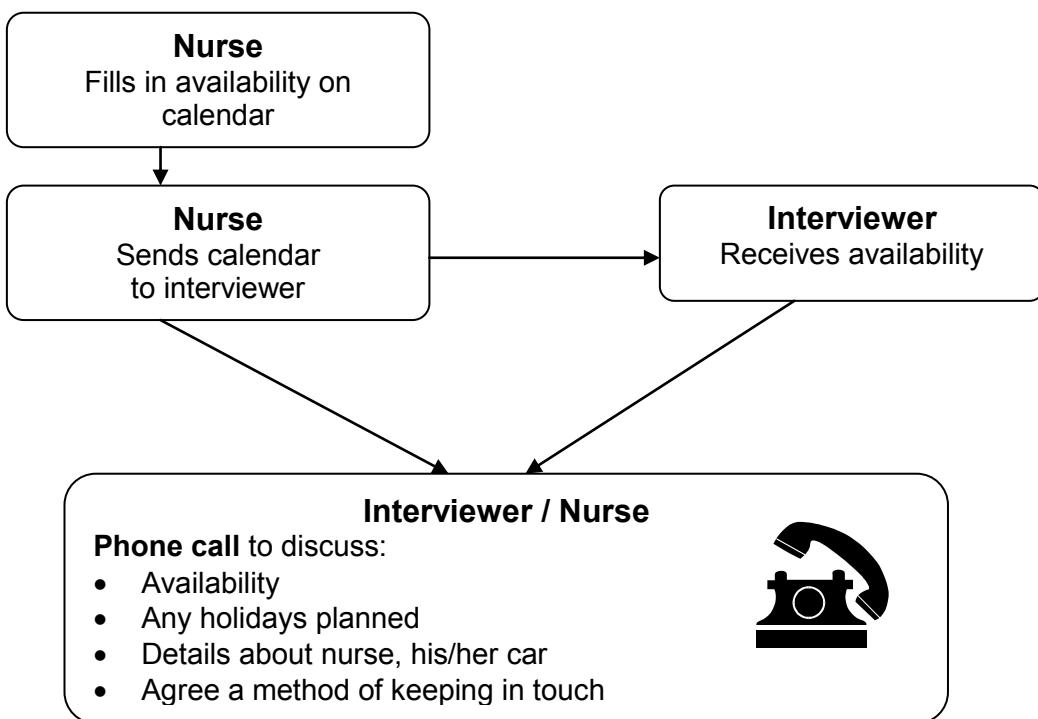
DURING FIELDWORK	
<p>You need to know...</p> <ul style="list-style-type: none">• An update of the nurse's availability. He/she will give you some availability before you start fieldwork but you will obviously need an update as his/her plans change	<p>The nurse needs to know...</p> <ul style="list-style-type: none">• Details of appointments (time, number of respondents, their names and ages) as soon as these have been made• Any households that agreed the nurse visit, but where you were unable to make an appointment so the nurse needs to make it• Any households where nobody has agreed a nurse visit, so that he/she can cross these households off his/her worklist• An update of when you will not be working on HSE.

How should interviewers and nurses let each other know this information?

As you can see, to work effectively on HSE a few key pieces of information need to be shared between yourself and the nurse. You are both very busy people who manage your own workload, which can sometimes make it hard to give all of this information at any one point in time. The key is therefore **regular communication** between you and your nurse.

The following pages outline our recommendations for making sure that you both have all the information you need throughout fieldwork.

Before fieldwork starts:



Whose responsibility is it to make the initial phone call?

You will need to confirm that you have received the nurse's availability calendar so it makes sense for you to discuss these other things when you do that. If you do not receive your nurse's availability by the beginning of fieldwork you should ring him/her anyway to find it out.



What should happen during fieldwork?

- Your nurse should continually update you with their availability and you should update your nurse with fieldwork plans.
- **As soon as** you have an agreed nurse appointment at an address, send the NRF to your nurse and **follow this up with a phone call**.
- Where a nurse visit is refused, send the address details to your nurse on the NNV as soon as possible so they can cross the address off their work list.
- phone your nurse if your work plans change. It is important to phone your nurse at least 4 days in advance, if you know that **you will not use one of the appointment slots that they have given you**. This is

because many of the nurses work on other NatCen surveys and/or have other jobs which they may be able to use this time for.

Both you and your nurse will be juggling various different commitments and demands on your time. You should discuss with your nurse the best way to keep in touch throughout the fieldwork period (phone, leaving a message, texts, email?).

8.2 Documents relating to the nurse visit

8.2.1 The Nurse Record Form (NRF) and No Nurse Visit Sheet (NNV)

The nurse has a list of the core addresses in the point being covered. He/she needs to know the outcome of your visit to each address in order to plan his/her own workload. This includes any deadwood or unproductive addresses. This information is communicated via the Nurse Record Form (NRF) and No Nurse Visit sheet (NNV) and also by telephone calls.

NNV

This is for households where there is no work for the nurse to do. This could be because the address was deadwood, or unproductive, or because it was a productive household but all members refused a nurse visit. Your workpack contains a set of **address labels**, which you can use on the NNV. Send the NNV as soon as you have a few addresses on it, so that the nurse is up to date with the likely workload.

For combined Core and Boost points there is no need to complete a NNV for **Boost** addresses, as the nurse is only concerned with the core addresses.

NRF

This is the nurse's equivalent of the ARF and is used for households where you have made a nurse appointment.

As soon as you have finished your work at a productive household where at least one person agreed to see the nurse, fill out the NRF and send it to your nurse (even if you have already told him or her about the appointment by telephone).

Posting documents to your nurse

An A5 prepaid envelope will hold a **maximum of three NRFs or two NRFs and one NNV**. If you fill the envelope with more than this the nurse will have to pay excess postage because of the new postage system of price in proportion to size, rather than just weight. This will cause delays to the nurse's fieldwork. Therefore, if you have more than three NRFs to send you should split them between envelopes.

8.3 Transmitting information to your nurse

In most cases the information your nurse needs to carry out the nurse visit (i.e. names, ages etc) will be transmitted automatically via modem. You simply need to connect to the host machine. The necessary information will

then be extracted and made available to your nurse when he/she connects to the host.

You should therefore connect to the host machine as soon as possible after making a nurse appointment. **You do not need to have completed all work at a household or to have done the admin block for a household in order to transmit the nurse details.** You simply connect and transmit and the host machine will take only the information it needs to pass to the nurse.

Of course, you will still need to send your nurse the NRF and notify him/her about the appointment over the phone, in case the nurse does not pick up the information from the host in time.

★REMINDER: COMPLETING THE NRF

Basic information

1. Enter the nurse appointment time and date at the top
2. Enter the telephone number and main contact name, and (if you have them) the alternative number and contact name
3. If there is more than one household at the address, describe the location of the household covered by that NRF.
4. **Stick the address label** on the address box.
5. Pass on any useful tips about how to find the address.

Completing Part A

1. Complete the **Interviewer Outcome Summary** box. If you have arranged at least one appointment for the nurse, ring **code A**.
2. Enter the date on which you conducted the household interview
3. Write in the **total** number of persons in the household aged 16 or over, 5-15 and 0-4 (copied from the ARF)
4. Complete the grid at questions 4 and 5 on page 2. The admin block has a screen called *NRF* which shows you exactly what to enter here.

Make sure you enter household members in the same order as they appear on this screen because the person number used for the nurse must be identical to the person number assigned by the computer to that person.

- At **question 4** complete one row for every person in the household aged 16+ regardless of whether or not they agreed to be interviewed or to see the nurse. If there were more than ten adults in the household list only those who were selected for the survey (these will be the ones who are listed at *NRF* in the admin block).
- At **question 5** complete one row for each **selected** child under 16. The *NRF* screen will only display these children.
- Enter each person's details in the grid and ring the appropriate code to say whether the person agreed to the nurse visit.

9 Survey documents

9.1 List of survey documents and equipment

Before you start working on HSE you will be given a starter pack containing:

Document	Colour	Code
Advance letter laminate	Headed paper	10-07i
Respondent showcards	White	10-13i
Interviewer showcards (including coding and Frankfort plane)	Pale pink	10-14i
General concerns laminate		10-29i
Interviewer suggestion sheet		10-35i
Translated screening cards		10-36i/10-37i

For each HSE 2010 assignment you work on you will also be sent a workpack containing:

Document	Colour	Code
ARF (CORE)	Light green	10-01i
ARF (BOOST)	Grey	10-02i
Advance letters – core and boost	Headed paper	10-03i/10-04i
Advance letter incentives (core only)		
Follow-up letter	Headed paper	10-06i
Police letter – combined point	Headed paper	10-28i
Police letter - boost	Headed paper	10-27i
HSE Red leaflet		10-10i
Stage 1 leaflet - core	Lilac	10-09i
Stage 1 leaflet - boost	Yellow	10-08i
Stage 2 leaflet (CORE ONLY)	Light blue	10-11i
Information for Children (BOOST)	Green	10-12i
Self completion booklets	See section 6.3.1 for colours for different ages	See section 6.3.1 for codes
Adult and young adult self completion envelopes		
Consents forms	Pink/blue	10-25i/10-26i
Measurement Record Card CORE	Purple	10-23i
Measurement Record Card BOOST	Aqua	10-24i
Nurse appointment diary (CORE ONLY)	Yellow	10-30i
Nurse Record Form (NRF)	Cream	10-02n
No nurse Visit (NNV)	Blue	10-03n
Surprise packs		
Pens		
Sample cover sheet		

Most of these documents have been explained elsewhere in these instructions (check contents/index), or have been covered in your briefing. Others are explained in this section.

9.2 Document codes

To help you distinguish between the different documents needed at different types of address, most of the HSE documents are labelled with document codes:

C = Core households

B = Boost households

9.3 Interviewer sample cover sheets

This document will accompany your set of ARFs. It will list the serial number and address for all addresses in your sample point for you to visit that month. Complete the columns as you work through your assignment. Your health manager or team leader will ask you for these details, so please remember to complete this document.

Things to record:

- Whether the address is **in scope or deadwood**
- **Screening addresses:**
 - ✓ if you have identified that someone is eligible for interview
 - ✗ if you have screened them out
 - n/a if not applicable.
- Enter details of appointments made or interviews in progress in the space provided.
- **Nurse appointment:** Enter
 - A if the nurse visit was agreed and the appointment made by you
 - ✓ if agreed but appointment not made
 - ✗ if refused
 - n/a if not applicable
- Enter the **final outcome** of the interview and the **date transmitted** to office.
- Enter whether **heights and weights** were taken.

9.4 Letters

9.4.1 Follow up letter

- Use this when you have visited a household but have not made contact
- Post it through the letterbox to remind respondents that they have been selected and to expect you to call again

9.5 Leaflets

9.5.1 Red HSE leaflet

- In 2010, the HSE red leaflet is being sent to respondents with the advance letter.
- However, you can still use this on the doorstep to help obtain co-operation or offer to leave it behind after the interview if they no longer have the original one.
- There is a space on the back if you want to leave a message.

9.5.2 Stage 1 leaflet – core and boost

- Read this leaflet before you start work as it will help you to answer some of the questions people might have
- There are different stage 1 leaflets for **core** and **boost** addresses.
- Give this to **each household where** you interview
- Only give this on the doorstep if you feel it will help obtain co-operation
- There is also an '**Information for Children**' leaflet for children aged 8-15 which is for boost addresses only.

9.6 Nurse appointment diary

This is designed for you to record your nurse's availability. You can then take it out in the field with you and write in any appointments you have made.

This is an optional tool to help you manage your nurse appointments. You may have another system which you prefer to use.

10 Returning work to the office

You should transmit **CAPI work** at the end of each day. It is very important that work is returned promptly for two reasons:

- It gives plenty of time for the information to be transmitted to the nurse
- We need information from your work to help us deal with any abnormalities detected by the nurse tests. Occasionally we find something potentially life-threatening. In these situations delays in getting in touch with the GP/respondent could be very serious.



Do I need to complete the admin block before transmitting?

No. It is important that you transmit after each day's work, so you should not wait until a household is complete before returning your work. The nurse needs to be able to pick up his/her work daily and cannot do that unless you have returned yours. You can complete the admin block at a later point.

Remember **paperwork** must also be returned promptly. You should aim to send them in at least twice a week. However, you should not send these back until a household is complete.

★REMINDER: SENDING BACK PAPERWORK

Before sending work back:

- Check all paper documents are completed
- Check all paper documents have correct serial numbers
- Add labels with your id number to self completions
- Update your Interviewer Sample Sheet

Return work in **two separate envelopes**:

1. Consent forms
2. Self-completions

This is very important to protect the respondent's anonymity. The consent forms contain names and addresses and the self completions contain personal information. For this reason it is vital to keep the two separate.

Screening progress

In the office, we need to check your progress at screening addresses. We will be able to do this through the CMS by looking at call status codes. We often need to give this information to our clients at the NHS Information Centre, but is also useful for the Health Managers, as they will be able to see what your workload is and offer support if it is too great.

Please complete this information accurately and promptly.

APPENDIX A: PROTOCOL FOR TAKING HEIGHT MEASUREMENT

A. THE EQUIPMENT

You are provided with a portable stadiometer. It is a collapsible device with a sliding head plate, a base plate and three connecting rods marked with a measuring scale.

Please take great care of this equipment. It is delicate and expensive. Particular care needs to be paid when assembling and dismantling the stadiometer and when carrying repacking it in the box provided.

- Do not bend the head or base plate
- Do not bend the rods
- Do not drop it and be careful not to knock the corners of the rods or base plate pin
- Assemble and dismantle the stadiometer slowly and carefully

The stadiometer will be sent to you in a special cardboard box. Always store the stadiometer in the box when it is not in use and always pack the stadiometer carefully in the box whenever you are sending it on by courier. Inside the box with the stadiometer is a special bag that you should use for carrying the stadiometer around when you are out on assignment.

If you have any problems with your stadiometer, report these to Brentwood immediately. Do not attempt measurements with a stadiometer that is broken or damaged.

The rods

There are three rods marked with a measuring scale divided into centimetres and then further subdivided into millimetres. (If you are not familiar with the metric system note that there are ten millimetres in a centimetre and that one hundred centimetres make a metre). The rods are made of aluminium and you must avoid putting any kind of pressure on them which could cause them to bend. Be very careful not to damage the corners of the rods as this will prevent them from fitting together properly and will lead to a loss of accuracy in the measurements.

The base plate

Be careful not damage the corners of the base plate as this could lead to a loss of accuracy in the measurements.

Protruding from the base plate is a pin onto which you attach the rods in order to assemble the stadiometer. Damage to the corners of this pin may mean that the rods do not stand at the correct angle to the base plate when the stadiometer is assembled and the measurements could be affected.

The head plate

There are two parts to the head plate; the blade and the cuff. The blade is the part that rests on the respondent's head while the measurement is taken and the cuff is the part of the head plate that slips over the measurement rods and slides up and down the rods. The whole unit is made of plastic and will snap if subjected to excessive pressure. Grasp the head plate by the cuff whenever you are moving the

headplate up or down the rods, this will prevent any unnecessary pressure being applied to the blade which may cause it to break.

Assembling the stadiometer

You will receive your stadiometer with the three rods banded together and the head plate attached to the pin so that the blade lies flat against on the base plate. Do not remove the head plate from this pin.

Take care as you assemble the stadiometer not to knock into furniture, light fittings etc.

Note that the pin on the base plate and the rods are numbered to guide you through the stages of assembly. (There is also a number engraved onto the side of the rods, this is the serial number of the stadiometer). The stages are as follows:

1. Lie the base plate flat on the floor area where you are to conduct the measurements.
2. Take the rod marked number 2. Making sure the yellow measuring scale is on the right hand side of the rod as you look at the stadiometer face on, place rod 2 onto the base plate pin. It should fit snugly without you having to use force.
3. Take the rod marked number 3. Again make sure that the yellow measuring scale connects with the scale on rod 2 and that the numbers run on from one another. (If they do not check that you have the correct rod). Put this rod onto rod number 2 in the same way you put rod 2 onto the base plate pin.
4. Take the remaining rod and put it onto rod 3.

Dismantling the stadiometer

Follow these rules:-

1. Before you begin to dismantle the stadiometer you must remember to lower the head plate to its lowest position, so that the blade is lying flat against the base plate
2. Remove one rod at a time

B. THE PROTOCOL - ADULTS (16+)

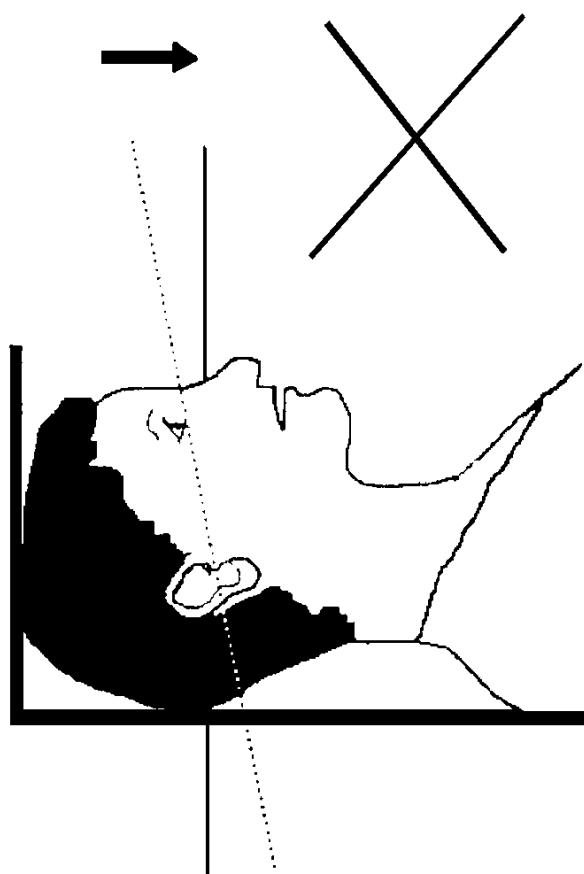
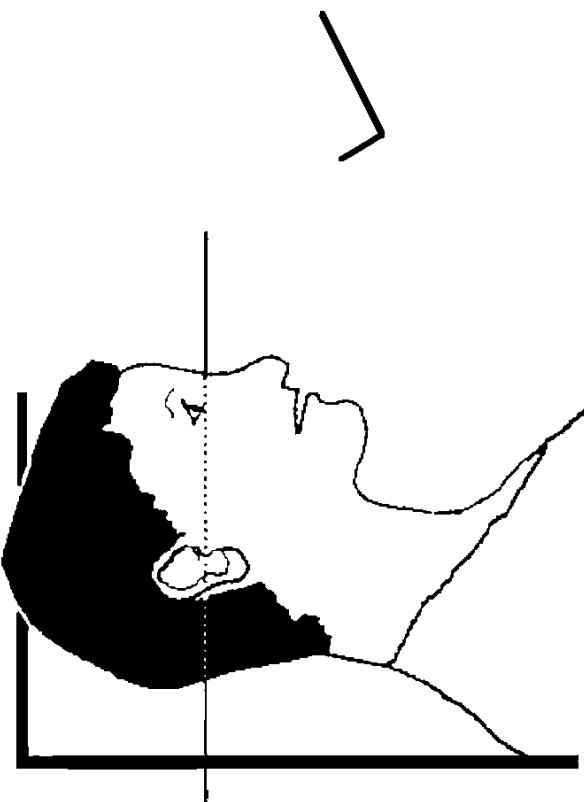
1. Ask the respondent to remove their shoes in order to obtain a measurement that is as accurate as possible.
2. Assemble the stadiometer and raise the headplate to allow sufficient room for the respondent to stand underneath it. Double check that you have assembled the stadiometer correctly.
3. The 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 (i.e. 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 (see diagram). 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, i.e. 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 breath 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. Height must be recorded in centimetres and millimetres, e.g. 176.5 cms. If a measurement falls between two **millimetres**, it should be recorded to the **nearest even millimetre**. E.g., if respondent's height is between 176.4 and 176.5 cms, you should round it down to 176.4. Likewise, if a respondent's height is between 176.5 and 176.6 cms, you should round it up to 176.6 cms.
9. Push the head plate high enough to avoid any member of the household hitting their head against it when getting ready to be measured.

FRANKFORT

PLANE

ADULTS



C. THE PROTOCOL - CHILDREN (2-15)

The protocol for measuring children differs slightly from that for adults. You must get the co-operation of an adult household member. You will need their assistance in order to carry out the protocol, and children are much more likely to be co-operative themselves if another household member is involved in the measurement. If possible measure children last so that they can see what is going on before they are measured themselves.

Children's bodies are much more elastic than those of adults. Unlike adults they will need your help in order to stretch to their fullest height. This is done by stretching them. This is essential in order to get an accurate measurement. It causes no pain and simply helps support the child while they stretch to their tallest height.

It is important that you practise these measurement techniques on any young children among your family or friends. The more practice you get before going into the field the better your technique will be.

Explain to the parent and child what you are going to do **before** you start the measurement. This includes describing the child lift, and the fact that you will ask the parent to lower the headplate.

1. In addition to removing their shoes, children should remove their socks as well. This is not because the socks affect the measurement. It is so that you can make sure that children don't lift their heels off of the base plate. (See 3 below).
2. Assemble the stadiometer and raise the head plate to allow sufficient room for the child to stand underneath it.
3. The child should stand with their feet flat on the centre of the base plate, feet together and heels against the rod. The child's back should be as straight as possible, preferably against the rod, and their arms hanging loosely by their sides. They should be facing forwards.
4. Place the measuring arm just above the child's head.
5. Move the child's head so that the Frankfort Plane is in a horizontal position (see diagram). This position is as important when measuring children as it is when measuring adults if the measurements are to be accurate. 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.
6. Cup the child's head in your hands, placing the heels of your palms either side of the chin, with your thumbs just in front of the ears, and your fingers going round towards the back of the neck. (See diagram).
7. Firmly but gently, apply upward pressure, lifting the child's head upwards towards the stadiometer headplate and thus stretching the child to their maximum height. Avoid jerky movements, perform the procedure smoothly and take care not to tilt the head at an angle: you must keep it in the Frankfort plane. Explain what you

are doing and tell the child that you want them to stand up straight and tall but not to move their head or stand on their tip-toes.

8. Ask the household member who is helping you to lower the headplate down gently onto the child's head. Make sure that the plate touches the skull and that it is not pressing down too hard.
9. Still holding the child's head, relieve traction and allow the child to stand relaxed. If the measurement has been done properly the child should be able to step off the stadiometer without ducking their head. Make sure that the child does not knock the head plate as they step off.
10. Read the height value in metric units to the nearest millimetre and enter the reading into the computer at the question "Height." At the question "MbookHt" you will be asked to check that you have entered the child's height onto their Measurement Record Card. At that point the computer will display the recorded height in both centimetres and in feet and inches.
11. Push the head plate high enough to avoid any member of the household hitting their head against it when getting ready to be measured.

REMEMBER YOU ARE NOT TAKING A HEIGHT MEASUREMENT FOR CHILDREN UNDER 2 YEARS OLD

D. HEIGHT REFUSED, NOT ATTEMPTED OR ATTEMPTED BUT NOT OBTAINED

At *HtResp* you are asked to code whether the measurement was taken, refused, attempted but not obtained or not attempted. If for any reason you cannot get a height measurement, enter the appropriate code at this question and you will automatically be routed to the relevant follow up questions (*ResNHi* and *NoHitM*) which will allow you to say why no measurement was obtained.

E. ADDITIONAL POINTS - ALL RESPONDENTS

1. If the respondent cannot stand upright with their back against the stadiometer and have their heels against the rod (e.g. 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 can not lower the headplate to touch the head, and think that this will lead to an unreliable measure, record this at question *ReHite*. If it is a hairstyle that can be altered, e.g. 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.

PLEASE NOTE: the child head stretch on HSE is different to that used on Child of the New Century. Please use the HSE stretch when measuring children for HSE interviews.

APPENDIX B: PROTOCOL FOR TAKING WEIGHT MEASUREMENTS

A. THE EQUIPMENT

There are several different types of scales used on the Health Survey. They differ in the type of power supply they use, where the weight is displayed and the way the scales are turned on. Before starting any interviewing check which scales you have been given and that you know how they operate. The most common types are:

Soehnle Scales

- These scales display the weight in a window on the scales.
- The Soehnle scales are turned on by pressing the top of the scale (e.g. with your foot). There is no switch to turn the scales off, they turn off automatically.
- The scales take 1 x 9v rectangular MN1604 6LR61 batteries.

Seca 850

- These scales display the weight in a window on the scales.
- The Seca 850 is switched on by pressing the top of the scales (e.g. with your foot). There is no switch to turn the scales off, they turn off automatically.
- The scales take 4 x 1.5v AA batteries/1 x 9v rectangular MN1604 6LR61.

Seca 870

- These scales display the weight in a window on the scales.
- The Seca 870 is switched on by briefly covering the solar cell (for no more than one second). The solar cell is on the right hand side of the weight display panel.
NB You may experience difficulties switching the scales on if there is insufficient light for the solar cell. Make sure that the room is well lit.
- The scales have an fixed battery which cannot be removed.

Tanita THD-305

- These scales display the weight in a window on the scales.
- The Tanita is switched on by pressing the button on the bottom right hand corner of the scales. The scales will automatically switch off after a few seconds.
- The scales take 4 x 1.5v AA batteries.

**When you are storing the scales or sending them through the post please make sure you remove the battery to stop the scales turning themselves on.
(This does not apply to the Seca 870 scales)**

Batteries (Soehnle, Seca 850 and Tanita)

It should not be necessary to have to replace the batteries, but always ensure that you have some spare batteries with you in case this happens. If you need to change the battery, please buy one and claim for it. The batteries used are commonly available.

The battery compartment is on the bottom of the scales. When you receive your scales you will need to reconnect the battery. Before going out to work, reconnect the battery and check that the scales work. If they do not, check that the battery is connected properly and try new batteries. If they do still not work, report the fault to your Area Manager/Health Manager or directly to Rod Cox at Brentwood.

The reading is only in metric units, but as for height, the computer provides a conversion. If the respondent would like to know their weight in stones and pounds you will be able to tell them when the computer has done the calculation. You also have a conversion chart on the back of the coding booklet.

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 (about 1lb), the stored weight will be displayed and not the weight that is being measured. This means that if you weigh someone else during this time, you could be given the wrong reading for the second person.

So if you get an identical reading for a second person, 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 (i.e. a pile of books, your briefcase or even the stadiometer). You will then get the correct weight when you weigh the second respondent.

You will only need to clear the memory in this way if:

- a) You have to have a second or subsequent attempt at measuring the same person
- b) Two respondents appear to be of a very similar weight
- c) Your reading for a respondent in a household is identical to the reading for another respondent in the household whom you have just weighed.

If you have any problems with your scales, report these to Brentwood immediately. Do not attempt measurements with scales that are broken or damaged.

B. THE PROTOCOL

1. Turn the display on by using the appropriate method for the scales. The readout should display 888.8 (1888 for the Seca 870) momentarily. If this is not displayed check the batteries, if this is not the cause you will need to report the problem to NatCen at Brentwood. 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. If necessary, turn the scales on again. Wait for a 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 stabilise and will read 'C' until they have done so. (The Seca 870 displays alternate flashing lines in the display window. With the Tanita scales the weight will flash on and off when stabilised). If the respondent moves excessively while the scales are stabilising 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 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 into 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). (The Seca 870 can weigh up to a maximum of 150kg or 23 ½ stone). If you think the respondent exceeds this limit code them as "Weight not attempted" at *RespWts*. The computer will display a question asking them for an estimate. Do not attempt to weigh them.

Additional Points

Pregnant women do not have their weight measured. For women respondents aged 16-49, the computer displays a question asking them whether they are pregnant and then enforces the appropriate routing. If you have a respondent aged under 16 who is obviously pregnant, code as "Weight not attempted" at *RespWts* and "Other - specify" at *NoWaitM*.

Weighing Children

You must get the co-operation of an adult household member. This will help the child to relax and children, especially small children, are much more likely to be co-operative themselves if an adult known to them is involved in the procedure.

Children wearing nappies should be wearing a dry disposable. If the nappy is wet, please ask the parent to change it for a dry one and explain that the wetness of the nappy will affect the weight measurement.

In most cases it will be possible to measure children's weight following the protocol set out for adults. However, if accurate readings are to be obtained, it is very important that respondents stand still. Ask the child to stand perfectly still - "Be a statue." For very young children who are unable to stand unaided or small children who find this difficult you will need to alter the protocol and first weigh an adult then weigh that adult holding the child as follows:-

- a) Code as "Weight obtained (child held by adult)" at *RespWts*
- b) Weigh the adult as normal following the protocol as set out above. Enter this weight into the computer at *WtAdult*.
- c) Weigh the adult and child together and enter this into the computer at *WtChAd*.

The computer will then calculate the weight of the child and you will be asked to check that you have recorded the weight onto the child's Measurement Record Card at *MBookWt*. Again the computer will give the weight in both kilos and in stones and pounds.

Weight refused, not attempted or attempted but not obtained

At *RespWts* you are asked to code whether the measurement was taken, refused, attempted but not obtained or not attempted. If for any reason you cannot get a weight measurement, enter the appropriate code at this question and you will automatically be routed to the relevant follow up questions (*ResNwt* and *NoWaitM*) which will allow you to say why no measurement was obtained.

APPENDIX C: ADULT LIST SHEET

Use when there are more than ten adults in the household and you need to make a selection

LIST ALL ADULTS AGED 16+ IN HOUSEHOLD IN DESCENDING ORDER OF AGE.

	NAME	AGE
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		

IF	ADULT SELECTION CHART								
	Number of adults in household								
→	11	12	13	14	15	16	17	18	19
↓ ELIMINATE THOSE WITH SELECTION CODES →	4	3	2	1	3	2	1	2	1
	9	7	4	6	7	3	4	4	4
		12	7	9	8	6	6	6	6
			11	12	10	8	10	8	8
				15	13	10	12	10	10
					16	13	14	12	12
						15	16	15	15
							18	17	17
								19	19

APPENDIX D: PRACTICE SERIAL NUMBERS

Serial	Sample Type
2001011	Core
2001021	Core
2001031	Boost
2001041	Core
2001051	Boost
2001061	Core
2001071	Boost
2001081	Core
2001091	Boost
2001101	Core
2001111	Boost
2001121	Core



The Health Survey for England 2010

Nurse Project Instructions

P8027



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1 CONTACTS PAGE

Project Number	P8027	
Purple team contacts	Lesley Mullender – Project Controller Sue Roche – Deputy Project Controller Tamara Lovell – Purple Team Rod Cox - Equipment & supplies	01277 690060 01277 690061 01277 690087 01277 690064
Research contacts	Rachel Craig – Research Director Andrew Phelps – Research Director Chloe Robinson – Senior Researcher Deanna Exeter – Researcher Natalie Gunning – Research Assistant	020 7549 7012 020 7549 7131 020 7549 7039 020 7549 7021 020 7549 7119
UCL contacts	Dr Jenny Mindell – Survey Doctor Mobile (8.00am to 10.30pm) 07770 537238 Office 020 7679 1269 Barbara Carter-Szatynska (secretary) 020 7679 5646	
HSE Nurse Supervisors	Area 0 Caroline Southall Area 2 Kerrie Cowen / Stephen Booth Area 3 Josie Birley / Liz Grant / Ann Theakston Area 4 Jean Foster/ Julia Sharp/Jayne Hudson Area 6 Evelyn Malloy Area 7 Angela Pini Area 8 Rosemary Berry / Lynda Moss Area 9 Lesley Maloney	

2 HOW TO USE THESE INSTRUCTIONS

This manual sets out the survey procedures for nurse assignments in the Health Survey for England 2010.

The instructions give information about what has changed on the survey from the previous year and should be used in conjunction with the HSE nurse manual.

These instructions must also be used in conjunction with the Nurse Protocols Manual and existing Clinical Procedure Guidelines (CPGs).

3 KEY FEATURES

3.1 Key features of HSE

Subject	Health conditions, behaviours and lifestyle
Sponsor	The NHS Information Centre for health and social care (IC)
Eligibility	All adults aged 16+ (up to a maximum of 10) and up to 2 children (aged 0-15) living in private residential accommodation in England
Sample size	8,000 adults and 2,000 children (4,000 children in boost sample who are not eligible for a nurse visit)
Data collection method	Face-to-face CAPI interview, self completion, objective measurements

4 HSE IN 2010

4.1 What's new in 2010?

Sample (see section 6)

- Half size core general population sample (8, 000 adults & 2, 000 children)
- Interviewers will have 13 core addresses per point:
 - All adults 16+ and two children 0 to 15 per household
 - Nurse visit for all interviewed (aged 0+)

Nurse visit content (see section 5.2)

- Blood pressure for 5+
- Spirometry aged 7+
- Blood samples (aged 16+)
 - 2 tubes of blood (plain red , EDTA)
 - Reduced number of analytes; new analyte vitamin D
- Urine sample
 - Melatonin analysed for those 35 and over

Nurse CAPI (see separate spirometry protocol document)

- New spirometry protocol
- New computer software for spirometry

Nurse documents (see 11.5APPENDIX B)

- Amendments to the child consent booklet – written record of child assent (see section 9.2.2)

Nurse visit length (see section 5.3)

- 50 minutes average for an adult, 5-20 minutes for children depending on age.

Saliva samples - please remember:

- Do **not** use dental rolls for adult saliva samples, you must use salivettes (and return both inner and outer tubes correctly assembled)

5 FIELDWORK OVERVIEW

5.1 Stage 1: the interviewer visit

The topics covered in the Stage 1 interview are listed below.

Module/Section	Adults	Children
Household questionnaire	•	•
General health (age 0+)	•	•
Self - care	•	
Dental health (16+)	•	
Doctor diagnosed hypertension (16+)	•	
Doctor diagnosed diabetes (16+)	•	
Kidney disease (16+)	•	
Respiratory disease	•	•
Swine flu	•	•
Fruit and vegetables (5+)	•	•
Smoking (18+)	•	
Drinking (18+)	•	
Background classifications	•	•
Self completions (8+)	•	•
Height measurements (2+)	•	•
Weight measurement (0+)	•	•
Consents (0+)	•	•

5.2 Stage 2: the nurse visit

A list of nurse measurements for 2010 is below.

Nurse Measurements & Questionnaire	Respondent Ages
Prescribed medications	All ages
Folic acid supplements	Women aged 18-49
Nicotine replacement therapies	16+
Blood pressure	5+
Waist and hip circumference	11+
Saliva sample (for cotinine)	4+
Lung function	7+
Blood sample analytes:	16+
- Total and HDL cholesterol	
- Glycated haemoglobin	
- Creatinine (to calculate eGFR) ^a	
- Vitamin D	
Urine sample	16+
- Sodium	
- Potassium	
- Creatinine	
- Microalbumin	
- Melatonin (35+)	

^a eGFR (estimated Glomerular Filtration Rate) is a measure of kidney function

The results from the blood pressure (5+) and waist and hip measurements (11+) can be written on the Measurement Record Card which was started by the interviewer for each person. With the respondent's permission, blood pressure readings will be sent to their GP.

Subject to written permission, respondents aged 4+ will be asked to provide a saliva sample and respondents aged 16+ will further be asked to provide a small blood sample and urine sample. If a respondent consents, their blood sample and lung function results can be sent to their GP respondent can be sent their blood sample results as well. Note that cotinine test results from the saliva sample and the results from the urine sample will not be sent to the GP or the respondent.

5.3 How long will the nurse visit take?

The interviewer will try, where possible, to arrange for everyone in a household to be seen one after the other on the same visit. The table below shows the estimated average time required to carry out the nurse visit with different sample types and with individuals of different ages. These timings have been calculated from the dress rehearsal for the 2010 survey. The interviewers have also been given this information. You will of course also need some time to introduce yourself to the household and set up the equipment.

These estimates are likely to vary slightly from nurse to nurse and with different respondents of the same age. If you feel that your interviewer is not generally allowing you enough time for visits let him/her know.

Age of respondent	Estimated length of a nurse visit per person
Adults 16+	50 minutes
Children 0-15	5-20 minutes (dependent on age)

The above times are the length of the CAPI, you will often be in a household at least 15 minutes longer than this. We have taken account of this fact when calculating fees.

6 THE SAMPLE

6.1 Sample design

The sample consists of two different sample types – of which **one** involves a nurse visit.

SAMPLE TYPE 1: CORE & BOOST POINTS		SAMPLE TYPE 2: BOOST POINTS	
Add no's	Core 01-13	Boost 14-26	Boost 01-38
Eligibility	All adults aged 16+ 2 children aged 0-15	Up to 2 children aged 2-15	Up to 2 children aged 2-15
Nurse visit eligibility	All interviewed aged 0+	NO nurse visit	NO nurse visit

Nurse visits will only take place for those interviewed at **core addresses**.

- Sample type 1: Core and boost points –nurse schedule for core addresses only
- Sample type 2: Boost points – NO nurse visit

Workload will vary from point to point, but it is expected that one month's work for a nurse will be approximately 8 to 9 core households in sample type 1.

The interviewer will provide you with full details of the appointments made, as well as informing you about households at which no one co-operated. If you come across someone who originally refused to take part in the interview stage but has subsequently changed his/her mind, try to persuade him/her to see the interviewer in person. Explain that without the information obtained at the interview stage, the measurements obtained by the nurse will have little meaning. Do not take measurements from a respondent until they have been interviewed in person by an interviewer.

6.2 The 'Nurse Link'

Information recorded by the interviewer on the NRF is transmitted back to the office by the interviewer. Within a day this information is available to load onto your machine. When you log onto the host machine, this information is automatically picked up by your laptop. This process is called the nurse link, and it is very useful for ensuring that both you and your interviewer use the correct names and person numbers, which in turn means that all the information regarding one person is matched up.

It is essential to pick up the nurse link prior to going out on a visit as it 'brings forward' information from the interviewer CAPI to the nurse CAPI. In 2010 this includes information about people in the household (age, sex, height, weight and ethnicity) which will need to be fed forward for the lung function measurements as well as details regarding respondents' ethnicity which you will need to code for adults in their consent booklet (further information about coding the consent booklets can be found in section 9.2).

YOU WILL NOT BE ABLE TO CONDUCT SPIROMETRY UNLESS YOU PICK UP THE NURSE LINK.

7 NURSE - INTERVIEWER LIAISON

7.1 Nurse drop outs

Over the last few years, there has been an increase in the number of respondents who agree to a nurse visit at time of interview, but change their mind and do not have the nurse visit. These respondents have been termed nurse drop outs. Nurse drop outs have increased from approximately 6% in 1995 to approximately 16% in 2008. We are aiming to decrease the proportion of people who drop out of a nurse visit.

Analysing the reasons people drop out and anecdotes from field, tell us that people do not continue with a nurse visit for many reasons and there is no consistent trend in these reasons across the different years. What is evident however, is an increase in the time lag between interviewer and nurse visit. Again this increase is caused by many factors, not least that both interviewers and nurses are busier now than they have been in previous years.

To reduce the nurse drop out rate, it is necessary to reduce the time lag between interviewer and nurse visit. Reducing the time lag is highly dependent on interviewer and nurse liaison and can be achieved by

- The interviewer not hesitating to sell the nurse visit
- The interviewer attempting to make an appointment for you

- The interviewer asking an appropriate time for you to call if an appointment cannot be made
- You providing availability to the interviewer
- You following up any respondent who does not have an appointment as soon as possible, as this impresses on them how important the nurse visit is and that their taking part is invaluable

Note that there is a lot of focus on interviewers meeting their fieldwork deadlines in 2010, and this should mean that they can use the availability you give them, and make your workload much more predictable – so that you too can stick to deadlines.

The overall aim is for the majority of respondents to **have a nurse visit within two weeks** of the interviewer visit which should significantly reduce the number of respondents who drop out. We do understand that it is sometimes not possible, for a variety of reasons, to see a respondent within two weeks, but this should be the exception and at the very least contact phone contact should be made with the respondent as soon as possible where an appointment has not been made.

8 PRESCRIBED MEDICATIONS

8.1 Prescribed medications (all respondents)

As in previous years, there is a module of questions about prescribed medications which are currently taken by the respondent. These medications should be coded as they were in 2009.

Remember:

- Medicines should be taken now or be current prescriptions for use 'as required'
- Try to see the medication containers to record the names accurately
- It can include any prescribed medications including eye drops and suppositories
- Record the dosage of aspirin

Drugs are to be coded using their British National Formulary (BNF) classification codes - down to the third level of classification. These should be recorded in a six-digit format, using a leading zero where appropriate. You have a copy of the BNF (make sure it is the *September 2009* edition), in your nurse bag. You also have a coding prescribed medicines booklet which lists the 400 (or so) most commonly used drugs in alphabetical order and gives their BNF classification code.

Please note: the changes made to the coding of some drugs for 2009 will continue in 2010. The changes are to the coding of lipid lowering drugs and drugs to treat dependence as well as antihypertensive and antidiabetic medications. These changes are outlined in your drug coding booklet. You do not need to remember these changes but just be aware of them should you notice a discrepancy between the drug code assigned to them in the BNF and the coding booklet. As a result of these changes, all of the drugs listed under sections 2.12, 4.10, 2.5.5 and 6.1.2 are listed in the coding booklet under either the generic or brand name.

