

Lung Cancer Awareness Measure (Lung CAM)

Toolkit

Together we will beat cancer



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Together we will beat cancer



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

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

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

'This survey instrument (Lung 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 Lung 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 52 for guidance).

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



Lung Cancer Awareness Measure (Lung CAM)

Background information and instructions

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

The Lung CAM comprises 7 questions with a total of 28 items;

- Warning signs (15 items) (Q1 + Q2)
- Delay in seeking medical help (1 item) (Q3)
- Age at risk for lung cancer (1 item) (Q4)
- Risk factors (10 items) (Q5 + Q6)
- Confidence detecting a lung cancer symptom (1 item) (Q7)

Evaluation and psychometric status

The Lung CAM development report (in preparation) indicates that the Lung CAM has satisfactory internal reliability with Cronbach's alpha above 0.7 for all components. Test-retest reliability over a 10 day interval was found to be good, with all correlations above 0.7 except for risk factors. Item difficulty (Kline, 1993²) was assessed and the majority of items in the Lung CAM were answered correctly by more than 20% and less than 80% of respondents. Two items that did not (lifetime risk of cancer in men and women) were removed due to a general lack of awareness of lifetime risk of lung cancer, among both lay and expert participants. Item discrimination analyses showed item-to-total correlations greater than 0.2 for the majority of items with the exception of five items: two warning signs (shoulder pain; changes in the shape of finger/nails), one risk factor (smoking), age at risk for lung cancer. These items were retained to ensure content validity (e.g. not including smoking as a risk factor would be surprising), however they could be omitted if a shorter version of Lung CAM is required.

In order to ensure construct validity the Lung CAM was completed by 35 lung cancer experts (lung charity representatives) and 35 office workers. Lung cancer experts scored consistently higher than the group of office workers on all sections of the Lung CAM apart from lifetime risk of lung cancer. Although the differences in questions assessing the lifetime risk of lung cancer were non-significant, a higher percentage of cancer experts answered these questions correctly compared to controls. There was also an intervention study in which participants randomly received either an intervention leaflet ("Lung Cancer: The Facts") or a

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

 ² Klein, P (2000). The Handbook of Psychological Testing. Routledge: London.
 ³ Cancer Research UK (2009). Lung cancer and smoking statistics - Key Facts, http://info.cancerresearchuk.org/prod_consump/groups/cr_common/@nre/@sta/documents/generalcontent/crukmig 1000ast-2972.pdf/accessed 11th January 2010

control leaflet ("Recycle to save the environment") to read prior to completing the Lung CAM. Participants who received the intervention leaflet consistently obtained higher awareness scores than those who received the control leaflet. This demonstrates that the Lung CAM is sensitive to increases in cancer awareness.

Administration

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

The internet

Using the Lung 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 Lung 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 Lung 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 Lung CAM survey please see page 69. Once you have recruited your participants please record the sampling methods using the relevant form (see 'Recruitment Record' on page 23) 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 52).

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 Lung 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 Lung CAM survey data (see 'Coding Sheet' on page 38). All Lung 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 52.

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

Lung CAM Questions

Q1 – Open warning signs

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

This is an open question designed to measure how many lung cancer warning signs a respondent can recall unaided. In face to face interviews this question (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 lung 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 were generated following a review of the existing literature and from cancer information materials and websites.

Q3 - Seeking help for cancer symptoms

"If you had a symptom that you thought might be a sign of lung 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 lung cancer.

Q4 – Lung cancer age

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

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

Q5 – Open risk factors

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

This is an open question designed to measure how many lung 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. If this survey is completed online, Q5 should be presented on a separate page to Q6 and once the responses from Q5 are submitted respondents should not be able to go back and change or add to existing responses.

