

Cancer Research UK

Bowel Cancer Awareness Measure (CAM)

Toolkit

Together we will beat cancer



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Together we will beat cancer



TERMS OF USE FOR THE CANCER RESEARCH UK BOWEL CANCER AWARENESS MEASURE

Please find enclosed/attached the Cancer Research UK Bowel Cancer Awareness Measure (Bowel 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 Bowel CAM complies with our guidance notes.

Please do not alter the Bowel 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 Bowel CAM or any of the guidance supplied, and in any publication based wholly or partly on its use.

'This survey instrument (Bowel CAM) was developed by University College London and Cancer Research UK. It is based on a generic CAM developed by Cancer Research UK, University College London, Kings College London and Oxford University in 2007-08.'

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

We would like to see all Bowel 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, www.data-archive.ac.uk to provide a repository for this. Please ensure that you lodge the data you gather there (see page 53 for guidance).

If you have any queries please contact naedi@cancer.org.uk



Cancer Research UK

Bowel Cancer Awareness Measure (Bowel CAM)

Background information and instructions

Introduction and purpose of the Bowel 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 bowel cancer. This document provides information about the use of the bowel specific version of the CAM – the Bowel CAM.

The Bowel CAM comprises 8 questions with a total of 26 items;

- Warning signs (10 items) (Q1 + Q2)
- Delay in seeking medical help (1 item) (Q3)
- Bowel age (1 item) (Q4)
- Risk factors (11 items) (Q5 + Q6)
- NHS bowel cancer screening programme (2 items) (Q7)
 - o Knowledge (1 item)
 - Age of first invitation (1 item)
- Confidence detecting bowel symptom (1 item) (Q8)

Evaluation and psychometric status

The development paper (in preparation) indicates that the Bowel CAM has satisfactory internal reliability with Cronbach's alpha above 0.7 for all components. Test-retest reliability over 2 week interval was found to be good, with all correlations above 0.7 except for age at risk for bowel cancer and awareness of bowel cancer screening. Item difficulty (Kline, 1993²) was assessed and the majority of items in the Bowel CAM were answered correctly by more than 20% and less than 80% of respondents. Those items that did not were retained on the basis of content validity (e.g. bleeding from back passage as a sign of bowel cancer, diabetes as a risk factor for bowel cancer). If your interest in using the Bowel CAM is to assess the impact of an intervention or new service, we advise that you consider dropping the item 'bleeding from back passage' from question 2 because more than 80% of participants got this right and this could therefore reduce the apparent effect of your intervention. Item discrimination analyses showed item-to-total correlations greater than 0.2 for the majority of items with the exception of one 'warning sign' (i.e. blood in stools). This item was retained to ensure face validity, as it is part of the bowel 'key messages' (Department of Health).

In order to ensure construct validity the Bowel CAM was completed by 16 bowel cancer experts (bowel charity representatives) and 35 university staff. Bowel cancer experts obtained significantly higher scores than the university staff, indicating that the Bowel CAM is capable of discriminating between those who have high and low levels of bowel cancer

Bowel cancer Awareness Measure toolkit Version 2.1 Updated 09.02.11

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¹ Department of Health (2007). Cancer Reform Strategy. http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/dh_08 1006.

² Klein, P (2000). The Handbook of Psychological Testing. Routledge: London.

awareness. There was also an intervention study in which participants randomly received either an intervention leaflet ("Bowel Cancer: the Facts") or a control leaflet ("Recycle to save the environment") to read prior to completing the Bowel CAM. Participants who received the intervention leaflet consistently obtained higher awareness scores than those who received the control leaflet. This demonstrates that the Bowel CAM is sensitive to increases in cancer awareness.

Administration

The Bowel 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 Bowel 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 Bowel CAM should be administered by one trained interviewer in an environment where there will be little distraction.

The internet

Using the Bowel 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 socio-economic groups may not have access. So using the Bowel 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.

³ Cancer Research UK (2009). Bowel cancer - Key Facts, http://info.cancerresearchuk.org/prod_consump/groups/cr_common/@nre/@sta/documents/generalcontent/crukmig 1000ast-2806.pdf/accessed 11th January 2010

Self-complete or postal

If you would like to administer the Bowel CAM as 'self-complete' or postal survey you must either remove Q1 and Q5 or Q2 and Q6. Q1 and Q5 are 'unprompted' questions which ask respondents to recall warning signs or risk factors from memory. Q2 and Q6 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 Q5 as a result of being prompted in Q2 and Q6.

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 Bowel CAM survey please see page 70. Once you have recruited your participants please record the sampling methods using the relevant form (see 'Recruitment Record' on page 24) 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 53).

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 Bowel 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 10).

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 Bowel CAM survey data (see 'Coding Sheet' on page 41). All Bowel 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 53.

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

Bowel CAM Questions

Q1 – Open warning signs

"There are many warning signs and symptoms of bowel cancer. Please name as many as you can think of ..."

This is an open question designed to measure how many bowel cancer warning signs a respondent can recall unaided. 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

"The following may or may not be warning signs for bowel cancer. We are interested in <u>your</u> opinion ..."

These closed questions are designed to measure how many warning signs a respondent can recognise when prompted. The warning signs are taken from the bowel cancer Department of Health "Key messages"; NICE "Referral guidelines for suspected cancer" and the Cancer Research UK website.

Q3 - Seeking help for cancer symptoms

"If you had a symptom that you thought might be a sign of bowel cancer how soon would you contact your doctor to make an appointment to discuss it?"

This question can be used to assess when an individual would seek help for a symptom that they thought could be a sign of bowel cancer.

Q4 - Bowel cancer age

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

This question explores the public's knowledge of how age is related to bowel cancer.

Q5 – Open risk factors

"What things do you think affect a person's chance of developing bowel cancer?"

This is an open question designed to measure how many bowel cancer risk factors a respondent can recall unaided. In face to face interviews Q5 is always printed on a separate sheet to Q6 in order to ensure that respondents answers' are their own and not taken from the list given for Q6. Please ensure that the respondent does not see Q6 before they have completed Q5.

Q6 - Closed risk factors

"These are some of the things that can increase a person's chance of developing bowel cancer. How much do you agree that each of these can increase a person's chance of developing bowel cancer?

These closed questions are designed to measure a respondent's level of agreement with the risk factors.

Q7 - NHS bowel cancer screening programme

"As far as you are aware is there an NHS bowel cancer screening programme?"