9 INFORMED CONSENT AND THE CONSENT BOOKLET

9.1 The Stage 2 leaflet and informed consent

The Stage 2 leaflet is a vital part of the informed consent process. It contains comprehensive information about the different samples, storing of bloods and possible insurance implications for the respondent. It is HSE procedure that the interviewer leaves it with the respondent at the end of their visit.

Please make sure that you ask the respondent if they have had a Stage 2 leaflet from the interviewer. If they have not, give them a copy to read over. Before they initial or sign any component of the consent booklet, ensure that they have read the relevant section of the Stage 2 leaflet for which they are consenting.

We have stressed to interviewers the importance of leaving a Stage 2 leaflet with the respondent.

There is an orange information sheet for children which explains the measurements for them in simple terms.

9.2 Completing the consent booklet

For 2010 there are separate consent booklets for adults (16+) and children (4-15). A consent booklet will need to be completed for all adult respondents who have a nurse visit and all children aged 4 and over. **Do not** fill in a consent booklet for those aged 0 to 3.

The consent booklets contain the forms the respondent/parent of respondent has to sign to give written consent for:

- blood pressure readings to be sent to their GP (5+)
- a sample of saliva to be taken (4+)
- lung function readings to be sent to their GP (7+)
- a sample of blood to be taken, results sent to GP/respondent, sample for storage (16+)
- a sample of urine to be taken (16+)

9.2.1 Adult consent booklet

The adult consent booklet is a green A4 booklet and must be filled out for **every** respondent aged 16 years and over, regardless of whether measurements requiring consents are to be taken. This is because it provides an important check in the office. Every piece of information on the front is important. It will form the basis of the BP and blood result letters which are sent to GPs (we won't send results letters if the respondent has not given consent). You are asked to record the date of birth again. This is an important identity check, along with your nurse number and the date of interview.

The adult consent booklet is in a carbonised booklet format. Ask the respondent to write on a firm surface, so that their initial/signatures come through to the carbon copy. The structure of the booklet is as follows:

Front cover

All details on the front cover must be completed. Complete items 1 to 5 before you start using the computer to collect information from the respondent. Items 6 to 9 are completed during your interview, and you will be prompted by CAPI. The respondent's address can be recorded by writing down the house/ flat number (or name) and their postcode.

Please try to get as many contact details about the respondent's GP as possible. These are important to ensure that the GP letters are sent to the correct address. Fill in the full name and complete address of the GP on every consent booklet for a household, even when all members have the same GP. Each individual is treated separately once the booklets reach the office (as in 2009, if a respondent is unable to give you complete GP details, please look up the GP details either using the internet or by some other means).

Throughout your visit you will need to record on the front cover of the consent booklet, in a box similar to the one below, the outcome of the respondent's consent for the various samples or measurements. By the end of the nurse visit every adult respondent should have eight codes circled.

SUMMARY OF CONSENTS - RING CODE FOR EACH ITEM	YES	NO
a) Blood pressure to GP	01	02
b) Saliva sample to be collected	03	04
c) Lung function to GP	05	06
d) Sample of blood to be taken	07	08
e) Blood sample results to GP	09	10
f) Blood sample for storage	11	12
g) Blood sample results to respondent	13	14
h) Urine sample to be collected	15	16

Inside front cover

The inside front cover contains the office despatch note and space to note any problems with venepuncture. This is to remain in the booklet and to be returned to the office. You will not need to circle the code for age as it is pre-coded - only respondents who are 16+ will complete this booklet.

Inside green pages

The green pages are the office copies of the signed consents. These pages will remain in the booklet. The respondent is to initial the box next to each sample / procedure they consent to. As soon as a respondent has initialled one box, please ensure that they sign and date the booklet at the bottom. You will also need to sign the booklet at this point. It is the initials and signature in the consent booklet that are important. Without these there is no consent. For ethical reasons we are required to ensure that each respondent's serial number is on the copy of the consents that they are left with. Please ensure that you record the serial number in the boxes at the top of the first green page so that it is transferred on to the carbon copy.

Carbonised white pages

The inside white pages are the respondent's copies of the signed consents. These are perforated and are to be removed and left with the respondent.

Inside back cover

The inside back cover is the laboratory despatch note. This is to be completed in full. It is essential that the information is accurate (more information about completing the note can be found in Section

11.5). This page is perforated and is to be packaged with the sample(s) and sent to the lab. Please note:

- i Age (item 5) – this is pre-coded as all respondents who complete this booklet will be 16+, therefore you will not need to circle this.
- ii Smoking status (item 6) – it tells the saliva lab which machine they need to use for the saliva if they know the smoking status of the respondent. CAPI will tell you what code to circle at **SalWrit**.
- iii Ethnicity (item 7) – For the lab to calculate estimated Glomerular Filtration Rate (eGRF) from creatinine we need you to code the ethnicity of the respondent on the lab despatch note. This information is brought forward from the respondent's interview and will be displayed at **TakeSam** in the CAPI, the same screen which gives you the details to write on the blood labels. Please ensure that at this point in the CAPI you turn to the lab despatch note and circle the relevant ethnicity code (1 for Black, 2 for Other / NA). If a respondent is not having a blood sample please code 2 at Ethnicity on the lab despatch note.
- iv Melatonin analysis – at **Uricode** you will told what to code on the lab despatch note at the melatonin analysis section. The code relates to whether the respondent is taking melatonin supplements which the lab needs to know before analysing the urine for melatonin. Analysis for melatonin will only take place for respondents aged 35+, and therefore the code for anyone under 35 will be 2.
- v Item 8: Tick the tubes obtained
- vi Item 9: Complete the date the samples were taken
- vii Item 10: Circle a code to tell the laboratory whether or note permission has been obtained to store part of the blood. Your entry here should correspond to your entry at item 9 (f) on the front page of the consent booklet.

9.2.2 Child consent booklet

The child consent booklet is a salmon pink A4 document and must be completed for all children aged 4 and over. Parents or legal guardians of children aged 4-15 will need to provide consent for their child's blood pressure to be sent to their GP, a saliva sample to be taken and their lung function results to be sent to their GP.

The structure of the child consent booklet is as follows:

Front cover

The front cover of the child consent booklet is to be completed in full. The respondent's address can be recorded by writing down the house/ flat number (or name) and their postcode. There are three consent codes to circle on the front of the child consent booklet that must be completed. If a child refuses all measures, still complete a consent booklet and circle codes 02, 04 and 06.

SUMMARY OF CONSENTS - RING CODE FOR EACH ITEM	YES	NO
a) Blood pressure to GP	01	02
b) Saliva sample to be collected	03	04
c) Lung function to GP	05	06

Also ensure that the name of the child's parent / guardian is recorded and that GP details are complete.

Inside front cover

The inside front cover is the office despatch note and is similar to the adult version. This remains in the booklet

Inside pink pages

The inside pink pages are the office copy of the consents. The parent / guardian of the child will need to complete this page to give informed consent.

For 2010, in addition it is an ethical requirement that there is a written record of child assent. Informed consent requires a full and comprehensive explanation of the measurement or sample while assent requires a clear and comprehensible, easily understood explanation of the measure.

Child assent is to be recorded in the boxes at the bottom of the consents page. If the child is aged 4 or 5, the parent / guardian of the child can initial the assent boxes on behalf of the child to confirm that the measurement or sample has been explained to the child and that they understand. If a child is 6 or older and is able to write, then they can initial the assent boxes themselves. If the child is older than 5 and is unable to write, then the parent/guardian should initial the assent boxes for them.

The parent or legal guardian must sign and date at the bottom of the page. They will also need to write in the child's name. You will need to record the child's serial number in the boxes at the top of the page so that it is transferred onto the respondent's copy of the consents. These pages remain in the booklet

Carbonised white pages

The carbonised white pages are the respondent's copy of the consents. Once completed, they are to be removed from the booklet and left with the respondent's parent/legal guardian.

Inside back cover

The inside back cover is the laboratory despatch note and will need to be packaged with the sample(s) and sent to the lab. It is similar to the adult version except that you will not need to code ethnicity, smoking status or for melatonin analysis. You will also not need to circle age as it is pre-coded, as is the code for storage. This information is on this page for the laboratory's reference. Like the adult consent booklet, it is essential that the information on the lab (and office) despatch note is accurate.

9.2.3 Respondent signatures

Use a black pen when completing the booklets, and ensure that signatures are always in pen, not pencil. Each respondent must initial (not tick) each box if they have consented to the measurement or sample to be taken. The respondent must also sign and print their name at the end of the booklet. You should also sign and date the booklet. Do not erase any of the personal information. If necessary, cross out errors and rewrite so that any corrections can be seen.

10 PROTOCOLS MANUAL

There is a protocols manual to be used on all NatCen Surveys involving nurse work. You should refer to the manual and follow the protocols for all 2010 measurements and samples. These include:

- Blood pressure (aged 5+)
- Saliva samples (aged 4+)
- Waist and hip measurement (aged 11+)
- Non fasting blood sample (aged 16+)
- Spot urine sample (aged 16+)

The protocol for lung function is attached to this document. Refer to this when conducting lung function on HSE. The lung function protocol in the nurse manual is correct for older style equipment.

11 LABELLING & DESPATCH OF SAMPLES

The samples are sent to the Royal Victoria Infirmary (RVI) laboratory in Newcastle-upon-Tyne. It is important that all samples are sent correctly labelled and safely packaged and that they are despatched immediately after they have been taken.

11.1 Labelling tubes

Label the tubes as you take the blood and saliva samples. It is vital that you do not confuse blood tubes and saliva samples within a household.

POINT NO.	ADD NO./ HHLD	CKL
<input type="text"/>	<input type="text"/>	<input type="text"/>
PERSON		DATE OF BIRTH
<input type="text"/>	<input type="text"/>	<input type="text"/>
HSE P2027		DAY MONTH YEAR

Check person number against CAPI & transfer onto label

Check & write in serial number

Check & write in date of birth

Use the set of serial number and date of birth labels (dark blue) 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 a **biro (blue or black)** - it will not run if it gets damp. Check the Date of Birth with the respondent **again orally**.

Stick the blue label over the label already on the tube. For blood samples the laboratory needs to see on receipt how much blood there is on the tube.

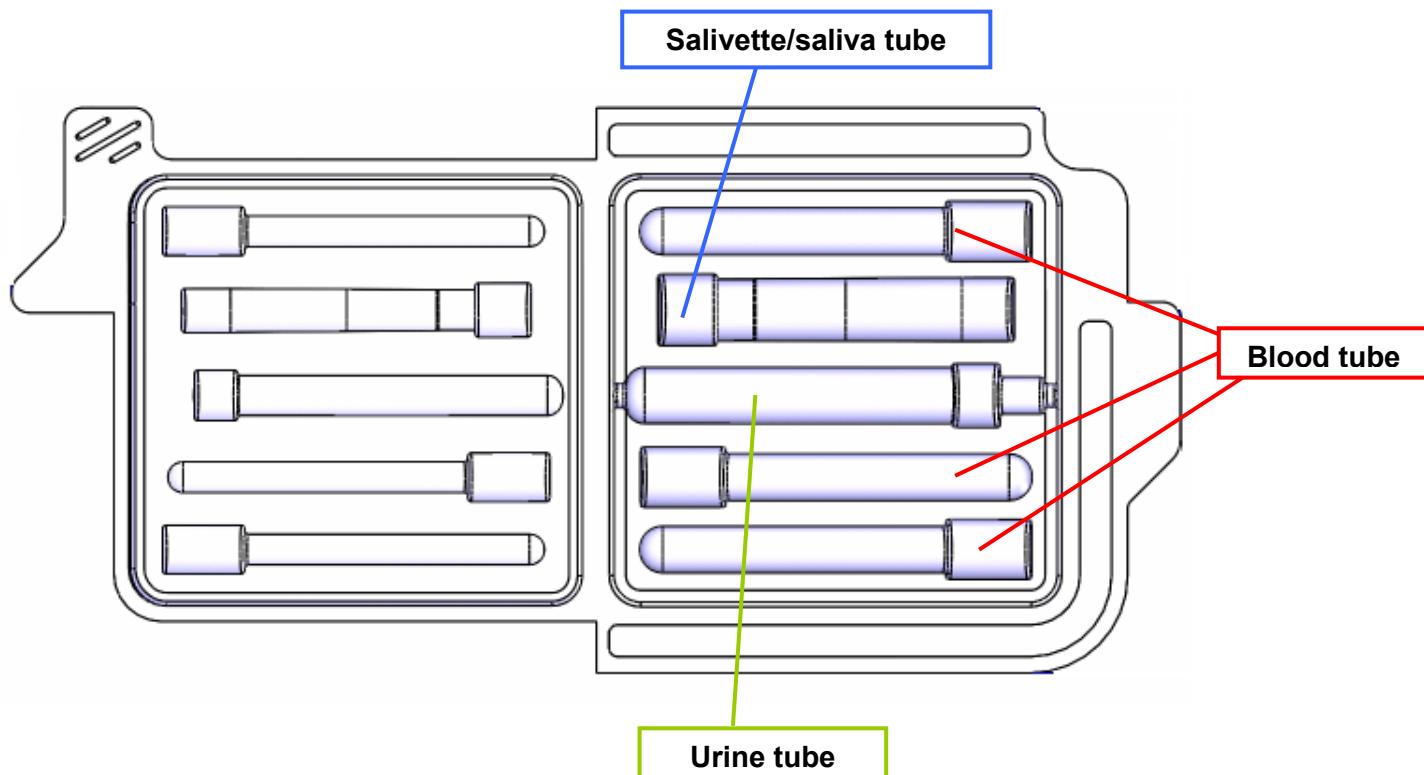
We cannot stress too much the importance of ensuring that you label each tube with the correct serial number for the person from whom the blood was obtained. Apart from the risk of matching up the blood analyses to the wrong person's data, we will be sending the GP the wrong results. Imagine if we detect an abnormality and you have attached the wrong label to the tube!

11.2 Packaging the blood, urine and saliva samples

All samples should be posted using the packaging introduced in 2009.

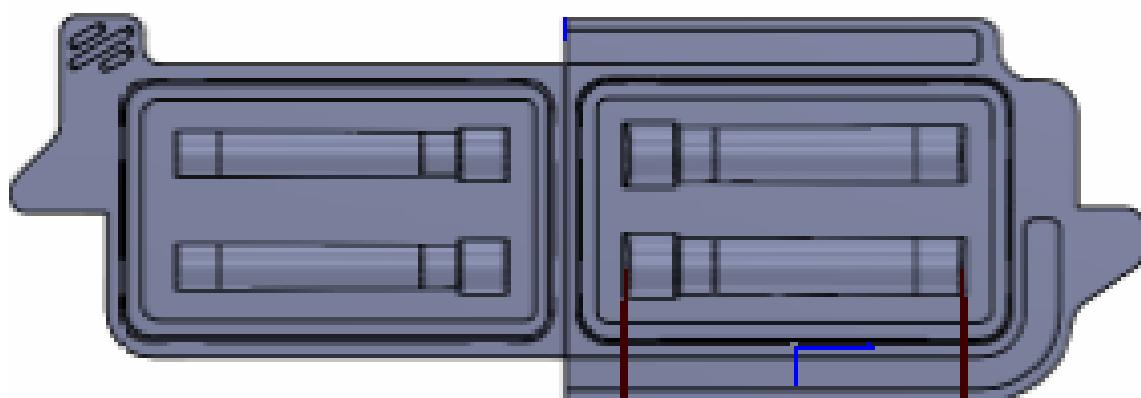
The 5-vial adult transporter

This is designed to carry a full complement of adult samples: 2 blood tubes, a urine tube and either a Salivette or saliva tube in 2010 (there is space for a third blood tube which will not be used in 2010). See diagram below.



The 2-vial saliva transporter

This is designed to carry up to 2 saliva samples. These can be 2 salivettes, 2 saliva tubes or one of each.



Packaging the samples in the transporters

1. Lay the collected sample(s) in the appropriate indentation in the transparent side of the transporter. It should fit securely but not have to be forced into place.
2. Once you have finished collecting samples for a respondent, fold the white side of the packaging over the transparent side. Folding the transparent side onto the white side may risk the samples falling out of the packaging.
3. Securely close the packaging by pressing together each of the corners until you hear it ‘click’ closed. It is closed securely once you have heard it ‘click’ on either side of the packaging.
4. Insert the transporter into the HSE sample envelope.
5. Once the lab despatch note has been completed, tear it from the respondent’s consent booklet and put in the envelope with the transporter.
6. Remove the red backing strip from the flap on the envelope.
7. Fold the flap over onto the envelope ensuring that the envelope is securely closed.

THERE MUST ONLY BE ONE TRANSPORTER PER ENVELOPE. PLEASE MAKE SURE THAT THE NECESSARY LAB DESPATCH NOTES HAVE ALSO BEEN PUT INSIDE THE ENVELOPE.

11.3 Posting the transporters

The size of the packaging means that the samples can be posted in a standard letterbox.

The samples should be posted AS SOON AS POSSIBLE, within 24 hours of the sample been taken at the latest. Try to avoid taking samples if you think that you will unable to post them within 24 hours. As usual, the Purple Team will notify you of any laboratory closures.

Weekend posting

If you miss the Saturday post collection, the sample must be posted on the following Monday morning. Please do not put the samples in a letterbox if you have missed the Saturday post collection. The samples may be unusable if they sit in a letterbox for an extended period of time.

Storage of samples

If you are unable to post the samples immediately, they can be stored at room temperature.

When you have posted the samples, fill in the date of posting on the office copy of the Despatch Notes.

11.4 Which transporter do I use?

I have a mixed sample household?

This is the most usual situation. In this case, the adults in a household have provided more than one type of sample and any children have provided a saliva sample. In this case, the samples for the adults should be packaged in a 5-vial transporter per respondent, while the saliva samples for the children should be packaged together in the 2 vial transporter.

It is also possible that you have a household with adults only and they all provide a different combination of samples. In this case, package the samples in a 5-vial transporter per respondent. If an adult has only given a saliva sample, rather than package it in a 5-vial transporter, it can be packaged in the 2-vial one, but still must be packaged separately from the samples provided by other respondents in the household.

REMEMBER to put only one transporter per envelope with the relevant respondent despatch note(s).

I have a saliva only household?

In this case, all respondents in the household have only given a saliva sample. The saliva samples can be packaged per household in the 2-vial transporter(s). For example, if there are 4 respondents in a household who only give saliva samples, two of the 2-vial transporters will be used.

REMEMBER to put only one transporter per envelope with the relevant respondent despatch note(s).

11.5 Completing the laboratory despatch note

The Consent Booklet contains one laboratory despatch note. This lab despatch note should be filled in with a black pen and sent to the laboratory with the blood and/or saliva samples.

- Enter the respondent's serial number very carefully. This should correspond to your entry on page 1 of the consent booklet and to the serial numbers you have recorded on the blood, saliva and urine tube labels.
- Items 2, 3 and 4: Check that the date of birth is correct and consistent with your entry on the nurse schedule and the tube label.
- Item 11: Enter your nurse number.
- Tear off the despatch note and send it with the respondent's samples to the laboratory.

For more information on completing the lab despatch note, please refer to section 9.2.

APPENDIX A SUMMARY OF NURSE MEASUREMENTS & SAMPLES

Measure	What the measurement is testing	Consent forms	Exclusion criteria	Eligibility criteria	Equipment
Blood pressure	High blood pressure risk factor for cardiovascular disease	Blood pressure to GP	<ul style="list-style-type: none"> If respondent is pregnant 	Aged 5 and over	OMRON HEM BP monitor Child/small adult cuff (17-22cm) Standard adult cuff (22-32cm) Large adult cuff (32-42cm) AC adapter
Saliva sample	Measure exposure to passive smoking. Detected by measuring salivary cotinine levels.	Sample to be taken	<ul style="list-style-type: none"> If respondent is pregnant Respondents who are HIV positive, have Hep B/C (do not ask, only if information is volunteered) 	Children aged 4-15, Adults aged 16+	Saliva collection materials – plain 5ml tube and wide bore straw, salivettes
Lung function	Health of the lungs	Lung function to GP	<ul style="list-style-type: none"> If respondent is pregnant Taking medication for treatment of tuberculosis Average resting pulse rate of more than 120bpm Abdominal or chest surgery in past 3 months Heart attack in the past 3 months Detached retina or eye surgery or ear surgery in the past 3 months Admitted to hospital with heart complaint in past month 	Aged 7 and over	Spirometer, spirolettes and nose clips
Waist & hip	Measure of distribution of body fat. Important indicator of CVD risk	None	<ul style="list-style-type: none"> If respondent is pregnant If respondent is in a wheelchair Has a colostomy/ileostomy 	Aged 11 and over	Insertion tape (with metal buckle at one end if used)
Blood sample	Total and HDL cholesterol	Blood samples to	<ul style="list-style-type: none"> If respondent is pregnant Clotting or bleeding disorder 	Aged 16 and over	Blood collection materials – 1 plain red tube, 1 EDTA tube

	Glycated haemoglobin Creatinine Vitamin D	be taken, test results sent to GP, to store blood and for future analysis	<ul style="list-style-type: none"> • Taking anticoagulant drugs • If ever had a fit in the last 5 years • Not willing to give written consent • Respondents who are HIV positive, have Hep B/C (do not ask, only if information is volunteered) 		See Nurse Protocols Manual and CPG
Urine sample	Sodium Potassium Creatinine Microalbumin Melatonin (35+)	Sample to be taken	<ul style="list-style-type: none"> • If respondent is pregnant • Respondents who are HIV positive, have Hep B/C (do not ask, only if information is volunteered) 	Aged 16 and over	Sarstedt syringe, beaker

APPENDIX B NURSE DOCUMENTS & EQUIPMENT

Name of Document	2010 colour	Use
Sample cover sheet	White	The list of addresses in a nurse sample point.
Police letter	HSE headed paper	A letter about the survey which should be passed to the local police station to inform them that the survey is taking place. The interviewer does this, and sends you a copy.
Stage 2 leaflet	Light blue	Interviewers will leave a copy of the stage 2 leaflet with respondents. Provides information about the nurse visit such as what measurements will be taken and option to send results to GPs. Nurses will ensure that respondents have a copy of the leaflet and will explain in more detail.
Consent leaflet for children	Orange	Provides information for children about the nurse measurements in simplified terms.
Adult consent booklet	Green	To be used for respondents aged 16+. Before blood, urine and saliva samples are taken nurses <u>must</u> obtain written consent in the consent booklet. You should leave a carbon copy for the respondent's records. The booklet includes despatch notes for the lab and office. This needs to be returned to the purple team.
Child consent booklet	Salmon Pink	To be used for respondents aged 4-15. Before saliva samples can be taken nurses must obtain written consent in the consent booklet from the child's parent/guardian. You should leave a carbon copy for the respondent's records. The booklet includes despatch notes for the lab and office. This needs to be returned to the purple team.
Nurse Record Form (NRF)	Cream	Nurse Record Form for the nurse to record details of visits made to an address and the outcome of the visits.
No Nurse Visit Sheet (NNV)	Light green	No Nurse Visit sheet. For interviewers to record information about households where all who have refused a nurse visit.
Measurement record card (MRC) – spares	Purple	You will get spare MRCs to write in nurse measurements.
Coding prescribed medicines booklet	Blue	Used for the coding of prescribed medicines. You will be asked to enter a drug code.
Blood/saliva tube labels	Blue (HSE 2010)	To be used to label blood, urine and saliva samples. Ensure that correct serial numbers and date of births are recorded for each respondent.
Broken appointment card	Blue	Used for missed appointments – can write message and time of next visit.

Name of Document	2010 colour	Use
Urine instruction laminate	White	
Nurse recontact letter	HSE letter headed paper	Available upon request from the Purple team. Used if you are having difficulty in contacting your respondents.
Nurse appointment calendar	Yellow	Used to keep a record of appointments made by the interviewer. A duplicate copy of your availability must be passed on to your interviewer.
Incident report sheet	White	To be filled in should any serious incident occur during a nurse visit.
Surprise packs		Can be given to children participating in the nurse visit.

NURSE EQUIPMENT

Pilot bag
British National Formulary (BNF 56), September 2009 version
OMRON HEM-907, thermometer and probe
Waist and hip tape
Lung function measurement materials - Spirometer, Spirettes (one per respondent), nose clips (one per respondent) and spirometer calibration syringe
Blood collection materials (per respondent): 1 x plain red tube 1 x EDTA (purple) tube 1 x citrate (blue) tube
Saliva collection materials – plain 5ml tube and wide bore straw, salivettes (for adults)
Urine collection materials (per respondent): 1 x Sarstedt urine syringe 1 x 100mL disposable beaker 1 x instruction leaflet 1 x polythene bag

The equipment is described in more detail in the relevant section of the Nurse Protocols Manual.

Health Survey for England

10

Coding & Editing Instructions
Jun 2010

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* refers to section with an amendment from January 2010 instructions

Introduction

This document details the editing to be applied to CAPI questionnaires and self-completion booklets on the Health Survey for England 2010. Problems should be referred to the research team.

General Points:

1. A FACTSHEET is provided to aid editing of the CAPI questionnaires. It contains household information and information for each individual session and nurse schedule. The majority of questions which need to be coded are printed on the FACTSHEET. Coding decisions should be recorded alongside the appropriate questions or at the end of the FACTSHEET, if the question has not been printed.
2. All soft checks that were triggered by the interviewer/nurse and which have not been resolved will trigger again in the edit program. Where appropriate these should be investigated. If no editing action can be taken to resolve these checks, they should be cancelled by the editor.
3. All "Other (Specify)" questions in the self-completion booklets that have not been recoded should be listed with serial number.
4. "Other" answers in CAPI will be backcoded to the original question where possible. Other answers can be transferred electronically and so don't require listing.

Where problems arise that do not appear in these editing instructions, please contact the research team for advice.

1. Factsheet Definition for CAPI editing

The tables below show the variables that will appear on the factsheet for editing. Variables which are just a simple backcode into a previous variable are not shaded. Variables for which there is more detail in these instructions about how to code are shaded.

Household Qure

NHActivO	Backcode to NHActiv	What HRP was doing in last week
HrpSOC2		Occupational coding
HrpSIC02		Industry type coding

Indiv Qure

IllsTxt1-6		Longstanding illness codes
OpOffOt	Backcode to OptOff	Self care options discussed and/or offered
OpDonOt	Backcode to OptDone	Self care options done by respondent
WhatTsp	Backcode to WhatTrt	Treatment or other advice for high blood pressure
WhatDsp	Back code to OtherDi	Treatment or advice received for diabetes
WhTestOt	Backcode to Whattest	Other tests for kidney disease
WhatDsp	Backcode to AdKidDC	Treatment or other advice received for kidney disease
SlpCPAPO	Backcode to SlpCPAP	Other treatment for stopping breathing during sleep
ChrFlareO	Backcode to ChgFlare	Other changes with COPD flare ups
TrtFlarO	Backcode to TrtFlare	Other COPD treatment flare ups
TrtMedO	Backcode to TrtMed	Other treatment for asthma/breathing problems
FrtOth	Back code to FrtC	Type of fruit eaten
FrtNotQ	Back code to FrtQ	Amount of fruit eaten
OthAct		Other activities codes
NbotL7	Code to L7NCodEq	Brand of bottled lager (7days)
SbotL7	Code to L7SCodEq	Brand of bottled lager (7days)
OthL7TA,B,C		Other alcoholic drinks (7days)
NactivO	Back code into NActiv	Activity last week
SOC2000		Occupational coding
SIC2003		Industry type coding
QualB	Back code into QualA	Educational qualifications
CulturO	Backcode to appropriate one of EurCult, MixCult, BlaCult, IndCult, or OthCult	Cultural background
XOrigin	Back code to origin	Origin belong to
XRelig	Backcode to Relig	Religion
SComp6O	Back code into SComp6	Why self-completion not completed
OHinNRel	Back code into HiNRel	Unreliable height measurement
NoHitCO		Reasons for refusing height
NoWatCO		Reasons for refusing weight
OHinNRel	Back code to HiNRel	Other reason for unreliable measurement
NrsRefO	Back code into NurseRef	Reasons refusing nurse

Nurse Qure

MedBi		Drug coding
OthNic	Back code to BNicPats	Other nicotine patches used
OthNBP	Back code to NAttBPD	Other reason not obtained blood pressure
OthDifBP	Back code to DifBPC	Other reason difficulty obtaining BP
OthRefC	Back code to GPRefC	Other reasons refusing to allow BP measurements to be sent to GP
OthWH	Back code to WHPNABM	Other reasons for not attempting waist-hip measurements
OthNObt	Back code to SalNObt	Other reasons why saliva sample not taken
NoAttO	Backcode to NoAttLF	Other reasons for not attempting/refusing lung function
LungGPOt	Backcode to NoLungGP	Other reason for not sending lung function to GP
QualOth	Backcode to QualCDF	Other reasons for obtaining a C,D,F session quality
NullLFOt	Backcode to NullLF	Other reasons for being unable to record lung function
OthRefBS	Back code to RefBSC	Other reasons for refusing blood sample
OthSam	Back code to SenSam	Other reasons for not wanting blood sample results sent to GP
OthBDif	Back code to SamDifC	Other problems taking blood sample
OthNoBSM	Back code to NoBSM	Other reasons why blood sample not taken
BINotOb	Backcode to RefBSC	Reasons, other than refusal, why blood is not taken
UOtNObt	Backcode to UriNObt	Other reasons why urine sample not taken

2. Additional CAPI Edits

2.1 Proxy interviews

- Aged 13+ **NoHitCO** and **NoWatCO** should be checked to see whether the respondent was present at the time that height and weight were measured. If the respondent was not present for height/weight measurements, then the interview should be treated as a proxy interview, removed from the data and **IndOut** set to code 561 and 562 'Other reason for no interview'. The only exception to this is if there is an interviewer note explaining that the respondent was interviewed, but that they had to leave before the height and weight measurements were taken.
- Aged 2-12 Proxy interviews are allowed for children aged 2-12. See height/weight measurements section for more details of edits for **NoHtBC** and **NoWtBC**.
- Aged 0-2 Proxy interviews are carried out for infants aged 0-2. See length & weight measurements section for more details of edits for **NoAttL** and **NoWtBC**.

2.2 Age/Date of birth

Children aged less than one year are recorded as '0'.

If Age/Date of birth missing in household grid, check whether it was collected in the nurse visit. Add DoB and age at Individual Questionnaire Interview Date to the Household Grid if available from Nurse Schedule.

Date of birth in nurse visit should be checked against the consent booklet and any discrepancies resolved.

All "age" nurse checks will be flagged in the edit if they do not make sense according to the respondent's date of birth as at the interview. Any discrepancies will need to be resolved. Send a list of all cases where this happens to the researchers, please note age and 'consent status' of other individuals in the household. A decision will be taken by the researcher on a case by case basis.

2.3 Household/Individual SOC/SIC coding

- HrpSOC2/ HrpSIC03** Household Reference Persons who have **NHActiv** in [Job, GovSch] (Codes 2 or 3) or where **HEverJob** = Yes (code 1) or where **HOthPaid** = Yes (code 1) need to have their occupation coded using SOC 2000 (*edit program variable name HrpSOC2*) and their industry coded using S/C 2003 (*edit program variable name HrpSIC03*). Where **HrpSOC2** is not adequately defined, code as **HrpSOC2** = 997 Where **HrpSIC03** is not adequately defined, code as **HrpSIC03** = 87.
- SOC2000/ SIC2003** Same process as for HrpSOC2/HrpSIC03, except that edit programs are called SOC2000 and SIC2003.

2.4 Longstanding Illnesses

- IIIlsM** Details are obtained of up to six types of long-standing illness. The text answers are recorded in the variables **IIIlsTxt1-IIIlsTxt6**. This should be coded, using the long-standing illness codeframe in section 5, into the variables **IIIlsM1-IIIlsM6** (appearing immediately after each instance of **IIIlsTxt**).

If there are two separate illnesses listed under the same **IIIlsTxt** variable, then these should be split as follows. Code first mentioned illness in the **IIIlsM** code linked to the **IIIlsTxt** code, remove the text of the second illness and put it into the first blank **IIIlsTxt** variable, and code the appropriate **IIIlsM** variable accordingly. In addition change the **More** variable (before the **IIIlsTxt** that the second illness has been moved to) from No to Yes.

Rules for coding long-standing illness

Code 41 Unclassifiable (no other codable complaint)

Exclusive code - this should only be used when the whole response is too vague to be coded into one of codes 01-40. This includes unspecific conditions like old age, war wounds etc (see codeframe for examples). This code can **only** be used in the 'first mention' columns. The editing program issues a warning if code 41 is used in any of the other columns.

Code 42 Complaint no longer present

Exclusive code - again it should be used only when the response given is **only** about a condition (or conditions) that no longer affects the respondent. This code can **only** be used in the 'first mention' columns. The editing program issues a warning if code 42 is used in any of the other columns.

Codes 01-40 can be used more than once if two different conditions are mentioned which both fall into the same category.

An exception to this is 'arthritis and rheumatism'. This is **not** two conditions, and so should **not** be given two separate codes; instead, code only one occurrence of code 34. (If two *specific* conditions were mentioned - eg osteoarthritis and rheumatoid arthritis - this *should* be coded as two occurrences.)

If more than 6 illnesses have been typed in by the interviewer, the first 6 mentioned should be coded.

Illnesses which cannot be coded using the Longstanding Illness Codeframe or the ICD need to be sent to UCL for coding using the Coding Queries Response Form.

2.5 Diabetes

A glitch in the CAPI program means that it is not possible for interviewers to code all four options at **OtherDi** for a single respondent. Interviewers have been advised that if they need to code all of the options, they are to select options 2, 3 and 4 and as well as entering in the 'other' at What DSP, they need to type in code 1 'special diet'. As well as backcoding the 'other' option at WhatDSP, coders will need to back code special diet to option 1 at OtherDi.

2.6 Kidney disease

Responses recorded at **WhatDSP** in the kidney disease module should be backcoded to **AdKidDC**. If it cannot be backcoded consult research for advice on how to backcode.

2.7 Other fruit

If possible, responses to **FrtOth** should be backcoded into **FrtC** and responses to **FrtNotQ** should be backcoded into **FrtQ** using the fruit codeframe (section [2.83-8](#)) and the portion guide (section [2.93-9](#)) below. If the fruit isn't on the list, first check that it can be eaten raw. If it can only be eaten cooked then recode at FrtDish. For other fruit not on the list and eaten raw or if the amount is given in a way that cannot be entered in FrtQ, then please send details of these cases to the researchers where a decision will be taken on a case by case basis.

2.8 Fresh fruit size codeframe

Name of Fruit	Size of Fruit	Name of Fruit	Size of Fruit
Apple (all types)	Medium	Lychee	Very small
Apricot	Small	Mandarin orange	Medium
Apple banana	Small	Mango	Large
Avocado	Large	Medlar	Medium
Banana	Medium	Melon (all types)	Very large
Banana, apple	Small	Mineola	Large
Banana, nino	Small	Nectarine	Medium
Berry (other)	Very small	Olive	Very small
Bilberry	Very small	Orange	Medium
Blackcurrant	Very small	Passion fruit	Small
Blackberry	Very small	Papaya	Large
Blueberry	Very small	Paw Paw	Large
Cactus pear	Medium	Peach	Medium
Cape gooseberry	Very small	Pear	Medium
Carambola	Medium	Persimmon	Medium
Cherry	Very small	Pitaya	Medium
Cherry Tomato	Very small	Pineapple	Very large
Chinese gooseberry	Small	Physalis	Very small
Chinese lantern	Very small	Plantain	Medium
Chirimoya/Cherimoya	Medium	Plum	Small
Clementine	Medium	Pomegranate	Medium
Custard Apple	Medium	Pomelo/ Pummelo	Large
Damson	Very small	Prickly pear	Medium
Date (fresh)	Small	Rambutans	Very small
Dragon Fruit	Large	Raspberry	Very small
Elderberry	Very small	Redcurrants	Very small
Figs (fresh)	Small	Satsuma	Medium
Gooseberry	Very small	Shaddock	Large
Granadilla/Passion fruit	Very small	Sharon fruit	Medium
Grapes (all types)	Very small	Starfruit	Medium
Grapefruit	Large	Strawberry	Very small
Greengage	Small	Stonefruit	Very small
Grenadillo	Very small	Tamarillo/Tree tomato	Small
Guava	Medium	Tangerine	Medium
Horned melon/Kiwano	Large	Tomato	Small
Kiwi	Small	Tomato, cherry	Very small
Kubo	Very small	Tomato, beef	Large
Kumquat	Very small	Ugli Fruit/unique fruit	Large
Lemon	Medium		
Lime	Medium		
Loquat	Very small		

2.9 Fresh fruit portion guide

Food Type	Portion size
Vegetables,	3 tablespoons
Vegetables in composites	3 tablespoons
Pulses	3 tablespoons
Salad	1 cereal bowlful
Small fruit (e.g. plum)	2 fruits
Medium-sized fruit (e.g apple)	1 fruit
Very small fruit and berries	2 average handfuls
Very large fruit (e.g melon)	1 slice
Large fruit (e.g. grapefruit)	½ fruit
Dried fruit	1 tablespoon
Fruit salad, stewed fruit etc	3 tablespoons
Frozen/canned fruit	3 tablespoons
Fruit juice	1 small glass (150ml)

NB: For calculating portion sizes only one portion or less of pulses, dried fruit or fruit juice was included in the total amount consumed.

2.10 Other alcoholic drinks

Exclude all low/non-alcoholic drinks. Home made drinks should be coded into the appropriate category.

Normal beer (NBrL7):

Include: Export, Heavy, Black & Tan, Barley Wine, Diabetic Beer, Home Brew Lager, Lager and Lime, Home Brew Beer, Gold Label, Pomagne, Stout, Scrumpy

Exclude: Ginger Beer. Non alcoholic lagers - Barbican, Kaliber, Bottles/cans of shandy. Beer with >6% alcohol by volume (code as 'strong'). Angostura Bitter (code as spirits)

Strong beer (SBrL7):

Include: Diamond White/Blush/Zest, K, Special Brew Lager, Tennents Super

Exclude: Beer etc with less than 6% alcohol by volume (code as 'normal strength'). Angostura Bitter (code as spirits).

Spirits (SpirL7):

Include: Angostura Bitter, Cocktails, Egg Flip, Snowball, Bacardi, Bailey's, Pernod, Gin, Sloe Gin, Pimms, Bourbon, Whisky Mac, Schnapps, Liqueurs, Bluemoon, Vodka, Rum, Southern Comfort, Grappa, Tia Maria, Ouzo/Aniseed, Strega, Brandy, Cherry Brandy, Arak, Irish Velvet, Brandy, 150 proof Moonshine, Gaelic Coffee, Advocaat, Tequila, Amagnac, Clan Dew, Campari, Malibu, Taboo, Pochene (Irish Moonshine), Jello shots/shooters, Vodka Jelly, After Shock.

Sherry (ShryL7):

Include: Vermouth, Port, Cinzano, Dubonnet, Bianco, Rocardo, Noilly Prat, Stones Ginger Wine, Home made Sherry, Tonic wine, Sanatogen, Scotsmac and similar British wines fortified with spirits, Port and Lemon, Madeira.

Wine (WineL7):

Include: Punch, Mead, Moussec, Concorde, Champagne, Babycham, Saki, Cherry B, Calypso Orange Perry, Home made wine, Thunder bird.

Exclude: Non alcoholic wines such as Eisberg

Alcopops/pre mixed alcoholic drinks (PopsL7):

Include: Bacardi Breezer, Metz, Smirnoff Ice, Archers Aqua, Baileys Glide, Red Square, Vodka Reef, Shoots, WKD ('Wicked'), Mudshake, Alcoholic Irn Bru., Woody's, any mention of 'alcoholic lemonade, cola, orangeade, cream soda' etc or Ready To Drink beverages.

Coding "other" alcoholic drinks variables:

All "other" alcoholic drinks should be recoded back into one of the six drink categories noted above (**OthL7TA**, **OthL7TB**, **OthL7TC** to question **DrnkTyp**).

If the appropriate drinks category is **not already** coded, then information on amount should be edited into that category's variables and data in the "other drinks" category deleted.

After recoding "other" alcoholic drinks the variables **OthL7TA**, **OthL7TB**, and **OthL7TC** should be set to No=2. Details of coding decisions should be recorded on the FACTSHEET.

Responses recorded at variables **OthL7QA**, **OthL7QB** and **OthL7QC** should be recoded to the relevant variables: **NBrL7**, **NBrL7Q[1-4]**, **SBrL7**, **SBrL7Q[1-4]**, **SpirL7**, **ShryL7**, **WineL7**, **PopsL7**, **PopsL7Q[1-2]**.

2.11 Coding of beer bottle sizes

The variables **NBotL7** and **SBotL7** (the brand of beer/lager/stout/cider drunk in bottles), need to be coded into **L7NcodEq** and **L7SCodEq** using the bottled lager/cider/beer codeframe.

