# Breast Cancer Awareness Measure (Breast CAM)

### **Toolkit (version 2)**

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### TERMS OF USE FOR THE CANCER RESEARCH UK BREAST CANCER AWARENESS MEASURE

Please find enclosed/attached the Breast Cancer Awareness Measure (Breast CAM) a validated survey instrument enabling you to gather cancer awareness data and guidance for its use.

As you can appreciate with a tool such as this it is vital that consistency of approach to data capture is maintained.

Please ensure that your use of the Breast CAM complies with our guidance notes.

Please do not alter the Breast CAM or any of the guidance supplied.

Please ensure that the following notice is included on any copies or partial copies that you make of the Breast CAM or any of the guidance supplied, and in any publication based wholly or partly on its use.

'This survey instrument (Breast CAM) was developed by Cancer Research UK, King's College London and University College London in 2009 and validated with the support of Breast Cancer Care and Breakthrough Breast Cancer.'

You may use the data collected for your own non-commercial purposes.

We would like to see all Breast CAM data lodged in one place for ease of reference to researchers in the future. To facilitate this we have made arrangements with the UK Data Archive, <a href="www.data-archive.ac.uk">www.data-archive.ac.uk</a> to provide a repository for this. Please ensure that you lodge the data you gather there (see page 54 for guidance)

If you have any queries please contact <a href="mailto:naedi@cancer.org.uk">naedi@cancer.org.uk</a>

# **Breast Cancer Awareness Measure (Breast CAM)**

### Background information and instructions

### Introduction and purpose of the Breast Cancer Awareness Measure

In 2007, the NHS Cancer Reform Strategy¹ published by the Department of Health, emphasised the importance of raising awareness of cancer early warning signs and risk factors within the general population. The Cancer Awareness Measure (CAM) has been developed to help us measure levels of cancer awareness, explore risk factors for poor cancer awareness, and develop and evaluate interventions to promote cancer awareness. In addition to the generic version of the CAM, there is a need to develop site specific modules for cancers where early detection is likely to impact survival, as is the case with Breast cancer. This document provides information about the use of the breast specific version of the CAM – the Breast CAM.

The Breast CAM comprises 8 questions with a total of 31 items;

- Warning signs (12 items) (Q1 + Q2)
- Confidence, skills and behaviour (3 items) (Q3)
  - Self-examination behaviour (1 item)
  - o Confidence (1 item)
  - Previous help-seeking behaviour (1 item)
- Delay in seeking medical help (1 item) (Q4)
- Breast cancer and age (1 item) (Q5)
- NHS breast cancer screening programme (4 items) (Q6)
  - Knowledge (1 item)
  - Age of first invitation (1 item)
  - Age of last invitation (1 item)
  - Invitation status (1 item)
  - Previous screening participation (1 item)
- Risk factors (10 items) (Q7 + Q8)

### **Evaluation and psychometric status**

The development paper (Linsell et al, 2010<sup>2</sup>) indicates that the Breast CAM is reliable and valid. Test-retest reliability over 2-week interval was moderate to good for most items with all correlations between 0.42-0.70. In order to ensure construct validity the Breast CAM was completed by 18 cancer experts and 13 non-medical academics. Cancer specialists obtained significantly higher scores than non-medical academics indicating that the Breast CAM is capable of discriminating between those who have high and low levels of breast cancer awareness. In a Randomised Controlled Trial of an intervention to raise cancer awareness and promote symptomatic presentation the intervention significantly increased the proportion of women obtaining the full score for breast cancer awareness one month after the

<sup>&</sup>lt;sup>1</sup> Department of Health (2007). Cancer Reform Strategy. http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/dh\_08 1006.

<sup>&</sup>lt;sup>2</sup> Linsell, L, Forbes, L, Burgess, C, Kapari, M, Thurnham, A, Ramirez, A (2010). Validation of a measurement tool to assess awareness of breast cancer. European Journal of Cancer, 46, 1374-1381.

intervention. This demonstrates that the Breast CAM is sensitive to increases in cancer awareness.

### Administration

The Breast CAM has been designed to measure breast cancer awareness in women. A version to measure men's awareness of breast cancer in women is currently under development. The Breast CAM was designed to be administered as an interview either face-to-face or over the telephone and this delivery method will yield the best quality data. If it is not possible to use either of these methods we advise using a supervised self-complete method where individuals are asked to complete the measure but under supervised conditions with someone available for guidance. It is possible to use the Breast CAM on the internet, or as a 'self complete' survey that is not supervised (e.g. postal) but this will provide lower quality data.

### Face-to-face

Ideally, the Breast CAM should be administered by one trained interviewer in an environment where there will be little distraction.

### The internet

Using the Breast CAM on the internet is often a cheaper and more practical option, but there are several things you should consider before using this option. For example, you should be aware that not everybody will have internet access, and in particular those from lower socioeconomic groups may not have access. So using the Breast CAM in this way could introduce some inequality and not provide total coverage. It is also worth considering participants familiarity with using the internet. Conducting the survey on-line is also a 'less controlled' environment, for example it is possible that participants could look up the correct answers while completing the survey or consult with others to help them answer the questions.

If you plan to use an on-line version you should ensure that participants cannot return back to previous questions. For sections where there are lists e.g. symptoms or risk factors, it is best to present these as one item per screen, rather than a long list. You could also consider monitoring the time it takes for participants to complete the survey because this could help pinpoint participants who may have less reliable responses.

If you go ahead with an online version you may want to do a quick pilot to make sure that it is being used appropriately and that you aren't suddenly getting 'odd' responses e.g. if someone can't go back and change their answers, but they didn't understand the response options 'first time' this may result in some errors.

### Telephone

The telephone offers a good alternative to face-to-face interviews. You should ask respondents to ensure that they are not to be distracted by anyone while completing the survey.

### Self-complete or postal

If you would like to administer the Breast CAM as 'self-complete' or postal survey you must either remove Q1 and Q7 or Q2 and Q8. Q1 and Q7 are 'unprompted' questions which ask respondents to recall warning signs or risk factors from memory. Q2 and Q8 are 'prompted'

questions asking respondents to respond to a prompted list of warning signs and risk factors. If both sets of unprompted and prompted questions are included in the survey respondents could go back and change their answers to Q1 and Q7 as a result of being prompted in Q2 and Q8.

You should consider the aims and objectives of your study and the analyses that you plan to carry out to help you decide which questions to keep in the survey. If you are interested in what people actually 'know' you should keep the unprompted questions. But if you would prefer to assess respondent's ability to 'recognise' signs or risk factors, you should keep the prompted questions. You may also find that the unprompted questions are more difficult to code and use in analyses because they generate a larger variety in responses and so this represents are more difficult option for less experienced researchers.

### **Recruitment considerations**

For information about sampling methods and sample size for your Breast CAM survey please see page 71. Once you have recruited your participants please record the sampling methods using the relevant form (see 'Recruitment Record' on page 25) and submit this to the UK Data Archive together with your data when you have completed your research (for further advice about how to access or upload data in the UK Data Archive see page 54).

### **Ethical approval**

Before you start recruiting your sample, please consider whether you need to obtain ethical approval, this is usually stipulated by the organisation that is funding the research. Regardless of the type of research you are doing it is always appropriate to consider the ethical implications.

Research which falls under the remit of Department of Health approved ethics committees, which abide by governance arrangements for NHS research ethics committees; Department of Health, July 2001, para 3.1, are detailed below:

If the research involves:

- the use of patients and users of the NHS;
- individuals identified as potential research participants because of their status as relatives or carers or patients and users of the NHS;
- access to data, organs or other bodily material of past and present NHS patients;
- the recently dead in NHS premises;
- fetal material and IVF involving NHS patients;
- the use of, or potential access to, NHS premises and facilities;
- NHS staff recruited as research participants by virtue of their professional role, then
  the ethics of such human research must be referred to the appropriate Department of
  Health approved ethics committee.

Further details and information on how to apply is available from the Central Office for Research Ethics Committees (COREC): www.corec.org.uk

### **Informed consent**

It is important that you gain consent from the people that you ask to complete a Breast CAM survey. This is especially important when you are asking people for identifiable information such as their postcode. We have developed an example information sheet and consent form that you can use and modify to your own needs (see page 11).

Please see the UK Data Archive website for more information on consent procedures: http://www.data-archive.ac.uk/sharing/confidential.asp

### **Data protection**

Please make sure that your consent and data management procedures are in line with the Data Protection Act (1999).

For more information see: http://www.ico.gov.uk/what we cover/data protection.aspx

### **Demographics**

Please ensure that all participants complete the 'demographics questions' at the end of the interview. This information is needed to ensure that comparisons of different groups, such as different age groups can be made.

### Coding

Instructions are provided about how to code Breast CAM survey data (see 'Coding Sheet' on page 41). All Breast CAM data will need to be uploaded in to the UK Data Archive using the coding frame that has been provided. For instructions about how to access or upload data see 'How to access and deposit CAM data' on page 54.