"If yes, at what age are people first invited for bowel cancer screening?"

This set of questions assesses awareness of NHS bowel cancer screening programme, and the age at which people are first invited for screening.

Q8 - Confidence detecting bowel symptom

"How confident are you that you would notice a bowel cancer symptom?"

This question explores the public's confidence in detecting bowel cancer symptoms.



Cancer Research UK Bowel Cancer Awareness Measure (Bowel 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 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?

All details that can identify you will be removed before storing the data. All the information collected in this survey (although not your name), will be stored in the UK Data Archive, which is a secure national bank where the results of many surveys are kept. In the future, researchers will be able to download the information from the UK Data Archive and analyse it in new ways. This will help us to build an understanding of public awareness of cancer so that we can develop ways to improve cancer services. 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 of	dated DD/MM/YYYY.						
I have been given the opportunity to ask questions about the project.								
I agree to take part in the project. To survey/being interviewed [Other form	•							
I understand that my taking part is ve and I will not be asked any questions	• •	, ,						
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 hold researcher].	d in any materials relat	ed to this project to [name of						
Name of Participant	 Signature	 Date						
Researcher	Signature	Date						
[Contact details for further information	on: Names, phone, en	nail addresses, etc]						



Cancer Research UK

Bowel Cancer Awareness Measure

1. There are many warning signs and symptoms of bowel cancer. Please name as many as you can think of:

2. The following may or may not be warning signs for bowel cancer. We are interested in <u>your</u> opinion:						
	Yes	No	Don't know			
Do you think bleeding from your back passage could be a sign of bowel cancer?						
Do you think persistent pain in your abdomen (tummy) could be a sign of bowel cancer?						
Do you think a change in bowel habits (diarrhoea, constipation or both) over a period of weeks could be a sign of bowel cancer?						
Do you think a feeling that your bowel does not completely empty after using the lavatory could be a sign of bowel cancer?						
Do you think blood in your stools could be a sign of bowel cancer?						
Do you think pain in your back passage could be a sign of bowel cancer?						
Do you think a lump in your abdomen (tummy) could be a sign of bowel cancer?						
Do you think that tiredness/anaemia could be a sign of bowel cancer?						
Do you think unexplained weight loss could be a sign of bowel cancer?						

3. If you had a symptom that you thou contact your doctor to make an appoint	ught might be a sign of bowel cancer how soon would you intment to discuss it?
4. In the next year, who is most likely	to develop bowel cancer?
A 20 year old	
A 40 year old	
A 60 year old	
Bowel cancer is unrelated to age	

5. What things do you think affect a person's chance of developing bowel cancer?					

6. The following may or may not increase a person's chance of developing bowel cancer. How much do you agree that each of these can increase a person's chance of developing bowel cancer?							
	Strongly disagree	Disagree	Not sure	Agree	Strongly agree		
Drinking more than 1 unit of alcohol a day							
Eating less than 5 portions of fruit and vegetables a day							
Eating red or processed meat once a day or more							
Having a diet low in fibre							
Being overweight (BMI over 25)							
Being over 70 years old							
Having a close relative with bowel cancer							
Doing less than 30 mins of moderate physical activity 5 times a week							
Having a bowel disease (e.g. ulcerative colitis, Crohn's disease)							
Having diabetes							

		Yes	No	Don't know
7. As far as you are awar cancer screening progra				
If yes, at what age are p	eople first invited for bowel c	ancer screening? _		
8. How confident are you	that you would notice a bo	owel cancer sympto	om?	
Not at all confident	Not very confident	Fairly confiden	t V	ery confident



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Bowel Cancer Awareness Measure (Bowel CAM)

Demographic Questions

1. What is your age? Prefer not to say									
2. V	Vhat is your ger	nder?							
	☐ Male			□ F	emale		☐ Prefe	er not to say	
3. W	hich of these b	est d	<mark>escribes your e</mark>	thnic	group?				
	White		Mixed	As	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	uage spoken at	home	?				
	English				Sylheti				
	Urdu				Cantonese				
	Punjabi				Other				
	Gujarati			☐ Prefer not to say					
5. W	/hat is your mai	ital s	tatus?						
		ied/li\ partr		d	Divorced	Wido	wed Civi partner		

6. Wh	at is the highes	st level of education	qualificatio	n you hav	e obtaine	ed?	
	☐ Degree or higher degree				O Level or GCSE equivalent (Grade A C)		(Grade A -
	 Higher education qualification below degree level 				O Level or GCSE (Grade D - G)		
	A-levels or high	ghers			No forma	l qualifications	
	ONC/BTEC				Other		
	Still studying				Prefer no	t to say	
7. Ple	ase tick the bo	x which best descri	bes your liv	ing arrang	gement:		
Owr outrig	_	Rent from Local Authority/Housing Association	Rent privately	Squatti		ner (e.g. living with family/friends)	Prefer not to say
8. Wha	nt is your postc	ode?				Prefer not to say	
9. How	many years ha	ave you been living	in the UK?			Prefer not to say	
10 Ar	e you currently	, -					
	Employed full-tir				Full-tin	ne homemaker	
	Employed part-t				Retire		
	Unemployed				Still st		
	Self-employed					ed or too ill to work	
						not to say	
11. Do	es your house	hold own a car or va	an?				
	No	Yes, or	ne	Yes, m	ore than c	ne Prefer	not to say

12. Have you, your family or close friends had cancer?							
	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?	,		
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 sexual orientation?										
Bi-sexual	Gay man	Gay woman/lesbian	Heterosexual/ straight	Other	Prefer not to say					



Cancer Research UK

Bowel Cancer Awareness Measure (Bowel 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

Please outline the purpose of the survey (e.g. to explore awareness of bowel cancer risk factors and signs and symptoms in men aged over 50 years living in x).							
Sampling frame(s) (e.g. electoral registers, postal address file, GP lists, telephone directory, all men 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 Bowel 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 present while the interview was being carried out?								
0- 1 🗌								
More than 1								
If the surveys were administered in a different 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 interviews	s carrie	d 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 Bowel CAM?								

How many people agreed to complete the Bowel CAM?

How many people refused to complete the Bowel CAM?
How many participants started to complete the Bowel CAM but did not complete it?
How many participants started to complete the Bowel CAM but did not complete it?
How many participants started to complete the Bowel CAM but did not complete it?
How many participants started to complete the Bowel CAM but did not complete it?
How many participants started to complete the Bowel CAM but did not complete it? Over what time period were the interviews carried out?