Bottled beers for which an amount cannot be identified should be coded to 0.00 of a pint, so that these brands can be listed electronically. The exceptions to this are

- 'French beer' which should be coded 0.44 (250ml)
- Interviewer has indicated that the bottle is "large" code to 0.77 of a pint (440ml)
- If no brand name given, or no usual type code to 0.58 of a pint (330ml)
- Where two or more bottle sizes are shown in the codeframe, code as 0.58 unless bottle size is specifically stated (either as small or large, or in ml)
- Where more than one type of bottle is drunk, code to the volume of the first mentioned bottle.

2.12 Bottled lager/cider/beer codeframe

Abbot Ale	0.58	Kirin	0.58 or 0.88
Amstel	0.58	Kronenbourg (1664)	0.44 or 0.58
Asahi	0.58	Labatts	0.58
Banks (Mild only)	0.97	Labatt's Ice	0.58
Banks Old Ale (nips)	0.32	Leffe	0.58 or 0.77
Bass (pint bottle)	1.00	Lowenbrau	0.58
Becks	0.48 or 0.58	Mackeson	0.88
Bishops Finger	0.88	Marston's Pedigree	0.88
Black Sheep Ale	0.88	McEwans 80 or 90 shilling	0.97
Boddingtons (Export draught only)	0.58	Merrydowns	0.58
Bombardier	0.88	Michelob	0.58
Brahma	0.58	Miller (Draught not Pils)	0.58
Brandenburg	0.58	Molson	0.58
Budvar	0.88	Murphys	0.88
Budweiser/ Bud Ice	0.58	Newcastle Brown Ale	0.97
Bulmers / Magners	0.58 or 1.00	Olde English	0.88
Carling	0.48	Old Speckled Hen	0.88
Carlsberg	0.58	Oranjeboom	0.58
Castle	0.58	Peroni lager (Nastro Azzuri)	0.58
Cobra	0.58	Pils (unspecified)	0.58
Coors	0.58	Pivovar Czech Lager	0.88
Corona	0.58	Red Rock	0.58
Crest Lager (Export)	0.44	Red Stripe	0.58
Diamond (Blush, White or Zest)	0.48	Rolling Rock	0.58
Dragon (Stout)	0.50	Royal Dutch	0.58
Elephant (Lager)	0.48 or 0.58	Ruddles	0.58
ESB (Fuller's ESB)	0.88	Sam Smiths (Old Brewery Strong Ale)	0.97
Export 33	0.44	San Miguel	0.58
Foster's (Unspecified)	0.77	Scrumpy Jack	0.58
Foster's Export	0.77	Singha beer	0.58
Foster's Ice	0.58	Skol	0.58
Fuller's (London Pride)	0.97	Sol	0.58
Grolsch	0.58 or 0.77	Spitfire	0.88
Guinness Extra Stout	0.58	Stella Artois (dry or regular)	0.44, 0.48 or 0.58
Guinness Original	0.58 or 0.88	Stinger	0.58
Heineken (Export)	0.58	Strongbow (Blackthorn)	0.48 or 0.58
Hoegaarden (bier blonde)	0.58	Thatchers cider	0.88
Holsten Pils (bottle)	0.58	Theakstons	0.97
Home made	0.58	Tiger beer	0.58
Ice Dragon	0.48	Tsingtao	0.58
John Smiths	0.77	Vault	0.58
K. Cider	0.48	Victoria Bitter	0.58
Kanterbrau	0.58	Wadworth Export	0.88
Kingfisher	0.58	Woodpecker	0.48

Conversion Table

mls	pints	mls	pints	mls	pints
180	0.32	284	0.50	550	0.97
200	0.35	330	0.58	568	1.00
250	0.44	440	0.77		
275	0.48	500	0.88		

2.13 Educational Qualifications

QualB "Other qualifications" should be coded into **CQualA** where applicable. Up to 3 answers at **QualB** can be back-coded to **CQualA**.

Rules for coding qualifications:

- If Qual=1 and OthQual=1 – try to recode to CQualA. If able to recode, change OthQual to 2.
- If Qual=2 and OthQual=1 – try to recode to CQualA. If able to recode, change OthQual to 2. Leave Qual as 2.
- If the qualification at QualB is a listed exclusion, change OthQual to 2.
- If the qualification at QualB cannot be recoded but is believed to be a valid qualification, leave OthQual as 1. Note this coding decision next to **QualB** on FACTSHEET.

Frame for **CQualA**:

- | | |
|---|---|
| 1 | Degree/degree level qualification (including higher degree) |
| 2 | Teaching qualification |

- 3 Nursing qualifications SRN, SCM, SEN, RGN, RM, RHV, Midwife
- 4 HNC/HND, BEC/TEC Higher, BTEC Higher/SCOTECH Higher
- 5 ONC/OND/BEC/TEC/BTEC not higher
- 6 City and Guilds Full Technological Certificate
- 7 City and Guilds Advanced/Final Level
- 8 City and Guilds Craft/Ordinary Level
- 9 A-levels/Higher School Certificate
- 10 AS level
- 11 SLC/SCE/SUPE at Higher Grade or Certificate of Sixth Year Studies
- 12 O-level passes taken in 1975 or earlier
- 13 O-level passes taken after 1975 GRADES A-C
- 14 O-level passes taken after 1975 GRADES D-E
- 15 GCSE GRADES A-C
- 16 GCSE GRADES D-G
- 17 CSE GRADE 1/SCE BANDS A-C/Standard Grade LEVEL 1-3
- 18 CSE GRADES 2-5/SCE Ordinary BANDS D-E
- 19 CSE Ungraded
- 20 SLC Lower
- 21 SUPE Lower or Ordinary
- 22 School Certificate or Matric
- 23 NVQ Level 5
- 24 NVQ Level 4
- 25 NVQ Level 3/Advanced level GNVQ
- 26 NVQ Level 2/Intermediate level GNVQ
- 27 NVQ Level 1/Foundation level GNVQ
- 28 Recognised Trade Apprenticeship completed
- 29 Clerical or Commercial Qualification (e.g. typing/book-keeping/commerce)

Where applicable use the following additional codes:

- 30 Qualifications outside of UK
- 31 Other **vocational** qualifications, not otherwise codable
- 32 NVQ level not specified
- 33 Nursery Nurse Examination Board Qualification
- 34 Qualifications obtained during military service
- 35 Other **academic** qualifications, not otherwise codable
- 36 Other **professional** qualifications, not otherwise codable

If the level of qualification is unspecified (eg just City and Guilds) then code to the lowest level of the appropriate qualification.

Inclusions/Exclusions for CQualA

1. Degree **Include:** CNAA degrees (granted by the Council for National Academic Awards for degrees in colleges other than universities), Bachelor of Education (B.Ed) - not code 2

2. Teaching **Include:** College of Preceptors

3. Nursing **Include:** State Enrolled Auxiliary Midwife
 Exclude: Dental Nurses/Hygienists qualifications - code to other

GCSE/GCE/CSE: Clerical or commercial subjects obtained in these types of qualifications should be coded to the relevant GCSE/GCE/CSE codes.

29 Clerical **Include:** RSA - provided at least one subject is commercial e.g. commerce, shorthand, typing, bookkeeping, office practice, commercial and company law, cost accounting;
Include: Pitmans - except for their school certificate, code as other = 30;
Include: Regional Examining Union (REU) Commercial Awards, provided that at least one subject is commercial. REU include - East Midland Education Union (EMEU)

30 Foreign **Exclude:** Qualifications which are described as equivalent to an existing qualification in the codeframe – such as degrees obtained abroad.
If highest qualification was obtained abroad, make sure that **WherQu** is coded 2

31 Vocation **Include:** Banking Exams (unless Institute of Banking mentioned = 36)
Include: Certificate of Prevocational Education/Training (CPVE/T)
Include: Youth Training Scheme certificates
Include: Retail/commercial/industrial certificates
Include: RSA vocational subject certificates (not academic=35 or clerical=29)
Include: Management certificates
Include: CLAIT – ICT skills training
Include: Health & Safety Training certificate (incl. NVQ, IEHO, CIEH)

34 Military **Include:** Army/navy/air force certificates/qualifications; 1st/2nd/3rd class

35 Academic **Include:** 16+ exam certificate; Local, regional and RSA school certificates; Arts foundation courses

36 Other professional: This covers qualifications awarded by a recognised professional body only. (eg. Social Work Diploma, Chartered/Management/Certified accountant)

The following should not be treated as qualifications for the purpose of this code-frame:

Civil Service Examinations for entrance, promotion, establishment, typing etc.

Local Authority Examinations for entrance, promotion etc

Dancing Awards (including ballet qualifications)

Music Grade Examinations and Certificates for learners (eg Associated Board of the Royal School of Music)

Drawing Certificates (eg. awarded by Royal Drawing Society)

Ordination/Lay Preachers Qualifications

Driving Certificates and Driving Instructor's Qualifications including Heavy Goods Vehicle Licence.

Play Group Leader's Qualifications

Fire Brigade Examinations

Police Force Examinations

First Aid Certificates (including all Red Cross/St John's Ambulance qualifications)

Pre HNC/HND bridging or conversion courses

Forces Preliminary Examinations (to gain admission to university)

Prison/Borstal Training Qualifications

GPO telecommunications, telegraphy etc

Scholarships other than for GCE 'A' Level

Labour Examinations (pre 1918). This allowed a child to leave school and start work at 13

Swimming Certificates including life saving and instructors' certificates

Internal school examinations

Sports Coaching and Refereeing Qualifications

Union Membership e.g. Equity, National

Association of Head Teachers, IPCS (Institute of Professional Civil Servants)

Partial qualifications (such as part way through degree, solicitor's training etc) should be excluded.

2.14 Ethnic group

The following table may be useful as a guide for other answers given but should only be used within sections e.g. if an answer given for code 3 'other white background' is English it should be coded as British, if it is Irish it should be coded as Irish or if it is Northern Irish it should be coded as other white. If British Asian is recorded at 'other white' it should be kept as other white. If it is recorded at Other Asian it should be kept at 'other Asian'.

A summary of how write-in answers are allocated to the main census ethnic groups

Write-in answer	Census category
English Scottish Welsh Cornish	White British
Northern Irish Cypriot Gypsy/Romany Former USSR Baltic States Former Yugoslavia Other European White South African American Australian New Zealander Mixed White	Other White
British Indian Punjabi	Indian
British Pakistani Kashmiri	Pakistani
British Bangladeshi	Bangladeshi
British Asian East African Asian Sri Lankan Tamil Sinhalese Caribbean Asian British Asian Nepalese Mixed Asian (i.e. mixture of descriptions in the Asian section)	Other Asian
Caribbean and West Indian islands (and also Guyana) apart from Puerto Rican, Dominican and Cuban which are Latin American	Black Caribbean
Nigerian Somali Kenyan Black South African Other Black African countries	Black African
Black British Black American Mixed Black	Other Black
Hong Kong	Chinese
Japanese Vietnamese Filipino Malaysian Aborigine Afghani Burmese Fijian Inuit Maori Native American Indian Thai Tongan Samoan	Other Ethnic Group

2.15 Self-Completion booklet placement

SComp6 For children aged 0-12 who are away from home during field period an interview will have been attempted with his/her parents. **SComp6** should be coded 0 - "Child away from home during the field period". Editors should check that where notes indicate that a child is absent during the field period that code 0 has been used.

****Note** that code 0 can only be used if the child is known to be away from home for the whole of the fieldwork period. It should not be used for those cases where a child is not around to complete the self-completion document (eg child got bored and went outside to play). These should be left as "Other".

2.16 Height/length and weight measurements

Checks for height/length and weight in the edit program reject extremely unusual heights/lengths and weights as a safeguard against very unlikely results. Contact research staff if the height or weight check is activated.

NoHitCO Backcode "Other" reasons for no height measurement where possible.

NoWatCO Backcode "Other" reasons for no weight measurement where possible.

For children aged 0-12 who are away from home during field period an interview will have been attempted with his/her parents. Variables **NoHtBC/NoWtBC** should be coded 1 - "Child away from home during the field period". Editors should check that where notes indicate that a child is absent during the field period that code 1 has been used in the above variables.

****Note** that code 1 can only be used if the child is known to be away from home for the whole of the fieldwork period. It should not be used for those cases where a child is not available at the time measurements are conducted (eg child got bored and went outside to play). These should be left as "Other". If child is "ill", recode to Code 8 'ill or in pain'.

Veiled refusals at **NoHitCO/NoWatCO** (where respondent has not given a reason for not having height/weight taken but has effectively terminated the interview: eg 'too busy', 'had to go out', 'not convenient' etc.) should be recoded to Code 2 'Height/Weight refused' at **RespHts/RespWts**, and the reason for refusal coded at **ResNHi/ResNWt**.

2.17 Drug Coding

MEDBI

All drugs are to be coded to the six digit BNF using the Coding Prescribed Medicine booklet or the BNF (Number 58 – Sept 2009).. The nurse should have completed this during her visit, but some drugs may have been hard to find. In these cases the nurse will have coded 999999. Coders should attempt to solve these queries but if drug is not found, send a coding query form to UCL. If no decision can be made after querying with UCL use code 999996.

Please note that some drugs have been given new codes for HSE 2010. This is to separate different types of drugs, so they can be separated in analyses.

Some drug sections that have only two section numbers in the BNF (eg 4.10 and 2.12) have been divided into two or three groups, to separate the types of drugs. Where this is the case, all of the drugs listed under the relevant sections in the BNF are listed in this booklet.

Lipid-lowering drugs, formerly coded as 02.12.00

Statins.....02.12.01

Other lipid-lowering drugs.....02.12.02

Drugs to treat dependence, formerly coded as 04.10.00

Alcohol dependence.....04.10.01

Smoking cessation.....04.10.02

Opioid dependence.....04.10.03

Some have been split into two or three constituent sections, using the BNF sub-section numbers (eg : 2.5.5.1, 2.5.5.2, 2.5.5.3). Where this is the case, all of the drugs listed under the relevant sections in the BNF are listed in this booklet.

Antihypertensives formerly coded as 02.05.05

Angiotensin-converting enzyme (ACE) inhibitors.....	02.05.51
Angiotensin II receptor antagonists.....	02.05.52
Renin inhibitors.....	02.05.53

Antidiabetic drugs formerly coded as 06.01.02	
Sulphonylureas.....	06.01.21
Biguanides (e.g. Metformin).....	06.01.22
Others.....	06.01.23

Section 6 of this document contains a coding frame for drugs which come under these codes.

Any drugs coded 14.**.** or 15.**.** by the nurse should fail the first edit for manual checking. The only possible codes under 14 are 14.04.00 and 14.05.00; these are uncommon. Check that they are correctly used. It is unlikely that anything is prescribed under 15 but just possible. Note that there are a number of fairly common drugs listed in this section which are also listed under other sections. They are almost certainly being used for the purposes for which they are listed in other sections and should be recoded unless the nurse has indicated as anaesthetic use. For example, Diazepam is prescribed as a sleeping drug (04.01.02) but it is also used as an anaesthetic. Unless the nurse has recorded this as being used as an anaesthetic, recode to 04.01.02. If in doubt, query with researchers.

Drugs which cannot be coded using the BNF need to be sent to UCL for coding using the Coding Queries Response Form.

2.18 Blood sample

The variable **BINotOb** has been introduced to the nurse schedule if someone is willing to give a blood sample but is unable to for some other reason. This is to be backcoded to **RefBSC**. If it is recorded by the nurse that the respondent is not eligible to give a blood sample as they have HIV/Aids or hepatitis B or C, record this as code 4 at **RefBSC**.

3. Self Completion Booklets

The majority of edit checks are specified on the marked up booklets. Variables which need a more complex method of checking are detailed in this section.

3.1 Cigarette Smoking

In the Young Adults Booklet the variables for the number of cigarettes smoked a day are **DDlySmok** (Q7) and **DWkndSmo** (Q8).

If range given, take midpoint

Hand rolled cigarettes: 1 oz tobacco = 40 cigarettes

 12.5 grams tobacco = 18 cigarettes

 25 grams tobacco = 36 cigarettes

Only convert ounces to cigarettes if the respondent has not given the number of cigarettes smoked.

In the 8-12 year olds and 13-15 year olds self completion the answer categories for **ANSRMO** 'Do you find that you are often near people who are smoking in any of these places?' has changed. Responses to 'in other places' will need to be coded into the following:

Code	Response
In a car	Car; any personal forms of transport excluding buses, trains and other public transport
In the street	Bus stops; in the high street; town centre; walking to and from places; outside shops
Outdoor areas of pubs/cafes/restaurants	Pubs; outside pubs, cafes, restaurants; does not include outside shops
Park/playing fields	In the park; skate park; playing fields
Public places unspecified	Public places; out with friends; outside
School	School; outside school; anywhere on school grounds.
Other*	If response does not fit into any of the above e.g. on holiday, in the woods, on a farm

*For all responses coded as 'Other' please create a listing of the write in response supplied (if applicable).

If a response cannot be backcoded consult research for advice on how to backcode.

3.2 Other alcoholic drinks

In both the 13-15s booklet and the Young Adults Booklet there are other alcoholic drinks listed for drinking in the last week. All other alcoholic drinks should be recoded to the listed drinks as detailed in section [2.103.10](#)

3.3 Contraception and sexual health questions

All adults in 2010 are asked questions on their sexual health and contraception choices. The questions differ for men and women. The following questions include space to write in other answers. Backcode where possible, otherwise list the other responses.

Male self completions:

MCont06

MFPS14

MCTsWr

MCTWy08

MWrSti

Female self completions:

Wcont23

WYNOC

WCMOft

WYNOPP

WMAPWr

WFPS14

WCTsWr

WCTWy08

WWrSti

4. Longstanding illness codeframe

01 Cancer (neoplasm) including lumps, masses, tumours and growths and benign (non-malignant) lumps and cysts

- Acoustic neuroma
- After effect of cancer (nes)
- All tumours, growths, masses, lumps and cysts whether malignant or benign eg. tumour on brain, growth in bowel, growth on spinal cord, lump in breast
- Cancers sited in any part of the body or system eg.
 - Lung, breast, stomach
 - Colostomy caused by cancer
 - Cyst on eye, cyst in kidney.
 - General arthroma
 - Hereditary cancer
 - Hodgkin's disease
 - Hysterectomy for cancer of womb
 - Inch. leukaemia (cancer of the blood)
 - Lymphoma
 - Mastectomy (nes)
 - Neurofibromatosis
 - Part of intestines removed (cancer)
 - Pituitary gland removed (cancer)
 - Rodent ulcers
 - Sarcomas, carcinomas
 - Skin cancer, bone cancer
 - Wilms tumour

Endocrine/nutritional/metabolic diseases

02 Diabetes
Incl. Hyperglycaemia

03 Other endocrine/metabolic

- Addison's disease
- Beckwith - Wiedemann syndrome
- Coeliac disease
- Cushing's syndrome
- Cystic fibrosis
- Gilbert's syndrome
- Hormone deficiency, deficiency of growth hormone, dwarfism
- Hypercalcemia
- Hypopotassaemia, lack of potassium
- Malacia
- Myxoedema (nes)
- Obesity/overweight
- Phenylketonuria
- Rickets
- Too much cholesterol in blood
- Underactive/overactive thyroid, goitre
- Water/fluid retention
- Wilson's disease

*Thyroid trouble and tiredness - code 03 only
Overactive thyroid and swelling in neck - code 03 only.*

Mental, behavioural and personality disorders

04 Mental illness/anxiety/depression/nerves (nes)

- Alcoholism, recovered not cured alcoholic
- Angelman Syndrome
- Anorexia nervosa
- Anxiety, panic attacks
- Asperger Syndrome
- Autism/Autistic
- Bipolar Affective Disorder
- Catalepsy
- Concussion syndrome
- Depression
- Drug addict
- Dyslexia
- Hyperactive child.
- Nerves (nes)
- Nervous breakdown, neurasthenia, nervous trouble
- Phobias
- Schizophrenia, manic depressive
- Senile dementia, forgetfulness, gets confused
- Speech impediment, stammer
- Stress

Alzheimer's disease, degenerative brain disease = code 08

05 Mental handicap
Incl. Down's syndrome, Mongol
Mentally retarded, subnormal

Nervous system (central and peripheral including brain) - Not mental illness

06 Epilepsy/fits/convulsions

Grand mal
Petit mal
Jacksonian fit
Lennox-Gastaut syndrome
blackouts
febrile convulsions
fit (nes)

07 Migraine/headaches

08 Other problems of nervous system

Abscess on brain
Alzheimer's disease
Bell's palsy
Brain damage resulting from infection (eg. meningitis, encephalitis) or injury
Carpal tunnel syndrome
Cerebral palsy (spastic)
Degenerative brain disease
Fibromyalgia
Friedreich's Ataxia
Guillain-Barre syndrome
Huntington's chorea
Hydrocephalus, microcephaly, fluid on brain
Injury to spine resulting in paralysis
Metachromatic leucodystrophy
Motor neurone disease
Multiple Sclerosis (MS), disseminated sclerosis
Muscular dystrophy
Myalgic encephalomyelitis (ME)
Myasthenia gravis
Myotonic dystrophy
Neuralgia, neuritis
Numbness/loss of feeling in fingers, hand, leg etc
Paraplegia (paralysis of lower limbs)
Parkinson's disease (paralysis agitans)
Partially paralysed (nes)
Physically handicapped - spasticity of all limbs
Pins and needles in arm
Post viral syndrome (ME)
Removal of nerve in arm
Restless legs
Sciatica
Shingles
Spina bifida
Syringomyelia
Trapped nerve
Trigeminal neuralgia
Teraplegia

Eye complaints

09 Cataract/poor eye sight/blindness

Incl. operation for cataracts, now need glasses
Bad eyesight, restricted vision, partially sighted
Bad eyesight/nearly blind because of cataracts
Blind in one eye, loss of one eye
Blindness caused by diabetes
Blurred vision
Detached/scarred retina
Hardening of lens
Lens implants in both eyes
Short sighted, long sighted, myopia
Trouble with eyes (nes), eyes not good (nes)
Tunnel vision

10 Other eye complaints

Astigmatism
Buphthalmos
Colour blind
Double vision
Dry eye syndrome, trouble with tear ducts, watery eyes
Eye infection, conjunctivitis
Eyes are light sensitive
Floater in eye
Glaucoma
Haemorrhage behind eye
Injury to eye
Iritis
Keratoconus
Night blindness
Retinitis pigmentosa
Scarred cornea, corneal ulcers
Squint, lazy eye
Sty on eye

Ear complaints

11 Poor hearing/deafness

Conductive/nerve/noise induced deafness
Deaf mute/deaf and dumb
Heard of hearing, slightly deaf
Otosclerosis
Poor hearing after mastoid operation

12 Tinnitus/noises in the ear

Incl. pulsing in the ear

13 Meniere's disease/ear complaints causing balance problems

Labyrinthitis,
loss of balance - inner ear
Vertigo

14 Other ear complaints

Incl. otitis media - glue ear
Disorders of Eustachian tube
Perforated ear drum (nes)
Middle/inner ear problems
Mastoiditis
Ear trouble (nes),
Ear problem (wax)
Ear aches and discharges
Ear infection

Complaints of heart, blood vessels and circulatory system

15 Stroke/cerebral haemorrhage/cerebral thrombosis

Incl. stroke victim - partially paralysed and speech difficulty
Hemiplegia, apoplexy, cerebral embolism,
Cerebro - vascular accident

16 Heart attack/angina

Incl. coronary thrombosis, myocardial infarction

17 Hypertension/high blood pressure/blood pressure (nes)

18 Other heart problems

Aortic/mitral valve stenosis,
Aortic/mitral valve regurgitation
Aorta replacement
Atrial Septal Defect (ASD)
Cardiac asthma
Cardiac diffusion
Cardiac problems, heart trouble (nes)
Dizziness, giddiness, balance problems (nes)
Hardening of arteries in heart
Heart disease, heart complaint
Heart failure
Heart murmur, palpitations
Hole in the heart
Ischaemic heart disease
Pacemaker
Pains in chest (nes)
Pericarditis
St Vitus dance
Tachycardia, sick sinus syndrome
Tired heart
Valvular heart disease
Weak heart because of rheumatic fever
Wolff - Parkinson - White syndrome

Balance problems due to ear complaint = code 13

19 Piles/haemorrhoids incl. Varicose Veins in anus.

20 Varicose veins/phlebitis in lower extremities
Incl. various ulcers, varicose eczema

21 Other blood vessels/embolic

Arteriosclerosis, hardening of arteries (nes)
Arterial thrombosis
Artificial arteries (nes)
Blocked arteries in leg
Blood clots (nes)
Hand Arm Vibration Syndrome (White Finger)
Hypersensitive to the cold
Intermittent claudication
Low blood pressure/hypertension
Poor circulation
Pulmonary embolism
Raynaud's disease
Swollen legs and feet
Telangiectasia (nes)
Thrombosis (nes)
Varicose veins in Oesophagus
Wright's syndrome

NB Haemorrhage behind eye = code 10

Complaints of respiratory system

22 Bronchitis/emphysema

Bronchiectasis
Chronic bronchitis

23 Asthma

Bronchial asthma, allergic asthma
Asthma - allergy to house dust/grass/cat fur

NB Exclude cardiac asthma - code 18

24 Hayfever

Allergic rhinitis

25 Other respiratory complaints

Abscess on larynx
Adenoid problems, nasal polyps
Allergy to dust/cat fur
Bad chest (nes), weak chest - wheezy
Breathlessness
Bronchial trouble, chest trouble (nes)
Catarrh
Chest infections, get a lot of colds
Churg-Strauss syndrome
Chronic Obstructive Pulmonary Disease (COPD)
Coughing fits
Croup
Damaged lung (nes), lost lower lobe of left lung
Fibrosis of lung
Furred up airways, collapsed lung
Lung complaint (nes), lung problems (nes)
Lung damage by viral pneumonia
Paralysis of vocal cords
Pigeon fancier's lung
Pneumoconiosis, byssinosis, asbestosis and other industrial, respiratory disease
Recurrent pleurisy
Rhinitis (nes)
Sinus trouble, sinusitis
Sore throat, pharyngitis
Throat infection
Throat trouble (nes), throat irritation
Tonsillitis
Ulcer on lung, fluid on lung

TB (pulmonary tuberculosis) - code 37

Cystic fibrosis - code 03

Skin allergy - code 39

Food allergy - code 27

Allergy (nes) - code 41

Pilonidal sinus - code 39

Sick sinus syndrome - code 18

Whooping cough - code 37

If complaint is breathlessness with the cause also stated, code the cause:

breathlessness as a result of anaemia (code 38)

breathlessness due to hole in heart (code 18)

breathlessness due to angina (code 16)

Complaints of the digestive system

26 Stomach ulcer/ulcer (nes)/abdominal hernia/rupture

Double/inguinal/diaphragm/hiatus/umbilical hernia
Gastric/duodenal/peptic ulcer
Hernia (nes), rupture (nes)
Ulcer (nes)

27 Other digestive complaints (stomach, liver, pancreas, bile ducts, small intestine - duodenum, jejunum and ileum)

Cirrhosis of the liver, liver problems
Food allergies
Ileostomy
Indigestion, heart burn, dyspepsia
Inflamed duodenum
Liver disease, biliary arteritis
Nervous stomach, acid stomach
Pancreas problems
Stomach trouble (nes), abdominal trouble (nes)
Stone in gallbladder, gallbladder problems
Throat trouble - difficulty in swallowing
Weakness in intestines

28 Complaints of bowel/colon (large intestine, caecum, bowel, colon, rectum)

Colitis, colon trouble, ulcerative colitis
Coleyac
Colostomy (nes)
Crohn's disease
Diverticulitis
Enteritis
Faecal incontinence/encopresis.
Frequent diarrhoea, constipation
Grumbling appendix
Hirschsprung's disease
Irritable bowel, inflammation of bowel
Polyp on bowel
Spastic colon

Exclude piles - code 19

Cancer of stomach/bowel - code 01

29 Complaints of teeth/mouth/tongue

Cleft palate, hare lip
Impacted wisdom tooth, gingivitis
No sense of taste
Ulcers on tongue, mouth ulcers

Complaints of genito-urinary system

30 Kidney complaints

Chronic renal failure
Horseshoe kidney, cystic kidney
Kidney trouble, tube damage, stone in the kidney
Nephritis, pyelonephritis
Nephrotic syndrome
Only one kidney, double kidney on right side
Renal TB
Uraemia

31 Urinary tract infection

Cystitis, urine infection

32 Other bladder problems/incontinence

Bed wetting, enuresis
Bladder restriction
Water trouble (nes)
Weak bladder, bladder complaint (nes)

Prostate trouble - code 33

33 Reproductive system disorders

Abscess on breast, mastitis, cracked nipple
Amenorrhoea
Damaged testicles
Endometriosis
Gynaecological problems
Hysterectomy (nes)
Impotence, infertility
Menopause
Pelvic inflammatory disease/PID (female)
Period problems, flooding, pre-menstrual tension/syndrome
Prolapse (nes) if female
Prolapsed womb
Prostrate gland trouble
Turner's syndrome
Vaginitis, vulvitis, dysmenorrhoea

Musculo-skeletal - complaints of bones/joints/muscles

34 Arthritis/rheumatism/fibrosis

Arthritis as result of broken limb
 Arthritis/rheumatism in any part of the body
 Gout (*previously code 03*)
 Osteoarthritis, rheumatoid arthritis, polymyalgia rheumatica
 Polyarteritis Nodosa (*previously code 21*)
 Psoriasis arthritis (also code psoriasis)
 Rheumatic symptoms
 Still's disease

35 Back problems/slipped disc/spine/neck

Back trouble, lower back problems, back ache
 Curvature of spine
 Damage, fracture or injury to back/spine/neck
 Disc trouble
 Lumbago, inflammation of spinal joint
 Prolapsed invertebral discs
 Schuermann's disease
 Spondylitis, spondylosis
 Worn discs in spine - affects legs

Exclude if damage/injury to spine results in paralysis - code 08
Sciatica or trapped nerve in spine - code 08

36 Other problems of bones/joints/muscles

Absence or loss of limb eg. lost leg in war, finger amputated, born without arms
 Aching arm, stiff arm, sore arm muscle
 Bad shoulder, bad leg, collapsed knee cap, knee cap removed
 Brittle bones, osteoporosis
 Bursitis, housemaid's knee, tennis elbow
 Cartilage problems
 Chondrodystrophy
 Chondromalacia
 Cramp in hand
 Deformity of limbs eg. club foot, claw-hand, malformed jaw
 Delayed healing of bones or badly set fractures
 Deviated septum
 Dislocations eg. dislocation of hip, clicky hip, dislocated knee/finger
 Disseminated lupus
 Dupuytren's contraction
 Fibromyalgia
 Flat feet, bunions,
 Fracture, damage or injury to extremities, ribs, collarbone, pelvis, skull, eg. knee injury, broken leg, gun shot wounds in leg/shoulder, can't hold arm out flat - broke it as a child, broken nose
 Frozen shoulder
 Hip infection, TB hip
 Hip replacement (nes)
 Legs won't go, difficulty in walking
 Marfan Syndrome
 Osteomyelitis
 Paget's disease
 Perthe's disease
 Physically handicapped (nes)
 Pierre Robin syndrome
 Schlatter's disease
 Sever's disease
 Stiff joints, joint pains, contraction of sinews, muscle wastage
 Strained leg muscles, pain in thigh muscles
 Systemic sclerosis, myotonia (nes)
 Tenosynovitis
 Torn muscle in leg, torn ligaments, tendonitis
 Walk with limp as a result of polio, polio (nes), after affects of polio (nes)
 Weak legs, leg trouble, pain in legs

Muscular dystrophy - code 08

37 Infectious and parasitic disease

AIDS, AIDS carrier, HIV positive (*previously code 03*)
 Athlete's foot, fungal infection of nail
 Brucellosis

Glandular fever
 Malaria
 Pulmonary tuberculosis (TB)
 Ringworm
 Schistosomiasis
 Tetanus
 Thrush, candida
 Toxoplasmosis (nes)
 Tuberculosis of abdomen
 Typhoid fever
 Venereal diseases
 Viral hepatitis
 Whooping cough

After effect of Poliomyelitis, meningitis, encephalitis - code to site/system
Ear/throat infections etc - code to site

38 Disorders of blood and blood forming organs and immunity disorders

Anaemia, pernicious anaemia
 Blood condition (nes), blood deficiency
 Haemophilia
 Idiopathic Thrombocytopenic Purpura (ITP)
 Immunodeficiencies
 Polychaetoma (blood thickening), blood to thick
 Purpura (nes)
 Removal of spleen
 Sarcoidosis (*previously code 37*)
 Sickle cell anaemia/disease
 Thalassaemia
 Thrombocythaemia

Leukaemia - code 01

39 Skin complaints

abscess in groin
 acne
 birth mark
 burned arm (nes)
 carbuncles, boils, warts, verruca
 cellulitis (nes)
 chilblains
 corns, calluses
 dermatitis
 Eczema
 epidermolysis, bullosa
 impetigo
 ingrown toenails
 pilonidal sinusitis
 Psoriasis, psoriasis arthritis (also code arthritis)
 skin allergies, leaf rash, angio-oedema
 skin rashes and irritations
 skin ulcer, ulcer on limb (nes)

Rodent ulcer - code 01

Varicose ulcer, varicose eczema - code 20

40 Other complaints

adhesions
 dumb, no speech
 fainting
 hair falling out, alopecia
 insomnia
 no sense of smell
 nose bleeds
 sleepwalking
 travel sickness

Deaf and dumb - code 11 only

41 Unclassifiable (no other codable complaint)

after affects of meningitis (nes)
 allergy (nes), allergic reaction to some drugs (nes)
 electrical treatment on cheek (nes)
 embarrassing itch (nes)
 Forester's disease (nes)
 general infirmity

generally run down (nes)
glass in head - too near temple to be removed (nes)
had meningitis - left me susceptible to other things
(nes)
internal bleeding (nes)
ipinotalgia
old age/weak with old age
swollen glands (nes)
tiredness (nes)
war wound (nes), road accident injury (nes)
weight loss (nes)

Exclude if complaint kept under control by medication - code to site/system.

99 Not Answered/Refusal

42 Complaint no longer present

Only use this code if it is actually stated that the complaint no longer affects the informant.

5. Drug codes

Acamprostate Calcium	04.10.01	Eprosartan	02.05.52
Acarabose	06.01.23	Eucreas	06.01.23
Accupro	02.05.51	Euglucon	06.01.21
Accuretic	02.05.51	Exenatide	06.01.23
Acipimox	02.12.02	Ezetimibe	02.12.02
Actos	06.01.23	Ezetrol	02.12.02
Aliskiren	02.05.53	Fenofibrate	02.12.02
Amaryl	06.01.21	Fluvastatin	02.12.01
Amias	02.05.52	Fosinopril Sodium	02.05.51
Antabuse	04.10.01	Galvus	06.01.23
Aprovel	02.05.52	Gemfibrozil	02.12.02
Atorvastatin	02.12.01	Glibenclamide	06.01.21
Avandamet	06.01.23	Glibeneses	06.01.21
Avandia	06.01.23	Gliclazide	06.01.21
Bexalip	02.12.02	Glimepiride	06.01.21
Bezafibrate	02.12.02	Glipizide	06.01.21
Bezalip mono	02.12.02	Glucobay	06.01.23
Britlofex	04.10.03	Glucophage	06.01.22
Buprenorphine	04.10.03	Glucophage SR	06.01.22
Bupropion Hydrochloride (Amfebutamone Hydrochloride)	04.10.02	Gopten	02.05.51
Byetta	06.01.23	Imidapril Hydrochloride	02.05.51
Campral EC	04.10.01	Inegy	02.12.01
Candesartan Cilexetil	02.05.52	Innovace	02.05.51
Capoten	02.05.51	Innozide	02.05.51
Capozide	02.05.51	Irbesartan	02.05.52
Captopril	02.05.51	Januvia	06.01.23
Carace	02.05.51	Lescol	02.12.01
Carace Plus	02.05.51	Lescol XL	02.12.01
Champix	04.10.02	Lipantil	02.12.02
Chlorpropamide	06.01.21	Lipitor	02.12.01
Cholestagel	02.12.02	Lipostat	02.12.01
Cilazapril	02.05.51	Lisicostad	02.05.51
Ciprofibrate	02.12.02	Lisinopril	02.05.51
CoAprovel	02.05.52	Lofexidine Hydrochloride	04.10.03
Co-Diovan	02.05.52	Lopid	02.12.02
Colesevelam Hydrochloride	02.12.02	Losartan Potassium	02.05.52
Colestid	02.12.02	Maxepa	02.12.02
Colestipol Hydrochloride	02.12.02	Metformin	06.01.22
Colestyramine	02.12.02	Metformin Hydrochloride	06.01.22
Competact	06.01.23	Methadone	04.10.03
Coversyl Arginine	02.05.51	Methadone Hydrochloride	04.10.03
Coversyl Arginine Plus	02.05.51	Methadose	04.10.03
Cozaar	02.05.52	Micardis	02.05.52
Cozaar-Comp	02.05.52	Micardis Plis	02.05.52
Co-zidocapt	02.05.51	Minodiab	06.01.21
Crestor	02.12.01	Modalim	02.12.02
Diamicron	06.01.21	Moexipril Hydrochloride	02.05.51
Diamicron MR	06.01.21	Nalorex	04.10.03
Diovan	02.05.52	Naltrexone Hydrochloride	04.10.03
Disulfiram	04.10.01	Nateglininde	06.01.23
Enalapril Maleate	02.05.51	Niaspan	02.12.02
		Nicopass	04.10.02

Nicopatch	04.10.02	Repaglinide	06.01.23
Nicorette	04.10.02	Rosiglitazone	06.01.23
Nicotine	04.10.02	Rosuvastatin	02.12.01
Nicotinell	04.10.02	Simvastatin	02.12.01
Nicotininc Acid	02.12.02	Sitagliptin	06.01.23
NiQuitin	04.10.02	Staril	02.05.51
Olbetam	02.12.02	Starlix	06.01.23
Olmesartan Medoxomil	02.05.52	Suboxone	04.10.03
Olmotec	02.05.52	Subutex	04.10.03
Olmotec Plus	02.05.52	Supralip 160	02.12.02
Omacor	02.12.02	Tanatril	02.05.51
Omega-3-Acid Ethyl Esters	02.12.02	Tarka	02.05.51
Omega-3-marine triglycerides	02.12.02	Telmisartan	02.05.52
Opizone	04.10.03	Teveten	02.05.52
Perdix	02.05.51	Tolbutamide	06.01.21
Perindopril	02.05.51	Trandolapril	02.05.51
Perindopril Erbumine	02.05.51	Triapin	02.05.51
Pioglitazone	06.01.23	Tritace	02.05.51
Prandin	06.01.23	Valsartan	02.05.52
Pravastatin	02.12.01	Varenicline	04.10.02
Pravastatin Sodium	02.12.01	Vascace	02.05.51
Qestran	02.12.02	Vilagliptin	06.01.23
Qestran Light	02.12.02	Zestoretic	02.05.51
Quinapril	02.05.51	Zestril	02.05.51
Ramipril	02.05.51	Zocor	02.12.01
Rasilez	02.05.53	Zyban	04.10.02

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THE HEALTH SURVEY FOR ENGLAND 2010

CODING PRESCRIBED MEDICINES

Please note that some drugs have been given new codes for HSE 2010. This is to separate different types of drugs, so they can be separated in analyses.

Some drug sections that have only two section numbers in the BNF (eg 4.10 and 2.12) have been divided into two or three groups, to separate the types of drugs. Where this is the case, all of the drugs listed under the relevant sections in the BNF are listed in this booklet.

Lipid-lowering drugs, formerly coded as 02.12.00

Statins.....	02.12.01
Other lipid-lowering drugs.....	02.12.02

Drugs to treat dependence, formerly coded as 04.10.00

Alcohol dependence.....	04.10.01
Smoking cessation.....	04.10.02
Opioid dependence.....	04.10.03

Some have been split into two or three constituent sections, using the BNF sub-section numbers (eg : 2.5.5.1, 2.5.5.2, 2.5.5.3). Where this is the case, all of the drugs listed under the relevant sections in the BNF are listed in this booklet.