### **Ensuring quality**

Whether you plan to carry out the survey using volunteers or by commissioning an external agency you should ensure that the research is good quality. The Social Research Association (SRA) and the MRS provide professional standards and guidelines about best practice across all aspects of carrying out research;

SRA: http://www.the-sra.org.uk/guidelines.htm#public

MRS: http://www.mrs.org.uk/standards/mrs\_guidelines.htm

### **Breast CAM questions**

### Q1 – Open warning signs

"First of all, please would you name as many early warning signs of breast cancer as you can think of"

This is an open question aiming to find out how many early warning signs of breast cancer the woman can think of without specific prompting. In face to face interviews Q1 is always printed on a separate page to Q2 to ensure that respondents answers are their own and not taken from the list for Q2. If this survey is completed online, Q1 should be presented on a separate page to Q2 and once the responses from Q1 are submitted respondents should not be able to go back and change or add to existing responses. Please ensure that the respondent does not see Q2 before they have completed Q1.

### Q2 - Closed warning signs

"Can you tell me whether you think any of these are warning signs of breast cancer or not?"

These closed questions are designed to measure how many warning signs a woman can recognise when prompted.

### Q3 - Confidence, skills and behaviour

"How often do you check your breasts?"

"Are you confident you would notice a change in your breasts?"

"Have you ever been to see a doctor about a change you have noticed in one of your breasts?"

These questions aim to measure confidence, skills and behaviour to detect breast changes and act upon the findings. The first question asks about frequency of breast checking, the second about confidence to detect a breast change and the third asks about reporting a breast change to a doctor.

### Q4. Seeking help for cancer symptoms

"If you found a change in your breast, how soon would you contact your doctor?"

This question aims to find out how long women think they will delay before seeking medical help after discovering a breast change.

### Q5 – Breast cancer and age

"In the next year, who is most likely to develop breast cancer?"

This question explores the women's knowledge of how age is related to breast cancer.

### **Q6 – NHS Breast Cancer Screening Programme**

"As far as you are aware, is there an NHS Breast Screening Programme?"

"At what age are women first invited to the NHS Breast Screening Programme?"

"At what age do women receive their **last** invitation to the NHS Breast Screening Programme?"

"Have you ever been invited for breast screening on the NHS Breast Screening Programme?"

"Have you ever had breast screening on the NHS Breast Screening Programme?"

These questions aim to assess women's knowledge of the NHS Breast Screening Programme and whether they have had mammograms on the NHS Breast Screening Programme.

### Q7. Open risk factors

"What things do you think affect a woman's chance of developing breast cancer?"

This is an open question designed to measure how many breast cancer risk factors a woman can think of without specific prompting. In face to face interviews Q7 is always printed on a separate sheet to Q8 in order to ensure that respondents answers' are their own and not taken from the list given for Q8. Please ensure that the respondent does not see Q8 before they have completed Q7.

### Q8 - Closed risk factors

"How much do you agree that each of these can increase the chance of developing breast cancer?"

These closed questions are designed to measure how many risk factors a woman can recognise when prompted. The most important risk factor, increasing age, has been included as a separate question, so is not repeated here.

## **Breast Cancer Awareness Measure (Breast CAM)**

### Information sheet & consent form

### **Information sheet for** [name of project]

You are being invited to take part in a research study. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

### What is the purpose of the study?

[organisation name] is carrying out a survey to assess awareness of breast cancer risk factors, and signs and symptoms. The results will be used to develop better and more effective NHS communications and services to help increase the early diagnosis of cancer.

### Why have I been invited to take part?

[sampling methods, e.g. 'You have been chosen at random' or 'we are asking everyone aged over 50 to complete this survey in xx area].

### Do I have to take part?

It is up to you to decide whether or not to take part, taking part is voluntary. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason.

### What would I have to do?

If you decide to take part, the survey will take approximately [xx] minutes to complete.

### Confidentiality

All the information that is collected will be anonymous and kept strictly confidential. Your personal data will be held in accordance with the Data Protection Act 1998.

### What happens to the information that is collected?

The data collected from this survey will be archived in the UK Data Archive. The Archive is a repository for social science data. The CAM Archive will help us to build an understanding of public knowledge about cancer so that we can develop ways to improve communications and services that aim to improve cancer outcomes. More information about the archive can be found here:

http://www.data-archive.ac.uk/Introduction.asp

Thank you for taking the time to read this information sheet.

[Insert lead researcher's signature]

### **Consent form for [name of project]**

Please tick the appropriate boxes			
I have read and understood the proje	ect information sheet o	dated DD/MM/YYYY.	
I have been given the opportunity to	ask questions about t	he project.	
I agree to take part in the project. Ta survey/being interviewed [Other form	0 1 , ,		
I understand that my taking part is ve and I will not be asked any question:			
I understand my personal details sucto people outside the project.	ch as phone number a	and address will not be revealed	
I understand that my words may be research outputs but my name will n	•		
I agree for the data I provide to be a	rchived at the UK Data	a Archive.	
I understand that other researchers preserve the confidentiality of that dathis form.		, , ,	
I understand that other researchers pages, and other research outputs a	, ,		
I agree to assign the copyright I holo researcher].	I in any materials relat	ed to this project to [name of	
Name of Participant	Signature	Date	
Researcher	Signature	Date	

[Contact details for further information: Names, phone, email addresses, etc]

### **Breast Cancer Awareness Measure**

1. First of all, please would you name as many early warning signs of breast cancer as you can think of:

2. Can you tell me whether you think any of these are warning signs of breast cancer or not?						
	Yes	No	Don't know			
Do you think a lump or thickening in your breast could be a sign of breast cancer?						
Do you think a lump or thickening under your armpit could be a sign of breast cancer?						
Do you think bleeding or discharge from your nipple could be a sign of breast cancer?						
Do you think the pulling in of your nipple could be a sign of breast cancer?						
Do you think a change in the position of your nipple could be a sign of breast cancer?						
Do you think a rash on or around your nipple could be a sign of breast cancer?						
Do you think redness of your breast skin could be a sign of breast cancer?						
Do you think a change in the size of your breast or nipple could be a sign of breast cancer?						
Do you think a change in the shape of your breast or nipple could be a sign of breast cancer?						
Do you think pain in one of your breasts or armpit could be a sign of breast cancer?						
Do you think dimpling of the breast skin could be a sign of breast cancer?						

3a. How often do you che	eck your breasts?						
Rarely or never	At least once every 6 months	At least once a month					
3b. Are you confident yo	u would notice a change i	n your breasts?					
Not at all confident	Not very confident	Fairly confident	Very confident				
3c. Have you ever been t	o see a doctor about a cha	ange you have noticed in o	one of your breasts?				
Yes	No	Never noticed a chang	e in one of my breasts				
4. If you found a change	in your breast, how soon	would you contact your do	octor?				

5. In the next year, who is most likely	to develop breast	cancer?		
A 30 year old woman				
A 50 year old woman				
A 70 year old woman				
A woman of any age				
		Yes	No	Don't know
6a. As far as you are aware, is there a cancer screening programme?	an NHS breast			
If yes, at what age are women first in	vited for breast can	cer screening? _	<del></del>	
If yes, at what age are women last in	vited for breast cand	er screening? _		
6b. Have you ever been invited for brond the NHS Breast Screening Program				
6c. Have you ever had breast screeni			_	<u></u>

7. What things do you think affect a woman's chance of developing breast cancer?	

8. How much do you agree that each of these can increase the chance of developing breast cancer?"							
	Strongly disagree	Disagree	Not sure	Agree	Strongly agree		
Having a past history of breast cancer							
Using HRT (Hormone Replacement Therapy)							
Drinking more than 1 unit of alcohol a day							
Being overweight (BMI over 25)							
Having a close relative with breast cancer							
Having children later on in life or not at all							
Starting your periods at an early age							
Having a late menopause							
Doing less than 30 mins of moderate physical activity 5 times a week							

## **Breast Cancer Awareness Measure (Breast CAM)**

### **Demographic Questions**

1. W	1. What is your age? Prefer not to say							
0 1	Mhatia wasa wasa	- al a <i>ul</i>	<u> </u>					
2. V	Vhat is your ger	nder	?					
	□ Male				- emale		☐ Prefe	er not to say
3. W		est c	lescribes your e		-			
	White		Mixed	A	sian or Asian British	В	lack or Black British	Chinese/other
	White British		White and Black Caribbean		Indian		Black Caribbean	□ Chinese
	White Irish		White and Black African		Pakistani		Black African	□ Other
	Any other White background		White and Asian		Bangladeshi		Any other Black background	□ Prefer not to say
			Any other Mixed background		Any other Asian background			
4. W	hat is the main	lang	juage spoken at	home	e?			
	English				Sylheti			
	Urdu				Cantonese			
	Punjabi				Other			
	Gujarati			☐ Prefer not to say				
5. W	/hat is your mar	ital s	status?					
	gle/never Marr narried with	ied/li¹ part □		d	Divorced	Wido	partne	

6. W	hat	is the highes	t level of education	qualificatio	n you hav	e obtaine	ed?	
	☐ Degree or higher degree					O Level o C)	or GCSE equivalent	(Grade A -
	<ul> <li>Higher education qualification below degree level</li> </ul>					O Level o	or GCSE (Grade D -	· G)
		A-levels or hig	ghers			No forma	l qualifications	
		ONC/BTEC				Other		
		Still studying				Prefer no	t to say	
7. P	leas	se tick the box	x which best descri	bes your liv	ing arrang	gement:		
Ow outri		Own mortgage	Rent from Local Authority/Housing Association	Rent privately	Squatti	ng Oth	ner (e.g. living with family/friends)	Prefer not to say
	]							
8. WI	nat	is your postc	ode?				Prefer not to say	
9. Ho	w n	nany years ha	ive you been living	in the UK?			Prefer not to say	
10. A	\re	you currently	:					
	Er	mployed full-tir	ne			Full-tir	ne homemaker	
	Er	mployed part-ti	ime			Retire	d	
	Uı	nemployed				Still st	udying	
	Se	elf-employed				Disabl	ed or too ill to work	
						Prefer	not to say	
11. [	)oe	s your housel	hold own a car or va	an?				
		No	Yes, or	ne	Yes, m	ore than c	one Prefer	not to say

12. Have you, your family or cl	ose friends	had cance	r?				
	Yes	No	Don't know	Prefer not to say			
You							
Partner							
Close family member							
Other family member							
Close friend							
Other friend							
Optional items:							
Are you registered with a GP?	Are you registered with a GP?						
Yes	No		Don't know	Prefer not to say			

If you plan to use the following question we advise piloting it first with the target group to ensure that it is not off-putting.