Bowel Cancer Awareness Measure (Bowel CAM)

Script

Introduction

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

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 exactly 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 Bowel 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 bowel cancer awareness among people living in X]

COMPULSORY: This set of questions is about your awareness of bowel 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 cannot 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 bowel cancer. Bowel cancer - also known as colorectal cancer or colon cancer – is any cancer that affects the colon (large bowel) and rectum (back passage). There are many warning signs and symptoms of bowel cancer. Please name as many as you can think of

Prompt with 'anything else?' until the respondent cannot 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

The following may or may not be warning signs for bowel cancer. We are interested in your opinion.

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 bleeding from your back passage could be a sign of bowel cancer? 'Yes it could', 'No, it could not', Don't know/not sure'

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

Clarifications:

Please only read these out if necessary.

Do you think persistent pain in your abdomen (tummy) could be a sign of bowel cancer? [POINT OF CLARIFICATION]: persistent is lasting 3 weeks or longer

Do you think a change in bowel habits (diarrhoea, constipation or both) over a period of weeks could be a sign of bowel cancer? [POINT OF CLARIFICATION]:bowel habit refers to changes in pooing

Do you think blood in your stools could be a sign of bowel cancer? [POINT OF CLARIFICATION]:stool is poo

Do you think that tiredness/anaemia could be a sign of bowel cancer? [POINT OF CLARIFICATION]:anaemia is when you don't have enough red blood cells

QUESTION 3 – SEEKING HELP

The next question is about seeking help

If you had a symptom that you thought might be a sign of bowel cancer how soon would you contact your doctor to make an appointment to discuss it?

Record the response verbatim

QUESTION 4 - BOWEL CANCER AND AGE

The next question is about age and bowel cancer.

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

A 20 year old

A 40 year old

A 60 year old

Bowel cancer is unrelated to age

QUESTION 5 – OPEN RISK FACTORS

The next set of questions is about risk factors for bowel cancer What things do you think affect a person's chance of developing bowel cancer?

Prompt with 'anything else?' until the respondent cannot 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 6 – CLOSED RISK FACTORS

These are some of the things that can increase a person's chance of developing bowel cancer. How much do you agree that each of these can increase a person's chance of developing bowel cancer?

Do NOT prompt

Drinking more than 1 unit of alcohol a day

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)

Eating less than 5 portions of fruit and vegetables a day [POINT OF CLARIFICATION]: a portion is equivalent to an apple, orange, banana or similar sized fruit, 2 plums or nectarines or similar sized fruit, a handful of grapes or berries, one tablespoon of raisins, two serving spoons of cooked vegetables, beans or pulses, or a dessert bowl of salad.

Eating red or processed meat once a day or more [POINT OF CLARIFICATION]: processed meat includes bacon, ham, salami, corned beef, sausages

Having a diet low in fibre [POINT OF CLARIFICATION]: fibre is also called roughage. It is the part of the plant that is not digested. It helps to push the digested food through the bowels

Having a close relative with bowel 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.

Having diabetes [POINT OF CLARIFICATION]: diabetes is a condition caused by too much glucose (sugar) in the blood

QUESTION 7 – NHS SCREENING PROGRAMMES

Do NOT prompt

The next question is about NHS screening. As far as you are aware, is there an NHS bowel cancer screening programme? You may answer: 'Yes', 'No', 'Don't know'

[IF YES] At what age are people first invited for bowel cancer screening?

[IF NO] Go to next question/demographic questions

QUESTION 8 – CONFIDENCE

The final question is about bowel cancer symptoms

How confident are you that you would notice a bowel cancer symptom?

Not at all confident

Not very confident

Fairly confident

Very confident

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.

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 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							
Wha	nt is the main la	ngua	ge spoken at ho	me?							
	English				Sylheti						
☐ Urdu ☐ Cantonese											
	☐ Punjabi ☐ Other										
	☐ Gujarati ☐ Prefer not to say										
What is your marital status?											
		ied/liv partı		ł	Divorced	Wido	wed Civ partnei		Prefer not to say		

What is the highest level of education qualification you have obtained?									
	Degree or hi		O Level or GCSE equivalent (Grade A - C)				ade A -		
	Higher educated		O Level or GCSE (Grade D - G)						
	A-levels or h	ighers			No formal qualifications				
	ONC/BTEC				Other				
	Still studying	1		Prefer not to say					
Which o	of these best	describes your living	ng arrangem	nent?					
Own outright	Own mortgage	Rent from Local Authority/Housing Association	Rent privately	Squatt	ing		er (e.g. living with amily/friends)	Pre	fer not to say
Could y	ou tell me yo	our postcode?					Prefer not to say		
How ma	any years ha	ve you been living in				Prefer not to sa	ıy		
Are you	currently:								
	•	ed full-time				Ful	I-time homemake	r	
	☐ Employ	ed part-time				Re	tired		
	☐ Unemp	loyed				Stil	I studying		
	☐ Self-em	nployed				Dis	abled or too ill to	work	
						Pre	efer not to say		
Do you or does anyone living with you own a car or van?									
	No	Yes, or	Yes, m	Yes, more than one Prefer no			not to	o say	

Have you, your family or close friends had cancer?								
	Yes	s No	Don't know	Prefe	er not to say			
You								
Partner								
Close family mem	nber							
Other family mem	iber 🗆							
Close friend								
Other friend								
Optional	Optional items:							
Are you registered	d with a GP?							
Yes		No	Don't know	Р	refer not to say			
What is your sexu	al orientation?							
Bi-sexual	Gay man	Gay woman/lesbian	Heterosexual/ straight	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?



Cancer Research UK

Bowel Cancer Awareness Measure (Bowel CAM)

Answer Sheet

This survey instrument (Bowel CAM) was developed by the Health Behaviour Research Centre. It is based on a generic CAM developed by Cancer Research UK, University College London, King's College London and Oxford University in 2007-2008

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 Bowel CAM.

Q1. There are many warning signs and symptoms of bowel cancer. Please name as many 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 cancer.

Q2. The following may or may not be warning signs for bowel cancer. We are interested in <u>your</u> opinion?

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 bowel cancer.

Q3. If you had a symptom that you thought might be a sign of bowel cancer how soon would you contact your doctor to make an appointment to discuss it?

There are no correct answers to this question.

Q4. In the next year, who is most likely to develop bowel cancer?