Antihypertensives formerly coded as 02.05.05

Angiotensin-converting enzyme (ACE) inhibitors.....	02.05.51
Angiotensin II receptor antagonists.....	02.05.52
Renin inhibitors.....	02.05.53

Antidiabetic drugs formerly coded as 06.01.02

Sulphonylureas.....	06.01.21
Biguanides (e.g. Metformin).....	06.01.22
Others.....	06.01.23

CODING OF PRESCRIBED MEDICINES: ALPHABETICAL INDEX

A

ABIDEC	09.06.07
ACAMPROSATE	04.10.01
ACIPIMOX	02.12.02
ACTOS	06.01.23
ADALAT, ADALAT LA, ADALAT RETARD	02.06.02
ALISKIREN	02.05.53
ALLOPURINOL	10.01.04
ALUPENT	03.01.01
AMIAS	02.05.52
AMILORIDE	02.02.03
AMIODARONE (HYDROCHLORIDE)	02.03.02
AMITRIPTYLINE	04.03.01
AMLODIPINE BESILATE (was AMLODIPINE BESYLATE)	02.06.02
AMOXIL	05.01.01
AMOXICILLIN (was AMOXYCILLIN)	05.01.01
AMPICILLIN	05.01.01
ANTABUSE	04.10.01
APROVEL	02.05.52
AQUEOUS CREAM	13.02.01
ARTHROTEC	10.01.01
ASACOL	01.05.01
ASCORBIC ACID	09.06.03
ASILONE	
suspension	01.01.01
ASPIRIN	
analgesic	04.07.01
antiplatelet	02.09.00
migraine	04.07.04
myocardial infarction	02.10.01
rheumatic disease	10.01.01
ATENOLOL	02.04.00
ATORVASTATIN	02.12.01
ATROVENT	03.01.02
AUGMENTIN, AUGMENTIN-DUO	05.01.01
AXID	01.03.01
AZATHIOPRINE	
myasthenia gravis	10.02.01
rheumatic disease	10.01.03
transplant rejection	08.02.01
ulcerative colitis	01.05.03

B

BACLOFEN	10.02.02
BACTROBAN	13.10.01
BALNEUM, BALNEUM PLUS, BALNEUM WITH TAR	13.02.01
BECLAZONE (inhaler)	03.02.00
BECLOMETASONE DIPROPIONATE (was BECLOMETHASONE DIPROPIONATE)	
asthma	03.02.00
nasal allergy	12.02.01
BECONASE (nasal spray)	12.02.01
BENDROFLUMETHIAZIDE or BENDROFLUAZIDE	02.02.01
BETAGAN (eye drops)	11.06.00
BETAHISTINE DIHYDROCHLORIDE, BETAHISTINE HCL	04.06.00
BETNESOL	
ear	12.01.01
eye	11.04.01
nose	12.02.01
BETNESOL N	
ear	12.01.01
eye	11.04.01
nose	12.02.03
BETNOVATE(incl Betnovate-RD, Betnovate-C, Betnovate-N)	13.04.00
BETOPTIC (eye drops)	11.06.00
BEZAFIBRATE	02.12.02
BEZALIP, BEZALIP-MONO	02.12.02
BISACODYL	01.06.02
BRICANYL, BRICANYL SA	03.01.01
BRUFEN, BRUFEN RETARD	10.01.01
BUMETANIDE	02.02.02
BUPRENORPHINE	
analgesic	04.07.02
opioid dependence, other	04.10.03
BUPROPION	04.10.02
BURINEX	02.02.02
BUSCOPAN	01.02.00

C

CALCICHEW, CALCICHEW FORTE	09.05.01
CALCICHEW-D3, CALCICHEW-D3 FORTE	09.06.04
CALPOL	04.07.01
CAMPRAL EC	04.10.01
CANDESARTAN	02.05.52
CANESTEN	
AF (skin)	13.10.02

anogenital	07.02.02
ear	12.01.01
HC	13.04.00
CAPOTEN	02.05.51
CAPTOPRIL	02.05.51
CARACE	02.05.51
CARBAMAZEPINE	
diabetes	06.05.02
diabetic neuropathy	06.01.05
epilepsy	04.08.01
Bipolar disorder	04.02.03
trigeminal neuralgia	04.07.03
CARBOCISTEINE	03.07.00
CARDURA.....	02.05.04
CAVERJECT	07.04.05
CEFACLOR	05.01.02
CEFALEXIN (was CEPHALEXIN).....	05.01.02
CERUMOL (ear drops)	12.01.03
CETIRIZINE HYDROCHLORIDE.....	03.04.01
CHAMPIX	04.10.02
CHLORAMBUCIL	08.01.01
CHLORAMPHENICOL	
Capsules or injection	05.01.07
ear	12.01.01
eye	11.03.01
CHLOROMYCETIN	11.03.01
eye drops	11.03.01
CHLORPHENIRAMINE or CHLORPHENAMINE (MALEATE)	03.04.01
CHLORPROPAMIDE	06.01.21
CHOlestAGEL	02.12.02
CILEST	07.03.01
CIMETIDINE	01.03.01
CIPRAMIL.....	04.03.03
CIPROFIBRATE	02.12.02
CIPROXIN	05.01.12
CLOTRIMAZOLE	
ear	12.01.01
skin	13.10.02
Vaginal	07.02.02
CO-AMILOFRUSE	02.02.04
CO-AMILOZIDE (diuretic)	02.02.04
CO-AMOXICLAV	05.01.01

CO-CODAMOL	04.07.01
CO-DANTHRAMER	01.06.02
CO-DANTHRUSATE	01.06.02
CO-DYDRAMOL	04.07.01
CODEINE	04.07.02
CODEINE LINCTUS	03.09.01
CODEINE PHOSPHATE	
analgesic	04.07.02
cough suppressant	03.09.01
diabetes neuropathy	06.01.05
diarrhoea	01.04.02
COLESEVALAM	02.12.02
COLESTI POL	02.12.02
COlestyramine	02.12.02
COLOFAC	01.02.00
COLPERMIN	01.02.00
COMBIVENT	03.01.04
CONCERTA XL	04.04.00
CORACTEN	02.06.02
CORSODYL	12.03.04
COVERSYL	02.05.51
COZAAR	02.05.52
CREON	01.09.04
CRESTOR	02.12.02

D

DAKTACORT	13.04.00
DALACIN	
-C	05.01.06
-T (acne)	13.06.01
vaginal	07.02.02
DALMANE	04.01.01
DELTACORTTRIL (Enteric)	06.03.02
DEPO-PROVERA (ALSO CHECK Provera) contraceptive	07.03.02
DERBAC-M	13.10.04
DERMOVATE, DERMVATE-NN	13.04.00
DIAMICRON	06.01.21
DIANETTE	13.06.02
DIAZEPAM	
anxiety	04.01.02
epilepsy	04.08.02
febrile convulsions	04.08.03
hypnotic	04.01.01
muscle spasm	10.02.02

DICLOFENAC SODIUM		
eye	11.08.02
gout (acute attack)	10.01.04
postoperative pain	15.01.04
rheumatic disease	10.01.01
ureteric colic	07.04.03
DICLOMAX RETARD, DICLOMAX SR	10.01.01
DIDRONEL, DIDRONEL PMO	06.06.02
DIFFFLAM.....	12.03.01
DIFLUCAN	05.02.00
DIGOXIN	02.01.01
DIHYDROCODEINE	04.07.02
DILTIAZEM	02.06.02
DIORALYTE	09.02.01
DIOVAN	02.05.52
DIPROBASE	13.02.01
DISTACLOR, DISTACLOR MR	05.01.02
DISULFIRAM	04.10.01
DITROPAN	07.04.02
DIXARIT (migraine)	04.07.04
DONEPEZIL	04.11.00
DORALEASE	07.04.01
DOTHIEPIN or DOSULEPIN	04.03.01
DOVONEX	13.05.02
DOXYCYCLINE		
acne	13.06.02
antibacterial	05.01.03
malaria	05.04.01
DUOVENT	03.01.04
DYAZIDE	02.02.04

E		
E45 (cream)	13.02.01
EMULSIFYING OINTMENT	13.02.01
ENALAPRIL – MALEATE	02.05.51
EPANUTIN	04.08.01
EPANUTIN READY-MIXED PARENTERAL	04.08.02
EPILIM, EPILIM CHRONO, EPILIM INTRAVENOUS	04.08.01
EQUASYM	04.04.00
ERYMAX	05.01.05
ERYTHROMYCIN		
acne	13.06.02
antibacterial, enteritis	05.01.05
ERYTHROPED, ERYTHROPED A	05.01.05

ESTRADERM MX/TTS (patches)	06.04.01
EUMOVATE (cream)	13.04.00
EZETIMIBE	02.12.02
EZETROL	02.12.02

F

FELDENE.....	10.01.01
FEMODENE, FEMODENE ED	07.03.01
FEMULEN	07.03.02
FENOFIBRATE	02.12.02
FERROGRAD, FERROGRAD C, FERROGRAD FOLIC	09.01.01
FERROUS FUMARATE	09.01.01
FERROUS GLUCONATE	09.01.01
FERROUS SULPHATE	09.01.01
FLIXONASE	12.02.01
FLIXOTIDE	03.02.00
FLOMAXTRA	07.04.01
FLUCLOXACILLIN	
antibacterial	05.01.01
ear	12.01.01
FLUOXETINE	04.03.03
FLUPENTIXOL	04.02.02
FLUVASTATIN	02.12.01
FOLIC ACID	09.01.02
FORCEVAL	09.06.07
FOSAMAX	06.06.02
FRUSEMIDE or FUROSEMIDE	02.02.02
FUCIBET	13.04.00
FUCIDIN	
antibiotic	05.01.07
skin	13.10.01
-H (hydrocortisone)	13.04.00
FUCITHALMIC	11.03.01
FYBOGEL	01.06.01

G

GALENPHOL	03.09.01
GALPSEUD	03.10.00
GASTROCOTE	01.01.02
GAVISCON, GAVISCON ADVANCE, GAVISCON INFANT.....	01.01.02
GEMFIBROZIL	02.12.02
GENTISONE HC	12.01.01

GOPTEN	02.05.51
GOSERELIN	06.07.02
GLIBENCLAMIDE	06.01.21
GLICLAZIDE	06.01.21
GLIMEPIRIDE	06.01.21
GLIPIZIDE	06.01.21
GLUCOBAY	06.01.23
GLYCERYL TRINITRATE	02.06.01

H

HALF-INDERAL LA	02.04.00
HARMOGEN	06.04.01
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Unable to code 99.99.99

Codes taken from the British National Formulary No. 58 Sept '09

WAIST/HIP AND HEIGHT CONVERSION CHART

***1 inch = 2.54cm
1 foot = 0.305m***

cm	inches	m	feet'inches"
51	20	1.27	4'2"
53	21	1.32	4'4"
56	22	1.37	4'6"
58	23	1.42	4'8"
61	24	1.47	4'10"
64	25	1.52	5'0"
66	26	1.55	5'1"
69	27	1.58	5'2"
71	28	1.60	5'3"
74	29	1.63	5'4"
76	30	1.65	5'5"
79	31	1.68	5'6"
81	32	1.70	5'7"
84	33	1.73	5'8"
86	34	1.75	5'9"
89	35	1.78	5'10"
91	36	1.80	5'11"
94	37	1.83	6'0"
97	38	1.85	6'1"
99	39	1.88	6'2"
102	40	1.91	6'3"
104	41	1.93	6'4"
107	42	1.96	6'5"
109	43	1.98	6'6"
112	44	2.01	6'7"
114	45	2.03	6'8"
117	46	2.06	6'9"
119	47	2.08	6'10"
122	48	2.11	6'11"
127	50	2.13	7'0"



Nurse Protocols
for
Measurements and samples
used by the
National Centre for Social Research

February 2010

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1 HOW TO USE THIS MANUAL

This manual sets out the protocols and procedures for all measurements and samples that nurses take across all National Centre for Social Research (NatCen) surveys.

Protocols are of paramount importance in collecting data and measurements. Having such strict protocols and procedures means that the information that is collected from respondents is valid, reliable and consistently obtained. It further allows the results to be compared across various factors such as age and location and ultimately means that the highest quality research is conducted and accurate information is given to our clients and policy makers.

The protocols and procedures outlined in this manual have been used by NatCen on various occasions and have been found to be successful. Not only do they provide valid and reliable results but they are also the safest way for the measures to be conducted for both the respondents and the nurses.

All protocols and procedures in this manual must be strictly adhered to and must be used in conjunction with existing Clinical Procedure Guidelines (CPGs) and the nurse project instructions which provide additional information such as age limits, which are survey specific.

For the purposes of this manual an adult is someone who is aged 16 years and older, a child is aged 15 years or younger. For information on working with different types of people refer to Appendix A 'Special Groups', which details ways of working with different groups of people e.g. children and vulnerable people.

Not all of the projects will use all of the measures, however the project specific instructions will outline which measures and samples to use.

This is to be used as an instruction book and a quick reference guide when in field.

2 POINTS TO NOTE BEFORE STARTING

2.1 Consent

The issue of consent is of key concern in any of the projects conducted by NatCen. We are required to seek ethical approval for all of the projects we undertake involving nurse measures, and as a result the protocols pertaining to consent within this manual are based on recommendations by the Multi-centre Research Ethics Committee (MREC).

Consent must always be obtained for every measurement and sample taken. As a general guideline the measurements require verbal consent, while the samples, which are more invasive, require written consent. Written consent may also be asked for sending a respondent's results to their GP, and to store a sample of blood.

Based on MREC recommendations, obtaining consent varies according to age:

- a. *Respondents aged 16 years and older give consent on their own behalf.*
We recognise that respondents aged 16 and 17 years are legally classed as minors, however MREC recommends that respondents of this age are competent enough to make their own decisions in regards to participating in the survey measurements and samples. Note that if 16-17 year olds are living with their parents you should ensure that their parents are aware of what you will be doing.
- b. *Respondents aged 15 years and below must have consent given by their parent or legal guardian.*
Children must also give their consent before any measurements or samples are conducted. If children consent but the parents do not, then the measurement or sample must not be conducted.

All of the measurements and samples outlined require at least verbal consent. Unless otherwise stated, in the protocol for a particular measurement/ sample, only verbal consent is required. If written consent is required it will be clearly stated in the protocol.

2.2 Exclusion criteria and eligibility

Most of the procedures in this manual have exclusion criteria that need to be considered when conducting a measurement or taking a sample. These criteria are listed under each measurement and sample heading. It is important that the exclusion criteria are followed as they help to ensure the safety of, and prevent injury to both the respondent and the nurse.

Note that no measurements or samples are taken from pregnant women.

Each of the measurements and samples also has eligibility rules to consider. These rules are not listed here as they differ among the surveys. The eligibility rules can be found in the project specific instructions for each survey.

2.3 General equipment care

All of the measurements and samples require some type of equipment. Please take care when using the equipment. In each protocol is a list of the equipment required as well as information on how to use it. Please follow these guidelines.

This equipment is expensive and most of it is easily damaged if it is not transported and/or stored correctly. Please use the bags and boxes provided to store and transport the equipment as it will help to prevent it from being damaged.

Calibrated instruments are particularly fragile and if they are knocked it could cause them to provide inaccurate measurements. Please handle the calibrated instruments with care and maintain them according to guidelines in the manual.

Always ensure that the equipment is in good working order before you go to an interview e.g. batteries are fully charged.

If you suspect that any of the equipment is faulty and/or damaged, please report this to Brentwood who will be able to advise you on what action to take.

2.4 Recording measurements

The anthropometric measurements require the results to be recorded in the metric format. Within the metric system, there are 10 millimetres (mm) in a centimetre (cm) and 100 centimetres (cm) in a metre (m). CAPI requires that measurements be recorded in the form 123.4cm (to one decimal place only). If a reading falls between two millimetres, it should be rounded and recorded to the **nearest even millimetre**. For example if a respondent has a height reading that falls between 166.7 and 166.8, the reading of 166.8 should be recorded. Similarly, if the reading falls between 166.6 and 166.7, 166.6 should be recorded. By doing it this way, we ensure that our final data is not biased due to always rounding up or down.

2.5 Respondent feedback

Most surveys provide immediate feedback to respondents of some measurements by recording the results on a Measurement Record Card. If the respondent wishes to know their results they should be recorded here. Some surveys also provide feedback on Body Mass Index (BMI).

Please do not comment on the meaning of a respondent's results in general or on their results in relation to other people taking part in the survey. The only exception to this rule is the blood pressure measurement where some comments can be given to the respondent, according to the instructions outlined in the blood pressure protocol (see section 11.7).

Respondents are eligible to receive feedback about some of the blood samples they give. They may also agree to have their blood sample results (and blood pressure) sent to their GP. No feedback is provided regarding saliva and urine samples.

3 INFANT LENGTH MEASUREMENT

3.1 Introduction

The infant length measurement, when taken in conjunction with other growth parameters, can be used as an indicator of an infant's nutritional status. Taking this measurement across many years allows trends in infant length to be monitored and provides a means for the evaluation of current policies, interventions and treatments relating to infant health and nutrition. The measurement is taken for children aged six weeks or more and under two years.

3.2 Equipment

You will need:

- A Rollameter baby measure mat
- A Frankfort Plane card
- Kitchen roll

3.3 Preparing the respondent

Explain to the parent or legal guardian of the infant the reason for taking the length measurement. Further explain that you will need their assistance in taking this measure and how they can help.

3.4 Procedure

1. Ask the parent to remove any bulky clothing or shoes that the infant is wearing as it may result in an inaccurate measurement. It is not necessary for them to remove the infant's nappy.
2. Unroll the Rollameter and lay it flat on any suitable flat, firm surface, preferably the floor. It is essential that the Rollameter is fully unrolled and as flat as possible, therefore doing the measurement on a deep pile carpet or rug is not appropriate. If the carpet is too thick, take the measurement in another uncarpeted room, e.g. kitchen or bathroom. For hygiene purposes, lay one layer of kitchen roll on the mat.
3. The measurement can be taken with the infant on a Rollameter on a raised surface, e.g. a table, ONLY if the baby is held by an adult at all times, even if the baby has never previously rolled over.
4. Place the child on the foam bed of the Rollameter with his/her head touching the headpiece on which the name Rollameter is printed.
5. Move the child's head so that Frankfort Plane is in a position at right angles to the floor/table. 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 (see Figure 1). This position is important if an accurate reading is to be obtained. Ask the parent to hold the child in this position and make sure their head is in contact with the headpiece.

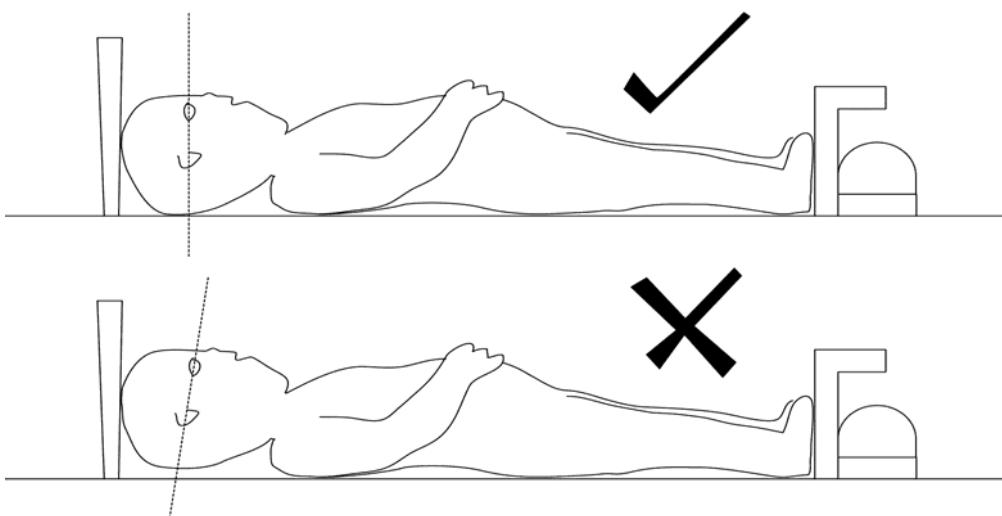


Figure 1 The infant Frankfort Plane

6. Straighten the child's legs by holding the legs by the ankles with one hand and applying a gentle downward pressure.
7. With your free hand, move the footrest on which the measuring tape is mounted to touch the child's heels by depressing the red button on the tape measure.
8. The measurement is read from the red cursor in the tape window. The measurement is recorded in centimetres and millimetres to the nearest millimetre. If the measurement lies between two millimetres then you should round to the **nearest even millimetre** (see section 2.4)

4 HEIGHT MEASUREMENT INCLUDING SITTING HEIGHT

4.1 Introduction

The height measurement is a measure of anthropometry, which provides information on the size and proportions of the human body. When taken in conjunction with other anthropometric measures it is an indicator of, and can predict, the nutritional status, performance, health and survival of a population and can thus be used to determine public health policies. Moreover, height is often used as an indicator of people's quality of life. This is based on evidence that final height is a combination of genetic and environmental factors, where a taller population is indicative of a better quality of life due to access to health services and nutrition.

4.2 Exclusion criteria

Respondents are excluded from the height measurement if:

- They are pregnant
- They are too stooped to obtain a reliable measurement
- After a discussion with the respondent it becomes clear that they are too unsteady on their feet
- They are chairbound
- If the respondent finds it painful to stand or sit up straight

4.3 Equipment

You will need:

- A portable stadiometer (see figure 2 below)
- A Frankfort Plane card.

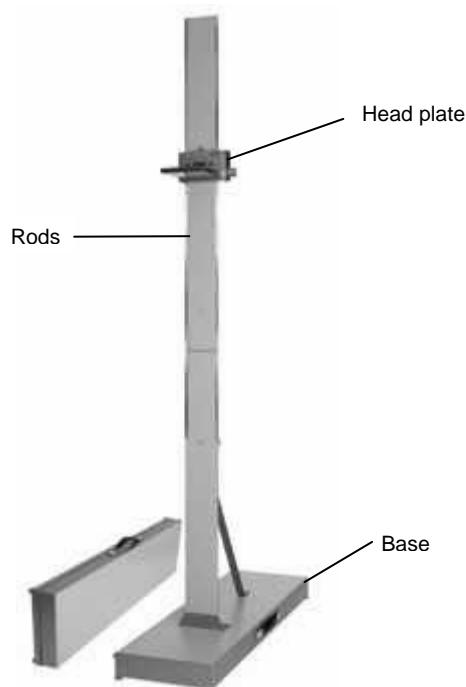


Figure 2 The stadiometer

4.3.1 Caring for the stadiometer

The stadiometer will be sent to you in a box. Always store the stadiometer in the box when it is not in use and always pack the stadiometer carefully in the box whenever you are sending it on by courier. Inside the box with the stadiometer is a special bag that you should use for carrying the stadiometer around when you are out on assignment.

The rods

There are three rods marked with a measuring scale divided into centimetres and then further subdivided into millimetres. The rods are made of aluminium or plastic and are susceptible to bending if any pressure is put on them. Be careful not to damage the corners of the rods as this will prevent them from fitting together properly and will lead to a loss of accuracy in the measurements.

The base plate

Be careful not to damage the corners of the base plate as this could lead to a loss of accuracy in the measurements.

Protruding from the base plate is a pin onto which you attach the rods in order to assemble the stadiometer. With a metal stadiometer, damage to the corners of this pin may mean that the rods do not stand at the correct angle to the base plate when the stadiometer is assembled and the measurements could be affected.

The head plate

There are two parts to the head plate, the blade and the cuff. The blade is the part that rests on the respondent's head while the measurement is taken and the cuff is the part of the head plate that slips over the measurement rods and slides up and down the rods. The whole unit is made of plastic and will snap if subjected to excessive pressure. Grasp the head plate by the cuff whenever you are moving the headplate up or down the rods, this will prevent any unnecessary pressure being applied to the blade which may cause it to break.

4.3.2 Assembling the stadiometer

Practise assembling your stadiometer before you visit a respondent's home.

You will receive your stadiometer with the three rods banded together and the head plate attached to the pin so that the blade lies flat against the base plate. Do not remove the head plate from this pin.

Note that the pin on the base plate and the rods are numbered/have symbols to guide you through the stages of assembly. (There is also a number engraved onto the side of the rods, this is the serial number of the stadiometer). The stages are as follows:

1. Lie the base plate flat on the floor area where you are to conduct the measurements. It should be as flat as possible, ideally on an uncarpeted floor or with a thin carpet; you should avoid a deep pile carpet or rug if at all possible.

2. Take the rod marked number 2. Making sure the measuring scale is on the right hand side of the rod as you look at the stadiometer face on, place rod 2 onto the base plate pin. It should fit snugly without you having to use force.
3. Take the rod marked number 3. Again make sure that the measuring scale connects with the scale on rod 2 and that the numbers run on from one another. (If they do not, check that you have the correct rod). Put this rod onto rod number 2 in the same way you put rod 2 onto the base plate pin.
4. Take the remaining rod and put it onto rod 3.

4.3.3 Dismantling the stadiometer

Follow these rules:

1. Before you begin to dismantle the stadiometer you must remember to lower the head plate to its lowest position, so that the blade is lying flat against the base plate.
2. Remove one rod at a time.

4.4 Procedure for adults

1. Ask the respondent to remove their shoes.
2. Assemble the stadiometer, near a wall if possible, 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. Ask the respondent to stand with their feet flat on the centre of the base plate, feet together and heels against the rod as this helps people to 'be at their highest'. 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 (i.e. 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 (see Figure 3). 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, i.e. 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.

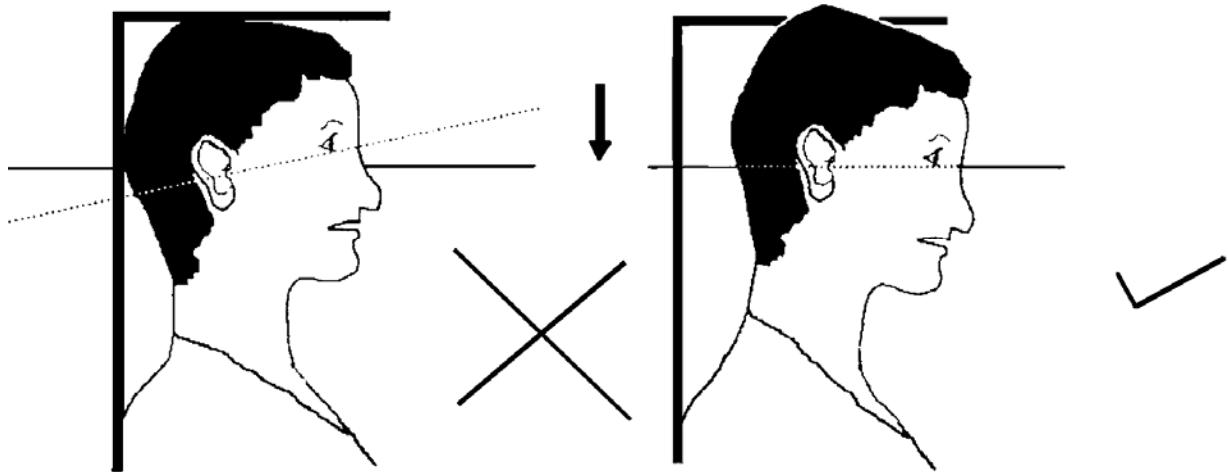


Figure 3 The Frankfort Plane

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 an arrowhead pointing to the measuring scale. Take the reading from this point and record the respondent's height in centimetres and millimetres. If a measurement falls between two millimetres, it should be recorded to the **nearest even millimetre** (see section 2.4).
8. If the respondent wishes, record their height onto the measurement record card.
9. Push the head plate high enough to avoid any member of the household hitting their head against it when getting ready to be measured. Once you have finished measuring everyone, lower the head plate to its lowest position, ready for dismantling.

4.5 Procedure for children

The procedure for measuring children aged 2-15 differs slightly from that for adults. You must get the co-operation of an adult household member. You will need their assistance in order to carry out the protocol, as children are more likely to be co-operative themselves if another household member is involved in the measurement. If possible measure children last so that they can see what is going on before they are measured themselves.

Children's bodies are much more elastic than those of adults. Unlike adults they will need your help in order to stretch to their fullest height. This is done by stretching them. This is essential in order to get an accurate measurement. It causes no pain and simply helps support the child while they stretch to their tallest height.

1. Explain to the parent and child what you will be doing, and ensure that both are happy with the procedure.
2. In addition to removing their shoes, children should remove their socks as well to ensure that they do not slip on the base of the stadiometer, and so that you can easily check their feet are flat on the base plate, not on tiptoes.
3. Assemble the stadiometer and raise the head plate to allow sufficient room for the child to stand underneath it.
4. Ask the child to stand with their feet flat on the centre of the base plate, feet together and heels against the rod. The child's back should be as straight as possible, preferably against the rod, and their arms hanging loosely by their sides. They should be facing forwards.
5. Place the measuring arm just above the child's head.
6. Move the child's head so that the Frankfort Plane is in a horizontal position (see Figure 3). This position is as important when measuring children as it is when measuring adults if the measurements are to be accurate. 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. Explain what you are doing and tell the child that you want them to stand up straight and tall, but not to move their head or stand on their tiptoes. Ask them to look straight ahead.
7. Cup the child's head in your hands, placing the heels of your palms either side of the chin, with your thumbs just in front of the ears, and your fingers going round towards the back of the neck. (See Figure 4).

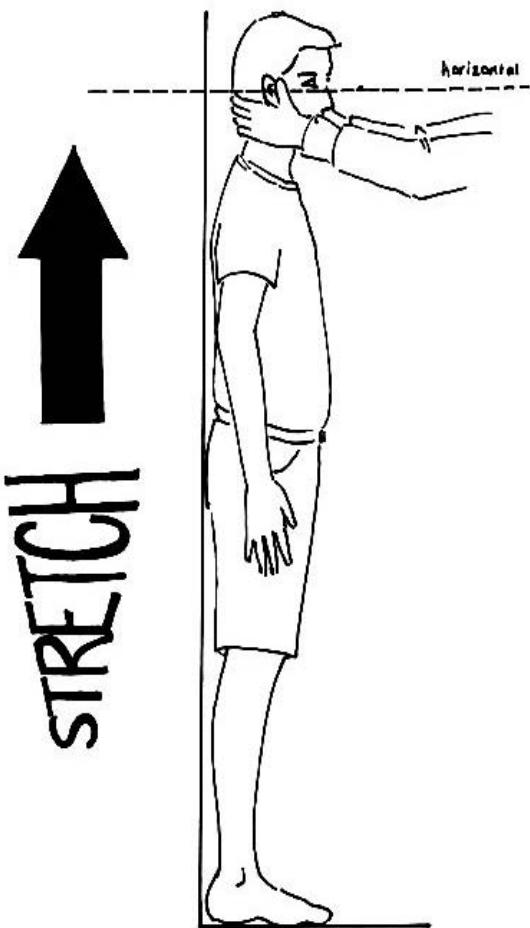


Figure 4 The child stretch

8. Ask the child to breathe in. Firmly but gently, apply upward pressure lifting the child's head upward towards the stadiometer headplate and thus stretching the child to their maximum height. Avoid jerky movements, perform the procedure smoothly and take care not to tilt the head at an angle, you must keep it in the Frankfort plane.
9. Ask the household member who is helping you to lower the headplate down gently onto the child's head. Make sure that the plate touches the skull and that it is not pressing down too hard.
10. Still holding the child's head, relieve traction and allow the child to stand relaxed and breathe out. If the measurement has been done properly the child should be able to step off the stadiometer without ducking their head. Make sure that the child does not knock the head plate as they step off.
11. Read the height value in metric units to the **nearest even millimetre** (see section 2.4) and enter the reading into CAPI.
12. If the respondent wishes, record the reading on the child's measurement record card.

13. Push the head plate high enough to avoid any member of the household hitting their head against it when getting ready to be measured.

4.6 Additional points

- Some surveys require the respondent to be measured more than once, this will be stated in the project specific instructions. The protocol for taking the additional height measurements remains the same. Both measurements are to be recorded in CAPI and if they differ significantly CAPI will instruct you to take a third measurement.
- If the respondent cannot stand upright with their back against the stadiometer and have their heels against the rod (e.g. those with protruding bottoms) then give priority to standing upright.
- If the respondent has a hair style which stands well above the top of their head, or is wearing a religious head dress, with their permission, bring the headplate down until it touches the hair/head dress. You should never ask someone to remove a religious head dress. 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 on CAPI. If it is a possible that can be altered e.g. a bun, if possible ask the respondent to change/undo it.
- 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.
- You may need to tip the stadiometer to read the height of tall respondents.
- If the respondent has long hair then they may need to tuck it behind their ear in order for the head to be positioned properly. Always ask the respondent to tuck their hair behind their ears.

4.7 Sitting height

Sitting height may also be measured, as well as standing height, to get an idea of body proportions, i.e. the length of the legs relative to the body trunk. Although both trunk and leg length reflect conditions in childhood as well as genetic factors, the length of the leg is thought to be a better indication of early life conditions (nutrition) affecting growth.

4.7.1 Procedure

1. Remove the top 1 or 2 sections of the measuring rod.
2. Find a hard chair with as flat a seat as possible. Place the base of the stadiometer on the chair with the measuring rod at the back.
3. Ask the respondent to sit on the base plate with his/her back to the rod. Instruct the respondent to sit as far back and as upright and straight as possible, while ensuring that they do not lean on the rods of the stadiometer.
4. Position the head in the Frankfort Plane (see Figure 3). Bring the head plate down until it gently rests on the highest part of the respondent's head.

5. Take the height reading indicated by the arrowhead. Read the height value in metric units to the **nearest even millimetre** (see section 2.4) and enter the reading into CAPI.
6. If the respondent wishes, record the reading on their measurement record card.

For the sitting height measurement, if there isn't a suitable chair it might be possible to use stairs. As a last resort, measure sitting height with the respondent sitting on the floor. In this situation you would place the base of the stadiometer on the floor with the rod against a wall. Ask the respondent to sit on the base plate with their back against the rod and their legs as straight as possible lying in front of them. Take care that the respondent is sitting upright. Continue as described in 4.7.1. Only use this as a last resort and if both you and the respondent are comfortable with this.

5 WEIGHT MEASUREMENT

5.1 Introduction

Similar to the height measurement, the weight measurement is an indicator of and can predict the nutritional status and health of a population. When used in conjunction with the height measurement it can be used to derive the Body Mass Index, a statistical measure used to determine if an individual's weight falls within a healthy range.

5.2 Exclusion criteria

Respondents are excluded from this measurement if they are:

- Pregnant
If the woman wishes to be weighed, you can but do not enter the results into the computer.
- Too frail or unable to stand upright
If you are concerned that being on the scales may cause them to be too unsteady on their feet then do not weigh them. Alternatively you can place the scales next to something that they can steady themselves on.
- Over 130kg (20 ½ stone) in weight
The maximum weight registering accurately on the scales is 130kg. If you think that they exceed this limit then code it appropriately in CAPI and follow the prompts. Do not attempt to weigh them.

5.3 Equipment

There are two different sets of scales in circulation on NatCen projects. You will be provided with either:

- Tanita THD-305 scales
The weight is displayed in a window on the scales. The scales are switched on by pressing the button on the bottom right hand corner of the scales. They are battery operated and require four 1.5v AA batteries, which should be sent with the scales. They may be packed separately or one of the batteries may be turned around, to prevent the batteries from going flat, as there is no on/off switch. Ensure that you have spare batteries, just in case you need them.
- Seca 870 scales
The weight is displayed in a window on the scales. The scales are switched on by briefly covering the solar cell (for no more than one second). The solar cell is on the right hand side of the weight display panel. NB You may experience difficulties switching the scales on if there is insufficient light for the solar cell. Make sure that the room is well lit. The scales have a fixed battery which cannot be removed.

Please check which scales you have been provided with and make sure that you are familiar with how they operate.

5.3.1 Calibrating the scales

The scales will need to be sent to Brentwood at regular intervals to be recalibrated to ensure that they provide accurate measurements. On each set of scales there is a label with a date that they need to be recalibrated by, ensure that they have been sent to Brentwood by this date.

5.3.2 Technical faults

Please refer to Table 1 when experiencing technical difficulties with the scales.

Table 1 Troubleshooting for the scales

Fault	Action
<i>Tanita THD 305 scales</i>	
No row of 8s when turned on or will not turn on	<ul style="list-style-type: none"> • Replace batteries • If not solved, report to manager/Brentwood
Inconsistent readings	<ul style="list-style-type: none"> • Make sure on hard flooring • Ensure 0.0 on display when respondent steps on scales • Replace batteries • If not solved, report to manager/Brentwood
<i>Seca 870 scales</i>	
No '1888' when turned on or will not turn on	<ul style="list-style-type: none"> • Insufficient light to operate solar cell • If not solved, report to manager/Brentwood
Inconsistent readings	<ul style="list-style-type: none"> • Make sure on hard flooring • Ensure 0.0 on display when respondent steps on scales • Insufficient light to operate solar cell • If not solved, report to manager/Brentwood

5.4 Procedure for adults

1. Weigh the respondent on a hard and even surface if possible. Carpets may affect measurements.
2. Ask the respondent to remove shoes, heavy outer garments such as jackets and cardigans, heavy jewellery, and to empty their pockets of all items.
3. Switch on the scales and wait for 888.8 (for the Tanita scales) or 1888 (for the Seca scales) to be momentarily displayed in the window. Do not attempt to weigh anyone at this point.
4. When the display reads 0.0, ask the respondent to stand with their feet together in the centre and their heels against the back edge of the scales. Their arms should be hanging loosely at their sides and their head should be facing forward. Having the respondent stand in this position means that the most accurate weight measurement can be obtained. 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.

5. The scales will need to stabilise. The weight reading will flash on and off when it has stabilised. If the respondent moves excessively while the scales are stabilising you may get a false reading. If you think this is the case reweigh the respondent.
6. The scales are calibrated in kilograms and 100 gram units (0.1 kg). Record the reading in CAPI before the respondent steps off the scales.
7. If the respondent wishes, record the reading on their measurement record card.
8. The scales should switch off automatically a few seconds after the respondent steps off them.

5.5 Procedure for children

1. You must get the co-operation of an adult household member. This will help the child to relax and children, especially small children are much more likely to be co-operative themselves if an adult known to them is involved in the procedure.
2. Children who wear nappies should be dry. If the nappy is wet, please ask the parent to change it for a dry one and explain that the wetness of the nappy will affect the weight measurement.
3. Weigh the child, following the same procedure for adults. Encourage the child to 'Be as still as a statue' for an accurate reading. If you think that the results are inaccurate, code this in CAPI.

For very young children who are unable to stand unaided or small children who find this difficult follow the procedure below you will need to ask for the assistance of an adult as the following procedure requires you to measure the adult and then the adult holding the child:

1. Explain to the adult what you are going to do and the reasons why.
2. Code in CAPI the procedure used to measure the weight of the child.
3. Weigh the adult as normal following the protocol as set out above. Enter this weight into CAPI.
4. Weigh the adult and child together and enter this into CAPI. CAPI will calculate the difference between the two weights to get the child's weight.
5. If the respondent wishes record this reading on their measurement record card.

6 DEMISPAN MEASUREMENT

6.1 Introduction

The demispan measurement is an alternative measure of height. It is the distance between the midline of the sternal notch and the base of the fingers between the middle and ring fingers, with the arm out-stretched laterally (see Figure 5).

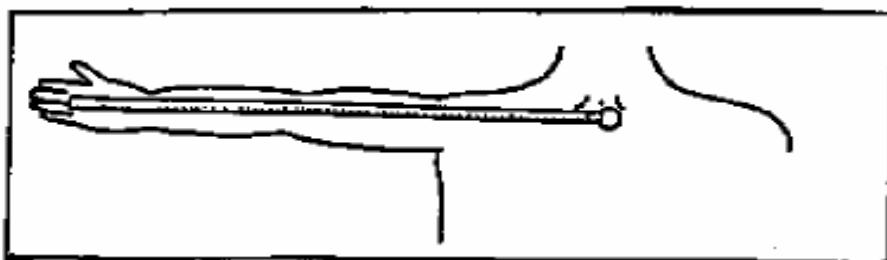


Figure 5 The Demispan Measurement

The demispan measurement is taken when it is difficult to measure height accurately. For example if the respondent cannot stand straight or is unsteady on their feet as is quite often in the case of the elderly and some disabled people. It is used as a proxy for a height measurement as there is a relationship between demispan and 'true height'. Additionally, height decreases with age to a varying degree depending on individuals, and thus the standard measure of height may be less useful for some older respondents. The long bones in the arm do not get shorter however, and thus can be used to estimate accurately a respondent's 'true height'.

6.2 Exclusion criteria

Respondents are excluded from the demispan measurement if:

- They cannot straighten either arm without pain or discomfort.

6.3 Equipment

You will need:

- A thin retractable demispan tape calibrated in cm and mm
- A skin marker pencil
- Micropore tape

6.3.1 *Using the demispan tape*

A hook is attached to the tape and this is anchored between the middle and ring fingers at the finger roots. The tape is then extended horizontally to the sternal notch.

The tape is fairly fragile. It can be easily damaged and will dent or snap if bent or pressed too firmly against the respondent's skin. Also the ring connecting the hook to the tape is a relatively weak point. Avoid putting more strain on this ring than necessary to make the measurements. When extending the tape, hold the tape case rather than the tape itself as this puts less strain on the hook and tape. When placing the tape against the sternal notch, do not press into the sternal notch so much that the tape kinks.

6.4 Preparing the respondent

Explain to the respondent the purpose of conducting the demispan measurement and explain the procedure. Further explain that the measurement requires minimal undressing because certain items may affect the accuracy of the measurement. The items of clothing that will need to be removed include:

- Ties
- Jackets, jumpers and other thick garments
- Jewellery items such as chunky necklaces/bracelets
- Shoulder pads
- High heeled shoes
- Shirts should be unbuttoned at the neck

If the respondent does not wish to remove any item that you think might affect the measurement, record that the measurement was not reliable in CAPI.