What is your sex	xual orientation?	?			
Bi-sexual	Gay man	Gay woman/lesbian	Heterosexual/ straight	Other	Prefer not to say

# **Breast Cancer Awareness Measure (Breast CAM)**

### **Recruitment Record**

### Introduction

It is important to make your sampling and recruitment methods transparent because it gives people an idea of how representative your sample is and how many factors could have influenced respondent's answers, such as noise levels or confidentiality. This information will influence how the data are analysed and interpreted.

It is also important that you provide us with all the data you receive, so even if people miss out some of the questions, we would like any information they provide.

### Purpose and sampling methods

<u> </u>							
Please outline the purpose of the survey (e.g. to explore awareness of cancer risk factors and signs and symptoms in women aged over 50 years living in x).							
Sampling frame(s) (e.g. electoral registers, postal address file, GP lists, telephone directory, all women over 50 years living in x).							
Target population(s) (e.g. gender, age, geographical area)							
Please describe the methods you used to recruit participants (e.g. flyers, leaflets, posters, newspaper adverts, letter, face-to-face)							
Please describe the method(s) of administration of the Breast CAM (e.g. face-to-face, telephone, internet, other) and complete the number of surveys completed using each method below:							
Face to face		Number of surveys					
Over the telephone		Number of surveys					
Internet		Number of surveys					
Other		Number of surveys					

### If the surveys were administered face-to-face:

Please describe the environment(s) in which the surveys were completed (e.g. closed office with one interviewer, communal coffee area, a busy street)								
How many other people were prese	nt while	the interview was being carried out?						
0-1	it willio	the interview was being carried out:						
More than 1								
More man i								
If the surveys were administered in	ı a diffe	erent way:						
Please describe how the surveys were distributed (e.g. by post, left on a counter, sent by email)								
Please describe the environment(s) in which the surveys were completed (e.g. closed office with one interviewer, communal coffee area, a busy street, at home)								
In what language were the interview	s carrie	ed out?						
□ English		Sylheti						
□ Urdu		Cantonese						
□ Punjabi		Other						
☐ Gujarati								
Sample characteristics  How many participants were recruited?								
Did you carry out any power or sample size calculations? (If so, please provide details)								
How many people were approached/contacted to complete the Breast CAM?								
How many people agreed to comple	te the E	3reast CAM?						

How many people refused to complete the Breast CAM?								
How many participants started to complete the Breast CAM but did not complete it?								
<del></del>								
Over what time period were the interviews carried out?								
From:(dd/mm/yyyy) to:(dd/mm/yy)								

# Breast Cancer Awareness Measure (Breast CAM)

**Script** 

### Introduction

This script is intended for use **during training** of how to administer the Breast CAM. It should not be necessary to use this script once the interviewer is familiar with the questionnaire and these guidelines.

### Instructions:

- Before starting the interview record whether the interview was carried out 'face-to-face', over the telephone etc, where the interview took place and what language the interview was carried out (see the 'Recruitment Record' for more information).
- Read out the questions <u>exactly</u> as it is written for each question.
- The text that is written in the shaded boxes is what you should read out.
- If a respondent asks for more details or help, please state that for the purposes of the study you cannot give any prompts or explanations (other than those permitted), remind the participant that we are interested in their own thoughts and beliefs and if necessary repeat the question.
- You may discuss queries once the interview is complete, including providing the correct answers where appropriate.
- Do not discuss the correct answers to the Breast CAM if it is being used to evaluate the effectiveness of an intervention aimed to improve knowledge in which the same individuals are being interviewed at different times.
- Do not return to previous questions to amend answers.
- For each question it is possible to record if the respondent refuses or does not wish to answer the question or does not know the answer.
- If the respondent has any questions about symptoms they have had or other questions about cancer, please advise them to speak to their GP.

If you are interviewing people face-to-face it may be useful to use 'prompt cards' for some of the questions (e.g. ethnicity).

### The interview

OPTIONAL: These question are being asked on behalf of [organisation] because [insert the reason for your study e.g. we are trying to find out the level of breast cancer awareness among people living in X]

COMPULSORY: This set of questions is about your awareness of breast cancer, it is not assessing your personal risk of cancer. The questions should take around 20 minutes to complete. This is not a test, we are interested in your thoughts and beliefs so please answer the questions as honestly as you can. All your answers are confidential. Please be aware that I am unable to answer questions during the interview, but there will be time to address any queries at the end. Please also be aware that I can not go back to a question that has already been asked.

### **QUESTION 1 – OPEN WARNING SIGNS**

The first set of questions are about warning signs of breast cancer - cancer that starts in the breast. Please would you name as many early warning signs of breast cancer as you can think of:

Prompt with 'anything else?' until the respondent can not think of any more signs. If the person says they do not know any, prompt with 'are you sure?' and if necessary 'take a minute to think about it'.

Write down all of the warning signs or symptoms that the person mentions exactly as they say it.

### **QUESTION 2 – CLOSED WARNING SIGNS**

Can you tell me whether you think any of these are warning signs of breast cancer or not?

### Do not prompt

If the respondent asks for clarification about certain items within this set of questions, please refer to the clarifications written below. Please only read these out if necessary.

Do you think a lump or thickening in your breast could be a sign of breast cancer?

Repeat the above format for each subsequent question in this group.

### Clarifications:

Please only read these out if necessary.

Do you think a change in the position of your nipple could be a sign of breast cancer? [POINT OF CLARIFICATION]: such as pointing up or down or in a different direction to normal

Do you think pulling in of your nipple could be a sign of breast cancer? [POINT OF CLARIFICATION]: where the nipple no longer points outwards but into the breast

Do you think puckering or dimpling of your breast skin could be a sign of breast cancer? [POINT OF CLARIFICATION]: like a dent or orange peel appearance

### **QUESTION 3 - CONFIDENCE, SKILLS AND BEHAVIOUR**

How often do you check your breasts?

Rarely or never

At least once every 6 months

At least once a month

At least once a week

Are you confident you would notice a change in your breasts?

Not at all confident

Not very confident

Fairly confident

Very confident

Have you ever been to see a doctor about a change you have noticed in one of your breasts?

Yes

No

Not noticed a change in one of my breasts

### **QUESTION 4 – SEEKING HELP**

The next question is about seeking help

If you found a change in your breasts, how soon would you contact your doctor?

Record the response verbatim

### **QUESTION 5 - BREAST CANCER AND AGE**

The next question is about age and breast cancer.

In the next year, who is most likely to develop breast cancer?

A 30 year old woman

A 50 year old woman

A 70 year old woman

A woman of any age

### **QUESTION 6 – NHS BREAST CANCER SCREENING PROGRAMME**

### Do NOT prompt

The next set of questions are about the Breast NHS screening programmes

As far as you are aware, is there an NHS breast cancer screening programme? You may answer: 'Yes', 'No', 'Don't know'

[IF YES]

At what age are women first invited for breast cancer screening?

At what age do women receive their last invitation to the NHS Breast Screening Programme?

Have you ever been invited for breast screening on the NHS Breast Screening Programme?

Have you ever had breast screening on the NHS Breast Screening Programme?

[IF NO] Go to next question/demographic questions

### **QUESTION 7 - OPEN RISK FACTORS**

The next set of questions is about risk factors for breast cancer

What things do you think affect a woman's chance of developing breast cancer?

Prompt with 'anything else?' until the respondent can not think of any more signs. If the person says they do not know any, prompt with 'are you sure?' and if necessary 'take a minute to think about it'.

Write down all of the risk factors that the person mentions exactly as they say it.

### **QUESTION 8 – CLOSED RISK FACTORS**

How much do you agree that each of these can increase the chance of developing breast cancer?

### Do NOT prompt

Having a close relative with breast cancer

Strongly disagree

Disagree

Not sure

Agree

Strongly agree

Repeat the above format for each subsequent question in this group.

### **Clarifications:**

Please only read these out if necessary

Drinking more than 1 unit of alcohol a day [POINT OF CLARIFICATION]: A unit of alcohol is one small measure of spirits, half a pint of lager (3-4% strength) or **half** a small glass (175ml) of wine (12% strength)

Being overweight [POINT OF CLARIFICATION]: BMI over 25

Having a close relative with cancer [POINT OF CLARIFICATION]: a close relative means parents, children, brothers or sisters

Doing less than 30 minutes of moderate physical activity 5 times a week [POINT OF CLARIFICATION]: moderate physical activity includes anything that leaves you warm and slightly out of breath such as brisk walking, gardening, dancing or housework.