The risk of bowel cancer increases with age with over 8 out of 10 cases of bowel cancer occurring in people aged over 60, so the correct answer is 60 years.

Q5. What things do you think affect a person's chance of developing bowel cancer?

The correct answers to this question are listed in question 6, although there are other risk factors and none of the risk factors listed would necessarily lead to bowel cancer.

Q6. These are some of the things that can increase a person's chance of developing bowel cancer. How much do you agree that each of these can increase a person's chance of developing bowel cancer?

All of the items listed are risk factors for bowel cancer.

Q7. As far as you are aware is there an NHS bowel cancer screening programme?

There is a NHS cancer screening programme for bowel cancer.

At what age are people first invited for bowel cancer screening?

People are first invited to attend colorectal (bowel) cancer screening between 58 - 62 years of age.

Q8. How confident are you that you would notice a bowel cancer symptom?

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



Cancer Research UK

Bowel Cancer Awareness Measure (Bowel CAM)

Coding sheet
(for use with SPSS or EXCEL)

This survey instrument (Bowel CAM) was developed by University College London and Cancer Research UK. It is based on a generic CAM developed by Cancer Research UK, University College London, Kings College London and Oxford University in 2007-08.

Background and purpose

The coding guidance set out below ensures that data from the Bowel 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. **Bowel_bloodPassageC**). 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 Bowel CAM should be scored, but we are happy to give advice and can provide syntax files for coding in SPSS.

Contact details: naedi@cancer.org.uk

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

Participant ID Number

Gujarati

ID									
Please indicate whether this interview was held face-to-face, over the telephone, via the internet or other. InterviewMethod									
If 'Other' (code verbatim.	If 'Other' (code 4) create an additional variable 'InterviewMethodOther' and write the response verbatim.								
Face-to-face	1	Telephone	2	Internet 3 Other			4		
Please indicate	whe	ere the survey was	comple	eted.					
InterviewSetti	ng								
If 'Other' (code verbatim.	3) c	reate an additiona	l variabl	le ' Interview '	SettingO	ther' a	and write th	e respo	onse
Health service		1	Home		2	Other setting			3
		'		'					
Please indicate	whi	ch language was	used to	administer th	e intervie	₩.			
InterviewLang	uag	е							
If 'Other' (code 7) create an additional variable 'InterviewLanguageOther' and write the response verbatim.									
English			1	Sylheti					5
Urdu			2	Cantonese					6
Punjabi			3	Other					7

4

Bowel CAM questions

1. OPEN WARNING SIGNS

Create 21 variables labelled from **Bowel_symptom 01**, **to Bowel_symptom21**. Each symptom must be recorded as a new variable using the coding frame below. For example if the first response is 'weight loss' code **Bowel_symptom01** as '9'. If the second response is 'lump' code **Bowel_symptom02** as '7' etc

To code a variable that is not on the list code as 'Other' (code 20) create additional variables e.g. **Bowel_symptom22**, **Bowel_symptom23** etc and write the response the participant has given verbatim.

Warning sign	Code
Back passage bleeding	1
Abdominal pain	2
Change in bowel habits	3
Bowel not emptying	4
Blood in stools	5
Back passage pain	6
Lump	7
Tiredness/anaemia	8
Weight loss	9
Feeling full	10
Feeling bloated	11
Loss of appetite	12
Generally feeling unwell	13
Polyps	14
Abdominal swelling	15
Change in stools colour	16
Nausea	17
Lower back pain	18
Abdominal cramps	19
Other	20
Nothing	21
Refusal	98
Don't know	99

2. CLOSED WARNING SIGNS

Question followed by corresponding		Scoring	
SPSS/Excel Variable Name	Yes	No	Don't know
Do you think bleeding from your back passage could be a sign of bowel cancer?	3	2	1
Bowel_bloodPassageC			
Do you think persistent pain in your abdomen (tummy) could be a sign of bowel cancer?	3	2	1
Bowel_painAbdomenC			
Do you think a change in bowel habits (diarrhoea, constipation or both) over a period of weeks could be a sign of bowel cancer?	3	2	1
Bowel_habitsChangeC			
Do you think a feeling that your bowel does not completely empty after using the lavatory could be a sign of bowel cancer?	3	2	1
Bowel_NotEmptyC			
Do you think blood in your stools could be a sign of bowel cancer?	3	2	1
Bowel_bloodStoolsC			
Do you think pain in your back passage could be a sign of bowel cancer? Bowel_painPassageC	3	2	1
	3	2	1
Do you think a lump in your abdomen (tummy) could be a sign of bowel cancer?	3	2	•
Bowel_lumpC			
Do you think that tiredness/anaemia could be a sign of bowel cancer?	3	2	1
Bowel_tirednessC			
Do you think unexplained weight loss could be a sign of bowel cancer?	3	2	1
Bowel_weightC			

3. SEEKING HELP

Variable name: Bowel_CancerSignTime

Type in verbatim

4. BOWEL CANCER AGE

Bowel_AgeC					
A 20 year old	1				
A 40 year old	2				
A 60 year old	3				
Bowel cancer is unrelated to age	4				

5. OPEN RISK FACTORS

Create 26 variables labelled from **Bowel_riskO1** to **Bowel_riskO21**. 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 **Bowel_riskO1** as '5'. If the second response is 'lifestyle' code **Bowel_riskO2** as '15'.

To code a variable that is not on the list code as 'Other' (code 20) create additional variables e.g. **Bowel_riskO22**, **Bowel_riskO23**, etc and write the response the participant has given verbatim.

Risk Factor	Code
Drinking alcohol	1
Not eating enough fruit and vegetables	2
Eating red or processed meat	3
Not eating enough fibre	4
Being overweight	5
Older age	6
Family history/relatives with cancer	7
Not doing enough exercise	8
Having a bowel disease	9
Having diabetes	10
Smoking	11
Unhealthy/poor diet	12
Genes	13
Stress	14
Lifestyle	15
Not drinking enough fluids	16
Diet high in fat	17
Bad luck	18
Pollution	19
Other	20
Nothing	21
Refusal	98
Don't know	99