For the purpose of consistency, where possible the **right arm** should always be used. If this is not possible, carry out the measure on the left arm and make a note of this in CAPI.

6.5 Procedure

1. Locate a wall where there is room for the respondent to stretch his/her arm. They need to stand with their back to the wall but not support themselves on it, standing approximately 3 inches (7cm) from the wall.
2. Ask the respondent to stand with weight evenly distributed on both feet, head facing forward.
3. Have them raise their **right arm** and extend it horizontally to their side until it is parallel with the floor. The right wrist should be in neutral rotation and neutral flexion. Rest your left arm against the wall allowing the respondent's right wrist to rest on your left wrist.
4. When the respondent is in the correct position, mark the skin at the centre of the sternal notch using the skin marker pencil. This mark must be made when the respondent is standing in the correct position. Explain to the respondent that the mark will wash off afterwards.
5. If clothing, jewellery or subcutaneous fat obscures the sternal notch, use a piece of micropore tape on the clothing or jewellery. If the respondent refuses to the use of the marker pen or the tape, proceed with the measurement but record it as unreliable in CAPI.
6. Ask the respondent to relax while you get the demispan tape.
7. Place the hook between the middle and ring fingers of the respondent so that the tape runs smoothly across the arm.
8. Ask the respondent to get into the position they were in previously, with their arm raised horizontally, the wrist in neutral flexion and rotation. Check they are in the correct position.

9. Extend the tape to the sternal notch. If no mark was made, feel for the correct position and extend the tape to this point.
10. Ask the respondent to stretch his/her arm checking that they remain in the same position, the hook has not moved on their fingers and that the respondent is not leaning on the wall or bending at the waist.
11. Record the measurement in CAPI, in centimetres and millimetres. Always report to one decimal place. If the length lies halfway between 2 millimetres, then round to the **nearest even millimetre** (see section 2.4).
12. Ask the respondent to relax and loosen up the right arm by shaking it gently.
13. Repeat steps 2-11. Explain to the respondent that the measure needs to be taken again for accuracy. If the second measure is significantly different to the first, CAPI will give you an error message. At this point you can check to make sure that you have entered the readings correctly or take a third measure if there is another reason for the measurements being different. This is to be taken in the same way as the previous two. CAPI will work out which two of the three readings to use.
14. If the respondent wishes, record the results on their measurement record card. You can use the conversion chart on your showcards to convert the results into inches.

6.6 Additional points

- If the respondent is unable to stand in the correct position or finds it difficult to stand steadily, ask them to sit for the measurement. Use an upright chair and position it close to a wall. If a respondent is unable to sit or stand, the measurement can be taken when the respondent is lying down. In both cases still try to support the arm if possible. You may need to sit or kneel to take the reading.
- Record in CAPI how the measurement was taken (i.e.. with respondent standing, sitting, etc).
- If there is no wall available for the respondent to stand in front of and extend their arm horizontally, have them stand in front of any other flat surface e.g. in front of a cupboard or window, ensuring that they are not supporting their body weight on this surface.
- If the respondent is much taller than you take the measurement with the respondent sitting.
- If the respondent's arm is much longer than yours is, support the arm close to the elbow rather than wrist level. Your arm must not be between the elbow and shoulder, as this will not provide sufficient support.

7 MID UPPER ARM CIRCUMFERENCE

7.1 Introduction

Mid upper arm circumference is an anthropometric measure providing information on muscle mass and subcutaneous fat. Changes in arm circumference are relatively easy to detect and as such the mid upper arm circumference is a key indicator of the nutritional status of children and adults. The measure is reduced substantially in the undernourished and substantially increased in people who are overweight. Like other anthropometric measures it can be used as a tool to examine the effectiveness of public health policies, particularly with regards to child nourishment.

7.2 Equipment

You will need:

- A short tape
 - One end of the tape is broad and on it you will see the words 'READ HERE' with a small arrow. This is the start of the tape.
- A skin marker pen

7.3 Preparing the respondent

The respondent must have a bare arm and shoulder for this measurement. When the nurse appointment is made (by either the nurse or the interviewer), if a child is to be measured, the child will be asked to wear a sleeveless garment for the visit. Make sure that you explain to the respondent (and their parent if appropriate) the importance of accuracy when taking the measure and that clothing can result in an inaccurate result. If the child is wearing a sleeved garment, ask them to slip their arm out of the garment or to change into something more suitable.

If the respondent is a child, ensure that the parent is with you at all times whilst the measurement is being taken as you are asking them to expose their bare arm.

The **non dominant** arm is to be used to measure mid upper arm circumference. If the respondent is not displaying arm dominance e.g. in the case of small children, the right arm should be used and a note of this to be made in CAPI. Additionally if, for any reason, the non dominant arm cannot be measured, use the alternative arm and record this in CAPI.

7.4 Procedure

1. Ask the respondent if they are left or right handed and explain that the non dominant arm is going to be measured as it provides a more accurate indication of nutrition.

7.4.1 Measuring the length of the upper arm

2. The respondent should be standing with the arm to be measured across their body and held at a right angle at the elbow.
3. Using the skin marker pen, mark the process of the acromium; this is the tip of the shoulder.

4. Mark the process of the olecranon of the respondent; this is the tip of the elbow.
5. Using the tape, measure the distance between the two points marked. Divide this measurement in half. This is the mid point of the upper arm.
6. Mark this using the skin marker pen.

7.4.2 Measuring the arm circumference

7. Let the non dominant arm hang loosely by the side, just away from the body. Thread the tape through and slip it up the respondents arm, to the mid point that you have marked. The tape should lie on top of the mark, covering it.
8. Check that the tape is passing horizontally around the arm, not sloping, and that it is in continuous contact with the skin. It should not be loose but neither should it be puckering the skin.
9. Read off the measurement where the 'READ HERE' arrow appears on the tape.
10. Enter the measurement into CAPI in centimetres and millimetres. Always report to one decimal place. If the arrow falls between two millimetres always give to the **nearest even millimetre** (see section 2.4).
11. Repeat steps 2-10 to obtain a second measurement. DO NOT use the same markings as you did in the first measurement, remark them. Explain to the respondent that the second measurement is required for accuracy.
12. If there is a significant difference between the two readings, CAPI will report an error message. At this point you should check to ensure that you have entered the results correctly or take a third measurement according to the procedure above. Enter this result into CAPI and it will work out which two readings to use.
13. If the respondent wishes, record the results on their measurement record card. You can use the conversion charts to report the measurements in inches.

8 WAIST AND HIP CIRCUMFERENCES

8.1 Introduction

There has been increasing interest in the distribution of body fat as an important indicator of increased risk of cardiovascular disease. The waist and hip circumferences are measures of the distribution of body fat (both subcutaneous and intra-abdominal). Analyses suggest that waist circumference and waist-hip ratio are predictors of health risk like the body mass index (weight relative to height).

8.2 Exclusion criteria

Respondents are excluded from the waist and hip circumference measurement if they:

- Are pregnant
- Are chairbound
- Have a colostomy / ileostomy

8.3 Equipment

You will need:

- An insertion tape calibrated in millimetres

8.3.1 *Using the insertion tape*

The tape is passed around the circumference and the end of the tape is inserted through the metal buckle at the other end of the tape. To check the tape is horizontal you have to position the tape on the right flank and look 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. When taking the reading, be sure not to lift the tape, hold it flat against the body otherwise you will get an inaccurate measurement.

8.4 Preparing the respondent

The respondent needs to be wearing light clothing. Explain to the respondent the importance of this measurement and that clothing can substantially affect the reading. If possible the respondent needs to remove:

- 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/underwear
- Belts

Pockets should be emptied and if possible ask the respondent to empty their bladder before taking the measurement. If a urine sample is to be collected, this would be a good time to ask the respondent to provide it.

Some respondents may be wearing religious or other symbols which they cannot remove and which may affect the measurement. Do not embarrass or offend the

respondent by asking them to remove such items. Record in CAPI if the measurement is likely to be affected by this.

8.5 Procedure

Steps 1-3 apply to both waist measurement (section 8.5.1) and hip measurement (section 8.5.2).

1. Ensure that 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. This position will provide the most accurate measurement of both the waist and the hip, and will allow for them to be measured easily.
2. If possible, kneel or sit on a chair to the side of the respondent.
3. With assistance from the respondent pass the tape around the respondent's body, or if they are able to, get them to pass the tape around themselves and check that it is not twisted. Insert the plain end of the tape through the metal ring at the other end of the tape.

8.5.1 Measuring waist circumference

4. The respondent's waist is located midway between the iliac crest and the costal margin (lower rib). To locate the levels of the costal margin and the iliac crest, ask the respondent if you can touch them, and use the fingers of your right hand held straight and pointing in front of the participant to slide upward over the iliac crest.
5. Position the tape at the respondent's waist, ensuring that it is horizontal.
6. Ask the respondent to breathe out gently and to look straight ahead. This is to prevent the respondent from contracting their muscles or holding their breath.
7. Take the measurement at the end of a normal expiration by holding the buckle flat against the body and flattening the end of the tape to read the measurement from the outer edge of the buckle.
8. Record the measurement in CAPI in centimetres and millimetres. Always record to a one decimal place. If the result falls between two millimetres, record to the **nearest even millimetre** (see section 2.4).
9. Repeat steps 1-8 to record a second measurement. If the second reading differs significantly from the first, CAPI will report an error message. At this point check that you have entered the results into CAPI correctly. Otherwise take a third measurement, following the procedure above. Enter this result into CAPI, the computer will know which two results to use.

8.5.2 Measuring hip circumference

9. The respondent's hip circumference is the widest circumference over the buttocks and below the iliac crest.

10. Position the tape in this area ensuring that the respondent is looking straight ahead and not contracting their gluteal muscles. Ensure the tape is horizontal.
11. Measure the circumference at several positions over the respondent's buttocks, by holding the buckle flat against the body and flattening the end of the tape to read the measurement from the outer edge of the buckle.
12. Record the widest circumference in CAPI. Always record to one decimal place. Report in centimetres and millimetres. If the result falls between two millimetres, record to the **nearest even millimetre** (see section 2.4).
13. Repeat steps 1-3 and 9-12 to record a second measurement. If the second reading differs substantially from the first, CAPI will report an error message. At this point check that you have entered the results into CAPI correctly. Otherwise take a third measurement, following the procedure above. Enter this result into CAPI, the computer will know which two results to use.
14. If the respondent wishes, record the waist and hip measurement on their measurement record card.

8.6 Additional points

- 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.
- The tape should be tight enough so that it doesn't slip but not tight enough to indent clothing.
- If the respondent is large, ask him/her to pass the tape around rather than 'hug' them. Remember to check that the tape is correctly placed to take the measurement and horizontal all the way around.
- Some respondents will be wearing clothing where the waistband of the trousers/skirt sits on the waist. Do not attempt to move the clothing or take the measurement at a different position. Measure the waist circumference over the waistband and make a note of this in CAPI. If the waistband is not horizontal all the way around the body i.e. it may be lower at the front, always ensure that the tape is horizontal which may mean that it passes over the waist band in some places and not in others. If there are belt loops, thread the tape through the loops so that they don't add to the measurement.
- 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.

9 RECORDING AMBIENT AIR TEMPERATURE

9.1 Introduction

Many of the physical measures taken fluctuate considerably due to air temperature. To be able to standardise the results that are obtained air temperature must be recorded. CAPI will tell you when to record the air temperature.

9.2 Equipment

You will need:

- A digital thermometer
- A probe

9.2.1 *Using the thermometer*

1. This instrument is very sensitive to minor changes in air temperature and thus it is important that ambient air temperature be recorded at the appropriate times, as prompted by CAPI.
2. It can take a few minutes to settle down to a final reading if it is experiencing a large change in temperature.
3. When "LO BAT" is shown on the display the battery needs replacing, take no further readings.
4. To preserve battery power, the thermometer may switch itself off after 7 minutes.
5. The battery in the thermometer is a long-life battery and should last at least one year. However should it run low please purchase a new battery. Take the old one with you to ensure it is the same type. Claim in the usual way.
6. To remove an old battery and insert a new one, unscrew the screw on the back of the thermometer, insert the new battery and replace the cover.

9.3 Procedure

1. Set up the thermometer, usually on a surface near the Omron (blood pressure equipment), by plugging the probe into the socket at the top of the instrument. Do not let the probe touch anything and ensure that it is not near a radiator or in the sun. It is recommended that the probe hang over the edge of a table.
2. When prompted by CAPI to take a reading, turn on the thermometer by pressing the completely white circle.
3. Wait for the reading to stabilise and take a reading.
4. Record the air temperature in CAPI to one decimal place e.g. 21.4. Do not round this to a whole number.

5. To preserve battery life please ensure that after taking the reading the thermometer is switched off by pressing the white ring.

10 LUNG FUNCTION USING VITALOGRAPH ESCORT

10.1 Introduction

Lung function tests objectively assess respiratory function and are widely used in clinical practice to diagnose and monitor the progress of respiratory diseases such as asthma and chronic obstructive airways disease. A lung function test produces values across the various measures tabled below (Table 2). A wide range of variables can affect these factors, for example physical unfitness, smoking, chronic bronchitis, poorly controlled asthma, some muscular disorders and many other conditions. At a population level, these measures tell us a lot about the respiratory health of the population and are also indicators of general health.

Table 2 Lung function test values

Test	Abbrev	Definition
Forced Vital Capacity	FVC	The total amount of air that can forcibly be blown out after a full inspiration, measured in litres.
Forced Expiratory Volume in 1 Second	FEV ₁	The amount of air that can be blown out in one second, measured in litres.
FEV1%	FEV ₁ /FVC	The ratio of FEV ₁ to FVC.
Peak Expiratory Flow	PEF	The speed of air moving out of your lungs at the beginning of expiration, measured in litres per second.
Forced Expiratory Flow	FEF	The average flow (or speed) of air coming out of the lung during the middle portion of expiration.
Forced Inspiratory Flow	FIF	Similar to FEF except the measurement is taken during inspiration.
Forced Expiratory Time	FET	The length of expiration in seconds.
Tidal Volume	TV	The specific volume of air that is drawn into the lungs and then expired during a normal respiratory cycle.

10.2 Exclusion criteria

Respondents are excluded from the lung function measurement if they:

- Are pregnant
- Have had abdominal or chest surgery in the preceding three weeks
- Have been admitted to hospital with a HEART complaint in the preceding six weeks
- Have had eye surgery in the preceding 4 weeks
- Have a tracheostomy

10.3 Equipment

You will need:

- A Vitalograph Escort spirometer and case
- A 1 litre calibration syringe
- Disposable cardboard mouthpieces

10.3.1 Caring for the spirometer

- For the purposes of hygiene and accuracy, once a month or after every 50 respondents remove the flowhead and clean it in hot soapy water and allow it to dry overnight before refitting.
- When necessary clean the exterior with a lint free damp cloth. DO NOT clean the two white cylindrical filters on the top of the unit.

10.3.2 Using the spirometer

- Take a spare battery with you in case of battery failure. The spirometer uses a 9v pp3 battery.
- Whenever the 'ON' button is pressed to perform a new test, ensure that the spirometer is placed on a flat surface with the mouthpiece pointing upwards.
- Unpack the spirometer as soon as possible and keep it away from direct heat. Allow the spirometer to equilibrate to room temperature **before** the lung function tests are performed.
- See Figure 6 for the spirometer unit and the display

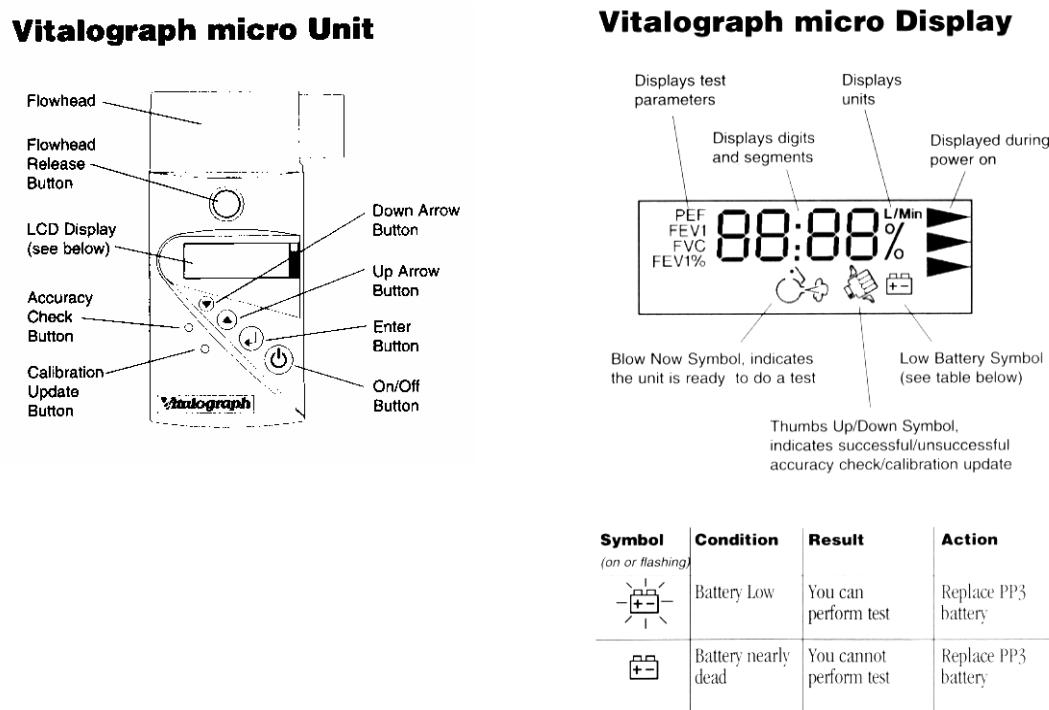


Figure 6 The Spirometer

10.3.3 Calibration/accuracy test

- Before using the spirometer its accuracy must be checked by calibrating it. This procedure can be done **in your own home** at the start of each day when you are working. If you have more than one visit in the same day you need to calibrate

the spirometer **only once**. You should not need to take the calibration syringe with you when you make a visit.

2. Ensure that the spirometer and syringe have been in the same temperature environment for at least an hour.
3. Connect the spirometer, by the flow head, to the syringe. Pump through a few litres of air, then disconnect the spirometer.
4. Switch on the spirometer and press the small top most button to the left of the arrow keys (the accuracy check button). The display will show a number.
5. Check display is 01. If not, adjust with up/down arrow keys (see figure 6).
6. Press the left arrow key (the enter button) and wait until display shows 'blow now' and 'thumbs down' symbols.
7. Making sure the syringe piston is fully withdrawn, connect the syringe to the flow head. The handle of the spirometer should be pointing upwards.
8. Using one swift, smooth stroke pump in the volume of air (about 1 second). Don't cover the outlet with your hand.
9. Wait for a double beep then withdraw the piston fully and repeat step 8 until five single beeps occur. It is very important to wait for the double beep before withdrawing the piston each time.
10. If 'thumbs up' is displayed, the spirometer has been correctly calibrated.
11. If a 'thumbs down' sign appears on the display, then the spirometer is outside the accuracy requirements, contact Brentwood to arrange for a replacement.
12. Press the On/Off button to switch off.

10.3.4 Technical faults

Refer to table 3 if technical difficulties are experienced with the spirometer

Table 3 Troubleshooting for the spirometer

Fault	Action
Nothing is displayed when the ON button is pressed	<ul style="list-style-type: none"> • Replace battery • The ON button is not being held down for long enough • Display panel failure – contact Brentwood
False readings suspected	<ul style="list-style-type: none"> • Ensure the unit is being held correctly during the test • Re-test accuracy
Calibration values vary greatly	<ul style="list-style-type: none"> • Ensure the correct calibration procedure is being followed • Start calibration syringe stroke sharply

If any problems persist, contact Brentwood for advice.

10.4 Preparing the respondent

Before commencing the spirometer procedure explain the following to all eligible respondents:

- The purpose of the test and how to use the spirometer.
- To ensure an accurate reading they must ‘blow’ as hard as they can so long as it does not cause them any pain and/or discomfort.
- 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 a reading from a single occasion but is rather based on several measurements and on the person’s clinical history.

10.4.1 Demonstrating

For an accurate reading of lung function it is very important that you demonstrate the blowing technique to each respondent. Do this using a spare mouthpiece that is not connected to the spirometer and follow the procedure below:

1. Explain that the mouthpiece should be held in place by the lips, not the teeth and that the lips are wrapped firmly around the mouthpiece so no air can escape.
2. Demonstrate a blow, pointing out afterwards the need for full inspiration, a vigorous start to exhalation and sustained expiration. The blow should be at least 3 seconds in duration and not interrupted by coughing, laughing or leakage of air. The torso should remain in an upright position throughout the blow, not hunched over at the end.

10.5 Procedure

1. The respondent must be standing, unless chairbound, and they should loosen tight clothing to allow for a bigger inspiration. If the respondent wears dentures, it is preferable that they leave them in as they will get a tighter seal with their mouth around the mouthpiece which will result in a more accurate result.
2. Following the demonstration, hand the respondent a clean disposable mouthpiece and allow the respondent at least one practice blow using the mouthpiece alone. Correct their technique where necessary.
3. Attach the respondent’s mouthpiece and turn the unit on using the ‘ON/OFF’ button. Check that the ‘low battery’ symbol is not showing.
4. Gently hand the spirometer to the respondent as sudden jerky movements can destabilise the unit. If a single beep sounds at this point, wait for the spirometer to stabilise, indicated by a further double beep, before proceeding with the test. The display should also display the ‘blow’ symbol.
5. Ask the respondent to take as deep a breath as possible, keeping the spirometer away from their mouth, and then to hold the mouthpiece with their lips and seal their lips around it so that air does not escape while they are blowing. Check that

the spirometer is held below the flowhead with the handle pointing downwards and the subject's hand is not obstructing the flowhead outlet.

6. Then say "now blow!" As the respondent is blowing encourage him/her by saying "keep going, keep going, keep going..." to get the maximum expiration possible. Observe the respondent closely for satisfactory technique. If the blow was technically unsatisfactory, they will need to blow again (refer to section 10.6).
7. Take the spirometer from the respondent and record the appropriate readings in CAPI by using the down arrow to scroll through the display.
8. Switch off the spirometer to reset the unit. This is very important, otherwise the subsequent readings are based on the best of a series of tests and not on individual blows.
9. Repeat steps 3-8 until you have obtained the required number of technically satisfactory blows (refer to project specific instructions). Most respondents should be able to manage what is required but there may be some that cannot. You must strike a balance between encouragement and over-insistence.
10. If the respondent wishes, record the results on their measurement record card, recording the highest obtained reading for each measure, even if they came from different blows.

10.6 Technically unsatisfactory blows

The following may result in a technically unsatisfactory blow, and if any of these occur the test should be repeated.

- Unsatisfactory start: excessive hesitation or "false start". It is probable that the spirometer will not record this blow (or give lung capacity as zero), but sometimes it will give a spurious reading.
- Laughing or coughing, especially during the first second of the blow. Some people will cough a little towards the end of expiration (particularly if this extends to 5 or 6 seconds) but this is acceptable.
- Holding the breath against a closed glottis (Valsalva manoeuvre). This results in spuriously high peak expiratory flow (see table 2).
- Leakage of air around the mouthpiece.
- Obstruction of the mouthpiece by tongue or teeth.
- Obstruction of the flowhead outlet by hands.
- If the spirometer takes more than 3 seconds to display the results after the end of the blow, it is likely that the results are spurious.

11 BLOOD PRESSURE

11.1 Introduction

Blood pressure is the exertion that the blood applies to the arterial walls as it is pumped through the circulatory system by the heart. Having a high blood pressure is an important risk factor for cardiovascular disease and stroke. The exact cause(s) of high blood pressure is not completely known however some factors known to affect blood pressure are smoking, family history, physical fitness and diet. It is important that we examine blood pressure using a standard method to see the distribution of blood pressure measurements across the population. This is vital for monitoring change over time.

11.2 Exclusion criteria

Respondents are excluded from the blood pressure measure if they are:

- Aged 4 years and below
- Pregnant

If a pregnant woman wishes to have her blood pressure measured, you may do so, but do not record the readings in CAPI.

11.3 Consent

In addition to the verbal consent required to conduct all NatCen procedures (refer to section 2.1), written consent is required for the results to be sent to the respondent's GP. The appropriate form must be signed and dated by the respondent.

11.4 Equipment

You will need:

- An Omron HEM 907 blood pressure monitor
- Child/ small adult cuff (17-22 cm)
- Standard adult cuff (22-32 cm)
- Large adult cuff (32-42 cm)
- An AC adapter

Please note you will not get all of the cuff sizes in some of the studies, this is dependent on the sample involved in the individual surveys.

11.4.1 Using the Omron HEM 907

Figure 7 shows the monitor of the Omron

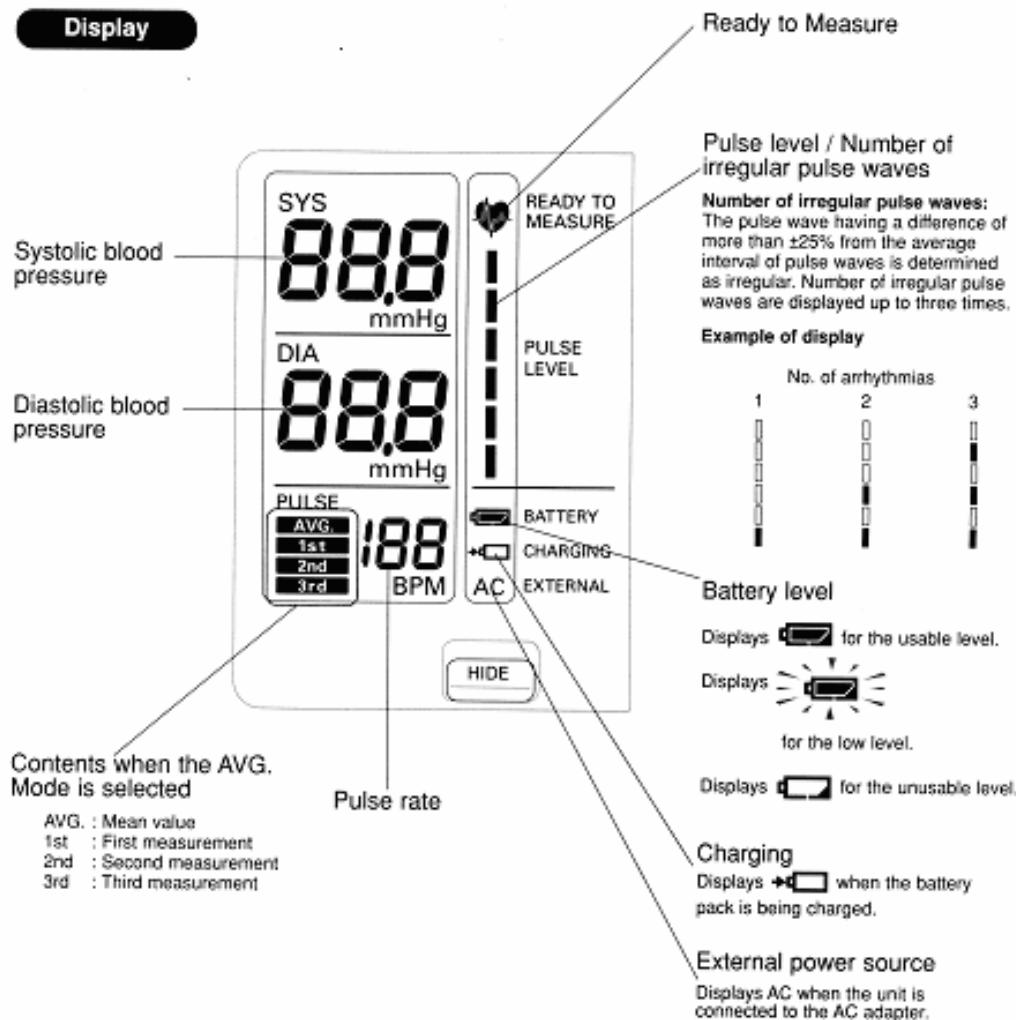


Figure 7 The Omron HEM 907 monitor

1. Switch the monitor on by pressing the ON/OFF button. Wait for the READY TO MEASURE symbol to light, indicating the monitor is ready to start the measurement (approximately 2 seconds).
2. Check that the MODE selector is set to AVG (average) and P-SET Volume (pressure setting) is set to auto.
3. Press the start button to begin the measurement. The cuff will start to inflate and take the first measurement. When the first measurement is complete, the LCD screen will show the systolic pressure, diastolic pressure and pulse rate. It will continue to do this at one minute intervals.
4. Press the ON/OFF button to turn it off.
5. If at any stage while you are taking the measurement you need to stop the monitor, press STOP and start the procedure again, as described in section 11.6.

11.4.2 Charging the battery

The Omron HEM 907 is equipped with a rechargeable battery, which is usable for approximately 300 measurements when fully charged.

When the battery symbol in the BATTERY display starts to flash there are 20-30 measurements left, you need to charge the battery soon. When a light battery symbol appears in the BATTERY display the battery needs to be put on charge immediately.

To recharge the battery:

Connect the monitor to the mains. A battery symbol will appear in the CHARGING display when the battery is charging. When ready to use the symbol will disappear. A dark battery symbol in the BATTERY display indicates that the battery is charged and the machine is usable. The battery can be charged in approximately 12 hours.

The Omron 907 is NOT designed to work off the mains adaptor, it should be run off the battery power pack. The mains adaptor should ONLY be used to charge the battery pack.

11.4.3 Technical faults/error readings

Refer to table 4 when error readings appear on the LCD screen.

Table 4 Troubleshooting for the Omron HEM 907

Error No.	Action
Er1, Er2	<ul style="list-style-type: none"> • Check that the tube connecting the cuff to the monitor is properly inserted and is not bent • Check that the cuff is properly wrapped around the arm • Repeat the measure
Er3	<ul style="list-style-type: none"> • Check that the tube connecting the cuff to the monitor is not bent • Repeat the measure
Er4	<ul style="list-style-type: none"> • Ask the respondent to sit as still as possible • Repeat the measure • If it persists, it may be because the respondent has very high blood pressure • Reset the P-SET Volume to 260 and repeat the measure.
Er5, Er6	<ul style="list-style-type: none"> • Check that the cuff is properly wrapped around the arm • Repeat the measure
Er7, Er8	<ul style="list-style-type: none"> • Ask the respondent to sit as still as possible • Repeat the measure • If it persists, it may be because the respondent's pulse is irregular, record that it wasn't possible and explain that this sometimes happens.
Er9	<ul style="list-style-type: none"> • Technical fault – Contact Brentwood and report that fault

11.5 Preparing the respondent

During the initial interview, the respondent would have been informed not to eat, smoke, drink alcohol or participate in vigorous exercise 30 minutes before the nurse visit as this can cause blood pressure to be higher than normal. Before the procedure ask to see if they have carried out any of these activities and note their response in CAPI.

Select the right arm unless this is impossible. Ask the respondent to remove outer garment (e.g. jumper, cardigan, jacket) and expose their upper right arm by rolling up their sleeve. 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.

11.5.1 Selecting the correct cuff

Adults

Do **not** measure the upper arm circumference to determine which cuff size to use. 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.

Children

It is important to select the correct cuff size to obtain an accurate reading and avoid injuring the child. The appropriate cuff is the largest cuff which fits between the axilla (underarm) and the antecubital fossa (front of elbow) without obscuring the brachial pulse and so that the index line is within the range marked on the inside of the cuff. You will be provided with a child's cuff as well as the other adult cuffs. Many children will not need the children's cuff and instead will require an adult cuff. You should choose the cuff that is appropriate to the circumference of the arm.

11.6 Procedure

1. Check that the monitor is working.
2. Use the right arm, unless this is impossible. If the left arm is used, record this in CAPI.
3. Get the respondent to sit in a comfortable chair with a suitable support so that the **right arm** is resting at a level to bring the antecubital fossa (elbow) to approximately heart level. They should be seated in a comfortable position with legs uncrossed and feet flat on the floor.
4. Wrap the correct sized cuff round the upper **right arm** and check that the index line falls within the range lines. Do not put the cuff on too tightly as bruising may occur on inflation. Ideally it should be possible to insert two fingers between the cuff and the arm.
5. 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 1-2 cm above the cubital fossa (elbow crease).
6. Explain to the respondent that you need them to sit quietly for five minutes and that during that time they cannot eat, drink or smoke.
7. During this 'quiet time' follow the procedure for taking ambient air temperature (section 9) and just before taking the blood pressure reading, make a note of the

air temperature (this is not applicable for all surveys, refer to the project specific instructions).

8. After five minutes explain that you are starting the measurement, also explain that the cuff will inflate three times and each time they will feel some pressure on their arm. Ask them to relax, be seated in the position detailed in step 3 and not to speak until the measurement has been completed, as it may affect their reading.
9. Press start on the Omron HEM 907 to start the measurement. When the first measurement is complete it will be displayed on the LCD screen. Record this.
10. The unit will produce readings at one minute intervals thereafter, record the next two so you have three sets of readings in total. To check the readings press the 'Deflation' button. It is important that the three readings are recorded as the first reading is usually higher, and thus less accurate, than the other two readings as the respondent may be feeling nervous.
11. Press ON/OFF on the Omron to switch the unit off and remove the cuff from the respondent's arm.
12. If the respondent wishes, you should record details of their readings on the measurement record card.

11.7 Respondent feedback

When answering queries about a 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.

What you may say in each situation has been agreed with the Survey Doctor and CAPI will instruct you to read out the appropriate interpretations of the respondent's results. It is very important that the agreed script in the CAPI is read word for word and that personal interpretation is never offered.

The respondent feedback protocol should be strictly followed. It is very important that as little anxiety as possible is caused, but at the same time we have a duty to advise people to see their GP if the measurements indicate that blood pressure is raised.

11.7.1 Child respondents

Do not comment on a child's blood pressure readings to the child or parents. If they seek comment, state that you are not able to interpret a single blood pressure measurement without checking to see whether it is normal for the child's age and height. Reassure them that if it is found to be markedly abnormal, the Survey Doctor will get in touch with them or their GP and advise them to get it checked. This rule applies for all readings you obtain.

11.7.2 Adult respondents

As stated previously we have a duty to inform people that they need to see their GP if their blood pressure is high. It is important that the instructions below are carefully read and guidelines always followed precisely.

The computer tells you which readings your advice should be based on. This will be based on the **lowest** systolic and **lowest** diastolic reading from the last two readings (this is a change from previous practice when the highest readings were used). This will usually, but not always, be from the same reading. For example, occasionally it may be the systolic from the second reading and the diastolic from the third reading. Furthermore if the lowest systolic reading falls in one category and the lowest diastolic reading falls in another category, the higher of the two categories will be used to trigger the advice to respondents. For example the lowest systolic reading is 138 (normal) and the lowest diastolic is 96 (mildly raised) then the advice given will be based on a mildly raised reading. If the first reading is higher than the other two it should be explained that the first reading can be high because people are nervous of having their pressure taken.

Definitions of raised blood pressure differ slightly. The Survey Doctor has recommended the blood pressure ratings given below based on the most recent guidelines from the British Hypertension Society. It is important that you adhere to these definitions, so that all respondents are treated in an identical manner. These are shown in table 5.

Table 5 Definition of blood pressure ratings

ADULTS ONLY			
SURVEY DEFINITION OF BLOOD PRESSURE RATINGS			
For men and women aged 16+			
<u>Rating</u>	<u>Systolic</u>		<u>Diastolic</u>
Normal	<140	and	<90
Mildly raised	140 - 159	or	90 – 99
Raised	160 - 179	or	100 – 114
Considerably raised	180 or more	or	115 or more

Points to make to a respondent about their blood pressure (given on screen):

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 2 months to have a further blood pressure reading to see whether this is a one-off finding or not.'

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 weeks to have a further blood pressure reading to see whether this is a one-off finding or not.'

Considerably 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 one-off finding or not.'

(For all of the above points, you can also advise the respondent to see their practice nurse, if this is who they would typically see in relation to their blood pressure.)

Note: If the respondent is elderly and has considerably 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, contact the Survey Doctor who will inform the respondent's GP of their result, providing the respondent has given their permission (refer to table 6).

11.8 Action to be taken by the nurse after the visit

If you need to contact the Survey Doctor, unless there is a hypertensive crisis, do not do this from the respondent's home - you may cause unnecessary distress.

11.8.1 Children

No further action is required after taking blood pressure readings on children. All high readings are viewed routinely by the Survey Doctor. However, in the rare event that you encounter a child with a very high blood pressure, i.e. systolic 160 or above or diastolic 100 or above please call the Survey Doctor.

11.8.2 Adults

Table 6 summarises what action to take based on the readings you have obtained for a respondent. For this purpose you should only take into account the last two of the three readings you take, as the first reading is prone to error.

Table 6 Nurse action due to blood pressure readings

BLOOD PRESSURE	ACTION
Normal/mildly raised/raised BP	No further action necessary
Systolic less than 180 mmHg and Diastolic less than 115 mmHg	If you feel that the circumstances demand further action, inform the Survey Doctor who will then inform the respondent's GP immediately if she deems it necessary.*
Considerably raised BP	Contact the Survey Doctor at the earliest opportunity and she will inform the respondent's GP if written consent has been given, or the respondent if not.*
Systolic at or greater than 180 mmHg or Diastolic at or greater than 115 mmHg	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.

* You must still contact the Survey Doctor even if respondents tell you that their GP knows about their raised BP.

** 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.

The Survey Doctor will look at all high or unusual readings when they reach the office. If the reading is high, then the Survey Doctor will contact the respondent directly. The Survey Doctor will also routinely check fast and slow pulse rates so no further action is necessary regarding these.

Contact details for your Survey Doctor can be find in the project instructions. The Survey Doctor is generally available from 8.00-22.00. Calls outside these hours are either unnecessary or an emergency, in which case, the survey doctor is unlikely to be in a position to do anything practical and you should be using your professional judgement whether to call an ambulance or seek other urgent advice.

12 GRIP STRENGTH

12.1 Introduction

The grip strength is a test of physical ability. It is used in a number of studies and is thus useful for drawing comparisons between countries and cultures. Hand grip strength is important as it affects every day function, such as raising the body weight and lifting heavy objects, and declines with age.

12.2 Exclusion criteria

Respondents are excluded from taking the grip strength test if:

- They have swelling or inflammation, severe pain or a recent injury to their hands
- They have had surgery on their hands in the last 6 months

If there is a problem with only one of the respondent's hands, just take measurements on the other hand.

12.3 Equipment

You will need:

- A gripometer

12.4 Preparing the respondent

Explain to the respondent the reasons why the grip strength test is required and what is involved. Explain that it is very important that they try their hardest for the most accurate reading of their grip strength. Where possible have the respondents remove any large rings.

12.4.1 Demonstrating

- The respondent is not to begin the grip strength test until it has been demonstrated.
- If after the demonstration the respondent does not understand, the test should be demonstrated again rather than relying on verbal instructions.
- The demonstration should be repeated only once.
- If the respondent still does not understand, skip the test and continue the interview.
- Do not coach the respondent

12.5 Procedure

1. Adjust the lever of the gripometer to suit the respondent's hand. To do this:
 - a. Put the black bar of the gripometer on the pads at the top of their palm (see Figure 8).
 - b. Check to see if it is a good fit by asking the respondent to grip the gripometer-the middle section of their fingers should be flat across the top of the metal bar (see Figure 9). If they are not you will need to adjust it.

- c. To adjust it, you need to lift the metal lever on the side of the gripometer and rotate the grip until it is in a more suitable position. Repeat step b.
- d. When you have a good fit, replace the lever on the side of the gripometer.



Figure 8 Aligning the gripometer with the hand

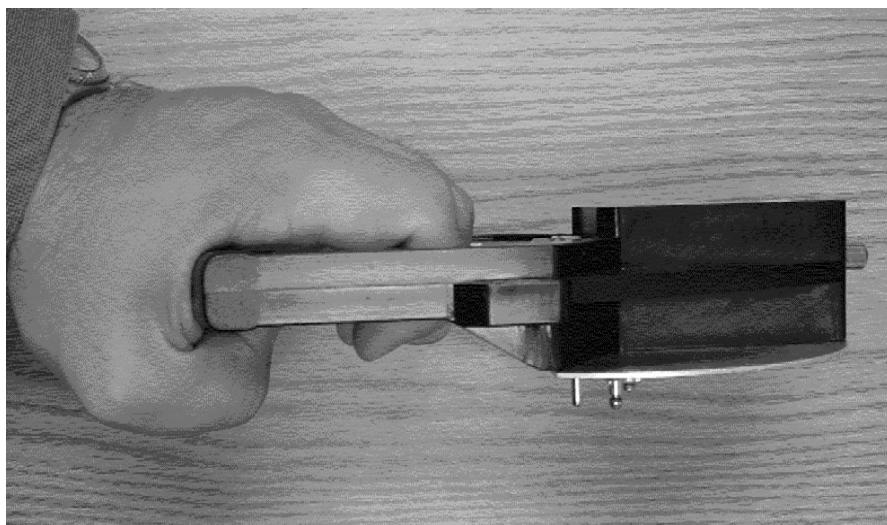


Figure 9 Gripometer lever on second phalanx in gripping action

2. If possible get the respondent to stand up with their arms by their side.
3. Hand the respondent the gripometer and allow them to have one practice with it in their dominant hand.
4. After they have had one practice, ask them to put it in their non dominant hand with their upper arm against their trunk and their forearm at a right angle to the upper arm. If the respondent is finding the gripometer too heavy to hold, they can use their other hand to support their gripometer or you can support it if appropriate.
5. Have the dial of the gripometer face outward.