### **Demographic questions**

We would now like to ask you a few questions about yourself. This will help us to analyse the results of the survey. The data collected will help us to identify specific age or demographic groups of people who are in need of more information about cancer. You will not be asked your name and all of your answers will be kept strictly confidential and anonymous. Your personal data will be held in accordance with the Data Protection Act 1998. Your details will not be passed onto your GP and will not affect your medical care in any way.

any way.											
Could you tell me your age? Prefer not to say											
What is your gender?											
□ Male □						] Female [			☐ Prefer not to say		
Which of these best describes your ethnic group?											
	White Mixed		Asian or Asian British		Black or Black British		Chinese/other				
	White Britis	h		White and Black Caribbean		Indian		Black Caribbean		Chinese	
	White Irish	ا		White and Black African	□ Pakistani			Black African		Other	
	Any other White background			White and Asian	□ Bangladeshi			Any other Black background	☐ Prefer not to say		
				Any other Mixed background	☐ Any other Asian background						
Wha	t is the mai	n lanç	guag	je spoken at ho	me?						
	English					Sylheti					
□ Urdu □ Cantones						Cantonese					
	Punjabi										
	☐ Gujarati ☐ Prefer not to say										
What is your marital status?											
Single/never Married/living Married married with partner separated		k	Divorced	Wido _	partne		Prefer not to say □				

What is the highest level of education qualification you have obtained?											
	Degree or hi	igher degree		O Level or GCSE equivalent (Grade A - C)							
	Higher educ level	ation qualification bel		O Level or GCSE (Grade D - G)							
	A-levels or h	igher			No formal qualifications						
	ONC/BTEC				Other						
	Still studying	1			Prefer not to say						
Which o	of these best	describes your livir	ng arrangen	nent?							
Own outright			Rent privately	Squatti	ng	Other (e.g. living with family/friends)			Prefer not to say		
Could y	ou tell me yo	our postcode?				Prefer	not to say				
HOW Ma	any years na	ve you been living ir	i the UK?	L	Prefer not to say						
A											
Are you	currently:	م ما السال السام			Full time a la	a ma a ma a l ca m					
		/ed full-time /ed part-time		<ul><li>☐ Full-time homemaker</li><li>☐ Retired</li></ul>							
	□ Unemp	•		☐ Still studying							
		nployed		☐ Disabled or too ill to work							
	□ Sell-ell	ipioyeu		☐ Prefer not to say							
						FIEIEI IIOL	io say				
Do you or does anyone living with you own a car or van?											
,,,,,	No	Yes, o		Yes, m	ore tha	an one	Prefer	not to	sav		
									•		

Have you, your family or close friends had cancer?						
	Yes	s No	Don't know	Prefer	not to say	
You						
Partner						
Close family member	er 🗆					
Other family member	er 🗆					
Close friend						
Other friend						
Optional ite	ems:					
Are you registered	l with a GP?					
Yes		No	Don't know	Pre	fer not to say	
What is your sexua	al orientation?					
Bi-sexual □	Gay man  □	Gay woman/lesbian □	Heterosexual/	Other	Prefer not to say □	

Thank you for taking time to answer my questions.

Now that the interview is over, would you like to ask any questions? Or do you have any comments?

# **Breast Cancer Awareness Measure (Breast CAM)**

### **Answer sheet**

This survey instrument (Breast CAM) was developed by Cancer Research UK, King's College London and University College London in 2009 and validated with the support of Breast Cancer Care and Breakthrough Breast Cancer.

This booklet is intended for use in training only. Respondents should not see this booklet. The following gives the correct answers to the questions asked in the Breast CAM.

**Q1.** First of all, please would you name as many early warning signs of breast cancer as you can think of

The correct answers to this question are listed in question 2, although there are other warning signs and symptoms and none of the signs and symptoms listed would necessarily be caused by breast cancer.

**Q2.** Can you tell me whether you think any of these are warning signs of breast cancer or not?

The correct answer for this question is that all of the warning signs and symptoms listed could be (but are not necessarily) warning signs for breast cancer.

Q3a. How often do you check your breasts?

The current Department of Health recommendations on breast checking are as follows:

"It is important to be aware of how your breasts normally look and feel at different times. You will then notice if something is different or if you develop any of the signs and symptoms listed above.

You can become familiar by looking and feeling your breasts from time to time in any way that is best for you.

You can feel your breasts in the bath or shower using a soapy hand or lying down in bed. Using body lotion can help. It is important to feel the whole breast including the armpit.

You can look at your breasts in the mirror. Move your arms (above your head, on your hips or by your sides) so that you can see your breasts from every angle, including the underside.

As older women are at greater risk of breast cancer, it is very important to be aware of any unusual changes after the menopause, when your periods have stopped.

Breasts may change with age and life events, such as pregnancy, breastfeeding, at different times of the month if you still have periods and after the menopause. This is why it is important to know what is normal for you so you will recognise any changes."

The Department of Health does not provide any firm recommendations on the frequency with which women should check their breasts, because there is no clear evidence that any particular frequency is appropriate.

**Q3b.** Are you confident you would notice a change in your breasts?

This is an attitudinal question with no right or wrong answer.

**Q3c.** Have you ever been to see a doctor about a change you have noticed in one of your breasts?

There is no right or wrong answer to this question.

**Q4.** If you found a change in your breast, how soon would you contact your doctor?

Women, particularly those over the age of 50, should contact their doctor's surgery within a few days of discovering a breast change. We know that the sooner breast cancer is diagnosed, the better the outcome is likely to be. The risk of a breast symptom indicating breast cancer is much higher in an older than a younger woman.

**Q5.** In the next year, who is most likely to develop breast cancer?

The correct answer to this question is 'a 70 year old woman'. The risk of breast cancer increases with increasing age. Most women who get breast cancer are past their menopause (change of life), but around one in five women diagnosed each year are under 50 years old.

Q6a. As far as you are aware, is there an NHS Breast Screening Programme?

**Q6b.** At what age are women *first* invited to the NHS Breast Screening Programme?

**Q6c.** At what age do women receive their **last** invitation to the NHS Breast Screening Programme?

**Q6d.** Have you ever been invited for breast screening on the NHS Breast Screening Programme?

**Q6e.** Have you ever had breast screening on the NHS Breast Screening Programme?

Women are currently invited for breast screening between the ages of 50 and 70 and are offered mammograms every three years. From 2009, this age range began to be extended. Women in their late forties and up to the age of 73 are also starting to be invited. It will take a few years for this to happen everywhere in England. NHS breast screening is not usually available for younger women as mammograms are not as effective on younger breasts. Women over 70 can ask for free breast screening every three years, by contacting their local breast screening unit.

Q7. What things do you think affect a woman's chance of developing breast cancer?

The correct answers to this question are listed in question 8, although there are other warning signs and symptoms and none of the signs and symptoms listed would necessarily be caused by breast cancer.

**Q8.** How much do you agree that each of these can increase the chance of developing breast cancer?

All of these increase the risk of breast cancer

HRT does increase the risk of getting breast cancer; however, if women only take it for a short time the increased risk is small. The longer you take HRT, the more your breast cancer risk increases. The risk goes back to normal within five years of stopping taking it. If a woman is worried about taking HRT or any of the other risk factors mentioned here, please recommend that she talks her doctor about the benefits and risks in her individual situation.

### Breast Cancer Awareness Measure

# Coding sheet (for use with SPSS or EXCEL)

This survey instrument (Breast CAM) was developed by Cancer Research UK, King's College London and University College London in 2009 and validated with the support of Breast Cancer Care and Breakthrough Breast Cancer.

#### **Background and purpose**

The coding guidance set out below ensures that data from the Breast CAM is suitable for depositing in the UK Data Archive.

You can see that as well as numbers for coding the data, we are also providing a set of correct variable names which are highlighted in bold (e.g. **Position**). Please use these variable names when recording your data.

For every question it is possible to code data as 'refused' ('98'). Use this code when the respondent actively chooses not to respond. Where appropriate there are also codes for 'don't know' ('99'). For all other missing data just leave a blank.

Please store the data in either EXCEL or SPSS for transfer to the archive. There is a template EXCEL and SPSS data file available, if you require it.

We have not provided guidance about how the Breast CAM should be scored, but we are happy to give advice and can provide syntax files for coding in SPSS.

Contact details: <a href="mailto:naedi@cancer.org.uk">naedi@cancer.org.uk</a>

First of all, please create a participant ID number and describe the method of survey administration.

Participant ID Number

ID

Urdu

Punjabi

Gujarati

	Please indicate whether this interview was held face-to-face, over the telephone, via the internet or other. InterviewMethod						
If 'Other' (code 4) coverbatim.	reate an additional	variable	e <b>'InterviewMethod</b>	Other'	and write the res	ponse	
Face-to-face 1	Telephone	2	Internet 3		Other	4	
Please indicate who	ere the survey was	comple	eted.				
InterviewSetting							
If 'Other' (code 3) c verbatim.	reate an additional	variable	e 'InterviewSetting	Other' a	and write the resp	onse	
Health service	1	Home	2	Othe	er setting	3	
Please indicate which language was used to administer the interview.							
InterviewLanguage							
If 'Other' (code 7) create an additional variable 'InterviewLanguageOther' and write the response verbatim.							
English		1	Sylheti			5	

Cantonese

Other.....

2

3

4

6

7

#### **Breast CAM questions**

#### 1. OPEN WARNING SIGNS

Create 13 variables labelled from **Breast\_symp01** to **Breast\_symp11**. Each symptom named must be recorded using the coding frame below. For example, if the respondent names 'pain in the breast' and 'bleeding from nipple', code **Breast\_symp01** as 3 in **Breast\_symp02** as 5.