6. CLOSED RISK FACTORS

Question followed by SPSS/Excel variable name	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
Drinking more than 1 unit of alcohol a day	1	2	3	4	5
Bowel_drinkingC					
Eating less than 5 portions of fruit and vegetables a day	1	2	3	4	5
Bowel_fruitC					
Eating red or processed meat once a day or more	1	2	3	4	5
Bowel_meatC					
Having a diet low in fibre	1	2	3	4	5
Bowel_fibreC					
Being overweight (BMI over 25)	1	2	3	4	5
Bowel_overweightC					
Being over 70 years old	1	2	3	4	5
Bowel_olderC					
Having a close relative with bowel cancer	1	2	3	4	5
Bowel_familyC					
Doing less than 30 mins of moderate physical activity 5 times a week	1	2	3	4	5
Bowel_exerciseC					
Having a bowel disease (e.g. ulcerative colitis, Crohn's disease)	1	2	3	4	5
BowelDiseaseC					
Having diabetes	1	2	3	4	5
Bowel_diabetesC					

7. NHS CANCER SCREENING PROGRAMMES

As far as you are aware, is there an NHS bowel cancer screening programme?	Yes	No	Don't know
BowelScreening	3	2	1
If yes, at what age are people first invited for bowel cancer screening? Please record the actual age the respondent gives. BowelAge	Age in years	Refused	Don't know

8. CONFIDENCE

Bowel_SymptomConfidence							
Not at all confident	Not very confident	Fairly confident	Very confident				
1	2	3	4				

Demographic Questions

1. What is your age?			Prefer not	to say	
Age			98		
Record actual age	Record actual age				
2. What is your gender?					
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 Asian British		Asian or Asian Black or Black British British		Ch	inese/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							
Single/never married	Married/living with partner	Married separated	Divorced	Widowed	Civil partnership	Prefer not to say	
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	Degree or higher degree 6 O Level or GCSE equivalent (Grade A - C)						
2	Higher education qualification below degree level	7	O Level or GCSE (Grade D - G)				
3	3 A-levels or highers 8 No formal qualifications						
4	4 ONC/BTEC 9 Other						
5	5 Still studying 98 Prefer not to say						

7. Please tick the box which best describes your living arrangement: LivingArrangement To code an education that is not on the list code as 'Other' (code 6) and write the education verbatim in 'LivingArrangementOther' Squatting Rent from Local Rent Other (e.g. living with Prefer not to Own Own family/friends) say outright mortgage Authority/Housing privately Association 3 1 2 4 5 6 98

8. What is your postcode? Postcode Record actual postcode		Prefer not to say	98
9. How many years have you been living in	the UK?	Prefer not to say	98
Years UK Record actual years			

10. Are you currently:						
Employed						
1	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	•	_	· ·				
Partner	1	2	3	98			
CancerPartner	-	_	<u> </u>				
Close family member	1	2	3	98			
CancerCloseFamily	-	_	Ç	•			
Other family member	1	2	3	98			
CancerOtherFamily	•						
Close friend	1	2	3	98			
CancerCloseFriend	<u> </u>		, and the second	00			
Other friend	1	2	3	98			
CancerOtherFriend	•	_	J	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/ straight	Other	Prefer not to say
1	2	3	4	5	98

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

How to deposit and access CAM data

This survey instrument (CAM) was developed by Cancer Research UK, University College London, Kings College London, and University of Oxford in 2007-2008.

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 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 Collections Development and Rights

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

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

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.

When you are ready to deposit your data, complete the following process:

1. Complete the <u>Data collection deposit form</u> and submit the two XML files created in the process electronically to <u>acquisitions@esds.ac.uk</u> (instructions about how to complete the data deposit form 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
- o There is a 'help' button at the top of the form which links you to online quidance.
- 2. Prepare data and documentation according to best practice guidance on how to manage and share data

Note. Please include any methodological, technical or end of project reports that will be of use to future researchers as part of the materials being deposited.

3. Submit data files in any of the following ways:

Note: If data files contain sensitive or personal information, they should be encrypted before submitting.

- via the <u>University of Essex Dropbox Service</u>, addressing the deposit to email account "acquisitions@essex.ac.uk" and noting study title or depositor surname in the dropbox description
- by CD/DVD/memory stick
- o via secure electronic transmission contact acquisitions@esds.ac.uk
- 4. Print, sign and date the <u>Licence Agreement</u>, keep a copy for your records and send the original to:

Acquisitions
UK Data Archive
University of Essex
Wivenhoe Park
Colchester
CO4 3SQ

Next steps

The acquisitions team will confirm receipt of all materials associated with the data collection. After administrative checks, the data collection will be prepared for release, see <u>processing</u> <u>data at the UK Data Archive</u> for further information.

Help

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

How to access CAM data

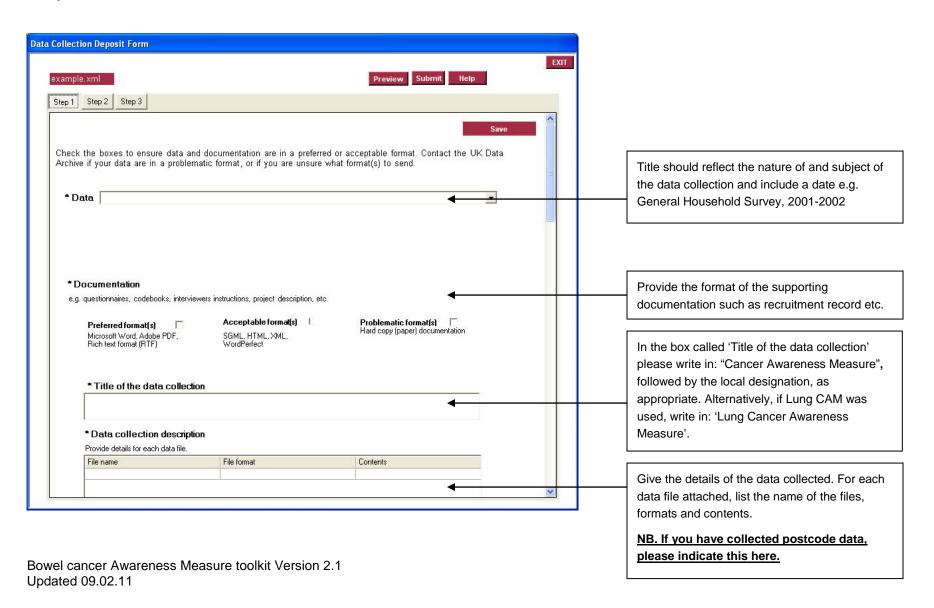
Access to the Data Catalogue, including online documentation such as questionnaires, does not require registration. However, to download any CAM data you must register. Go to: http://www.data-archive.ac.uk/sign-up/credentials-application