6. Before commencing the measurement check to make sure that the arrow is resting at zero.
7. Ask the respondent to squeeze as hard as they can for two seconds with their non dominant hand.
8. Record the value on the scale to the nearest whole number, no decimal places. The most accurate reading is achieved if you look directly down on the scale.
9. Repeat steps 7 and 8 three times for each hand, alternating hands each time. You should have six values altogether.
10. If the respondent wishes, record the results on their measurement record card.

12.6 Additional points

- If a respondent is unable to stand to carry out the grip strength test, they can sit in a chair provided they can keep their upper arm against the trunk of their body with their forearm at right angles to their upper arm. If they are finding the gripometer too heavy to hold they can use their hand to support the gripometer.
- If a respondent is unable to complete the required number of 'squeezes' of the gripometer then record what they have been able to do and code the remaining 'squeezes' as measurement not obtained.
- If the respondent is only able to carry out the procedure using one arm, make a note of this in CAPI and continue to conduct the procedure as above using only one arm. The results for the arm that cannot be used should be coded as measurement not obtained.

13 PHYSICAL PERFORMANCE MEASURES

13.1 Introduction

The purpose of these tests is to objectively measure the overall health and level of disability of a large population of people. These measures form a battery of tests that have been shown to be highly predictive of level of disability, future use of health care services and mortality. These tests allow us to gather very important information in regard to balance, co-ordination and lower body strength.

13.2 Exclusion Criteria

Respondents are excluded from the physical performance measures if:

- They are chairbound or wheelchair bound (although they may be able to do some of them).
- After discussion with them it becomes clear that they are too unsteady on their feet for the measurements
- They find it too painful to stand
- You or the respondent consider it too unsafe to conduct the measurement(s)

13.3 Equipment

You will need:

- A stopwatch (for all tests)
- A nurse script (for all tests)
Please use this when it is not possible to see the CAPI program while conducting the tests with the respondent.
- A tape rule (for the timed walk)
The tape rule is easy to operate and has a lock on it to keep it open while it is being used. Please release this lock very carefully as it can easily hurt you or someone else. Please also ensure that it does not become an obstacle that could trip someone.
- A chair (for the single and repeated chair raises)
It should be an armless, straight-backed chair. Kitchen or dining chairs may be suitable in many homes. If an ideal chair is not available, the following criteria for chair selection should be used in the order given:
 - a. Armless, rather than with arms
 - b. Firmness, the firmer the better
 - c. For safety reasons **do not use** beds, cots, folding chairs, garden chairs, chairs with wheels or chairs that swivel

13.3.1 How to use the stopwatch

The make and model of stopwatches in the field may vary so it is important to ensure you are familiar with the type you will be using. In general the following apply:

- To change from time mode to stopwatch mode (if necessary):
Press the middle button labelled “Mode”.

- To reset the stopwatch:
Press the button on the left-hand side (if this restarts the stopwatch, press the right button once to stop it, then the left button twice, until zero appears).
- To start and stop the stopwatch:
Press the button on the right hand side labelled “Start/Stop”.

It is recommended that you practice using the stopwatch, to familiarise yourself with the model that you have, before carrying out an interview.

13.4 Encouragement

To describe the test and how to perform it correctly it is important to follow the instructions and nurse script in CAPI as closely as possible for each test.

Do not provide additional encouragement beyond the language provided by the detailed instructions. After each measure, acknowledge the respondent's efforts but do not give feedback, as this may be discouraging. Neutral phrases such as “Thank you” or “That’s fine” are examples of the kinds of things you could say, but say whatever you find most comfortable.

To some respondents the detailed verbal instructions may seem unnecessary. It may help to say that you are going to explain each test to the respondent in detail since this is the best way to make sure that everyone does the test in a similar manner.

13.5 Demonstrating

- Each test should be demonstrated after it has been explained.
- The respondent is not to begin the test until it has been demonstrated.
- If after the demonstration the respondent does not understand, you should demonstrate it again rather than relying on verbal instructions.
- The demonstration should be repeated only once.
- If the respondent still does not understand, skip the test and move on to the next one.

13.6 Safety precautions and prevention of injuries

- All obstructions that could cause accidents should be removed.
- The participant should be questioned to ensure that the instructions have been understood.
- If a participant is uncomfortable performing a specific test or if it is felt that a procedure is not safe for a given individual, the test should not be performed. If necessary, they should be stabilised by lightly holding their arm or allowing them to lean against you until their feet are in the correct position.
- If they feel unsteady, even with support, don't let them try the procedure.
- When the participant is performing the test, stand close enough to assist them if they begin to falter but far enough away not hinder them if they have to use their arms to maintain their balance.
- The respondent should ideally be positioned between you and a stable surface, such as a wall or table.

13.6.1 In the event of an accident

If you find yourself in a situation where the respondent appears to lose balance, you may want to help them to recover their balance by placing both hands on their trunk. If the respondent begins to fall it is not safe to try to catch them. It is more appropriate to attempt to steady them or, if necessary, to slowly ease them to the floor. Do not hold their arm, hold around their body. This will prevent the respondent and you from becoming injured.

If the respondent does fall call for help if appropriate. If they are not injured, help them by first having them get on their knees or on all fours. Place a chair next to the respondent and have them support themselves onto the chair. If assistance is needed, lift under the shoulders – do not hold their arm, hold around their body. Do not try to lift the respondent alone from the floor or put yourself at risk. Remember to seek help if it is needed and to complete a report for any incident of this kind.

For the safety of the respondent, if the respondent loses their balance or falls, do not attempt to complete the measures.

It is strongly preferable to conduct the chair rise and balance measurements on a floor that is level and not carpeted. If the entire household is carpeted, choose a floor with the thinnest and hardest carpet.

13.7 Footwear

It is strongly suggested that this activity is performed in shoes with very low or no heels. It is hard to perform normally with shoes with heels on. Ask the respondent if the footwear they are wearing is what they wear most of the time around the house. Soft soled, heel-less slippers, or just socks or tights should not be worn, since they may cause the respondent to slip. The respondent can do the measures in bare feet if they do not have appropriate shoes.

13.8 Walking Aids

Walking aids **are** permitted for the timed walk.

Walking Aids such as canes, walkers or crutches may **not** be used for the single and repeated chair stands test or for the balance or leg raise tests. If the respondent cannot complete these tests without a walking aid, exclude them from the physical performance measures.

13.9 Positioning

The correct positioning of the feet is very important. If a respondent is unable to assume any of the positions themselves, do not help them by moving their feet. However, you can provide them support whilst they get into position. If they are unable to get into the correct position, record in the CAPI that the measure was not attempted. Splayed feet (feet that point out to the sides) are also not permitted.

13.10 Contents of the physical performance measures

The physical performance measures is a battery of tests consisting of:

- a. The timed walk

The respondent is required to walk a short, measured distance. The length of time required to walk this distance is recorded.

- b. The side by side stand

The respondent is required to stand with their feet together, side by side, for 10 seconds. This is used as a screening test for their ability to do the semi tandem and full tandem stands.

- c. The semi tandem stand

The respondent is required to stand with the side of the heel of one foot touching the big toe of the other foot for 10 seconds. If they are successful they move onto the full tandem stand.

- d. The full tandem stand

The respondent is required to stand with the heel of one foot touching the toes of the other foot for 30 seconds (aged 65-69) OR 10 seconds (aged 70+).

- e. Leg raises with eyes open (respondents aged 65-69)

The respondent is required to stand on one leg and raise the other leg a few inches off of the ground, with their eyes open, for up to 30 seconds. If they are successful, they move onto the leg raises with eyes closed.

- f. Leg raises with eyes closed

The respondent is required to stand on one leg and raise the other leg a few inches off of the ground, with their eyes closed, for up to 30 seconds.

- g. Single chair rise

The respondent is required to stand up from a seated position with their arms folded across their chest. This is used as a screening test for their ability to do the repeated chair raises.

- h. Repeated chair rises

The respondent is required to stand up from seated position with their arms folded across their chest, 10 times (aged 65-69) OR 5 times (aged 70+).

13.11 Procedure

CAPI will guide you through the physical performance measure procedure, as the route taken will depend on the respondent and the individual survey. The procedure for each test is briefly described below, however more detail can be found in CAPI and the document Nurse Protocols: The procedure and nurse script for physical performance measures.

In general:

1. Introduce and explain the test.
2. Demonstrate the test.
3. Ask the respondent if they feel comfortable/safe to do the test.

4. Start the test, observing time limits and other criteria.
5. Record the necessary information in CAPI which will then direct you to the next test.

14 STEP TEST

14.1 Introduction

The step test is an objective measure of physical fitness developed by researchers at the Medical Research Council (MRC) Cambridge. The test provides a measure of functional aerobic work capacity (VO₂max). The VO₂max is used to assess cardiorespiratory fitness levels and predict aerobic work capacity. Aerobic work capacity has been shown to have the potential to respond to training and lifestyle changes. Therefore it is critical to measure this to determine the protective health benefits of physical fitness.

14.2 Exclusion criteria

CAPI will take you through the exclusion criteria. Respondents are excluded from the step test if they are/ have:

- Pregnant (if you have been told)
- Younger than 16 at the start of the fieldwork period or older than 74 at the end of the fieldwork period
- Aged 65 to 74 and having had a fall (other than sport-related fall) in the previous 12 months
- Abdominal surgery in last 3 months
- Wearing a pacemaker/implantable cardiac defibrillator
- Taking beta blockers or digoxin to treat a heart flutter, or an atrial fibrillation (abnormal heart rhythm)
- Musculoskeletal problem affecting lower back, hip, knees, ankles, feet etc (e.g. bad rheumatism, artificial leg, bad feet) that makes it difficult for the participant to step up and down repeatedly
- Dizzy spells – respondent's judgement of having balance problems rather than formal diagnosis
- Intermittent claudication (pain on exercise, due to poor blood supply to legs)
- History of cardiac disease (any of the following: heart attack, heart surgery, cardiac catheterisation, coronary angioplasty, heart valve disease)
- Cardiac symptoms (responses indicating possible angina or heart attack from the rose angina questionnaire)
- Stroke
- TIA (transient ischaemic attack), if less than 1 year since last attack or not on aspirin
- Chronic obstructive pulmonary disease including chronic bronchitis or emphysema
- An average blood pressure measurement of 160/100 or above
- Has concerns about doing the test and is not willing to take part or not willing to give signed consent.

People with asthma are NOT excluded

If a person with asthma does not wish to do the test, then s/he will be excluded. If the person is willing to take part, you should advise them to take any medication they would normally take before doing physical exercise.

If after answering the CAPI exclusion criteria questions the respondent is ineligible, CAPI will prompt you to explain to them that it would be safest if you did not

administer the test. Similarly if a respondent is showing signs of confusion regarding the exclusion questions then do not administer the test. Please note that under the F9 function is some 'lay' terms to describe abnormal heart rhythm and intermittent claudication. Please look at this as people with an abnormal heart rhythm should not take part in the step test.

14.3 Consent

Written consent is required for the step test. The office copy of the appropriate form must be initialled, signed and dated by the respondent and the nurse.

14.4 Equipment

You will need:

- A single step (1 x 15cm for those aged 55-74 and 1x 20cm for those aged 16-54)
- A Polar fitness heart rate monitor
Comprises of a strap which is attached to the respondent and a wristwatch for the respondent to wear which records the heart rate.
- A stopwatch
- A non slip rubber mat

14.4.1 How to use the heart rate monitor

The Polar fitness heart rate monitor works by transmitting a signal from the electrode around the respondent's torso to the wristwatch that they are wearing, which in turn gives a heart rate reading. Once the strap has been fitted, the watch can be used.

1. The wristwatch will display the time of day setting to start.
2. Press the button on the front of the watch and EXE should appear. This initiates a countdown while the watch checks the strength of the heart rate reading.
3. Underneath the seconds countdown is a heart symbol. This symbol gives you an indication of the strength of the connection between the strap and the wristwatch.
If :
 - a. The heart is full, blue in colour and flashes.
There is a good connection and the heart rate is being transmitted. After a few seconds the watch will show you the heart rate reading for the respondent and the blue heart symbol will continue to flash underneath the reading.
 - b. The heart is just an outline.
The connection is not sufficient enough to transmit a heart rate reading.
The strap will need to be readjusted and the electrodes on the strap may need to be moistened until a full blue heart is displayed on the watch (see section 14.6.1).
4. To clear the wristwatch and stop the heart rate reading, press the button on the front of the wristwatch until STOP appears. This will set the wristwatch back to the time of day setting.

14.4.2 Care and maintenance of the heart rate monitor

- For the purposes of hygiene, the plastic electrode casing and wrist watch must be wiped with a mild antibacterial wipe after it is worn by a respondent. Wipe the front and back of the casing and the watch, allowing it to dry before it is packed away. It is particularly important to clean the equipment if there is more than one respondent doing the step test within a household. If this is the case, it must be wiped between respondents.
- If necessary, clean the plastic electrode casing using a mild soap and water solution. Dry it carefully with a soft towel. Never use alcohol or any abrasive material such as steel wool or cleaning chemicals.
- Please make sure that the electrode casing is dried properly. If it is stored when it is wet, the transmitter may be activated and shorten the lifespan of the battery.
- You will be provided with extra elastic straps, which attach to the plastic casing. The straps will need to be cleaned regularly by soaking them in a mild soap and water solution and allowing them to air dry. Please do not put the elastic strap in the washing machine or tumble dryer as it may damage the strap.
- Please do not expose the heart rate monitor to extended periods of direct heat e.g. by leaving it in the car, as this may damage the unit. Store it in a cool, dry place.

14.4.3 How to use the stopwatch

The make and model of stopwatches in the field may vary so it is important to ensure you are familiar with the type you will be using. In general the following apply:

- To change from time mode to stopwatch mode (if necessary):
Press the middle button labelled “Mode”.
- To reset the stopwatch:
Press the button on the left-hand side (if this restarts the stopwatch, press the right button once to stop it, then the left button twice, until zero appears).
- To start and stop the stopwatch:
Press the button on the right hand side labelled “Start/Stop”.

It is recommended that you practice using the stopwatch, to familiarise yourself with the model that you have, before carrying out an interview.

14.5 Preparing the respondent

Explain to the respondent the purpose of the test and what is involved.

14.5.1 Demonstrating and respondent practice

Demonstrate the step test fully using the demonstration screen in CAPI.

- Start the demonstration using the ‘up up down down’ sound file. To activate the sound file PRESS <1> and <ENTER>.
- The sound file will play for a maximum of 8 minutes but you can stop it at anytime by pressing <1> AND <ENTER>.

- If the respondent is happy to proceed allow them to practice, using the appropriate size step, for up to 1 minute. You can start the demonstration screen by pressing the page up key.
- If at this stage the respondent is not comfortable with doing the test then code them out. If they have not fully understood the demonstration, or if you feel that they would be at risk if they proceeded with the test, do not administer it.

It is very important that you demonstrate this correctly, as respondents are more likely to follow what you do rather than what you say.

14.5.2 Clothing and footwear

Respondents should be asked to wear something light and cool. Shorts and T-shirt are ideal but any light clothing that allows easy movement is acceptable. A loose fitting top is advisable as it makes fitting the heart rate monitor easier.

Trainers are ideal but any comfortable walking shoe is acceptable. The step does have one or two sharp edges so it is not advisable to do the test barefoot or only wearing socks.

14.6 Procedure

1. Fitting the strapStart by having the strap loose and wrap it around the respondent's torso. Do it up at the side, position the electrodes over the front and tighten the strap. The strap should be sufficiently tight to keep the electrodes in place but not to impede breathing in any way. The strap should be positioned just below the sternum, for women this can be just below the bra line. Most respondents will be able to do this for themselves, however it will need to be checked for positioning and tightness.
2. Moisten the electrode area to ensure good contact between the electrodes and the skin. This can be done with water or KY jelly.
3. Turn the wristwatch on and ensure that you are getting a heart rate reading on the watch. If you are experiencing difficulty with getting a heart reading it is more than likely because of poor contact between the electrodes and the skin. The electrodes may need to be moistened more.

14.6.1 Doing the test

4. Check that you are using the appropriate step, CAPI will tell you which height step to use. If the step is not sitting on carpet, it must be placed on the non slip rubber mat to prevent it from slipping while the test is being conducted.
5. Ask the respondent to get into position by standing with both feet together at the base of the step, hands by their side.
6. Discourage them from talking and waving their arms around as it increases their heart rate. Remind the participant that their whole foot must go on the step, not just their toes or half a foot. This is for safety and for a more accurate reading.

7. Explain that it will be just like their practice run with the computer counting them down 5, 4, 3, 2, 1 and then they begin when they hear the first 'up'. Further explain that every 30 seconds a heart rate reading will need to be recorded so you will need to check the watch that they are wearing for this.
8. Record the respondents stepping heart rate given by CAPI on your hear rate record card.
9. Check that the respondent is ready to begin and then activate the sound file in CAPI. Start the stopwatch after the countdown.
10. Using the stopwatch, record the heart rate on the heart rate record card every 30 seconds. Provided that the respondent completes all 8 minutes of the step test, you will need to record a total of 16 heart rate readings.
11. Monitor the respondent while they are doing the step test to ensure that they are doing the movement correctly, their whole foot is going on the step and that the test is not causing them any physical discomfort or difficulties.
12. If it is necessary stop the respondent before they complete the 8 minutes (see section 14.7), stop the stopwatch, activate the sound file for resting heart rate and get the respondent to sit down. Record resting heart rate on the heart rate record card at 15 second intervals for 2 minutes. The computer will beep every 15 seconds for the two minute period so you will not need to use the stopwatch.
13. If they complete the 8 minutes, ask the respondent to sit down and activate the resting heart rate sound file on the computer. Record the recovery heart rate on the heart rate record card.
14. Allow the respondent to rest for 5 minutes, during which time, accurately transfer the information from the heart rate record card into CAPI. If one heart rate measurement was not obtained you will need to enter 999 on the heart rate record card and in CAPI. The record card must not be left with the respondent.
15. Explain to the respondent that they may feel a little 'stiff and sore' in the next couple of days as a result of stretching calf and gluteal muscles. Reassure the respondent that it is not cause for concern and that any discomfort will be resolved in 2-3 days. Further add that if they are concerned they should see their GP.
16. Remove the electrode strap and wrist watch and clean with an antibacterial wipe, allowing it to air dry before it is packed away.

14.7 Stopping rules

CAPI will calculate and inform you of the age related maximum stepping heart rate for the respondent. If at anytime during the 8 minute period, the respondents heart rate exceeds this limit STOP the test. Stop the test by saying:

"Well done, I think we now have all the information we need."

OR

"Thanks, that's all the information I need, we can stop now."

Do not alarm the respondent but be supportive and encouraging. Do not tell them that the test was stopped because of their heart rate.

Other circumstances when the step test should be stopped are if the respondent:

- complains about safety
- shows a clear deterioration in performance, such as slowing down and not keeping pace with the rhythm
- shows signs of confusion during the test
- is fatigued
- shows signs of respiratory distress, such as gasping for breath
- slips, stumbles, falls off the step or loses balance
- wants to stop the test – this could be for any reason
- if you feel it is unsafe to continue for any reason in addition to the ones above

If the test is stopped for any of these reasons then get the respondent to sit down, record resting heart rate and monitor them for a few minutes before continuing with the nurse schedule.

14.8 Obtaining optimal performance

The following rules should be applied to ensure that respondents obtain their optimal performance during the step test:

- At the outset, explain to the respondent that the test requires concentration and should ideally be conducted in a quiet room.
- Ask the respondent to rest for 5 minutes before the test. During this time you can be administering the exclusion questionnaire, demonstrating the movement etc. It will be best if the respondent is seated at this point to ensure their heart rate is not elevated before the test begins.
- Ensure that respondent safety is maintained at all times. Place the step near a wall so that if the respondent does lose balance they have some support.
- The respondent should use the demonstration time to practise the movement and keep in time to the rhythm.
- Discourage the respondent from talking during the test and also from waving their arms as this increases their heart rate.
- If the respondent finds keeping to the rhythm difficult, count for them such as up, two, three, four, down, two, three, four.
- Foot placement during the test is very important. The full foot should be placed on the step, not half the foot.
- You should give gentle encouragement to help reassure the respondent whilst doing the test but do not mention timings.

14.9 Respondent feedback

At the outset of the step test, respondents should be told that feedback cannot be provided about their individual performance. Explain that heart rate results alone do not provide meaningful information about fitness, instead the results need to be combined with other known information to estimate maximum oxygen uptake. Further explain that this is not something that can be provided at the time and that an individual's heart rate during the test can be affected by what people have had to eat or drink before taking the test, as well as nerves and adrenaline.

15 SALIVA

15.1 Introduction

Saliva samples are taken from respondents for analysis to detect various chemical compounds (depending on the aims of the individual surveys) to provide information on peoples health and lifestyle. These compounds include:

- Cortisol, indicating an individual's stress levels.
- Cotinine, a derivative of nicotine showing levels of exposure to tobacco smoke.

15.2 Exclusion criteria

Respondents are excluded from giving a saliva sample if they:

- Are pregnant
- Are HIV positive
- Have Hepatitis B or C

Do not ask for information regarding HIV and Hepatitis B or C, however if they volunteer it, record them as unable to give a sample and make a note.

15.3 Consent

There is a separate consent form for the saliva sample. This must be signed and dated by the respondent or by the parent or legal guardian in the case of children aged 15 years and below. Please make it clear to respondents that they will not receive results regarding their saliva sample (see section 2.5).

15.4 Preparing the respondent

Explain to the respondent what you will require them to do and the reasons behind why saliva samples are taken.

There are two different procedures that can be followed depending on the aims/requirements of the survey. Please refer to the project instructions for the preferred method.

15.5 Procedure One

15.5.1 Equipment

You will need:

- A plain 5ml tube
- A short wide bore straw
- Kitchen paper
- Gloves

15.5.2 Procedure

1. Remove the cap from the plain tube Give the straw to the respondent. Explain that you want him/her to collect their saliva in their mouth and then let it dribble down the straw into the tube. The saliva does not need to go through the straw, the straw is intended to direct the saliva into the tube. Ensure that you are not getting sputum i.e. they are not clearing their chest to collect their saliva.
2. Allow the respondent 3 minutes to do this, collecting as much as you can in this time. The saliva will be frothy and will look greater in volume than it actually is, so do not give up too soon. You need at least 0.5cm on depth in the tube, not including froth.
3. If respondents find it difficult to use the straw they may dribble into the tube directly. This is acceptable, but encourage them to use the straw where possible.
4. If a respondent's mouth is excessively dry and they cannot produce saliva allow them to have a drink of plain water. Wait for 5 minutes before collecting the sample to ensure that water is not retained when the sample is given.
5. Replace the cap on the tube and report any problems in CAPI. You should wear gloves at all times when you come in contact with a saliva sample.
6. Label and package as directed in the project specific instructions.

15.6 Procedure Two

15.6.1 Equipment

You will need:

- Salivettes
- Gloves

15.6.2 Procedure

1. Figure 10 is a picture of a salivette. 'A' shows the salivette correctly assembled and 'B' shows the four different parts that it consists of: the cap, absorbent swab, inner tube and outer tube.
2. To obtain the saliva sample, remove the inner tube from the outer tube. Remove the cap from the inner tube and instruct the respondent to take the absorbent swab from the inner tube, without touching it, by lifting the tube to their lips and letting the absorbent swab fall into their mouth. Further explain that they must leave it in their mouth until it is saturated with saliva.
3. Ask them to move it around in their mouth, gently biting on it, as this helps to ensure thorough wetting of the absorbent swab. It will vary from person to person, however 3 minutes will usually be ample.
4. If a respondent's mouth is excessively dry and they cannot produce saliva allow them to have a drink of plain water. Wait for 5 minutes before collecting the sample to ensure that water is not retained when the sample is given.

5. When the absorbent swab is sufficiently wet, ask the respondent to remove it from their mouth and put the absorbent swab back into the inner tube, avoiding touching it if they can.
6. Wearing gloves, check that the swab is saturated. The tube should feel noticeably heavier than an unused one. If the swab rattles around in the tube then it is not wet enough and you need to give it back to the respondent to put back in their mouth.
7. Once you are satisfied that it is saturated replace the cap on the inner tube and put the inner tube back in the outer one (the inner tube has a hole in the bottom so will leak in the post if not placed in the outer tube). Record in CAPI any problems you may have had. You should wear gloves at all times when you come in contact with a saliva sample.
8. Label and package as directed in the project specific instructions.

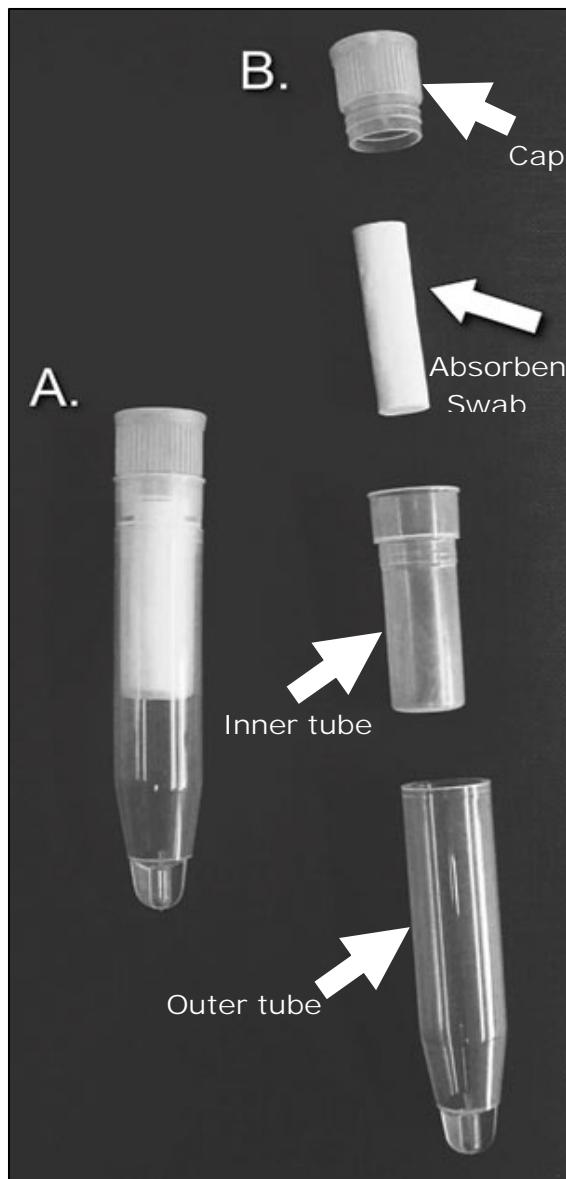


Figure 10 'A': an assembled salivette, 'B': the various components

16 SPOT URINE

16.1 Introduction

Urine, a waste product of human bodily functioning, can be analysed to provide information on various factors depending on the compound to be analysed (table 7). The information that is obtained is highly accurate and cannot be taken from any other source. Please note that the compounds that are analysed are dependent on the individual survey.

Table 7 Compounds in urine analysis

Chemical	Definition
Potassium	Potassium is both an electrolyte and a mineral which works to keep a balance in bodily fluids and has an important role in nerve and muscle functioning. Potassium is found in fruit and vegetables and thus also indicates the fruit and vegetable intake of individuals.
Sodium (salt)	Sodium is both an electrolyte and a mineral which works to keep a balance in bodily fluids and has an important role in nerve and muscle functioning. Sodium is found in most foods and has been shown to contribute to high blood pressure which is a major risk factor in the development of cardiovascular disease.
Urea and Nitrogen	Urea and nitrogen are natural by-products of the human body. They are analysed to give an indication of kidney function. They also provide information on the amount of protein in an individual's diet.

16.2 Exclusion criteria

Respondents are excluded from giving a urine sample if they:

- Are pregnant
- Are HIV positive
- Have Hepatitis B or C

Do not ask for information regarding HIV and Hepatitis B or C, however if they volunteer it, record them as unable to give a sample and make a note.

Women who have their period are not excluded from giving a urine sample. Respondents with a catheter are also not excluded. If the sample is taken from a catheter bag, this should be recorded in CAPI. It does not matter how long the urine has been in the collection bag.

16.3 Consent

There is a separate consent form for the urine sample. This must be signed and dated by the respondent or by the parent/legal guardian in the case of respondents aged 15 years and below. Please make it clear to respondents that they will not receive results regarding their urine sample.

16.4 Equipment

You will need:

- A 100ml Polypropylene disposable beaker
- A 10ml Sarstedt urine collection syringe and extension tube containing a small amount of a preservative
- An instruction leaflet on how to use and fill the Sarstedt syringe
- Coloured labels
- Gloves
- A polythene bag to store the equipment in and can be used to discard the used equipment once the sample has been taken (optional).

16.5 Preparing the respondent

Explain to the respondent that you need a urine sample and why it is important. Explain the equipment to them and show them how to use the Sarstedt syringe. A demonstration consisting of a syringe and a beaker filled with water can be used for this purpose. The instruction leaflet, similar to Section 16.5.1, can be left with the respondent for easy reference while performing the urine collection in private, if required. Explain the procedure below to the respondent. Tell them that you need them to follow the procedure as carefully as possible.

16.5.1 Urine sample syringe instructions

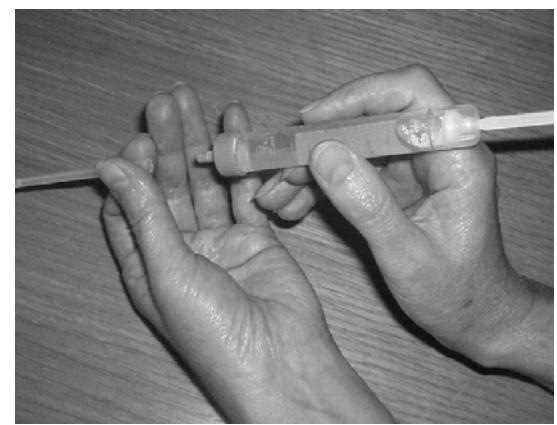
1. Collect your sample in the disposable pot.
2. Remove the small push cap.
3. Push the extension tube on the syringe nozzle.



4. Put the end of the tube into the urine in the beaker and pull back the syringe to fill it.



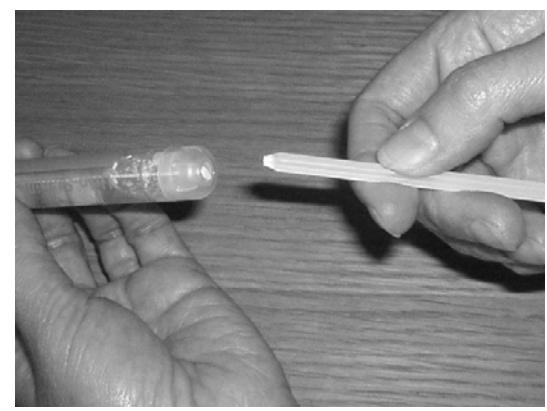
5. Remove the extension tube.



6. Replace the cap.



7. Pull the syringe plunger until it clicks and break off the stalk.



NB: Person in pictures should be wearing gloves!

16.6 Procedure

1. Respondents are to wash their hands with soap and water prior to voiding to avoid contaminating the sample with substances which may be on their hands. It is important that the inside of the urine collection beaker is not touched or allowed to come into contact with any part of the respondent's body, clothing or any external surfaces.
2. Ask the respondent to collect a mid flow sample of their urine in the disposable collection beaker.
3. Immediately after voiding they need to collect a sample of the urine by using the syringe as you have demonstrated to them and by following the instructions on the card. The collection of the urine sample needs to happen immediately after voiding to minimise specimen exposure to air.
4. Ask the respondent to wash the outside of the filled and sealed syringe and dry it using toilet roll, once the sample collection is complete.
5. If the respondent is unable to fill the syringe him/herself, or would rather not do so, you can do this for them. Emphasise that the sample needs to be taken from the sample straight away in order to minimise specimen exposure to air, so as soon as they have finished they need to bring it to you or leave it in the bathroom and notify you that the sample is ready. Please ensure that you are wearing gloves before attempting to fill the syringe for this respondent, you should wear gloves at all times when you come in contact with a urine sample.
6. Make sure that the plastic cap is securely sealed and the syringe plunger stalk snapped.
7. Label and package the sample according to the project specific instructions.
8. To dispose of the sample, pour the remaining urine in the toilet and throw the beaker and used equipment in the rubbish bin (if the respondent prefers, this can be put in a polythene bag first and then thrown in the rubbish bin).

17 24 HOUR URINE

17.1 Introduction

A 24 hour urine sample is taken for the same reasons as presented in section 16.1, however it gives a more comprehensive overview of a respondent's nutrition and diet that cannot be obtained from a spot sample.

17.2 Exclusion criteria

All respondents with the following exceptions are able to give urine:

- Women who are pregnant
- Women who have their period are not excluded from giving a sample, however they may prefer to collect the urine on non period days
- To test for the completeness of a sample, respondents might be asked to take p-aminobenzoic acid (PABA) tablets. Some surveys will exclude respondents if they are unwilling or unable (due to medications they are currently taking or allergies) to take these tablets, other surveys will include them even if they cannot/will not take PABA. Please refer to project specific instructions for further information regarding this.

17.3 Consent

There is a separate consent form for the urine sample. This must be signed and dated by the respondent or by the parent/legal guardian in the case of respondents aged 15 years and below. Please make it clear to respondents that they will not receive results regarding their urine sample.

There are two nurse visits in the 24 hour urine protocol. The first requires the nurse to introduce and explain to the respondent how to collect the sample over the allocated 24 hour period. The second visit requires the nurse to take sub samples from the urine that the respondent has collected. Both of these visits are outlined below.

17.4 Nurse visit one

17.4.1 Equipment

To collect the urine sample the respondent will need:

- A 5 litre capacity screw cap (or jerry can) 24 hour container to serve as the collection container for urine. This contains a small amount of the preservative boric acid (powder).
- A 2 litre capacity screw cap collection container for collections made away from the home
- A 1 litre capacity plastic jug to be kept inside a re-sealable plastic bag when not used
- A funnel to be kept inside a re-sealable plastic bag when not used
- Plastic carrier bags for transporting the equipment away from home

- An *aide memoire* safety pin for the respondent to pin the under and outer garments together during the period of the collection to remind that the specimen of urine about to be passed should be collected.
- Three PABA tablets

What is PABA?

To test for the completeness of the urine sample, three p-aminobenzoic acid (PABA) tablets need to be taken by the respondent (also see section 17.2). PABA is an intermediate in the synthesis of folic acid in bacteria. It is consumed in small amounts as part of our usual diet and is found, for example, in liver, kidney, brewer's yeast, molasses, whole grains, mushrooms and spinach and can be made by intestinal bacteria. Larger amounts of PABA are found in some vitamin preparations.

Following ingestion, PABA is passively absorbed mainly from the small intestine. From there it enters the portal circulatory system. Some metabolism of PABA occurs in the liver and PABA and its metabolites are mainly excreted in the urine.

The PABA tablet is very small and best swallowed whole. It is not recommended to dissolve it in water or any other drink. If crushed between the teeth PABA tastes acidic and is unpleasant but there is no long lasting after taste.

Some medicines, such as paracetemol, interfere with the test used for PABA and PABA itself may interfere with the functioning of sulphonamide based antibiotics (however it will not cause the respondent direct harm if they are taking sulphonamide based antibiotics). People will be excluded from taking PABA if they are on sulphonamide based antibiotics. Other reasons why people are excluded from taking PABA include those who are allergic to vitamin preparations, hair dyes or sunscreen lotions and those who have severe lactose intolerance (this may not mean that they are excluded from giving a sample however, refer to project specific instructions).

17.4.2 Preparing the respondent

- Using CAPI, check the respondents eligibility to take part in the measurement
- Introduce and explain the 24 hour urine sample to the respondent, explaining the instructions for collection (sections 17.4.3 and 17.4.4) in detail.
- Provide the respondent with any written instructions and the equipment that they will need.

17.4.3 Procedure for taking PABA

Please explain this procedure to the respondents:

1. Each respondent will have three PABA tablets which are to be taken at evenly spaced intervals throughout the waking day.
2. The first tablet should be taken just before the urine collection starts, i.e. after the first morning void that is not collected.
3. The second PABA tablet should be taken around midday and the third and final tablet in the evening, preferably with supper.
4. If respondents forget to take the morning PABA tablet they should take it as soon as they remember and no later than midday. If respondents forget the midday

tablet they should take it as soon as they remember and no later than 4pm. PABA should not be taken after 10pm because approximately 8 hours are needed for PABA clearance through the kidneys to ensure that all PABA is excreted by the time the respondent collects their final sample, the first morning void.

17.4.4 Respondent procedure for collecting the sample

Please explain this procedure to the respondent:

1. The 24 hour collection should start with the second morning void. The 24 hour period will last throughout the night and will include the first morning void on the following day e.g. if the respondent starts the 24 hour collection with the second morning void on a Tuesday then they stop collecting after their first morning void on Wednesday. During this time period all urine that is passed is to be collected.
2. Respondents are to pass urine into the 1 litre plastic jug. Using the funnel provided, the respondent needs to pour the urine into the 5 litre collection container. It needs to be stressed to respondents that it is crucial that they pass the urine into the 1 litre jug first as the 5 litre collection container contains the preservative boric acid which can cause skin irritations if they come in direct contact with it.
3. If, during the 24 hour period, the respondent is away from home, they have the option to take the 2 litre storage container to store the urine in until they get home. They must still pass the urine into the 1 litre jug and then use the funnel to transfer it into the 2 litre container. When respondents get home the urine collected in the 2 litre container must be transferred into the 5 litre container so that it can mix with the preservative.
4. Instruct the respondent to store the 5 litre collection container in a cool, dry place until it is collected.

17.5 Nurse visit two

17.5.1 Equipment

To collect sub samples of the 24 hour urine collection, the nurse will need:

- Electro Samson hand held scales for weighing the urine collection container
- 10ml Sarstedt Urine syringe (for instructions on use, refer to section 16.5.1), as many as is required for each survey e.g. the survey asks for five aliquots you will need five Sarstedt syringes per respondent.
- Disposable gloves
- Disposable work mat
- Disposable apron

17.5.2 How to use the scales

1. Attach handle to the scales. Start with the notch in the handle facing you, hook pointed upwards. Position the loop at the top of the scales in the notch until the loop is flat against the back of the notch. Lift the handle slightly so the scales are hanging from the hook of the handle.

2. Press the 'On/Zero' button to turn the scales on. The display will briefly show a row of 8s, followed by 0.00. Do not weigh anything until the display shows 0.00.
3. Holding the handle of the scales in the middle, as this will ensure the scales are vertical and provide a more accurate reading, place the handle of the 5L collection bottle onto the hook of the scales.
4. Allow the reading on the display to stabilise and press 'Hold' to lock in the weight shown on the display.
5. Press 'Off' to turn scales off.
6. Remove handle before storing the scales.

17.5.3 Nurse procedure for collecting the sub samples

1. Collect the urine sample in the 5 litre collection container from the respondent so that it can be weighed.
2. Assemble the scales, turn them on and wait for the display to read 0.00. Holding the handle in the middle, place the sample on the hook at the bottom of the scales. Place the 'Hold' button to lock in the reading on the display.
3. Record the weight in CAPI and on the despatch sheet. The weight must be recorded on the despatch sheet as it helps the lab to identify if the sample is complete or not.
4. Remove the sample and reset the display to zero by pressing 'On/Zero'. Weigh the sample for a second time according to steps 2 and 3.
5. If the two recorded weights differ by more than 0.2kg, weigh the sample for a third time and record this reading in CAPI and on the despatch note.
6. After the container has been weighed, invert it and rotate the sample 20 times to ensure that the urine is thoroughly mixed.
7. Lay out the disposable working mat and, wearing gloves and the apron, transfer some of the urine from the 5 litre collection container into the 1 litre jug.
8. Still wearing gloves and apron, use the Sarstedt syringe(s) to collect as many sub samples from the jug as required (specified in the project specific instructions). For instruction on how to use the Sarstedt syringe refer to section 16.5.1.
9. Label the sub samples as you take them and prepare them for despatch as described in the project specific instructions.
10. After collecting the sub samples, dispose of the rest of the urine sample in the 5 litre collection container and what is remaining in the 1 litre jug by pouring it in the toilet (you or the respondent can do this).

11. Rinse any containers that have been used and ask the respondent to dispose of them with the household waste. If the respondent is unable to do this, pack the used equipment away and take it away for disposal elsewhere.
12. Some surveys will also require the respondent to complete a sheet which records if any urine samples were missed during the 24 hour period. If this is the case, you will need to go through this sheet with the respondent to check that it is complete.