To code a variable that is not on the list code as 'Other' (code 12) create additional variables e.g. **Breast\_symp013**, **Breast\_symp14**, etc and write the response the participant has given verbatim.

Nipple position	1
Pulling in of nipple	2
Pain breasts/armpit	3
Puckering/dimpling	4
Discharge/bleeding nipple	5
Lump/thickening breast	6
Nipple rash	7
Redness breast skin	8
Lump/thickening armpit	9
Change size breast/nipple	10
Change shape breast/nipple	11
Other	12
Nothing	13
Refused	98
Don't know	99

#### 2. CLOSED WARNING SIGNS

Can you tell me whether you think any of these are warning signs of breast cancer or not?

Oan you tell me whether you think any of these are warning signs of breast cancer of not:					
Question followed by corresponding  SPSS/Excel Variable Name	Yes	No	Don't know		
Do you think a change in the position of your nipple could be a sign of breast cancer? <b>Breast_position</b>	3	2	1		
Do you think pulling in of your nipple could be a sign of breast cancer? <b>Breast_pullin</b>	3	2	1		
Do you think pain in one of your breasts or armpit could be a sign of breast cancer? <b>Breast_pain</b>	3	2	1		
Do you think puckering or dimpling of your breast skin could be a sign of breast cancer? <b>Breast_pucker</b>	3	2	1		
Do you think discharge or bleeding from your nipple could be a sign of breast cancer? <b>Breast_disch</b>	3	2	1		
Do you think a lump or thickening in your breast could be a sign of breast cancer? <b>Breast_lump</b>	3	2	1		
Do you think a nipple rash could be a sign of breast cancer? <b>Breast_rash</b>	3	2	1		
Do you think redness of your breast skin could be a sign of breast cancer? <b>Breast_redness</b>	3	2	1		
Do you think a lump or thickening under your armpit could be a sign of breast cancer? <b>Breast_armlump</b>	3	2	1		
Do you think changes in the size of your breast or nipple could be signs of breast cancer? <b>Breast_size</b>	3	2	1		
Do you think changes in the shape of your breast or nipple could be signs of breast cancer?  Breast_shape	3	2	1		

#### 3. CONFIDENCE, SKILLS AND BEHAVIOUR

How often do you check your breasts?						
Breast_check						
Rarely or never	At least once every 6 months	At least once a month	At least once a week			
4	3	2	1			

Are you confident you would notice a change in your breasts?						
Breast_confid						
Not at all confident Not very confident Fairly confident Very confident						
4 3 2 1						

Have you ever been to see a doctor about a change you have noticed in one of your breasts?					
Breast_doctor					
Yes No Never noticed a breast change					
1 2 3					

#### 4. SEEKING HELP

If you found a change in your breast, how soon would you contact your doctor?

#### **Breast\_CancerSignTime**

Record response verbatim

#### **5. AGE AND BREAST CANCER**

In the next year, who is most likely to develop breast cancer?  Breast_AgeC						
A 30 year old woman	A 50 year old woman	A 70 year old woman	A woman of any age			
4	3	2	1			

#### 6. NHS BREAST CANCER SCREENING PROGRAMME

Question followed by corresponding  SPSS/Excel Variable Name			No	Don't know	Refused
Is there an NHS Breast Screening Programme?  Breast_screening			2	99	98
IF YES:	At what age are women first invited to the NHS Breast Screening Programme? <b>Breast_firstage</b>	Age in years		99	98
	At what age do women receive their last invitation to the NHS Breast Screening Programme? <b>Breast_lastage</b>	Age yea		99	98
	Have you ever been invited for breast screening on the NHS Breast Screening Programme?  Breast_invite	1	2	98	98
	Have you ever had breast screening on the NHS Breast Screening Programme? <b>Breast_attend</b>	1	2	98	98

#### 7. OPEN RISK FACTORS

#### Create 21 variable names from Breast\_riskO1 to Breast\_riskO27

Please create 21 variables labelled 1, 2, 3 etc, up to 21. Each risk factor must be recorded as a new variable using the coding frame below. For example if the first response is 'being overweight' code as '4' in **Breast\_riskO1**. If the second response is 'stress' code as '19' in **Breast\_riskO2** etc.

To code a variable that is not on the list code as 'Other' (code 20) create additional variables e.g. **Breast\_riskO22**, **Breast\_riskO23**, etc and write the response the participant has given verbatim.

Previous breast cancer	1
Hormone Replacement Therapy (HRT)	2
Drinking alcohol	3
Being overweight	4
Having a close relative with breast cancer	5
Having children later on in life or not at all	6
Starting periods at an early age	7
Having a late menopause	8
Not doing enough exercise/physical activity	9
Older age (unspecified)	10
Having gone through the menopause	11
Being a smoker	12
Diet (unspecified)	13
Drinking alcohol	14
Chance	15
Hormone imbalance	16
Breastfeeding	17
Taking the oral contraceptive pill	18
Stress	19
Other	20
Nothing	21
Refused	98
Don't know	99

#### 8. CLOSED RISK FACTORS

How much do you agree that each of these can increase the chance of developing breast cancer?

ouriour.					
Question followed by corresponding	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
SPSS/Excel Variable Name					
Having a past history of breast cancer Breast_pasthist	1	2	3	4	5
Using HRT (Hormone Replacement Therapy) <b>Breast_hrt</b>	1	2	3	4	5
Drinking more than 1 unit of alcohol a day Breast_alcohol	1	2	3	4	5
Being overweight (BMI over 25)  Breast_bmi	1	2	3	4	5
Having a close relative with breast cancer Breast_famhist	1	2	3	4	5
Having children later on in life or not at all <b>Breast_nokids</b>	1	2	3	4	5
Starting your periods at an early age Breast_periods	1	2	3	4	5
Having a late menopause  Breast_menopaus	1	2	3	4	5
Doing less than 30 mins of moderate physical activity 5 times a week <b>Breast_exercise</b>	1	2	3	4	5

#### **Demographic Questions**

1. What is yo	ur age?			Prefer not t	to say
Age	L			98	
Record actual	age				
2. What is yo Gender	ur gender?				
1	Male	2	Female	98	Prefer not to say

#### 3. Which of these best describes your ethnic group?

#### **EthnicGroup**

To code an ethnic group that is not on the list code as 'Other' (code 16) and write the ethnicity verbatim in 'OtherEthnic'

White		Mixed Asian or Asia British			Black or Black British		Chinese/other		
1	White British	4	White and Black Caribbean	8	Indian	12	Black Caribbean	15	Chinese
2	White Irish	5	White and Black African	9	Pakistani	13	Black African	16	Other
3	Any other White background	6	White and Asian	10	Bangladeshi	14	Any other Black background	98	Prefer not to say
		7	Any other Mixed background	11	Any other Asian background				

#### 4. What is the main language spoken at home?

#### Language

To code a language that is not on the list code as 'Other' (code 7) and write the language verbatim in 'OtherLanguage'

1	English	5	Sylheti
2	Urdu	6	Cantonese
3	Punjabi	7	Other
4	Gujarati	98	Prefer not to say

5. What is your marital status?										
MaritalStatus	MaritalStatus									
Single/never married	Married/living with partner	Married separated	Divorced	Widowed	Civil partnership	Prefer not to say				
1	1 2 3 4 5 6 98									

6. What is the highest level of education qualification you have obtained?  HighestEducation  To code an education that is not on the list code as 'Other' (code 9) and write the education verbatim in 'EducationOther'								
1	1 Degree or higher degree 6 O Level or GCSE equivalent (Grade A - C)							
2	<ul><li>2 Higher education qualification below degree</li><li>7 O Level or GCSE (Grade D - G) level</li></ul>							
3	3 A-levels or highers 8 No formal qualifications							
4	4 ONC/BTEC 9 Other							
5	Still studying	98	Prefer not to say					

	7 To voic of mignore				110 formal qualifications					
4	ONC/BTEC			9	Othe	er				
5	Still studying			98	Prefer not to say					
7. Pleas	7. Please tick the box which best describes your living arrangement:									
LivingA	rrangement									
	an education Arrangement	that is not on the list Other'	code as 'Oth	ier' (code	6) and	d write	the education ve	rbatim	in	
Own outright										
1 2 3 4 5 6 98										
1	2	3	4	5			6		98	
1	2	3	4	5			6		98	
	2 is your post		4	5			6 Prefer not to say		98	
	is your post		4	5			-			
8. What	is your post	code?	4	5			-			
8. What	is your post	code?	4	5			-			
8. What Postcoo Record	is your post de actual postcoo many years h	code?					-			
8. What Postcoo	is your post de actual postcoo many years h	c <b>ode?</b> de					Prefer not to say		98	
8. What Postcoo Record  9. How Years U	is your post de actual postcoo many years h	c <b>ode?</b> de					Prefer not to say		98	

10. A	10. Are you currently:					
Employed						
1	Employed full-time	5	Full-time homemaker			
2	Employed part-time	6	Retired			
3	Unemployed	7	Still studying			
4	Self-employed	8	Disabled or too ill to work			
		98	Prefer not to say			

11. Does your household own a car or van?							
Car							
No	Yes, one	Yes, more than one	Prefer not to say				
1 2 3 98							

12. Have you, your family or close friends had cancer?								
	Yes	No	Don't know	Prefer not to say				
You	1	2	3	98				
CancerYou	'	2	3	90				
Partner	1	2	3	98				
CancerPartner	•	2	S	90				
Close family member		2	0	00				
CancerCloseFamily	ı	2	3	98				
Other family member	1	2	0	00				
CancerOtherFamily	ı	2	3	98				
Close friend	1	2	3	98				
CancerCloseFriend		2	S	90				
Other friend	4	2	3	98				
CancerOtherFriend		2	3	30				

### Optional items:

Are you registered with a GP? GP						
Yes	No	Don't know	Prefer not to say			
1	2	3	98			

#### What is your sexual orientation?

#### **SexualOrientation**

To code a sexual orientation that is not on the list code as 'Other' (code 5) and write the sexual orientation verbatim in 'SexualOrientationOther'

Bi-sexual	Gay man	Gay woman/lesbian	Heterosexual/	Other	Prefer not to say
1	2	3	atraight 4	5	98

### Cancer Awareness Measure (CAM) UK Data Archive

# How to access and deposit CAM data

This survey instrument (Breast CAM) was developed by Cancer Research UK, King's College London and University College London in 2009 and validated with the support of Breast Cancer Care and Breakthrough Breast Cancer.