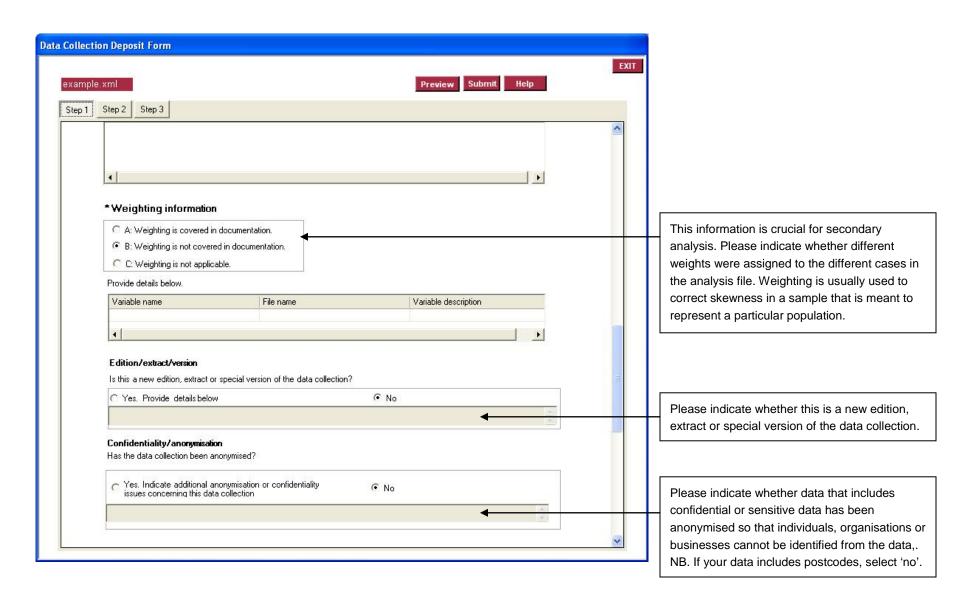
Once you have registered and have a username and password you can access CAM data. To do so:

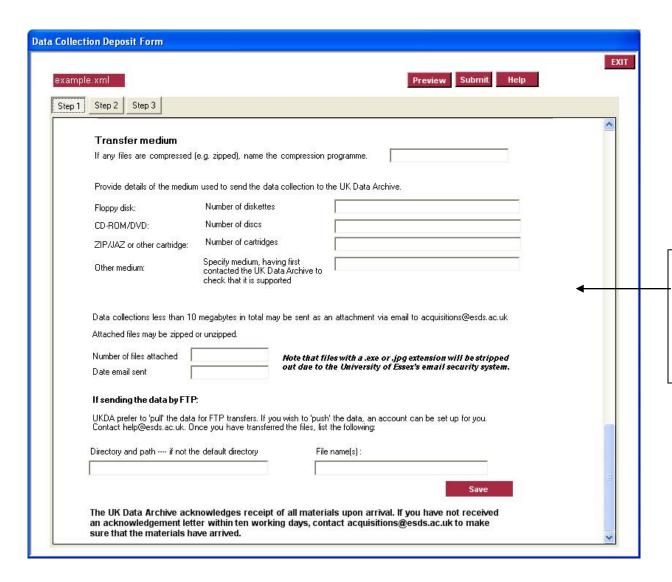
- 1. Go to: http://www.esds.ac.uk/newRegistration/newLogin.asp
- 2. Login via 'UK Federation'
- 3. Select 'UK data archive' as your home institution (unless you are an academic in which case select your university)
- 4. Type in your username and password
- 5. Click on 'Data Catalogue' and go to 'data catalogue search'
- 6. Type in 'cancer awareness' and this should bring up all the CAM data that is currently held in the archive
- 7. Click on 'Download/order'
- 8. When prompted to provide details on how you will use the data, ensure that you select 'non-commercial' 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: Instructions for completing the data deposit form Step 1





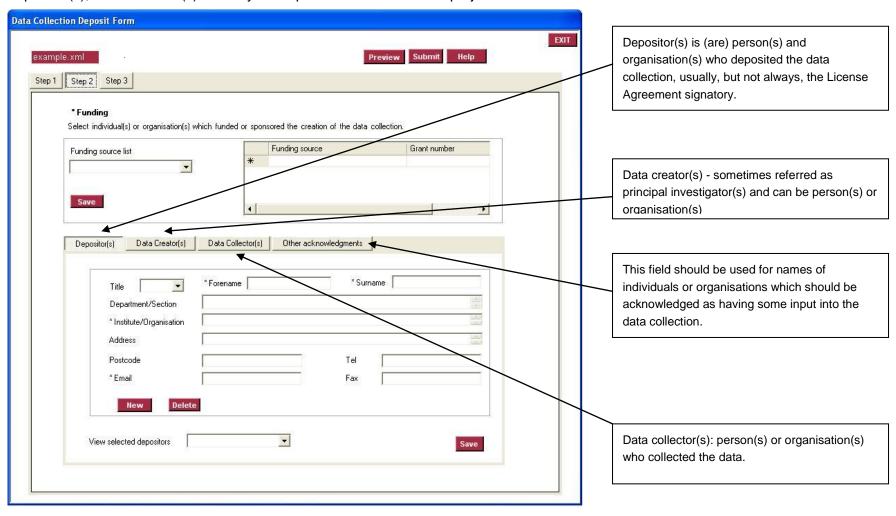


Provide the details of medium/method used to send the data to the UK Data Archive.

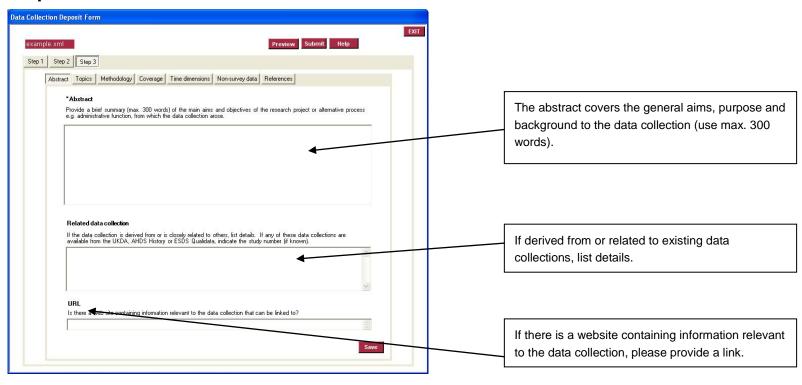
NB. **Please do not send by email**. Refer to: http://www.esds.ac.uk/aandp/create/ukdadeposit.asp for further information about how to transfer your data.