Q6 - Closed risk factors

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

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

Q7- Confidence detecting lung symptoms

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

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



Cancer Research UK Lung Cancer Awareness Measure

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 lung 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 project information sheet dated DD/MM/YYYY.								
I have been given the opportunity to ask questions about the project.								
I agree to take part in the project. Ta survey/being interviewed [Other form	0 ,	. •						
I understand that my taking part is vo								
I understand my personal details sucto people outside the project.	ch as phone number a	nd address will not be revealed						
I understand that my words may be or research outputs but my name will no								
I agree for the data I provide to be a	rchived at the UK Data	a Archive.						
I understand that other researchers of preserve the confidentiality of that dathis form.		, , ,						
I understand that other researchers repages, and other research outputs a	,							
I agree to assign the copyright I hold researcher].	l 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]						



Lung Cancer Awareness Measure

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

2. The following may or may not be warning signs opinion:	for lung cancer.	We are interested in	your
	Yes	No	Don't know
Do you think that unexplained weight loss could be a sign of lung cancer?			
Do you think that a persistent (3 weeks or longer) chest infection could be a sign of lung cancer?			
Do you think that a cough that does not go away for two or three weeks could be a sign of lung cancer?			
Do you think that persistent shortness of breath could be a sign of lung cancer?			
Do you think that persistent tiredness or lack of energy could be a sign of lung cancer?			
Do you think that persistent chest pain could be a sign of lung cancer?			
Do you think that persistent shoulder pain could be a sign of lung cancer?			
Do you think that coughing up blood could be a sign of lung cancer?			
Do you think that an ache or pain when breathing could be a sign of lung cancer?			
Do you think that loss of appetite could be a sign of lung cancer?			
Do you think that a painful cough could be a sign of lung cancer?			
Do you think that changes in the shape of your fingers or nails could be a sign of lung cancer?			
Do you think that developing an unexplained loud, high pitched sound when breathing could be a sign of lung cancer?			
Do you think that worsening or change in an existing cough could be a sign of lung cancer?			

3. If you had a symptom that you thought contact your doctor to make an appointn	t might be a sign of lung cancer how soon would you nent to discuss it?
4. In the next year, who is most likely to o	develop lung cancer?
A 30 year old	
A 50 year old	
A 70 year old	
Lung cancer is unrelated to age	

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

6. The following may or may not increase a person's chance of developing lung cancer. How much do you agree that each of these can increase a person's chance of developing lung cancer?					
	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
Exposure to radon gas (a naturally occurring radioactive gas)					
Exposure to another person's cigarette smoke					
Having had treatment for any cance in the past	r 🔲				
Having a close relative with lung cancer					
Exposure to chemicals (such as asbestos)					
Having a previous history of cancer such as head and neck cancer					
Air pollution					
Being a smoker					
Having a previous history of lung disease, such as, Chronic Obstructive Pulmonary Disease (COPD)	ve				
7. How confident are you that you					
Not at all confident Not v	very confident	Fairly o	Fairly confident		onfident



Lung Cancer Awareness Measure (Lung CAM)

Demographic Questions

1. W	/hat is your age	?		Prefer not to say					
2 V	Vhat is your gen	der?							
Z. V	, ,	iuci :			emale		□ Drofe	r not	to only
	☐ Male				emaie			er not	to say
3 /V	/hich of these b	net d	oscribos vour o	thnic	group?				
J. VI	White	esi u	Mixed		sian or Asian	R	lack or Black	Ch	inese/other
	VIIIICO		Mixed	7.0	British		British	0	
	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 mar	ital s	tatus?						
	gle/never Marri narried with	ed/liv partr		d	Divorced	Wido _	wed Civi partner		Prefer not to say □

6. Wha	at is the highes	st level of education	qualificatio	n you hav	e obtaine	ed?	
	Degree or hig		O Level c C)	or GCSE equivalent	(Grade A -		
	Higher educa	ation qualification belo		O Level o	or GCSE (Grade D -	- G)	
	A-levels or hi	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	ring arrang	gement:		
Own outrigl	_	Rent from Local Authority/Housing Association	Rent privately	Squatti	ng Oth	ner (e.g. living with family/friends)	Prefer not to say
8. Wha	t is your posto	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-ti				Full-tin	ne homemaker	
	· · · Employed part-t				Retire	d	
	Unemployed				Still stu	udying	
	Self-employed					ed or too ill to work	
					Prefer	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, yo	ur family or clo	se friends	had can	cer?			
		Yes	No	Don't know	Prefer not to say		
You							
Partner							
Close family me	mber						
Other family me							
Close friend							
Other friend							
Optional							
Which of the follo	owing best appl	ies to you?	? (only ti	ck one response)			
I smoke cigarettes	(including hand	-rolled) eve	ry day			Ш	
I smoke cigarettes	(including hand	-rolled), but	not ever	y day			
I do not smoke cigarettes at all, but I do smoke tobacco of some kind (e.g. pipe or cigar)							
I have stopped sm	oking completely	y in the last	year				
I stopped smoking	completely more	e than a yea	ar ago				
I have never been	a smoker (i.e. sı	moked for a	year or	more)			
Don't Know							
OR							
Do you smoke ci	garettes at all n	owadays?					
Yes		No		Don't know	Prefer not to say		
Are you registere	ed 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 sexu	ual orientation?	,					
Bi-sexual	Gay man	Ga woman/l		Heterosexual/ straight	Other Prefer not to say	0	