#### **Background information**

The UK data archive is hosted by the University of Essex, please contact Susan Cadogan for any queries (see contact details below). We ask that anyone who collects data using any of the Cancer Awareness Measures to deposit their data into the archive. This will allow us to build up an evidence base that can be accessed by all.

Contact information: Susan Cadogan

Senior Acquisitions Officer

Economic and Social Data Service (ESDS)

University of Essex,

Colchester, CO4 3SQ, UK

Phone: +44 1206 872572

Emails: susan@essex.ac.uk; acquisitions@esds.ac.uk

Web General: <a href="http://www.data-archive.ac.uk">http://www.data-archive.ac.uk</a>

Web Economic and Social Data service: http://www.esds.ac.uk

#### How to access CAM data

Access to the Data Catalogue, including online documentation such as questionnaires, does not require registration. However, to download any CAM data you must register.

- 1. Go to: <a href="http://www.data-archive.ac.uk">http://www.data-archive.ac.uk</a>
- 2. Go to 'How to register' and follow the appropriate steps

Once you have registered and have a username and password you can access CAM data. To do so:

- 1. Go to: <a href="http://www.data-archive.ac.uk">http://www.data-archive.ac.uk</a>
- 2. Login via 'UK Federation'
- 3. Select 'UK data archive' as your home institution (unless you are an academic in which case select your university)
- 4. Type in your username and password
- 5. Use the 'Data Catalogue' to search for 'cancer awareness'. This should bring up all the CAM data that is currently held in the archive
- 6. Click on 'Download/order'
- 7. When prompted to provide details on how you will use the data, ensure that you select 'non-commerical' purposes.

Please note that if you would like access to identifiable information in the data, such as postcodes, you will be required to agree to the terms of our 'Special Licence'. The Special Licence asks for details about the person(s) or organisations wishing to access the data and a signed declaration that he/she understands the confidentiality obligations owed to those data including its physical security.

#### How to deposit your data

If you are commissioning your CAM survey please ensure that you specify responsibilities for uploading the data collected using the CAM.

To deposit your data into the archive you will need to complete three basic tasks:

- 1. Complete a set of deposit forms
- 2. Provide the data with supporting documentation
- 3. Complete the licence agreements

These tasks are detailed on the following pages.

#### Helpful Hints

- Remember to hit 'save' before switching between the different steps, or the information will not be recorded
- There is a 'help' button at the top of the form which links you to online guidance.

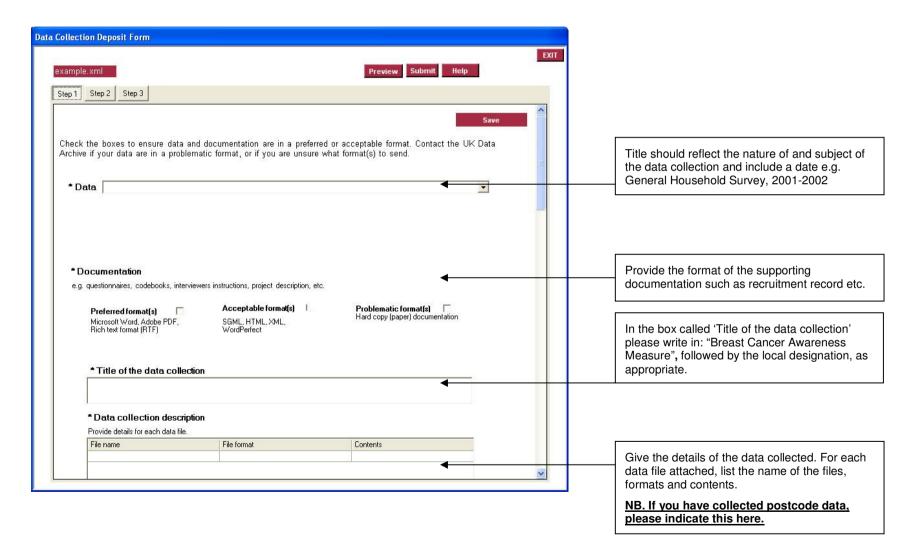
#### Next steps

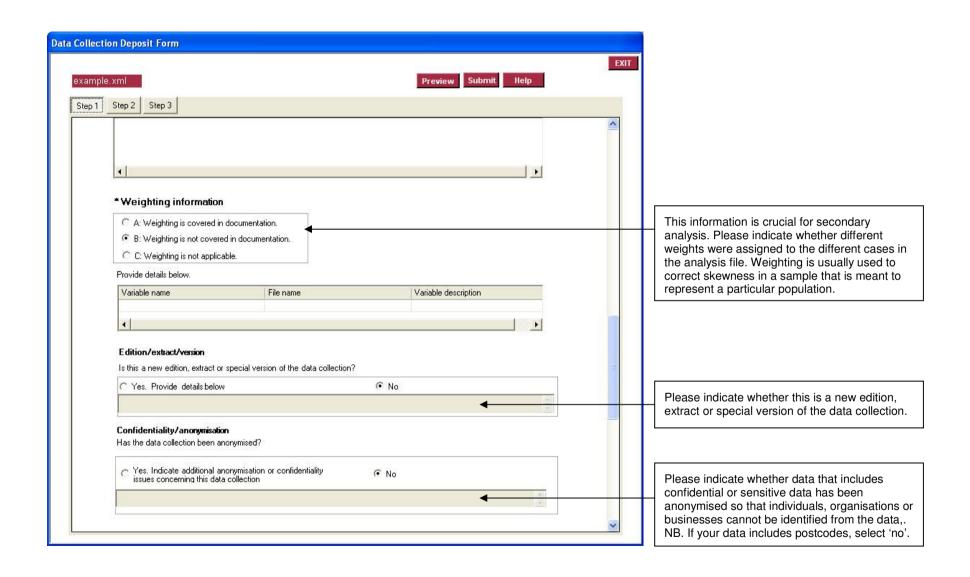
Once you have sent your data to the UKDA, they should acknowledge receipt of your data via email. They will then review your submission and create a 'report' based on the documents you have provided. You should check this report as it will be held alongside your data in the archive. You should make any changes to the report and then confirm that you are happy with a final version. Your data will then be transferred to the archive and available on the web to other interested researchers.

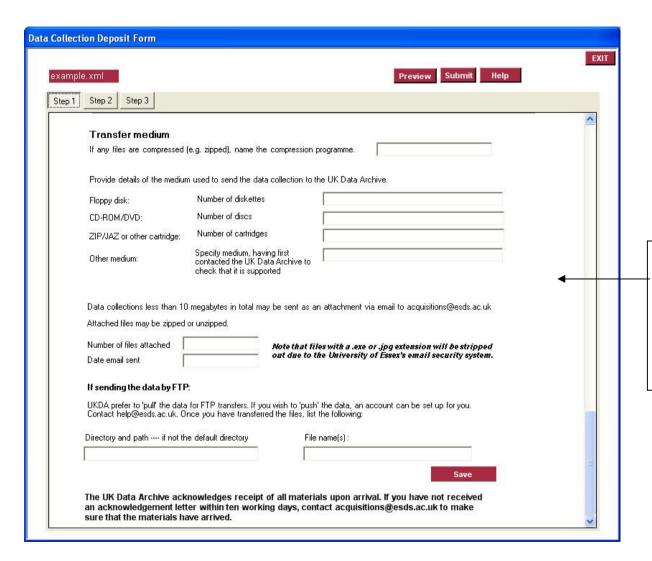
#### Help

Please contact NAEDI if you have any queries about this process: naedi@cancer.org.uk

#### Step 1





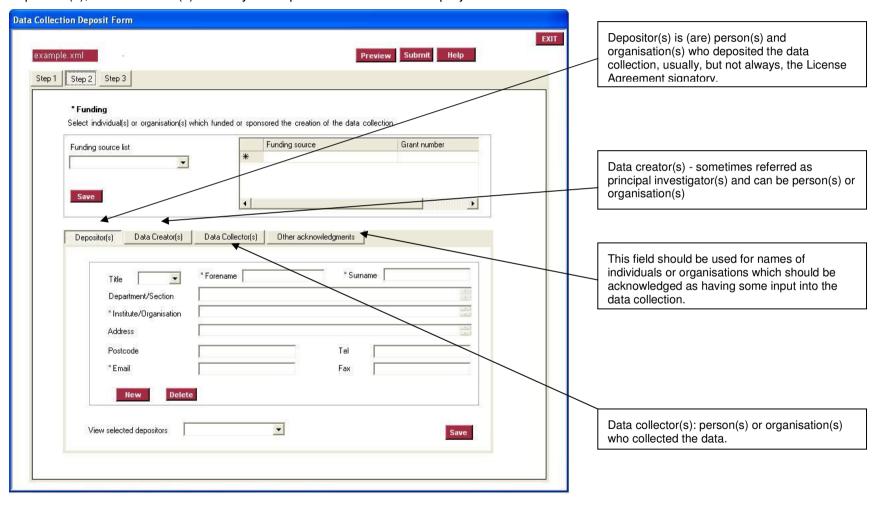


Provide the details of medium used to send the data to the UK Data Archive (by email, by FTP, CD/DVD etc.)