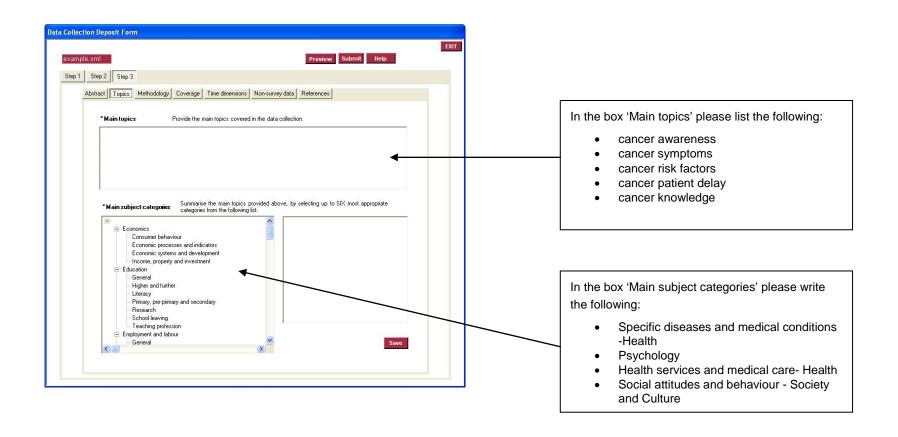
Step 2

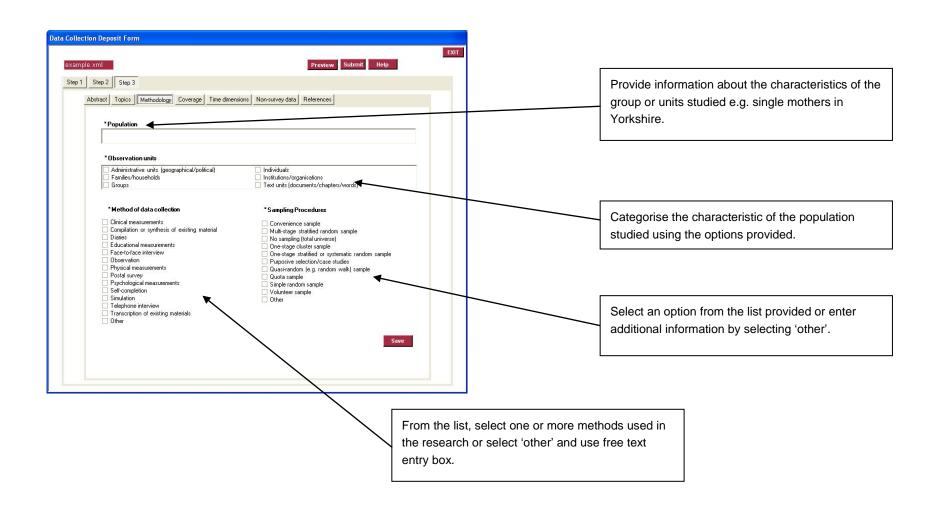
This section of the form asks for information about the funder(s) of the research and contact details of the data creator(s) depositor(s), data collector(s) and any other persons involved in the project.