18 BLOOD SAMPLING (NON FASTING AND FASTING)

The protocol for taking blood samples set out below is written in accordance with the Clinical Procedure Guidelines: Venepuncture. All nurses are to read this document before carrying out any venepuncture procedure.

18.1 Introduction

Blood samples are taken from respondents as they provide information on various analytes, giving a detailed description of the health of an individual. They are integral to the research NatCen undertakes as they give a comprehensive representation of the health of the population that cannot be obtained from any other source.

Each study is interested in different analytes and the ones to be analysed for each survey can be found in the project specific instructions. Table 8 shows information regarding the different analytes and what they measure.

Table 8 Blood analytes

ANALYTE	WHAT IT MEASURES
Apolipoprotein E	This is involved in the transport of cholesterol and plays a protective role.
C-reactive protein	The level of C-reactive protein in the blood gives information on inflammatory activity in the body, and it is also associated with risk of heart disease.
Creatinine	Creatinine is a waste product of protein metabolism and is used in the assessment of kidney function. An abnormally high level of creatinine is found in individuals with kidney insufficiency and failure.
Fibrinogen	Fibrinogen is a major determinant of platelet aggregation and blood viscosity. It is a major independent risk factor for cardiovascular disease (CVD) and may interact with lipids to promote CVD risk.
Folic acid (folate)	Folic acid is a B vitamin. It is used in the body to make new cells and helps to prevent anaemia and birth defects of the brain and spinal cord.
Genetics	Genetic factors are associated with some common diseases such as diabetes and heart disease and relate to general biological aspects of the ageing process.
Glycated Haemoglobin	Glycated haemoglobin is a measure of the respondent's longer term glycaemic status. High levels are indicative of poor control of, or undiagnosed diabetes.
Haemoglobin, ferritin and transferrin receptors	Haemoglobin carries oxygen around the body to cells. It is too low in people with anaemia. Ferritin and transferrin receptors are indicators of iron stores: ferritin is reduced and soluble and transferrin receptor levels are increased if there is iron-deficiency, e.g. an inadequate iron supply in the diet.

Mean corpuscular (cell) volume	A measure of the average red blood cell volume. Mainly used in the classification of anaemia.
Minerals Se and Zn	Selenium (Se) is a component of some of the enzymes which protect the body against damage due to oxidation. It is also necessary for the use of iodine in thyroid hormone production and for immune system function. Zinc (Zn) is present in many enzymes and is essential for cell division and therefore growth and tissue repair. It is also necessary for normal reproductive development. Zinc is required for the functioning of the immune system and in the structure and function of the skin and thus wound healing.
Serum Albumin	Albumin is a blood plasma protein which is essential in maintaining fluid pressure in the body. It also plays a role in transporting fatty acids around the body. It is analysed in blood samples as an indicator of liver disease and kidney disorders.
Total, LDL and HDL cholesterol	Total cholesterol and LDL cholesterol increase the risk of atherosclerosis ('furring' of the arteries). Raised levels are associated with higher risks of heart attacks, while HDL cholesterol has a protective role.
Triglycerides	Together with total and HDL cholesterol, they provide a lipid (fat) profile which can give information on the risk of CVD.
Vitamin A and carotenoids	Vitamin A is essential to the normal structure and function of the skin and mucous membranes. It is also required for cell differentiation and therefore normal growth and development, and for normal vision and the immune system. Some carotenoids have provitamin A activity, thus acting as antioxidants to protect cells against oxidative damage.
Vitamin B1 (thiamin)	Vitamin B1 is required for energy production and carbohydrate metabolism. It is also involved in the normal functioning of the nervous system and the heart.
Vitamin B2 (riboflavin)	Vitamin B2 is needed for the release of energy from fats, carbohydrates and protein and the production of red blood cells. It is also needed for the normal structure and function of the mucous membranes and skin.
Vitamin B6 (pyridoxine)	Vitamin B6 is essential for the metabolism of protein. It is also involved in iron metabolism and transport.
Vitamin B12 (cyanocobalamin)	Vitamin B12 is required to make new cells as well as for normal blood formation and function. It is also needed for the normal structure and function of nerves. Dietary intake is exclusively from animal sources, e.g. eggs, milk, meat and fortified foods.
Vitamin C	Vitamin C is required for normal structure and function of skin, cartilage and bone as it is involved in the production of collagen, the protein in connective tissue. Thus it is involved in the healing process as well as the normal structure and function of blood vessels and neurological function. Vitamin C also contributes to the absorption of iron from some foods, in particular plant foods.

Vitamin D	Vitamin D is formed by the action of ultra violet light on the skin. This is the most important source as few foods contain significant amounts of vitamin D, e.g. eggs, oily fish and meat. Vitamin D undergoes changes in both the liver and the kidneys before working as a hormone in controlling the amount of calcium absorbed by the intestine. It is also essential for the absorption of phosphorous and for normal bone mineralization and structure. Vitamin D is also involved in the process of cell division in many other body tissues.
Vitamin E	Vitamin E is a group of compounds called tocopherols, of which alpha tocopherols is the most active. It acts as an antioxidant and is required to protect cells against oxidative damage by free radicals.
White blood cells	White blood cells are made by bone marrow and help the body fight infection and other diseases. There are various types of white blood cells.

The blood will **not** be tested for any viruses, such as HIV (AIDS).

18.2 Exclusion criteria

All respondents with the following exceptions are eligible to give blood:

- Pregnant women
- Respondents who are HIV positive or who have hepatitis B or C (see section 18.8.6)
- People with clotting or bleeding disorder
By clotting or bleeding disorders we mean conditions such as haemophilia and low platelets, i.e. thrombocytopenia. There are many different types of bleeding/clotting disorders but they are all quite rare. The reason these respondents are excluded from blood sampling is that:
 - a) the integrity of their veins is extremely precious
 - b) we do not wish to cause prolonged blood loss

For the purposes of blood sampling, those who have had, for example, a past history of thrombophlebitis, a deep venous thrombosis, a stroke caused by a clot, a myocardial infarction or an embolus are NOT considered to have clotting disorders.

- Those aged 16 and over who have had a fit (e.g. epileptic fit or convulsion) in the **last 5 years** should not be asked to provide a blood sample. Children, those aged 15 and under, who have **ever** had a fit should not be asked to provide a blood sample, even if the fit occurred some years ago.
- People who are **currently** on anticoagulant drugs, e.g. Warfarin therapy
Check if the respondent has a clotting or bleeding disorder or is on anticoagulant drugs, such as Warfarin, and record this in CAPI. These are very uncommon. If you find someone with these problems, do not attempt to take blood, even if the disorder is controlled.

Aspirin therapy is **not** a contraindication to blood sampling. If you are uncertain whether a condition constitutes a contraindication to blood sampling, the Survey Doctor will be happy to answer your queries.

- Adults who are not willing or able to give their consent in writing or children whose parent/guardian is unwilling or unable to give consent in writing.

Additional exclusions for fasting blood:

- People who have eaten or drunk something (except water) in the last eight hours
- Children under the age of 4 will not be asked to fast.

Insulin-dependent diabetic informants who had to eat in the last 8 hours before their insulin injection are eligible to give a fasting blood sample but you should make a note in CAPI. They should also take breakfast as soon as possible after blood sampling.

18.3 Consent

As blood sampling is an invasive procedure we need to ensure that fully informed written consent is obtained from each respondent. Information on what they are consenting to is mainly given in the Stage 2 leaflet, and the respondent confirms that they have been provided with this information on the consent form.

The leaflet 'Giving a blood sample' also provides useful information about the risks around giving a sample and after-care. This is information that you should be giving verbally in any case, and you therefore do not need to ensure that the respondent has read this leaflet in advance as long as you make sure you have covered all the points yourself.

On **no** account should you ever take blood before you have obtained written consent to do so from the respondent.

There are three further written consents we wish to obtain in most surveys in respect to blood sampling

- a. Consent to send the results to the GP
- b. Consent to store a small amount of the blood
- c. Consent to send the results to the respondent

You should seek to obtain all these consents before you take any blood.

Small quantities of blood are being stored in special freezers for further analysis in the future. Future analysis will definitely **not** involve tests for viruses (e.g. HIV (AIDS) test). Your survey specific instructions will specify whether or not there may be any genetic testing. Any future analysis will be unlinked which means that the researcher doing the analysis will not be able to link it back to the respondent. Respondents will therefore not receive the results of any tests done on their blood in the future.

The questions on the CAPI questionnaire will take you step by step through all the procedures for obtaining consents. Make sure you follow these carefully - recording consent codes as instructed and giving reasons for refusals, if applicable.

In summary:

- Ask the respondent if they would be willing to have a blood sample taken. Try to reassure respondents about the process, and be prepared to answer their concerns. You will need to explain the importance of written consent to the respondent
- Obtain written consents on the appropriate consent form. Remember to enter their name at the head of this form before asking the respondent to sign.
- Remember to enter your name in the qualified nurse space provided on each form.
- Check that you have circled the correct consent codes on the front of the consent booklet.

18.4 Equipment

The equipment required is listed on page 8 of the Clinical Practice Guideline for Venepuncture (CPG). Any additional equipment, specific to a project, will be listed in the project instructions.

18.5 Preparing the respondent

Protocol on preparing the respondent can be found in the CPG on page 8.

Further points to note include:

- Ask the respondent to remove any jackets, thick garments and/or roll their sleeves up.
- Instruct the respondent to remain as still as possible

18.6 Procedure

The procedure for taking the blood sample can be found in the CPG pages 9-12. This procedure is to be followed. It is to be used in conjunction with CAPI which will guide you through the blood sampling process.

Some surveys will use a different system for taking blood samples e.g. the monovette system. Refer to project specific instructions for how to use the specific equipment and take the blood sample. In all surveys the CPG should be referred to for guidelines on evidence based best practice.

Additional points to note include:

- Ametop Gel®, a local anaesthetic, will only be used in some projects (refer to project instructions). There is a CPG on use of Ametop which must be followed.
- The vacutainers should be filled to capacity in turn and inverted gently on removal to ensure complete mixing of blood and preservatives (in some surveys not all tubes will need to be inverted, refer to project specific instructions).

IMPORTANT WARNING

Never re-sheath the needle after each use

Do not allow the disposal box to become overfull as this can present a potential hazard

18.7 Labelling & packaging the sample(s)

Label the tubes as you take the blood. Refer to project specific instructions for further guidance about labelling and packaging the blood samples.

It cannot be stressed enough the importance of correctly labelling each tube with the correct serial number for the person from whom the blood was obtained. Apart from the risk of matching up the blood analyses to the wrong person's data, we will be sending the GP the wrong results. Imagine the implications of an abnormal result being reported to the wrong respondent.

18.8 Other important points

18.8.1 '*Giving a blood sample*' leaflet

We need to be sure that each respondent is left with information about giving a blood sample, including information about who to contact should they experience any side effects as a result of the blood sample.

To provide them with this information, leave the respondent with the leaflet 'Giving a blood sample'. The leaflet includes information on any possible side effects they may experience such as pain and bruising, and how to care for the puncture site. It is also a useful leaflet to leave behind to reassure the friends and family of the respondent of the procedure used should they have any concerns after your visit.

There are two versions of this leaflet, depending on whether ametop gel will be offered. Your survey specific instructions will tell you which one to use.

18.8.2 *Venupuncture check questions*

Always complete the Venepuncture checklist on CAPI for every respondent from whom you attempt to take blood. This shows that you have followed the correct procedure, and noted, where applicable, any abnormalities, and the action you took. The checklist is usually towards the end of the CAPI.

Please remember to check the respondent just before you leave and note any changes in their physical appearance in CAPI.

18.8.3 *Fainting respondents*

If a respondent looks or feels faint during the venepuncture procedure, it should be discontinued. The respondent should be asked to lie down with feet elevated.

If they agree for the test to be continued after a suitable length of time, the procedure should be performed with the respondent lying down and the circumstances should be recorded in CAPI. It is acceptable for the respondent to discontinue the procedure but agree to give the blood sample at a later time.

Remain with the respondent until they feel able to slowly move to a sitting position and until they are happy for you to leave them. Ensure you submit a Special Report Form to the Operations Standards Co-ordinator detailing what happened and how the respondent appeared when leaving.

18.8.4 Handling & disposal of needles and other materials

Safe disposal of needles is required to control the risk of injury from the disposed sharps. Without the safe disposal of needles there is an increased risk of needle stick injuries and/or psychological trauma due to fear of potential infection.

Precautions

- Wear gloves at all times when performing the venepuncture procedure
- Do not carry sharps unnecessarily
- Handling must be kept to a minimum
- Needles must not be passed directly from hand to hand
- Needles must not be bent or broken prior to use
- Needles should not be resheathed by hand
- Never lay sharps down on beds or work surfaces, or leave lying amongst paper towels or linen
- Sharps should be disposed of at the point of use
- Never hand sharps to anyone

Disposal

Do's:

- Always wear gloves when performing venepuncture procedure
- Bins should conform to British Standard 7320
- Sharps must always be disposed of in the approved yellow 'sharps bins'
- Sharp bin should be available beside you before opening and using the sharp
- Ensure that the lid is secure
- Dispose of the sharp bin when the manufacturer's marked line has been reached or when it is three quarters full
- Carry sharp containers by the handle
- Dispose of the sharp in the bin immediately after use
- Check to ensure that the bin lid is securely attached to the base and that the flap has been securely closed and sealed

Don'ts:

- Overfill sharps bins
- Fill sharps containers above the manufacturer's marked line
- Dispose of sharps with other clinical waste
- Place used sharps containers in yellow bags for disposal
- Put your hands into sharps bins
- Never return any used sharps bins by post or courier to the Operations Department or other member of the freelance nurse or interviewer panel

Place the used needles and the vacutainer holders in the sharps box and put gloves etc in the self-seal disposal bag. The needle disposable box should be taken to your local hospital or GP practice for incineration. Telephone them beforehand, if you are not sure where to go. If you cannot find a place to dispose of the sharps bin, contact your nurse supervisor who will be able to give you information on appropriate places.

The sealed bag containing gloves etc can be disposed of with household waste as long as it does not have any items in it that are contaminated by blood.

18.8.5 Needle stick injuries

The following information is based on guidelines from the Department of Health, immediately following exposure.

First Aid

- Encourage wound to bleed.
- Do not suck.
- Wash liberally with soap and water without scrubbing, do not use antiseptics and skin washes.
- Dry and apply waterproof dressing.
- Exposed mucous membrane and conjunctivae should be irrigated copiously with water.

Following the above procedure it is recommended that the nurse attend a nearby accident and emergency department to ensure immediate current needle stick injury assessment/ treatment.

Please note that you should not take any further action in the respondent's home; any further procedures which might be necessary (such as taking a sample of the respondent's blood) would be carried out by somebody else.

Report

- Incident to be reported as soon as possible to Nurse Supervisor, who will report the incident to the Survey Doctor.
- Special Report form to be completed and sent to Operations Standards Co-ordinator at Brentwood.

As soon as the nurse supervisor hears, she will ensure that the nurse is offered appropriate advice and support.

18.8.6 Respondents who are HIV or Hepatitis B positive

If a respondent volunteers that they are HIV, Hepatitis B or Hepatitis C positive, **do not** take a blood sample. Record this as the reason in the CAPI. You should never, of course, seek this information.

18.9 Respondent feedback

Results from some blood tests (though not necessarily all) can be sent to the respondent. If the respondent gives written consent for the results of their blood sample to be sent to their GP then they are able to get feedback on the results.

19 LUNG FUNCTION USING NDD EASY ON-PC

19.1 Introduction

Lung function tests objectively assess respiratory function and are widely used in clinical practice to diagnose and monitor the progress of respiratory diseases such as asthma and chronic obstructive pulmonary disease (COPD). A lung function test produces values across the various measures tabled below (Table 1). A wide range of variables can affect these factors, for example smoking, chronic bronchitis, poorly controlled asthma, some muscular disorders and many other conditions. Results also vary according to a respondent's age, sex, height and ethnicity. At a population level, these measures tell us a lot about the respiratory health of the population and can be used to monitor trends in the prevalence of respiratory disease over time.

For an adult, a spirometry manoeuvre (a 'blow') is deemed technically acceptable if the respondent completes it with the correct technique and the blow is as rapid as possible and lasts until the lungs are empty. In COPD, this may take 15 seconds or longer. A spirometry test, comprising of all of the respondent's manoeuvres taken together, is deemed technically acceptable if they have a minimum of three acceptable manoeuvres of which two are reproducible.

Table 9 Lung function test values

Test	Abbrev	Definition
Forced Vital Capacity	FVC	The total volume of air that can forcibly be blown out after a full inspiration, measured in litres.
Forced Expiratory Volume in 1 Second	FEV ₁	The volume of air that can be blown out in one second, measured in litres during a forced manoeuvre
FEV1%	FEV ₁ /FVC	The ratio (%) of FEV ₁ to FVC.
Peak Expiratory Flow	PEF	The speed of air moving out of the lungs at the beginning of expiration, measured in litres per second.
Forced Expiratory Flow	FEF(25-75)	The average flow (or speed) of air coming out of the lungs during the middle portion of expiration, measured in litres per second
Forced Inspiratory Flow	FIF	Similar to FEF except the measurement is taken during inspiration.
Forced Expiratory Time	FET	The length of expiration in seconds.
Tidal Volume	V _T	The specific volume of air that is drawn into the lungs and then expired during a normal respiratory cycle.

19.2 Exclusion criteria

Respondents are excluded from the lung function measurement if they:

- Are pregnant
- Have had abdominal or chest surgery in the last three months
- Have had a heart attack in the last three months
- Have detached retina or eye surgery or ear surgery in the past 3 months
- Have been admitted to hospital with a heart complaint in the preceding month
- A resting pulse rate more than 120 beats/minute (respondent should be sitting for at least 5 minutes prior to the pulse rate being taken)
- Are currently taking medications for the treatment of tuberculosis

As with all measurements and samples, a respondent is excluded from the lung function measurement if the nurse deems it unsafe for them to continue. This may be due to concerns over the respondent's understanding of the measurement or concern over infection control if they have a cough or chest infection.

19.3 Equipment

You will need:

- An NDD Easy On-PC spirometer
- A 3 litre calibration syringe
- Spirettes
- Chair (preferably with arms)
- Nose clip

19.3.1 The NDD EasyOn PC spirometer

The NDD EasyOn-PC spirometer is different from any spirometer used by NatCen in the past as it plugs into the laptop. This allows for the respondent's results to be obtained automatically by the spirometry program which has been installed on the laptop. Therefore the respondent's results do not need to be manually entered into the CAPI.

Additionally, the spirometry program will give you the overall session quality as a grade (see section 19.8 for further information) and tell you when a respondent has done sufficient manoeuvres for the overall test to be acceptable.

If a respondent is struggling with the lung function manoeuvre, the spirometry program will give you the instructions you need to tell the respondent to help them give successful and valid blows.

19.3.2 Caring for the spirometer

The spirometer needs minimal care and maintenance. There are no moving parts which need to be cleaned at regular intervals. Please do not attempt to take the housing apart to clean it, this is not necessary and will result in the spirometer being damaged. Proper use of the spirorette with the spirometer will ensure the interior of the spirometer remains clean.

It is important that the external housing is wiped over before it is used by a respondent. This will remove any dust and fingerprints from the plastic casing. This should be done using an anti-bacterial wipe. The inner tube of the spirometer which contains the sensor does not need to be cleaned as the spirette ensures that this remains uncontaminated. Tests done by the manufacturer show that the spirette prevents 99.9% of germs from being in contact with the inner tube of the spirometer.

It is important that you wipe the external plastic casing between respondents within a household.

At no time should the spirometer or the attached cord be immersed in water. If this happens, please report it to the operations team who will need to return the spirometer to the manufacturer to be checked.

Please store the spirometer in the plastic zip lock pouch that is provided. This will ensure it remains free of any dust and dirt and will help to keep it protected. This bag should be washed in a warm soapy solution, rinsed and left to air dry as necessary.

19.3.3 Caring for the calibration syringe

The calibration syringe is a very fragile and sensitive piece of equipment. When you receive it, it will be calibrated to 3L. Any knocks, even small ones, to the calibration syringe may cause it to no longer be accurate, making the results of any calibration checks unreliable. For this reason you must not drop or knock the syringe. Please store it in a safe location away from direct heat.

The syringe will need a calibration check every 12 months. You will be notified of when this is required. If you feel the syringe needs checking prior to this, for example it has been dropped, please contact Brentwood who will advise you on what to do.

19.3.4 Calibration/accuracy test

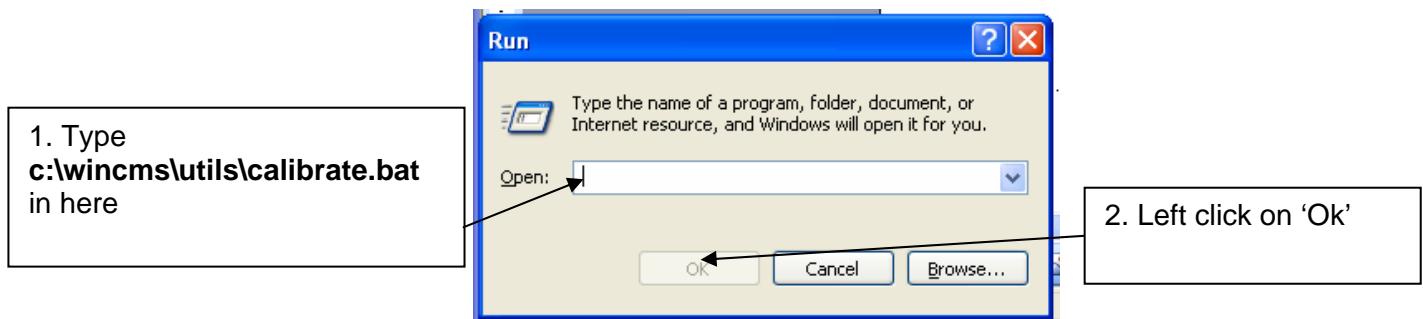
13. Before using the spirometer, its accuracy must be checked by conducting a calibration test. This procedure should be done **in your own home** at the start of each day when you are working. If you have more than one visit in the same day you need to calibrate the spirometer **only once**. You must not take the calibration syringe with you when you make a visit.
14. The calibration check is done using the spirometry software so you will need to turn on your laptop.
15. Connect the spirometer to the laptop using the USB port (see section 19.3.5).
16. Insert a spirette into the spirometer (it is a good idea to keep a spirette with your calibration syringe so that you always have one available). Connect the mouthpiece of the spirette to the adaptor on the end of the calibration syringe as shown below. Ensure the piston is fully inserted and at the stop position.



17. Once your laptop is at the CMS screen hold down the Windows key (shown below) and at the same time press the 'R' key.



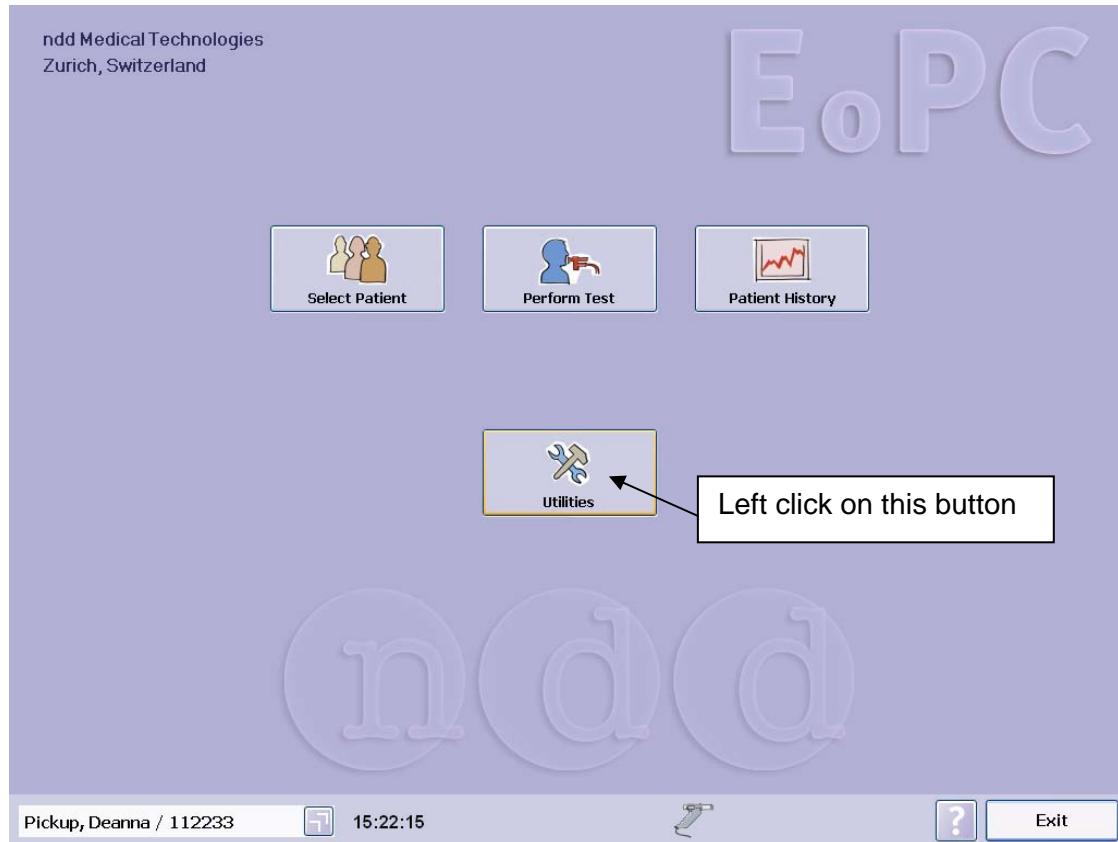
18. You should now have a pop up box in the bottom left hand corner of your screen which looks like this



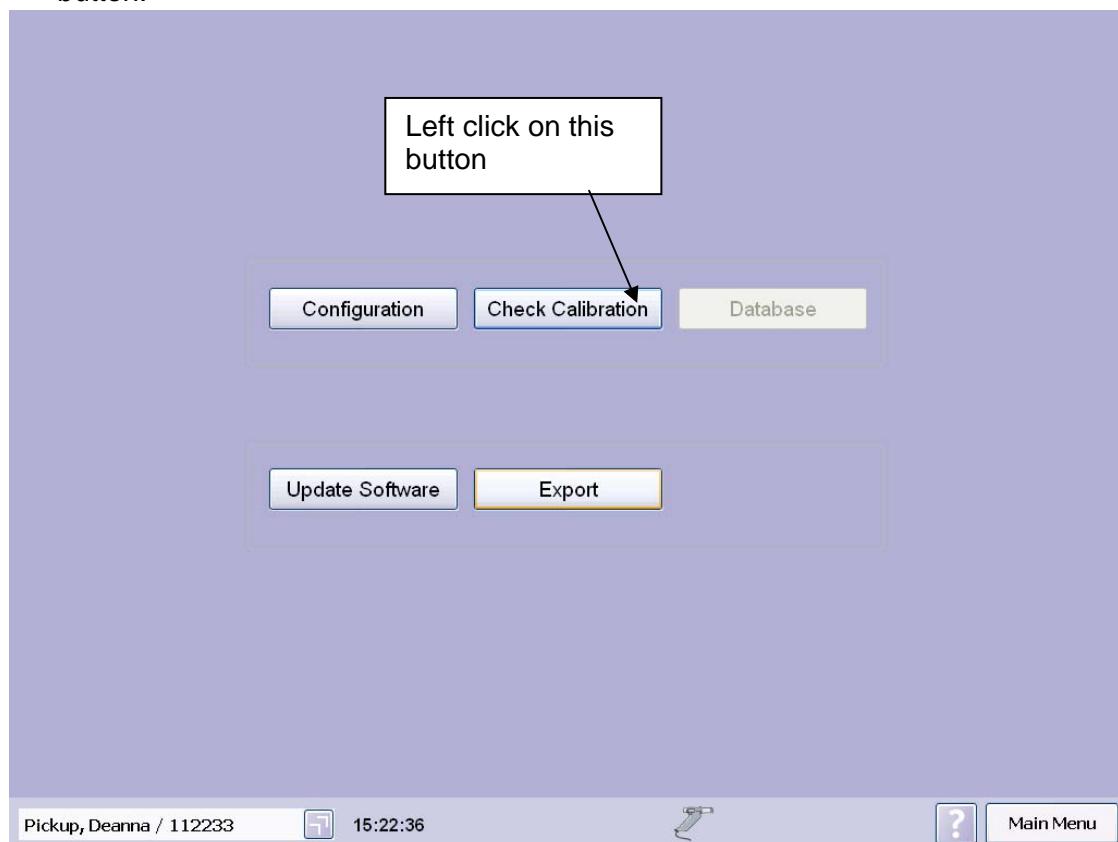
19. In the white box type the link **c:\wincms\utils\calibrate.bat**. You should only have to do this the first time you calibrate the syringe. After this, when you begin to type the link into the box, the laptop should remember it and it will appear in the box without you having to type the whole link in.

20. Once the link has been typed in, left click on the 'Ok' button.

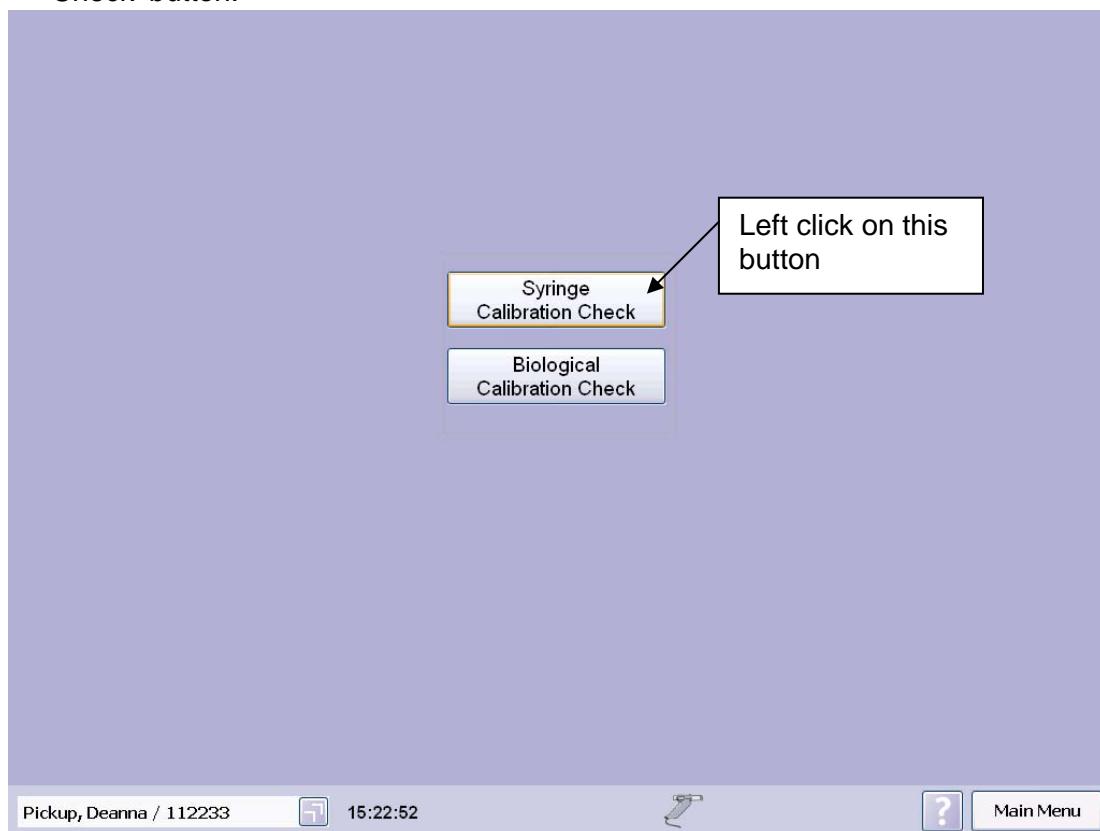
21. You will be directed to the screen below. Left click on the 'Utilities' button.



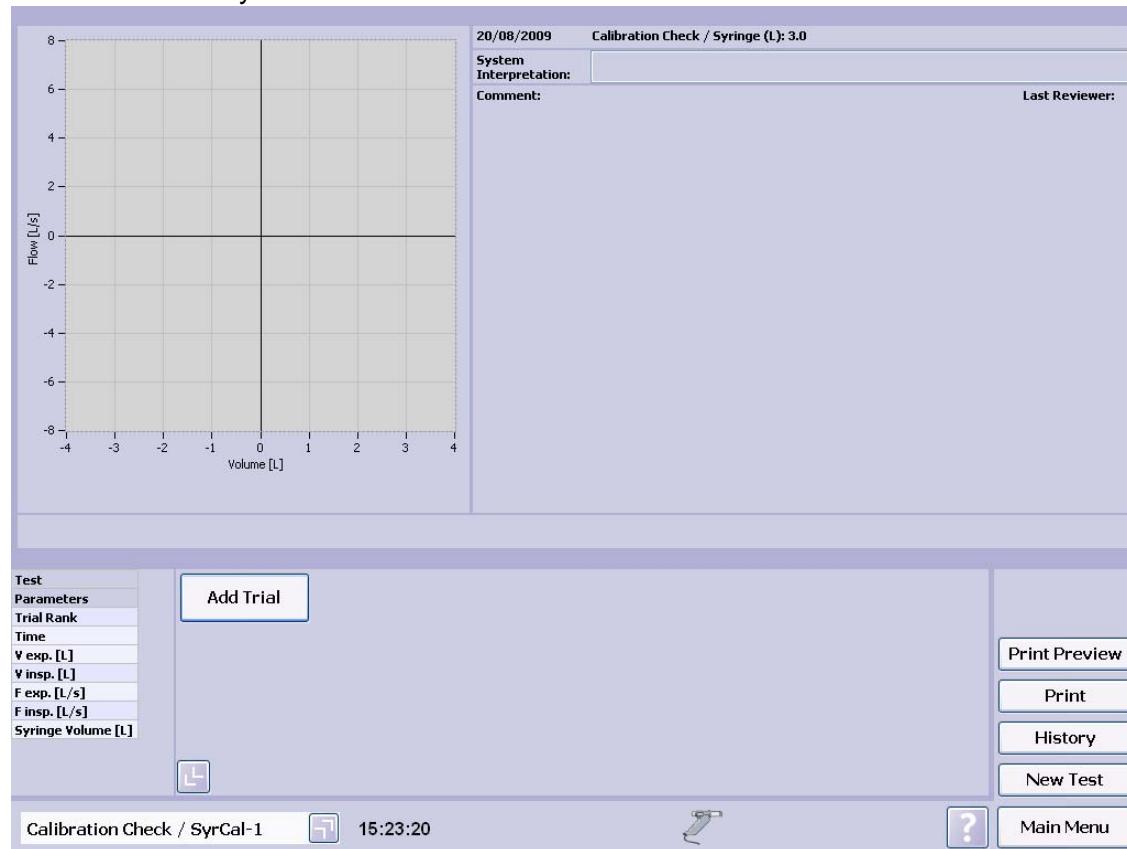
22. You will be directed to the screen below. Left click on the 'Check Calibration' button.



23. You will be directed to the screen below, left click on the 'Syringe Calibration Check' button.



24. You will be directed to the calibration testing screen shown below. This is the screen which you will use to do the calibration check.



13. Left click on 'Add Trial' and wait for the baseline to be set. When you are instructed, with a smooth and steady motion, fully withdraw the piston (a full inspiratory pump) followed by fully pushing the piston in (a full expiratory pump).
14. You will need to do this manoeuvre; a full withdrawal followed by fully pushing the piston in three times, as instructed by the laptop.
15. After you have performed three manoeuvres you should see 'Accuracy confirmed' on the screen.
16. After calibration, left click on 'Main menu'. You will be directed to the 'Utilities' screen, left click on 'Main menu'. This will direct you to the Main menu. Left click on 'Exit'. You will need to confirm that you wish to exit the software by left clicking on 'Ok'.
17. The spirometry software should now be closed and the CMS should be on the screen.

If the spirometer fails the calibration test, please contact Brentwood. Unlike other spirometers, the NDD Easy On PC spirometer cannot be recalibrated. Brentwood will advise you on what to do.

19.3.5 Attaching the spirometer to the laptop

5. The spirometer does not require any batteries. It plugs into one of the USB ports located on the base of your laptop and is powered by this.
6. To attach the spirometer to the laptop, plug the USB adaptor at the end of the spirometer cord into a USB port on the laptop. The USB adaptor and USB port have been colour coded with labels to make this easier, and you should have the coloured dot facing upwards as you plug the adaptor in.
7. If the USB adaptor does not fit easily into the port, (turn the adaptor over and try to insert it into the port again) check that the coloured dot is upward. **Do not force** the USB adaptor into the USB port as this may result in either of them being damaged.

8. The spirometer has been connected to the laptop correctly when a small spirometer icon is displayed at the bottom of the computer screen (see below).

Patient ID 12345 *

Last Name Pickup

First Name Deanna

Gender Female * Ethnic Caucasian *

Date Of Birth 04 / 11 / 1983 dd/mm/yyyy * Smoker No *

Height 168 cm *

Weight 73 kg

* Required

Cancel Ok

12:44:53  Menu

19.3.6 Assembling the spirometer for use

1. Tear open the plastic bag containing the spirette and fold the bag back allowing you to insert the spirette into the spirometer. Ensure that the plastic bag protects the mouthpiece of the spirette until you hand the spirometer to the respondent. This ensures the mouthpiece of the spirette is hygienic and has not been contaminated before you hand it to the respondent.
2. To insert the spirette into the spirometer, slide the cylindrical end of the spirette into the hollow of the spirometer. There is only one way that the spirette can be correctly locked into the spirometer, this is done by ensuring the arrow on the top of the spirette is aligned with the arrow on the top of the spirometer (see the picture below). The spirette is securely attached when these lock into each other and the spirette cannot rotate inside the spirometer.
3. The spirometer is now ready for use.



19.4 Preparing the respondent

Before commencing the spirometry procedure explain the following to all eligible respondents:

- The purpose of the test and how to use the spirometer.
- To ensure an accurate reading they must 'blow' as hard as they can for as long as they can, so long as it does not cause them any pain and/or discomfort.
- The definition of an acceptable level of lung function depends on the person's age, sex, height and ethnicity.
- The number of blows they may have to do and what they need to do for the test to be acceptable i.e. three acceptable blows, of which two are reproducible

The CAPI will prompt you to give this information.

Also ensure that you have a drink of water ready for the respondent.

19.5 Demonstrating

For an accurate reading of lung function it is very important that you demonstrate the blowing technique to each respondent. Do this using a spare spirogram that is not connected to the spirometer and follow the procedure below:

3. Explain that the mouthpiece should be held in place by the lips, not the teeth and that the lips are wrapped firmly around the mouthpiece so no air can escape. Explain that the tongue needs to be depressed so that it is not blocking the flow of air into the spirogram.
4. Demonstrate a blow, pointing out afterwards the need for full inspiration, a vigorous start to exhalation and sustained expiration. The blow should ideally last at least 6 seconds in duration, if this is possible and not interrupted by coughing, glottis closure laughing or leakage of air. The torso should remain in an upright position throughout the blow, not hunched over.

19.6 Procedure

5. The respondent must be sitting in a chair (this will preferably be a chair with arms and no wheels) with their feet flat on the floor, seated in an upright position. They should loosen tight clothing (for example ties and belts) to allow for a bigger inspiration. If the respondent wears dentures, it is preferable that they leave them in as they will get a tighter seal with their mouth around the mouthpiece which will result in a more accurate result. If the dentures are loose, they can remove them to perform the test.
6. Demonstrate the blow to the respondent (see section 19.5), CAPI will direct you when to do this.
7. Connect the spirometer to the laptop (see section 19.3.5). Insert a spirogram into the spirometer ensuring that the plastic bag stays on the mouthpiece of the spirogram (see section 19.3.6).
8. Give the spirometer to the respondent, ask them to remove the plastic bag and put the mouthpiece in their mouth. Also give the respondent a nose clip to put on. Instruct them to breathe normally through the spirogram while wearing the nose clip.

They should not do a blow at this stage; however it is important that the respondent becomes comfortable with having the mouthpiece in their mouth and the nose clip on.

9. When the respondent is comfortable with the equipment, ask them to remove the spirette from their mouth and give the spirometer back to you. Make sure you do not touch the spirette and only hold the spirometer by the handle. They can also remove the nose clip at this point.
10. Start the NDD Spirometry computer program as instructed by the CAPI.
11. Below is the first screen you should see. Check the respondent's serial number (Patient ID), their First Name and their Date of Birth are correct. The fields for height, weight, ethnic and smoker should be pre filled with information from the nurse link. Without this information you will not be able to do a lung function test with the respondent. If the respondent refused their height or weight to be measured at time of interview, CAPI will assume an average value.
12. Also check the spirometer symbol at the bottom of the screen is visible as this means that the spirometer has been correctly connected to the laptop and it is ready to receive information from the respondent blows. When you are satisfied the information is correct, left click on 'Ok'.