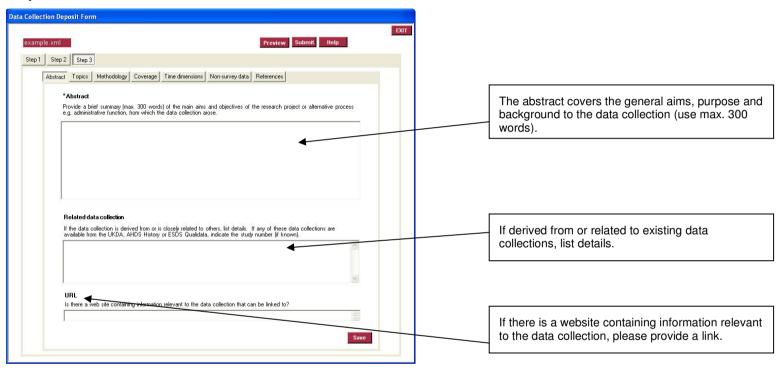
NB. If your data includes postcodes please do not send by email but use an FTP transfer, or send an encrypted CD-ROM/DVD or memory stick. More information about data formats, data transfer and encryption is available here: http://www.data-archive.ac.uk/sharing/acceptable.asp

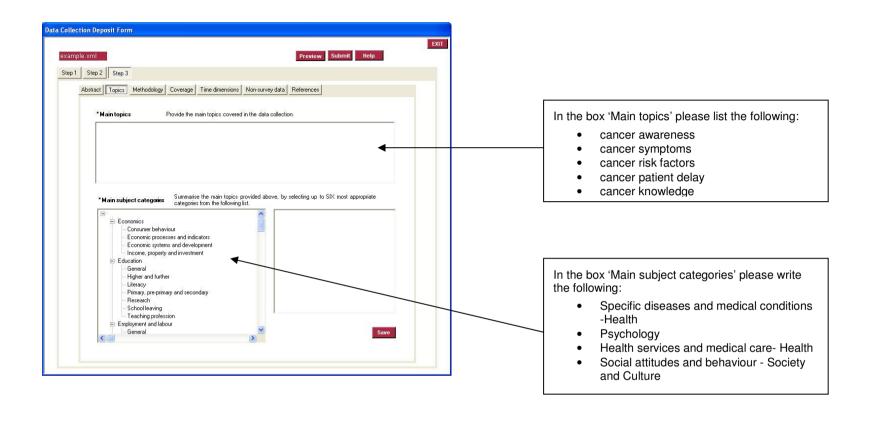
### Step 2

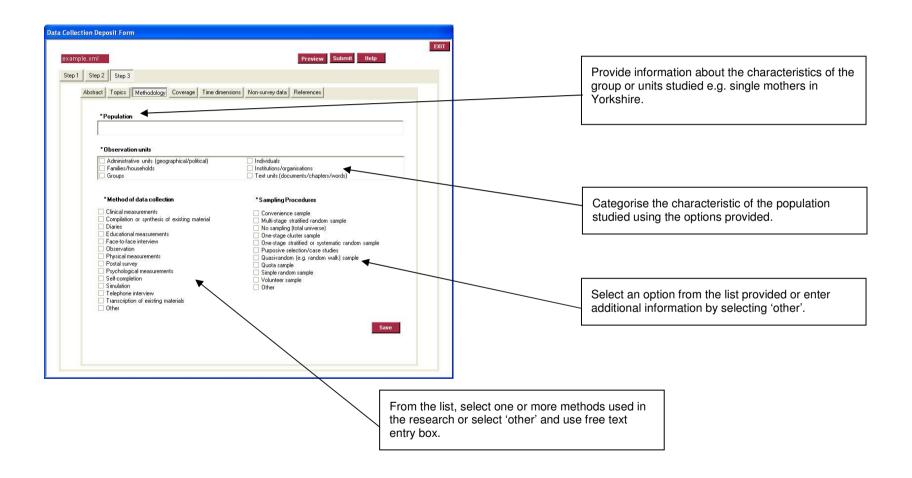
This section of the form asks for information about the funder(s) of the research and contact details of the data creator(s) depositor(s), data collector(s) and any other persons involved in the project.

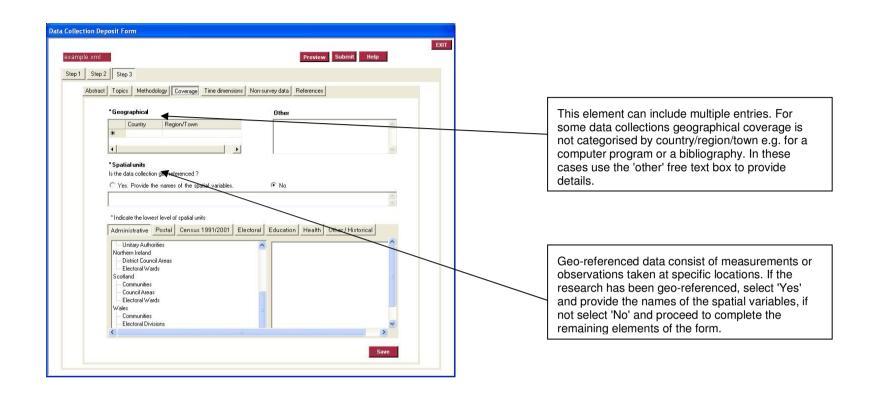


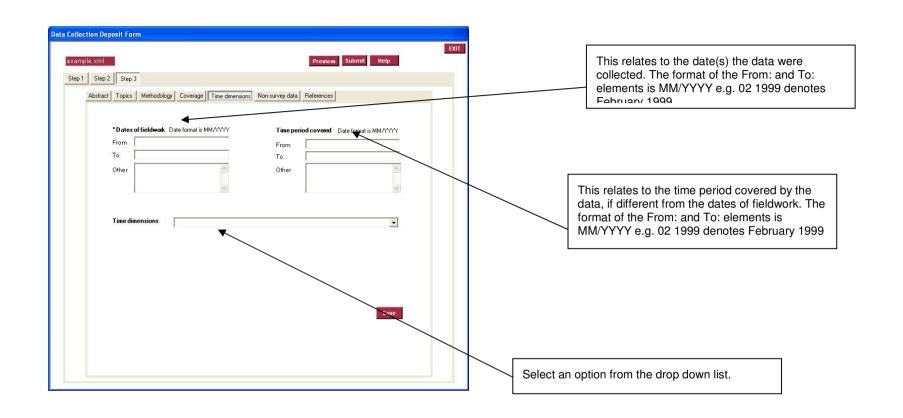
#### Step 3

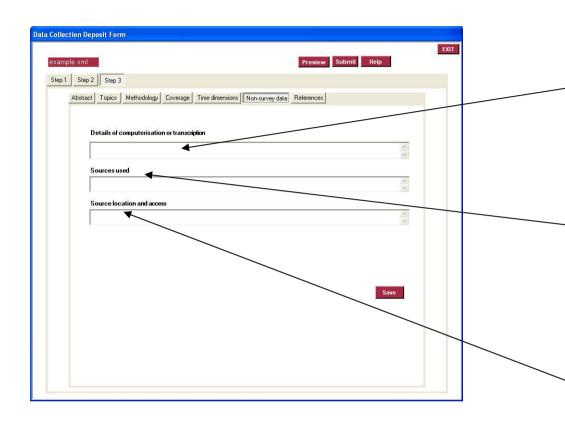








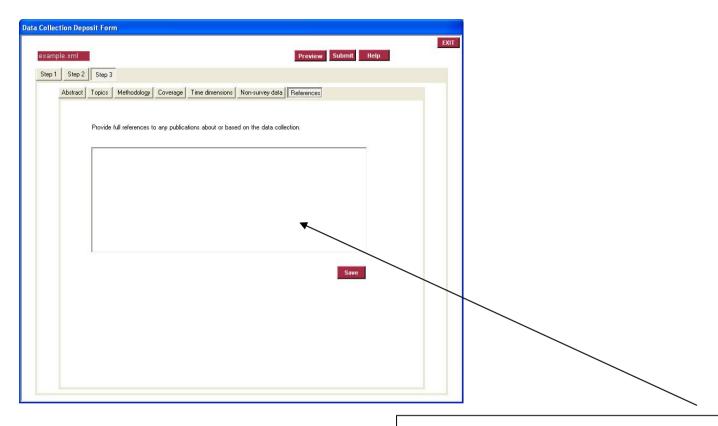




If the data collection was derived in whole or in part from other published or unpublished sources, indicate the methodology used for digitising the original source materials and whether the data represent a complete or partial transcription/copy.