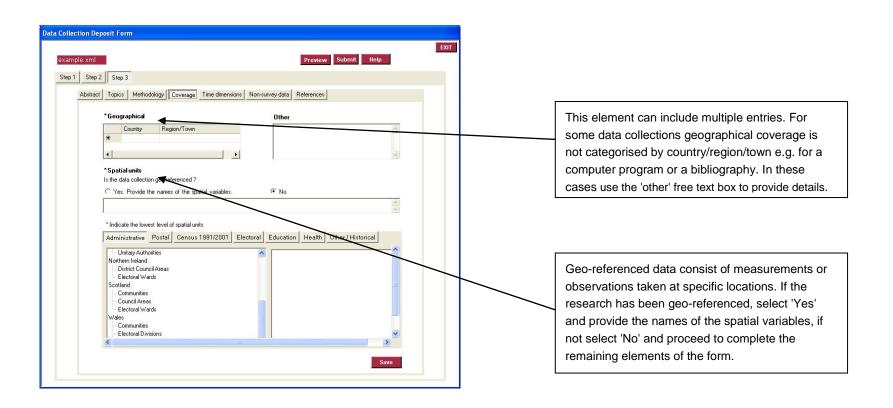


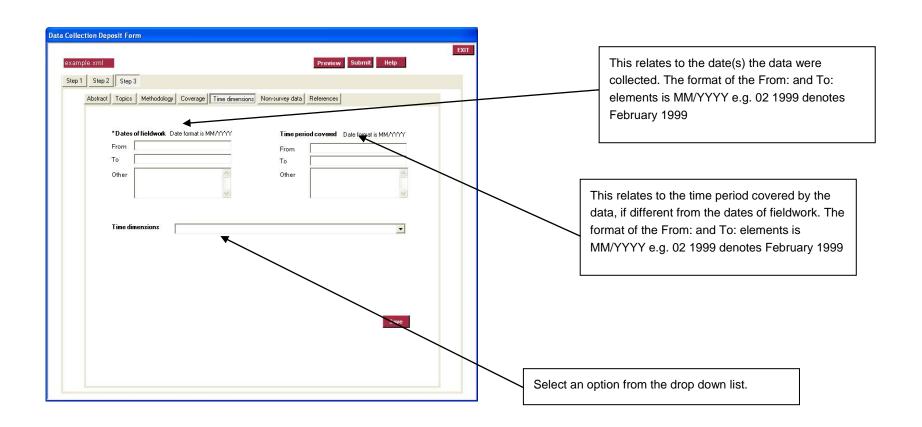
Step 3

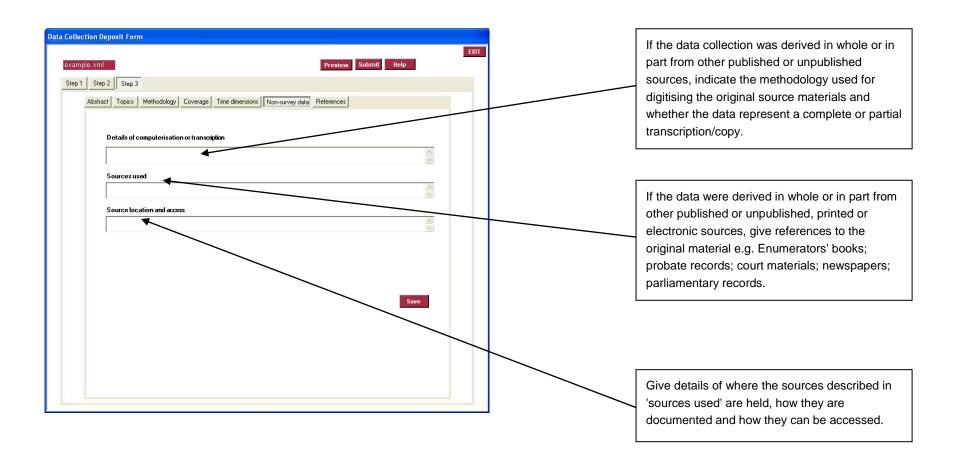


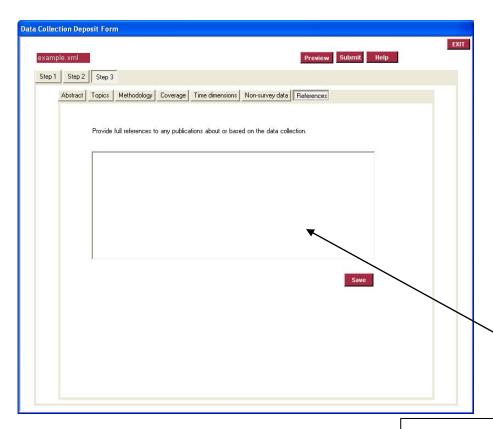












In the box called 'References' please include the following:

- 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.



Cancer Research UK Bowel Cancer Awareness Measure (CAM)

Flexibility in using the Bowel CAM

This survey instrument (Bowel CAM) was developed by University College London and Cancer Research UK. It is based on a generic CAM developed by Cancer Research UK, University College London, Kings College London and Oxford University in 2007-08.

Introduction

It is important to promote the use of the Bowel CAM and make it as accessible and easy to use as possible. The Bowel CAM includes eight questions and twelve demographic questions and takes between 15-20 minutes to complete. Many researchers will need to shorten the Bowel 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 Bowel CAM questions.

CAM modules

It is possible to separate the questions in the Bowel CAM into distinct 'modules' that can be used on their own, in conjunction with other items from the Bowel 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 - Open warning signs (1 item)

Module 2. Q2 - Closed warning signs (9 items)

Module 3. Q3 – Seeking help (1 item)

Module 4. Q4 – Bowel cancer age (1 item)

Module 5. Q5 - Open risk factors (1 item)

Module 6. Q6 - Closed risk factors (11 items)

Module 7. Q7 - NHS screening programme (2 items)

Module 8: Q8 – Confidence (I item)

Ordering of CAM questions

It is possible to change the order of the Bowel CAM modules, for example, you can ask about knowledge of NHS screening programmes 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 bowel 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 bowel 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 Bowel 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 Bowel CAM questions. For example, if you're using the Bowel 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 Bowel 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 Bowel 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 deprivation⁴, e.g. education, employment, living arrangement, car/van ownership, postcode

⁴ We advise using an individual level of deprivation such as education or employment AND an arealevel indicator of deprivation such as postcode.



Cancer Research UK Bowel Cancer Awareness Measure (CAM)

Sampling

This survey instrument (Bowel CAM) was developed by University College London and Cancer Research UK. It is based on a generic CAM developed by Cancer Research UK, University College London, Kings College London and Oxford University in 2007-08.

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 have access to public health expertise, we suggest you involve them in developing your sampling strategy. There are a number of methods of sampling that you may consider:

Simple random sampling – where each individual has an equal chance of being selected. This is the best way of generating a representative sample (as long as you achieve a good response from potential participants you approach). To do random sampling you must have a list (sampling frame) of all the potential study participants of interest, e.g. a GP list, the electoral register, or a list of church members, you can then randomly sample participants from this list.

A commonly used sampling frame is the 'Postal Address File', which actually lists addresses rather than individuals. Addresses are randomly drawn from the list and then one person from the household is selected to take part in the survey. A tool called a 'Kish grid' is commonly used to select the individual. Strictly speaking, this technique does not randomly sample individuals because the probability of being selected is influenced by the number of people living at an address. Nevertheless, this method is used in many national surveys, e.g. the Health Survey for England, and is a good way of selecting representative samples.

Stratified sampling – where you randomly select individuals to take part from subgroups (e.g electoral wards or census super output areas, people attending particular schools or registered with particular GP practices) of your sampling frame. These subgroups may be selected systematically (e.g. to represent areas with a range of deprivation levels) or randomly. This method is efficient because data collection can be limited to a smaller number of areas than in simple random sampling. Stratified sampling is a reliable method of generating representative samples (as long as you achieve a good response from potential participants you approach) and is commonly used in national surveys, for example, the Health Survey for England.

Random digit dialling – used for telephone surveys. This is a form of random sampling and can be simple or stratified by area code. Telephone directories can be used as a sampling frame from which to draw participants, but many people in the UK elect not to have their number listed in the directory, and increasing use of mobile phones means that this method is less likely to generate a representative sample.

Quota sampling – where you decide in advance how many people of different age or sex groups you would like to have in your sample and continue to sample by any method until you fill the "quota" for those groups. You may also define the quotas by other characteristics such as socioeconomic status or ethnicity. A quota sample is a convenience sample and is less likely to be truly representative of your population than a sample generated by random sampling methods.

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

- Funding.
- The target group of interest (e.g. all men over 50 years living in x).
- Method of data collection: face-to-face, telephone, internet or postal?
- Aims and objectives do you want to simply measure 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?
- Which comparisons you wish to make e.g. between sexes, ethnic or socioeconomic groups?
- The likely response to the questionnaire, i.e. the number of people who complete the survey out of the number you approached (e.g. 50% for a postal survey).
- A strategy for maximising response (e.g. repeat visits, postal reminders)
- Level of 'unusable' questionnaires (e.g. those that are returned but not valid or incomplete).
- 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 the response being true and 5% chance the response is due to chance/not representative.



Cancer Research UK Cancer Awareness Measure (CAM)

Glossary

This survey instrument (Bowel CAM) was developed by University College London and Cancer Research UK. It is based on a generic CAM developed by Cancer Research UK, University College London, Kings College London and Oxford University in 2007-08.

Glossary

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 query 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.