General

Patient ID	12345	*				
Last Name	Pickup					
First Name	Deanna					
Gender	Female	*				
Ethnic	Caucasian	*				
Date Of Birth	04	/	11	/	1983	dd/mm/yyyy *
Age 25						
Height	168	cm *				
Weight	73	kg				

* Required

Cancel

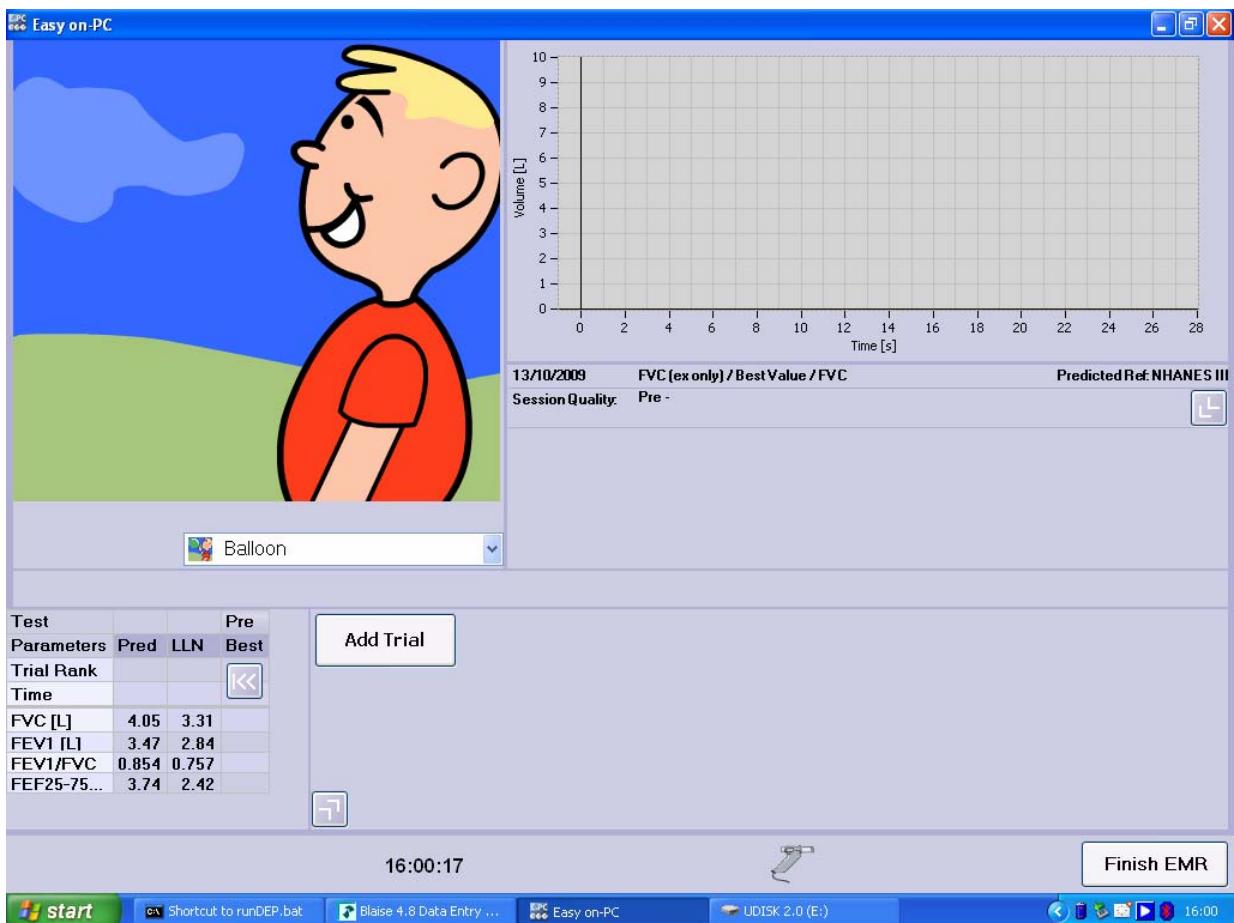
Ok

Left click on Ok

12:44:53

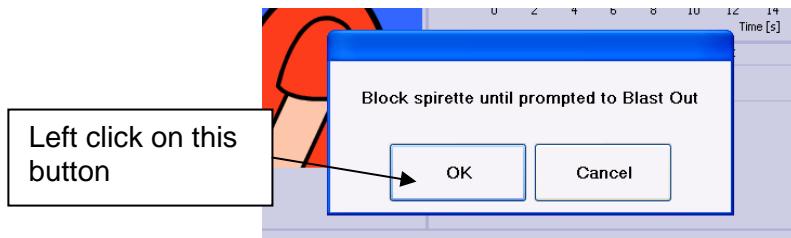
Menu

13. You will be directed to the screen below, this is the test screen.

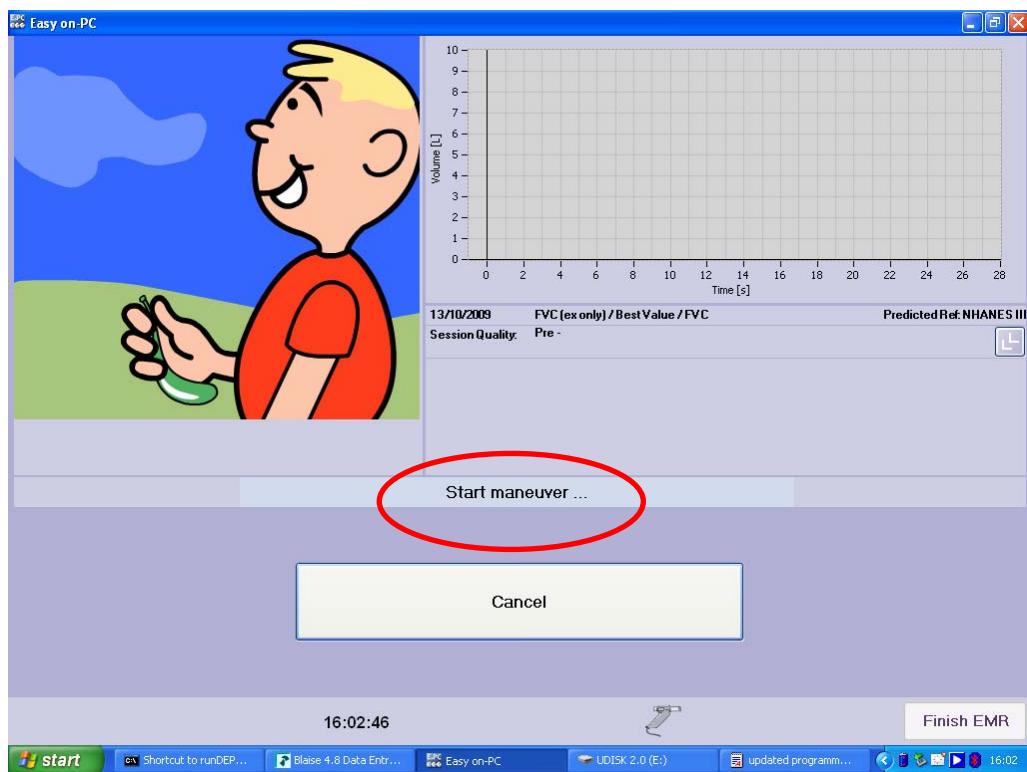


14. Show the screen to the respondent. Explain to them, that in a moment they will need to put the nose clip on and you will click on the 'Add Trial' button which will start the test. Further explain that you will give them the spirometer and they will need to breathe in as deeply as possible and quickly put the spirogram in their mouth, ensuring a good seal with their lips and then blast out the air with as much force as possible without any hesitation, and to keep breathing out for as long as possible. When they have finished breathing out, they need to take another deep breath in. They can then remove the spirogram from their mouth. Explain that it is a quick process and that while they are doing it the boy on the screen will be blowing up a balloon to encourage them to keep blowing out for as long as they can.

15. Before you give the spirometer to the respondent for the first blow you need to set the baseline. This will need to be done once per respondent. While you are setting the baseline ask the respondent to put the nose clip on, ready to do the blow as the setting of the baseline only takes seconds.
- Left click on the 'Add Trial' button, the spirometer will power on. A pop up box will appear on the screen that looks like this:



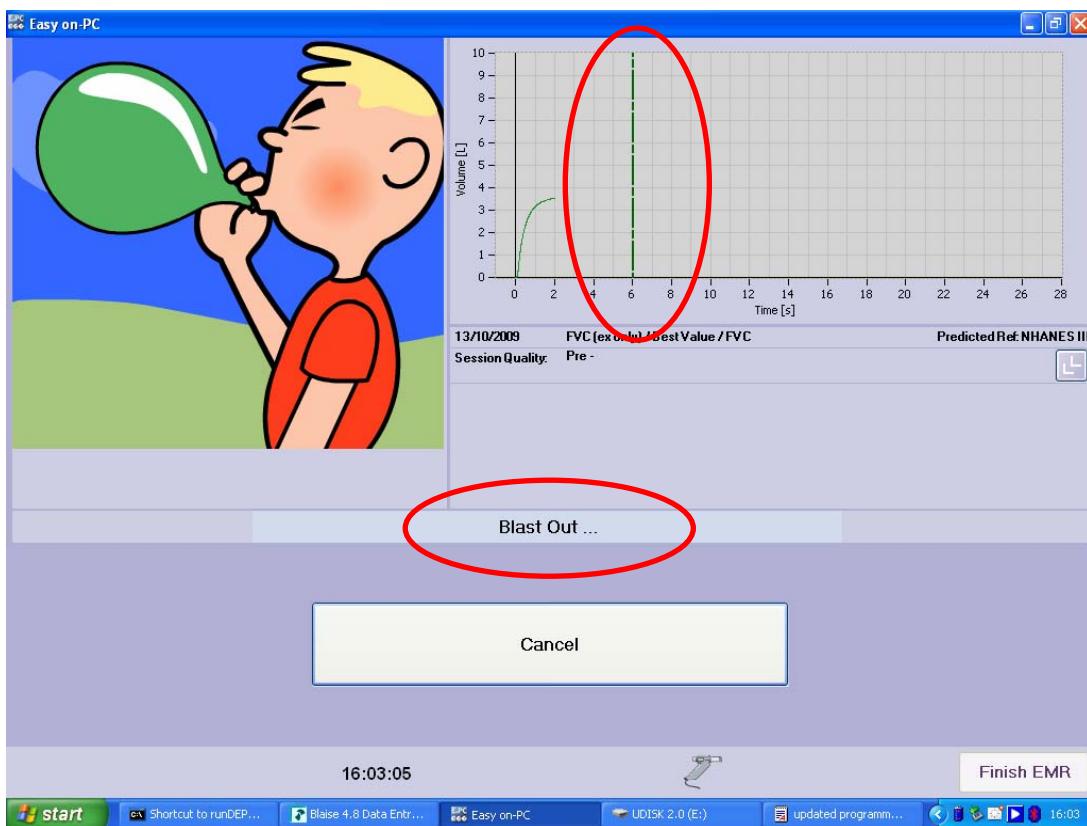
- Left click on 'Ok'.
- A message will appear above the 'Add Trial' button which reads: 'Setting baseline: Avoid Flow!'. Place your hand over the end of the spiroette that the respondent does not use as the mouthpiece. Alternatively, hold the spirometer very still so that no air flows through the spirometer
- The baseline is now set and the program will automatically ask you to start the manoeuvre (see below).



10. Immediately hand the spirometer to the respondent and instruct them to breathe in as deeply as possible and then put the spirotte in their mouth, ensuring that they make a seal with their lips. The respondent should be able to see the laptop screen so that they can see the animation of the boy. They will need to breathe in and put the spirotte in their mouth quite quickly otherwise the program will register it as an aborted test. If this happens, left click on the 'Add Trial', and when the screen reads 'Start manoeuvre' ask them to take a deep breath in ready

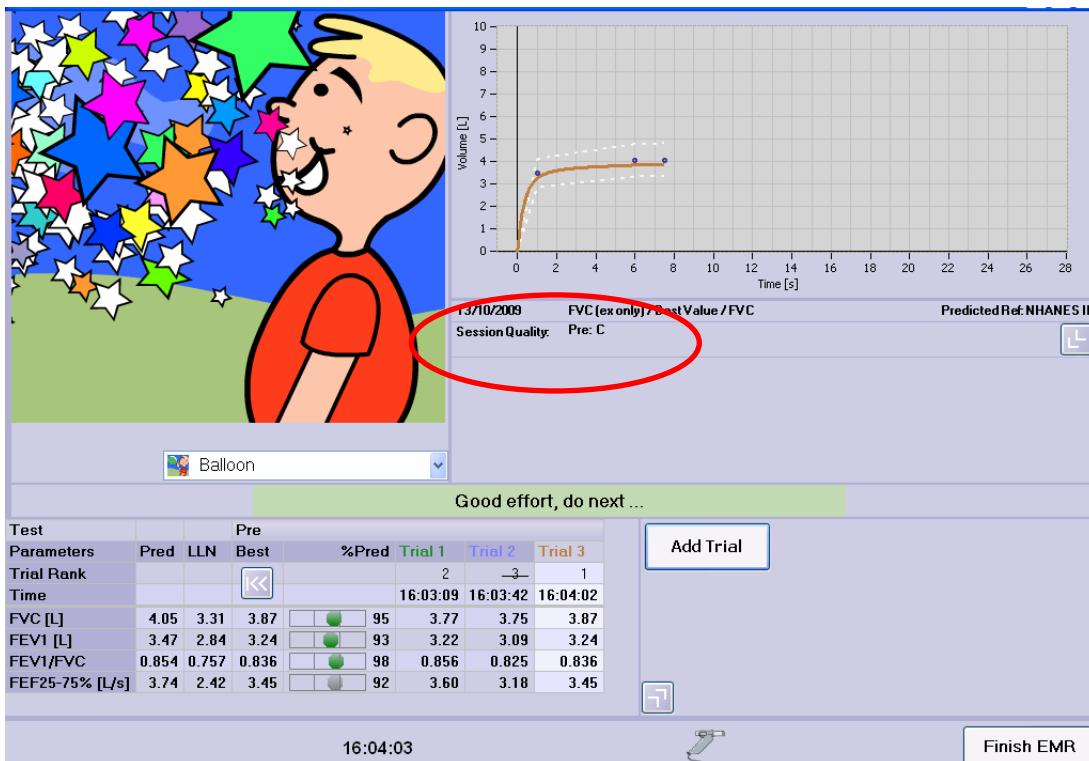
to do the blow. You will not need to reset the baseline, it only needs to be set once.

11. As soon as you can see that they have taken a deep breath in and the spirotte is in their mouth, say "blast!", (the program will also read 'Blast out!', see below). As the respondent is blowing encourage him/her by saying "keep going, keep going, keep going..." to get the maximum and fastest expiration possible. Ensure the respondent remains seated upright while blowing. They should also be watching the balloon being blown up on the screen.
12. As soon as they blast out, the 6 second line will appear on the chart (circled below) to tell you for how much longer the respondent needs to blow to meet the criteria for the test to be acceptable; however the respondent should continue to blow out for as long as they can. DO NOT stop them just because they reach the 6 second line on the chart. Keep encouraging the respondent while they are blowing.



13. When the respondent cannot breathe out any more, instruct them to take a deep breath in.

14. When the blow is complete, the program will deem it as either acceptable or unacceptable. If a blow is acceptable, the respondent will see the screen below. If the blow is not acceptable, the program will give you advice on the instruction you need to give the respondent so that their next blow is acceptable (see section 19.9 for a list of these and how to interpret them).



15. Inform the respondent you are going to ask them to do it again, making sure to remind them of any instructions if their test was unacceptable. Also remind them that when you tell them to take a deep breath in and then blast it out, and to keep blowing out for as long as they can. There should be approximately 30 seconds between each blow or longer if required. Allow the respondent to have a drink of water while they rest.
16. Left click on the 'Add Trial' button to start a new manoeuvre. It will first read 'Please wait'. When the screen reads 'Start manoeuvre', ask the respondent to put the nose clip on and breathe in as deeply as possible.
17. Ensuring the respondent can see the laptop screen, ask the respondent to put the spirogram in their mouth. Repeat steps 11-17 until you have reached a session quality of A or B or one of the other stopping criteria is met (see section 19.7). Most respondents should be able to manage what is required but there may be some that cannot. You must strike a balance between encouragement and over-insistence.
18. The program will inform you of the session quality for the respondent, see the screen above. To exit the spirometry program, left click on the 'Finish EMR' button to return to the CAPI.

19.7 Stopping criteria

Respondents should stop the lung function test if any of the following criteria are met:

- The overall session quality achieved is A or B. If a B grade is achieved within a minimal number of manoeuvres and you think the respondent is capable of achieving an A grade by doing more blows, ask them to have another go.
- The respondent has done 8 manoeuvres (blows)
- They no longer wish to continue
- You have concerns for the respondent's safety

If you stop a respondent from doing any further manoeuvres out of concerns for their safety, explain to the respondent that you have all the information that you need and that you will be moving on to the next section.

If you do need to stop a respondent early, left click on the 'Finish EMR' button in the bottom right hand corner of the screen. This will take you back to the CAPI where you will be able to comment why the respondent was stopped early.

19.8 Session quality

Each testing session is assigned a grade which denotes the session quality. This grade is based on the number of acceptable blows and the reproducibility of these. You should aim to get a Grade A or a Grade B with each respondent. This will not always be possible and the stopping criteria in section 19.7 should always be adhered to.

- | | |
|---------|--|
| Grade A | Three acceptable manoeuvres; two highest FVC and FEV1 within 100ml |
| Grade B | Three acceptable manoeuvres; two highest FVC and FEV1 within 150ml |
| Grade C | Two or three acceptable manoeuvres reproducible within 150-200ml |
| Grade D | One acceptable manoeuvre |
| Grade F | No acceptable manoeuvre |

19.9 Technically unsatisfactory blows and program advice

A technically unsatisfactory blow can occur for many reasons. Below is a list of the instructions given by the program following an unsatisfactory manoeuvre (blow) and how these should be interpreted.

Table 10 Messages following unsatisfactory blows

Message	Reason	Advice
Don't hesitate...	The respondent exhaled air in short bursts	Respondent must breathe out (blast out) all the air at once, not in short bursts
Blast out faster...	The respondent did not blast the air out fast enough	The respondent must breathe out the air as fast as hard and as fast as possible
Blow out longer...	The respondent did not breathe out for long enough OR stopped when they still had air in their lungs	The respondent needs to breathe out for longer OR they need to force out as much air from their lungs as possible

Test abrupt end!	The blow stopped sooner than was expected	The respondent needs to breathe out for longer OR they need to force out as much air from their lungs as possible
Good effort, do next...	The blow was acceptable	This is an acceptable blow. They need a two more of these for the overall session to be complete
Do not start too early!	The respondent was breathing through the spirotte before the program was ready	The respondent needs to wait until the screen reads 'Start manoeuvre' until they breathe through the spirotte
Cough detected. Try again...	The respondent coughed while blowing	The respondent needs to avoid coughing if possible.

19.10 Technical faults and troubleshooting

Refer to Table 11 if technical difficulties are experienced with the spirometer

Table 11 Troubleshooting for the spirometer

Fault	Action
The spirometer icon does not appear at the bottom of the laptop screen after you have plugged it in	<ul style="list-style-type: none"> Check that it has been connected properly and that the USB cable has been pushed in fully to the USB port
The spirometry software will not start	<ul style="list-style-type: none"> Contact Nurse Supervisor
Calibration values vary greatly	<ul style="list-style-type: none"> Ensure the correct calibration procedure is being followed Start calibration syringe stroke sharply Ensure that you push the calibration syringe smoothly and evenly rather than jerkily Replace calibration syringe if necessary Check spirometer for external damage Ensure calibration syringe is emptied and filled fully during each stroke

If any problems persist, contact your Nurse Supervisor. If the problem continues to persist you will be advised to contact Brentwood for advice.

20 CONTACTS

Should you have any questions regarding the protocols then please do not hesitate to contact your nurse supervisor. You can also contact the Survey Doctor, whose details can be found in the project instructions.

Should you have any questions regarding the project on which you are working then please contact the relevant operations team in Brentwood or the research team in London. These details are also found in the project instructions.

21 USEFUL NATCEN REFERENCE GUIDES

1. *CMS User Guide*
For all queries on using the CAPI menu system.
2. *Working Safely*
A guide for interviewers, nurses and researchers.
3. *Nurse Manual*
For information on survey nursing.
4. *Venepuncture CPG*
For guidance on venepuncture best practice.

APPENDIX A SPECIAL GROUPS



INTERVIEWING

- **Respondents with disabilities**
- **The elderly and/or vulnerable**
- **Children and young adults**

Mary Holmden
January 2004 (Dec06)

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1 OVERVIEW

NatCen interviewers and nurses know they can expect to meet many very different individuals when working in field. They will come from all sorts of backgrounds and live in many different types of accommodation, they will include the very elderly and the young, the healthy and the ailing. For some respondents specific procedures apply, and extra sensitivity and attention to detail will make the interview process more rewarding for them and for you.

This document concerns people with disabilities, those who are elderly or vulnerable, and children and young adults. It is intended to:

- inform you of NatCen standard requirements and expectations when contacting/interviewing respondents in these groups
- provide you with practical guidance as to the means by which you might best enable them to participate in any study for which they have been sampled

2 PEOPLE WITH DISABILITIES

2.1 Introduction

18% of the working age population in UK – nearly 1 person in 5 - has a disability. This figure, and the figure within the general population, (estimated at 7 – 8%), is increasing. Medical and technological advances, which also encourage longevity, now help those with many kinds of disabilities to enjoy a full life and enable society to utilise their talents.

The Disability Discrimination Act defines a disabled person as one having a physical or mental impairment which: -

- is long term (12 months or more), and
- has a substantial adverse effect, and
- adversely affects his or her ability to carry out normal everyday activities

but this definition is problematic in some respects, for disability comes in many shapes and forms. Some disabilities are progressive – they may be present and meet the first two of the above criteria but not (yet) the third; other conditions may vary from day to day and or are not obvious in ordinary everyday interaction.

Disability need not advertise itself - only 5% of disabled people are wheelchair users. Disability is not necessarily sickness – the general health of many people with disabilities is as good as anyone else's.

2.2 The Role of the NatCen Interviewer and Nurse

While some projects may focus specifically on the disabled, NatCen interviewers and Nurses, in the normal course of the assignments, meet respondents with a wide range of disabilities. If you have not previously met people with disabilities, however, you may feel discomfited, self-conscious or uncertain about the right way to act and the right things to say.

If you make assumptions or have misconceptions this is likely to be the biggest barrier to successful interviews. Disability does not necessarily mean inability, dependency or frailty.

The language of disability has changed in the past decade – it is generally recognised that terms such as ‘handicapped’, ‘crippled’ , ‘mongol’, ‘backward’ ‘spastic’, all at one time in common usage, are now unacceptable. What does constitute acceptable language may, however, differ depending on the individual concerned and interviewers will need to be sensitive to this. Some people with disabilities may strongly dislike terms such as ‘disabled’ or any similar expressions which they feel serve to identify them primarily through their disability (ie. ‘an epileptic’ rather than someone with a specific health condition ie. ‘a person with epilepsy’). Emotive language, ‘suffers from’ ‘afflicted with’ ‘stricken by’ ‘victim of’, should also be avoided.

2.3 Some General Do’s and Don’ts

- Treat respondents with respect and consideration
- Be punctual for appointments – a person who is taking medication or who needs assistance may not be as flexible as other respondents
- Watch carefully and listen attentively
- Only offer help where appropriate - and wait until it is accepted
- Look at and speak to the respondent – not to their assistant or carer if present
- Be prepared to offer to suspend the interview and return at a later date if the respondent seems to tire
- Use your usual tone of voice and your usual voice inflection
- Be aware of your own attitudes to and feelings about disability
- Use language sensitively

Project instructions usually permit assistance from carers, personal assistants or someone able to communicate in sign language. The assistance allowed may be limited. For example self completions on some projects may only be completed by the respondent while on others assisted completion is acceptable. There are a small number of instances where assisted interviews would be inappropriate in view of the personal or sensitive nature of the data being collected. Please check project instructions and if in any doubt ask the project team or researcher.

In certain circumstances it may also be possible for assistance with an interview (eg someone able to use sign language) to be arranged via the project team.

2.4 Interviewing respondents with a disability

2.4.1 Respondents with visual impairment

About one million people in the UK are blind or partially sighted. The majority of them have some vision. They may have peripheral but no central vision; distorted or blurred vision; or tunnel vision only.

- Use normal speech – don't be embarrassed at using words like 'see' in normal conversation
- If the interview requires the use of showcards, explain what these are and offer to read them out (Don't assume this will be necessary, RNIB research shows that 60% of blind and partially sighted people are able to read clear large print)
- If you are taken to the respondent by a carer or other household member, introduce yourself clearly
- Let the respondent know if you are going to leave the room for any reason
- If you offer a handshake say 'shall we shake hands'
- Tell the respondent what you are doing as you set up the laptop, etc.
- If interviewing concurrently remember to say the name of the person to whom you are speaking
- Leave a leaflet and, where applicable, other project specific literature, as usual
- A guide dog is a working dog and should not be stroked or petted unless the respondent says this is acceptable

2.4.2 Respondents who are deaf or hard of hearing

There are different degrees of types of deafness and 8.7 million adults in Britain, three quarters of whom are over 60 years old, have some degree of hearing loss. Tinnitus, the sensation of ringing or buzzing in the ears in the absence of other sound, affects 17% of the population to some degree – both deaf and hearing.

Those with hearing difficulties communicate in several ways. The standard means of communication among the profoundly deaf is sign language; others may choose to lip read but this is demanding, requires intense concentration and can be very tiring.

- Establish the respondent's preferred means of communication
- When talking to a person who is hard of hearing, or has chosen to lip read, position yourself so that any light falls on your face rather than shadowing it
- Ensure you remain facing the respondent
- Make sure the respondent can see your mouth while you are talking
- Do not shout or exaggerate your speech
- Speak at slightly slower than normal speed but check regularly that you have been understood
- If assisted by an interpreter using sign language – speak to and make eye contact with the respondent, not the interpreter
- Be prepared to write things down if necessary

2.4.3 Respondents who are deaf/blind (Dual sensory impaired)

Some 23,000 people in the UK have combined sight and hearing loss. The advice above may be useful where there is some sight or hearing or, additionally, communication may be achieved using a helper familiar with the deafblind manual alphabet whereby words may be spelled out using the respondent's fingers and hands.

2.4.4 Respondents with speech difficulties

Speech difficulties may result from many different causes, such as: problems with the nervous system, multiple sclerosis, stroke, brain tumour, Parkinson's disease; or there may be some congenital cause. Medication may mean the extent of the difficulties varies at different times of the day.

- Slow or impaired speech does not mean limited intelligence or understanding
- Be patient and pay careful attention
- Allow extra time for responses to your questions
- Do not interrupt or attempt to finish sentences
- Do not pretend to understand if you do not; politely ask the respondent to repeat what they have said

2.4.5 Respondents with cerebral palsy, physical or mobility difficulties

Cerebral palsy is a physical impairment that affects control of movement. The severity of this disability ranges from the barely noticeable to the extremely severe where the person concerned may not be able to feed themselves or sit up unsupported.

- It is not necessarily the case that because a respondent has difficulty controlling facial expression, gestures or movement, their mental abilities are impaired
- Do allow those with mobility difficulties extra time to reach the door and to make themselves comfortable for the interview
- Be patient with slowness during the interview and don't try to rush away once the interview is completed
- Do be prepared to offer a break, or to suspend the interview and return if the respondent is in discomfort from spending too long in a sitting position

2.4.6 Where a wheelchair is used or walking aids are used

Wheelchairs are mobility aids that enable people to get around - people *use* wheelchairs and are not 'confined' or 'bound' to them.

- A wheelchair is 'personal space' – do not touch or move it without permission
- Try to place yourself at the same level when talking to the respondent for any length of time
- Only move or tidy sticks, crutches or walking aids if asked to do so

2.4.7 Respondents with facial disfigurement

Disfigurement may be the result of an accident or illness, or have been present since birth.

- If you are shocked by someone's appearance, try not to show it
- Make eye contact, but do not stare, and listen carefully just as you would with any other respondent
- Never ask "what happened to you?"

2.4.8 Respondents with learning disabilities

Learning disabilities are sometimes known as learning difficulties, intellectual disabilities or developmental disabilities. They are usually present from birth or early childhood but may result from injury or be apparent in the early stages of dementia.

People with severe learning disabilities (approx 300,000 people in UK) need constant support and help in their everyday lives and may not be able to participate in an interview. Of the 0.5 - 1.75 million people in UK who have some milder form of learning disability (or difficulty) most will be able to be interviewed, depending on the length and subject matter of the survey.

- Be careful not to make assumptions about the respondent's level of understanding
- Ask, where possible, for any distractions – television, music, etc. to be switched off or removed
- Be patient and be prepared to repeat questions, several times if necessary.

2.4.9 Respondents with mental health disabilities

Mental health disabilities, such as depression or schizophrenia, may be relatively short term or may impact on the individual concerned throughout their life. These disabilities may not be immediately apparent or an individual may be confused, inconsistent or behave inappropriately. Medication timing can also affect consistency of behaviour. The amount of negative press coverage on mental health issues and/or the emotional distress and confusion sometimes felt and evidenced by those with mental health problems may make you feel discomforted.

- Be patient and calm. Give the respondent time to formulate their answers
- Be sensitive and non-judgemental
- Where contact is made through a carer or assistant they may have useful advice to offer about the best time to call
- If you are uncomfortable or uneasy with a respondent's behaviour during an interview or call, do not persist; make an excuse and leave
- If you are uncomfortable or uneasy about the need to make contact with a respondent who is known to have severe mental health difficulties first seek advice from your area manager

2.5 If you are concerned

PLEASE SEEK ADVICE and where appropriate submit an incident form.....

- If you are assigned an interview with a respondent with a specific disability which you find problematic in any way, if you feel they or you need assistance in order to participate in/conduct the interview
- Should anything occur when you make contact with or are conducting an interview with a person with a disability which gives you cause for concern, or causes them distress.

3 PEOPLE WHO ARE ELDERLY OR VULNERABLE

3.1 Introduction

Within the UK the percentage of the population aged 65 plus has trebled in the last century, reaching over 10.7 million people in 2000. 18% of the population is now over pensionable age, with 12.5% of our freelance interviewer panel being over 65.

It is difficult to generalise about the ‘problems’ of interviewing elderly respondents. Numerous people well into their 90s have participated in and enjoyed interviews on many different projects while others, who may be as young as 60, cite age-related difficulties as reasons for refusal. Their own awareness of factors such as interview length, complexity and subject matter may make an interviewer reluctant to attempt to persuade a hesitant older respondent to take part and well-meaning interventions by neighbours and family members can create additional hurdles for the interviewer to overcome.

3.2 Approach and pre interview

Most of the problems associated with interviewing the elderly are readily overcome with a little extra effort and understanding. Bear in mind that

- Suspicion, concern and fear of strangers are not uncommon among the elderly – particularly those who live alone

If respondents are concerned about letting a stranger into their home, and possibly refuse to open the door, you are more likely to gain their confidence if you:

- Make it clear that you are happy to return
- Ask if the respondent would like you to come back when a family member or neighbour will be present
- Leave additional literature with your name and interviewer number clearly written on it
- Let the respondent know that the office will always be happy to answer questions and to confirm identity

Note: while police awareness of your presence in the area may be mentioned, police approval of the study or any requirement to participate should never be stated or implied.

The ingrained politeness and respect for ‘officialdom’ of some older members of society, or perhaps simple loneliness, may lead them to invite you in when they are not wholly comfortable with the thought – or are unclear about the reason for your presence. This can lead to problems later, for example, when other members of their family are told of the interview by a concerned, confused or upset elderly respondent unable to properly explain why it was carried out or how they came to be involved.

However welcoming and apparently willing the elderly respondent may appear you should always:

- Take extra care to identify yourself properly
- Explain the reason for visiting clearly and be confident that this explanation has been understood
- Ensure that the respondent is aware that you are very happy to return if it is not convenient
- Suggest they telephone the office to check identification if they still seem unsure
- Give a proper assessment of how long the interview will take and what it will entail
- Ensure that appropriate leaflets or survey literature are left with a clearly written note of your name and number

3.3 Those who are unwell, frail or tired

Ill health /tiredness/limited concentration may all be factors that affect the success of an interview with an older respondent. The great majority of elderly people are not ill but energy levels do decline with age, as may the ability to concentrate.

- If a respondent says that they are too unwell to participate or to continue you must always respect this
- Where an interview is cut short for this reason, offer to call in a neighbour or warden for assistance
- If the respondent loses consciousness, appears in severe pain or becomes incoherent, an ambulance should be called even if they are unwilling that this is done
- If the respondent refuses help and you are particularly concerned you should, if you feel it appropriate, mention these concerns to a warden or close neighbour.

If you do seek help be careful to respect respondent confidentiality and do not discuss the subject matter of the interview or any details of their conversation with you.

If you terminate an interview for reasons of ill health, or if you refer concerns to a neighbour or warden, please submit an incident form giving full details of the problem and what action you took.

- Problems with tiredness and concentration may be more apparent on long interviews; where questions are complex; or when interviews are conducted later in the day
- If a respondent doesn't go out to work or is housebound it does not mean they are freely available
- Respondents with degenerative conditions or those on medication may have particularly good and bad times of the day – many elderly people have higher energy levels in the morning.
- If a respondent tires during an interview, ask if they would like a break. Give an honest estimate of how much longer the interview will take and, if necessary, offer to return at another time to complete the interview.

3.4 Family, neighbours and carers

Family members or neighbours may attempt to intervene to prevent the interview taking place because *they* feel the respondent is not capable of participation, or is too unwell to participate. They may also want to confirm your identity or request detailed information about the project.

- Such intervention is usually well intentioned. The family and neighbours are better placed to have real awareness of the respondent's condition than you are
- Where possible, without antagonising the 'gatekeeper', try to speak in person to the named or selected respondent whose feelings about their capabilities may differ from those of their relative
- It is reasonable that those who care for the elderly should ask for confirmation of your identity and reason for calling; you should not go into detail about the subject matter of the survey, however, since this is confidential to the person selected to take part

3.5 During the interview

- Be prepared to spend time answering any questions and giving any reassurances that are required
- Ensure the respondent is physically comfortable and that they have the right spectacles to hand for any show cards, reading or self completions that may be required
- Ask permission first, if the laptop needs to be plugged into a mains socket rather than used on battery and if necessary reassure that electricity use is minimal (concerned respondents could be offered 10p)
- Take extra care to ensure that the lead does not constitute a trip hazard and, if the respondent gets up during the interview, remind them where the lead is sited
- Be patient and be prepared to repeat questions, sometimes more than once
- Remember that some questions which are readily answered by younger respondents may be seen as intrusive or too personal
- After the interview, allow a little time for any doubts or concerns they may not have liked to mention earlier to be raised.
- **ALWAYS** leave a thank you leaflet and stress that if they have any later concerns or worries about the interview the office will be happy to talk about these.

4 CHILDREN AND YOUNG PEOPLE

4.1 Introduction

Where surveys involve children and young persons there are issues about the approach, informed consent and the presence of third parties while the interview is carried out. Your project instructions will explain all that you need to know on a particular survey.

Where respondents are all, or include, children and young people aged 17 or under, you need to be familiar with both general recommendations and project specific requirements before beginning work.

Within this document

- ‘child’ means a minor, i.e. one who has not reached their 16th birthday,
- and ‘young person’ a 16 or 17 year old who is still resident within the household of a parent or other responsible adult.

These definitions accord with MRS and other guidelines published in the UK.

4.2 Obtaining Consent From a Child

Before NatCen seeks consent to being interviewed from a child, we need to obtain consent from a parent or responsible adult, to approach the child.

In order for this to be “informed consent” the parent, as well as the child, will need to be given full information about the subject matter of the research, confidentiality, the right to withdraw and so on.

However:

- Consent from a parent or guardian does not imply consent from the child, who retains the right to decide whether or not to take part

Where research is conducted in schools:

- the informed consent required is that of the responsible adult (ie the person responsible for the child’s safety and well being in that environment).

The right of the individual child to refuse to participate must still be respected and it is NatCen’s usual practice to seek consent from the parent or guardian for any in-school fieldwork.

If the parent or responsible adult speaks only limited or no English:

- informed consent cannot reliably be obtained.

It may be acceptable, in some circumstances, that another adult assist by translating the request. However, where sensitive personal data is to be collected from the child, permission to approach and interview *must* be directly obtained from the parent or guardian of that child.

It is also necessary to obtain permission from a responsible adult to re-approach the child when any interview carried out with an under 16 year old is backchecked.

4.3 Obtaining Consent from 16 – 17 year olds

CHECK your project instructions (or seek advice from the Project Team if this is not covered) with regard to consent to interview 16 or 17 year olds.

If 16 or 17 year olds are living with parents or there is another resident responsible adult then you will normally be expected to seek informed consent to approach as you would with an under 16 year old.

If 16 or 17 year olds are living in their own household (ie with no resident responsible adult) the situation is less clear and project requirements may vary.

4.4 The Disclosure Service

The Disclosure Service was set up in order to help protect children and vulnerable adults by providing details of any relevant conviction, to enable a potential employer to make informed recruitment decisions.

NatCen has registered with both the Criminal Records Bureau (CRB) and Disclosure Scotland, and five staff members have been approved as counter-signatories for disclosure applications. Recruitment to the NatCen freelance interviewer and nurse panels is dependent on a satisfactory disclosure being obtained and all interviewers and nurses in our field force are required to re-apply for a Disclosure on a regular basis.

4.5 Use of a Child as Translator

In some households adult members speak little or no English but the resident children are fluent English speakers and are used to translating on their parents' behalf.

For NatCen surveys a child may be asked to assist in this way only where:

- both parent(s) and child are willing to participate
- the project instructions permit interviews in translation
- topics covered are not likely to disturb or distress the child
- the child is of an age to properly comprehend the questionnaire content

It would not, therefore, be at all appropriate for a child to translate an interview where sensitive personal data was being collected, and it is unlikely that a child under the

age of 13 or 14 would be capable of assisting with an interview collecting detailed financial information.

Check your project instructions if this situation arises and you are concerned. If they do not give guidance you should contact the Project Team at Brentwood.

4.6 Initial and Pre Interview Contacts

- When contacting a household you should withdraw if greeted by a child or young person who tells you there are no adults present or available for you to speak to
- Having established that there are no adults present , you should not ask a child or young person for information about household residents, or their likely availability, or for a telephone number
- It is not normally necessary for a parent or responsible adult to be present in the same room when interviewing an older child (age 13 or over) or young person. They should, however, be present in the house and aware that the interview is being conducted, and the house should not be entered without permission from an adult
- An interview with a child or young person should not be attempted if, on keeping a previously agreed appointment, you find that no adults are at home
- If the child is younger than 13 the parent or responsible person should usually be present throughout the interview

Note: there are, however, valid reasons why the presence of a parent may not be desirable on some projects and exceptions will be covered at briefings and in project instructions, where this is the case:

- A full explanation of the reasons for interviewing the child alone should be given, and both child and parent should be satisfied with this arrangement

4.7 Before and During the Interview

Establishing effective rapport is at the heart of all good interviews whatever the age of the respondent. It is particularly important where a child or young person is concerned, and taking a little extra time to achieve this will be well worthwhile. With younger children it will also provide some clues to the child's language skills, confidence, comprehension and so on.

- Find out what name the child likes to be called – ‘James’ and ‘Catherine’ might prefer to answer to ‘Jamie’ and ‘Kate’ – and address them by name during the interview.
- Ask, where possible for any distractions – television, music, etc to be switched off.

- Maintain good eye contact and smile.
- Remind the child/young person, at the beginning of the interview, that they have the right to refuse to answer any question or to withdraw any answer they have made.
- Ensure they understand what the interview will be about and why it is being carried out.
- Be sensitive to differences in comprehension and response that may be found between children and adults.
- Take care to avoid physical contact with the child or young person. Where contact may be necessary (for example when carrying out measurements) explain beforehand what is required and ensure the parent is able to see what is happening throughout the process.

4.8 After the Interview

- Hand over a thank you leaflet, as usual, at the end of the interview
- Where Goody Bags and other thank you tokens are provided, either for young respondents or their siblings, offer them initially to the parent or responsible adult to give to the child
- Thank the child for their time just as courteously as you would an older respondent.

5 INFORMED CONSENT

Respondents with learning or mental health related disabilities, or those who are frail and elderly, may not always be capable of giving the informed consent to interview that we are legally and ethically obliged to obtain.

If you have any doubts or concerns about this, either in general terms or in relation to a particular respondent, **please seek advice from the Project Controller before proceeding to interview.**

5.1 Collection of accurate data

If during the course of an interview it becomes apparent that a respondent is not able to answer questions reasonably or accurately, you should terminate the interview as soon as possible. Please complete an incident report in such cases and send this to Mary Holmden, Operations Standards Co-ordinator at NatCen, Brentwood.

If you have concerns about the reliability and usefulness of the answers given, but you did manage to complete the interview, please note the difficulties fully and ensure the project team is made aware of your concerns.