If the data were derived in whole or in part from other published or unpublished, printed or electronic sources, give references to the original material e.g. Enumerators' books; probate records; court materials; newspapers; parliamentary records.

Give details of where the sources described in 'sources used' are held, how they are documented and how they can be accessed.



In the box called 'References' please include the following:

- Stubbings S, Robb KA, Waller J, Ramirez A, Austoker J, Macleod U, Hiom S, Wardle J (2009). Development of a measurement tool to assess public awareness of cancer. British Journal of Cancer, 101, S13—S17
- Robb KA, Stubbings S, Ramirez A, Austoker J, Macleod U, Waller J, Hiom S, Wardle J (2009) Public awareness of cancer in Britain. British Journal of Cancer (in press)
- Waller J, Robb K, Stubbings S, Ramirez A, Macleod U, Austoker J, Hiom S, Jane Wardle J (2009) Awareness of cancer symptoms and anticipated help-seeking among ethnic minority groups in England British Journal of Cancer, 101, S24-S30

Please also add any references for publications that have resulted directly from your own data.

# **Breast Cancer Awareness Measure (CAM)**

### Flexibility in using the Breast CAM

This survey instrument (Breast CAM) was developed by Cancer Research UK, King's College London and University College London in 2009 and validated with the support of Breast Cancer Care and Breakthrough Breast Cancer.

#### Introduction

It is important to promote the use of the Breast CAM and make it as accessible and easy to use as possible. The Breast CAM includes eight questions and twelve demographic questions and takes between 15-20 minutes to complete. Many researchers will need to shorten the Breast CAM, prioritising some of the questions over others and may want to ask additional questions of their own. This brief guide outlines how this can be possible while retaining the validity and reliability of the Breast CAM questions.

#### **CAM** modules

It is possible to separate the questions in the Breast CAM into distinct 'modules' that can be used on their own, in conjunction with other items from the Breast CAM or elsewhere. However it is extremely important that all the items in the modules are retained, removing items could result in reduced reliability or validity of the measure. The modules are listed below.

Module 1. Q1 - Warning signs (1 item)

Module 2. Q2 – Closed warning signs (11 items)

Module 3. Q3 - Confidence, skills and behaviour (3 items)

Module 4. Q4 - Delay in seeking medical help (1 item)

Module 5. Q5 - Breast cancer and age (1 item)

Module 6. Q6 - NHS breast cancer screening programme (4 items)

Module 7. Q7 – Open risk factors (1 item)

Module 8. Q8 – Closed risk factors (9 items)

#### **Ordering of CAM questions**

It is possible to change the order of the Breast CAM modules, for example, you can ask about confidence in detecting Breast cancer symptoms first and warning signs last. There is one exception to this; closed or prompted questions such as 'The following may or may not be warning signs for Breast cancer. We are interested in <u>your</u> opinion', should always be asked <u>after</u> open or unprompted questions such as 'There are many warning signs and symptoms of Breast cancer. Please name as many as you can think of'. This is because the closed/prompted questions essentially provide the answers to the open/unprompted questions.

Taking this into account, it is possible to ask the Breast CAM modules in any order you like. It is also possible to change the ordering of items within modules. You may wish to counterbalance or rotate the order to see if this has any affect on people's responses.

You can also to ask additional questions alongside the Breast CAM questions. For example, if you're using the Breast CAM to assess the impact of an intervention you will want to ask some more specific questions about the intervention itself. In doing so, you should consider how these questions could affect the respondent's response to the Breast CAM. For example, you should avoid asking questions that could increase the participant's knowledge about cancer.

#### Additional modules from the CAM

Additional modules from the generic CAM can be added to the Breast CAM. For example, Module 4 on barriers to help-seeking, or Module 9 on NHS Cancer Screening Programmes.

#### **Demographic questions**

It is also possible to include fewer demographic questions. We have outlined the essential demographic items below and these questions must be included in the survey. All other items are optional and you are welcome to add any additional questions if you have more specific needs.

Essential demographic items:

- Age
- Gender
- Ethnicity
- Experience of cancer
- At least one indicator of deprivation<sup>3</sup>, e.g. education, employment, living arrangement, car/van ownership, postcode

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<sup>&</sup>lt;sup>3</sup> We advise using an individual level of deprivation such as education or employment AND an arealevel indicator of deprivation such as postcode.

### **Breast Cancer Awareness Measure (CAM)**

### Sampling

This survey instrument (Breast CAM) was developed by Cancer Research UK, King's College London and University College London in 2009 and validated with the support of Breast Cancer Care and Breakthrough Breast Cancer.

#### Introduction

Your sampling method and your sample size determine the 'generalisability' of your results, in other words, the extent to which you can claim that your findings are an accurate reflection of the population of interest. If you want to obtain a 'baseline' level of cancer awareness in a particular region or locality, your sample should be representative of that population. Consequently you would need to sample men and women from different backgrounds and of different ages. Alternatively, you might want to assess knowledge in a specific group of people, for example, a particular ethnic group<sup>4</sup> or socio-economic group. In this case, your sample should be representative of this specific group.

#### Points to consider when deciding on sampling methods and sample size:

- Funding.
- Sampling frames/target group (e.g. all men over 50 years living in x).
- Feasibility of data collection how will you reach your target group? Face-to-face interviews somewhere private or interviews carried out via telephone are best, but the CAM has been used on the internet or as a postal survey.
- Research aims and objectives do you want to obtain a baseline of cancer awareness or to evaluate the impact of an awareness raising initiative?
- Generalisability of the sample do you want to be able to generalise your results to a wider population? If so, which population?
- How many comparisons do you wish to make e.g. how many ethnic groups, how many SES groups do you want to compare?
- How many variables are your measuring? are you just using the CAM, or are you adding questions to it?
- The margin of error for example, if you selected a margin of 5% and 40% of respondents said they thought a lump could be a sign of cancer then you would expect (if you'd asked everyone in your sampling frame) that the correct answer would fall between 35-45% (40±5).
- Statistical level of confidence usually set at 95%. This means that you have 95% chance of your results being true and 5% chance your results will be due to chance/not representative.
- Response rates it is best to assume 50-60% response at best.
- Level of 'unusable' questionnaires (e.g. those that are returned but not valid or incomplete).

#### Obtaining a baseline of awareness of cancer in your region/locality

The gold standard approach to getting a good baseline of awareness would be to get a 'population representative' sample using random sampling. Random sampling means that each person in your sampling frame (e.g. the UK population) has an equal chance of being asked to take part. To be able to do this you will need to access the details of the sampling frame in order to randomly select from them, a list of all the people that live in the area, their contact details and other demographic information. For example the Office for National Statistics use the Royal Mail's Postcode Address File (PAF) of 'small users': http://www.royalmail.com/portal/rm/content1?mediald=56000706&catId=400085

<sup>&</sup>lt;sup>4</sup> Please note that the CAM is only available in English at present.

The ONS methods are described here: http://www.ons.gov.uk/about/who-we-are/our-services/omnibus-survey/index.html

If random sampling is not feasible the next best option would be to randomly sample locations across your locality or target areas and then carry out quota sampling within each location.

Other options include selecting areas or wards which result in a range of social economic deprivation according to area-based indicators like the Index of Multiple Deprivation (available on the National Statistics website) and then quota sampling within those areas to ensure you have a proportional number of males/females, ethnic groups etc.

#### Assessing the impact of an awareness-raising initiative

If you are using the Breast CAM as a way of assessing the impact of an initiative designed to increase Breast cancer awareness you will want to ensure that the people who complete the Breast CAM have been exposed to that initiative, or at least have had an opportunity to be exposed to it. In this case your sample should be representative of those targeted by the awareness raising initiative. For example, if the project you would like to assess aimed to increase awareness of cancer in a specific locality then your gold standard approach would be randomly sample from within that locality.

#### Some useful definitions

#### Random sampling

- Simple random selection from census.
- Stratified random selection from within subgroups such as male/female etc
- Cluster random selection from clusters e.g. geographical areas
- Multistage stratified random sampling from within clusters

#### Non-random sampling

- Convenience sampling (e.g. on street using footfall)
- Purposive sampling e.g. women aged between 40-60years
- Quota sampling certain quotas required from specified subgroups. This can be proportional/non-proportional
- Snowball sampling following up recruitment leads from participants already taking part

# Cancer Awareness Measure (CAM)

Glossary

#### **CAM** glossary of terms

**Barrier for seeking help** – Any reason given for not seeking help for a suspected warning sign or symptom.

**Cancer screening** – Testing large groups of apparently healthy people for early signs of certain types of cancer. Screening for a specific cancer can only be carried out when there are good enough tests available and studies have shown that screening will do more good than harm.

**Cancer screening programme** – Invites certain sections of the population to screening at regular intervals over a period of years.

**Closed question** – A query that requires the respondent to answer using given options.

**Interviewer** – The person giving the questionnaire to respondents.

**Open question** – A guery that allows the respondent to answer freely.

**Risk factor for cancer** – Something about us or our lives that increases our chances of developing cancer.

**Respondents** – The people giving the answers to the CAM.

**Seeking help** – Visiting a doctor in regards to a suspected warning sign or symptom.

**Symptom of cancer** – A feeling of illness, or physical or mental change, caused by cancer.

**Warning sign of cancer** – A feeling of illness, or physical or mental change, that may or may not be caused by cancer.