Lung Cancer Awareness Measure (Lung 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 lung 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	. gend	er, age, geographical area)				
posters, newspaper adve	Please describe the methods you used to recruit participants (e.g. flyers, leaflets, posters, newspaper adverts, letter, face-to-face)					
) of administration of the Lung CAM (e.g. face-to-face, complete the number of surveys completed using each				
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 preser	nt while	the interview was being carried out?				
0- 1 🔲						
More than 1						
If the surveys were administered in	a diffe	erent way:				
Please describe how the surveys we email)	re distr	ributed (e.g. by post, left on a counter, sent by				
Please describe the environment(s) office with one interviewer, communa		ich the surveys were completed (e.g. closed e area, a busy street, at home)				
In what language were the interviews	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 Lung CAM? —————						

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



Lung Cancer Awareness Measure (Lung CAM)

Script

Introduction

This script is intended for use **during training** of how to administer the Lung 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 **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 Lung 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 lung cancer awareness among people living in X]

COMPULSORY: This set of questions is about your awareness of lung 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 lung cancer- cancer that starts in the lungs. There are many warning signs and symptoms of lung 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.

Clarification:

Please only read these out if necessary

'Persistent' in reference to any of the warning signs refers to 3 weeks or longer

QUESTION 2 – CLOSED WARNING SIGNS

The following may or may not be warning signs for lung 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 that unexplained weight loss could be a sign of lung cancer?

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

QUESTION 3 – SEEKING HELP

The next question is about seeking help

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

Record the response verbatim

QUESTION 4 – LUNG CANCER AND AGE

The next question is about age and lung cancer.

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

A 30 year old

A 50 year old

A 70 year old

Lung cancer is unrelated to age

QUESTION 5 – OPEN RISK FACTORS

The next set of questions is about risk factors for lung cancer What things do you think affect a person's chance of developing lung 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 lung cancer. How much do you agree that each of these can increase a person's chance of developing lung cancer?

Do NOT prompt

Exposure to radon gas (a naturally occurring radioactive gas).

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

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

Air pollution [POINT OF CLARIFICATION]: air pollution are substances in the air such as traffic fumes that can cause harm to people and the environment

Being a smoker day [POINT OF CLARIFICATION]: smoking any cigarettes at all

QUESTION 7 – CONFIDENCE

The final question is about lung cancer symptoms

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

Not at all confident

Not very confident

Fairly confident

Very confident

Demographic questions

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? Female Prefer not to say Male Which of these best describes your ethnic group? White Asian or Asian **Black or Black** Chinese/other Mixed **British** British Black White British White and Indian Chinese Black Caribbean Caribbean White Irish White and Pakistani Black African Other..... Black African Any other White and Any other Prefer not to П Bangladeshi White Asian Black say background background ☐ Any other П Any other Mixed Asian background background What is the main language spoken at home? **English** Sylheti Urdu Cantonese П Punjabi Other..... Gujarati Prefer not to say What is your marital status? Single/never Married/living Married Divorced Widowed Civil Prefer not to married with partner separated partnership say

П

We would now like to ask you a few questions about yourself. This will help us to analyse the results of the

What is the highest level of education qualification you have obtained?										
	Degree or higher degree				O Level or GCSE equivalent (Grade A - C)					
	Higher education qualification below degree level				O Level or GCSE (Grade D - G)					
	☐ A-levels or highers				No formal qualifications					
	ONC/BTEC				Other					
	Still studying				Prefer not to say					
Which o	of these best	describes your living	ng arrangen	nent?						
Own outright	Own mortgage	Rent from Local Authority/Housing Association	Rent privately	Squatt			fer not to say			
Could y	ou tell me yo	our postcode?					Prefer not to say			
					- 1	_				
How ma				Prefer not to sag	У					
Are you	currently:									
☐ Employed full-time						Full	l-time homemaker	•		
☐ Employed part-time					☐ Retired					
☐ Unemployed					☐ Still studying					
☐ Self-employed				☐ Disabled or too ill to work						
						Pre	fer not to say			
Do you or does anyone living with you own a car or van?										
No		Yes, or	es, one		Yes, more than one		e Prefer	Prefer not to say		

Have you, your family or close friends had cancer?											
	Yes	No	Don't know	Prefer not to say							
You											
Partner	Partner										
Close family member											
Other family member											
Close friend											
Other friend											
Optional i	tems:										
Which of the following best applies to you? (only tick one response)											
I smoke cigarettes (including hand-rolled) every day											
I smoke cigarettes (including hand-rolled), but not every day											
I do not smoke cigarettes at all, but I do smoke tobacco of some kind (e.g. pipe or cigar)											
I have stopped smoking completely in the last year											
I stopped smoking completely more than a year ago											
I have never been a smoker (i.e. smoked for a year or more)											
Don't Know											
OR											
Do you smoke cigarettes at all nowadays?											
Yes		No	Don't know	Prefer not to say							
Are you registered	with a GP?										
Yes		No	Don't know	Prefer not to say							
What is your sexual orientation?											
Bi-sexual	, ·		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?



Lung Cancer Awareness Measure (Lung CAM)

Answer Sheet

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 Lung CAM.

The following gives the correct answers to the questions asked in the Lung CAM.

Q1. There are many warning signs and symptoms of lung 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 lung cancer.

Q2. The following may or may not be warning signs for lung cancer. We are interested in your 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 lung cancer.

Q3. If you had a symptom that you thought might be a sign of lung 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 lung cancer?

Individuals under the age of 40 are rarely diagnosed with lung cancer. The risk of lung cancer increases with age with most cases occurring in individuals over 65, and it peaks in individuals aged 75-84, thus the correct answer is 70 years.

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

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

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

Q7. How confident are you that you would notice a lung cancer symptom?

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



Cancer Research UK

Lung Cancer Awareness Measure (CAM)

Coding sheet (for use with SPSS or EXCEL)

This survey instrument (Lung 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.

Below is a format for recording the data of the Lung CAM so that it is suitable for depositing in the data archive. We are currently making arrangements to deposit the data at the UK Data Archive and will provide instructions on how to do this at a later date.

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

For every question it is possible to code data as 'refused'. Use this code when the participant actively chooses not to respond. Where appropriate there is a code for 'don't know', please see relevant questions below. 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.

Contact details: naedi@cancer.org.uk

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

Participant ID N	lumber						
ID							
Please indicate whether this interview was held face-to-face, over the telephone, via the internet or other. InterviewMethod							
If 'Other' (code verbatim.	4) create an addi	tional variab	le 'InterviewI	MethodOther'	and write th	e respor	nse
Face-to-face	1 Telep	hone 2	Internet	3	Oth	ner 4	
Please indicate	where the surve	y was compl	eted.				
InterviewSettir	ng						
If 'Other' (code verbatim.	3) create an addi	tional variab	le ' Interview \$	SettingOther' a	and write the	e respon	ise
Health service	1	Home	2	2 Othe	er setting	3	3
			•	•			
Please indicate	which language	was used to	administer the	e interview.			
InterviewLange	uage						
If 'Other' (code verbatim.	If 'Other' (code 7) create an additional variable 'InterviewLanguageOther' and write the response verbatim.						
English		1	Sylheti 5				
Urdu		2	Cantonese				3
Punjabi		3	Other			7	7
Gujarati		4					
						•	

Lung CAM questions

1. OPEN WARNING SIGNS

Create 25 variables labelled **Lung_symptom01**, 2, 3 etc, up to **Lung_symptom25**. Each warning sign must be recorded as a new variable using the coding frame below. For example if the first response is 'coughing up blood' code as '08' in **Lung_symptom01**. If the second response is 'tight chest' code as '18' in **Lung_symptom02** etc.

To code a variable that is not on the list code as 'Other' (code 24) create additional variables e.g. **Lung_symptom26**, **Lung_symptom27** and write the response the participant has given verbatim.

Warning sign	Code
Weight loss	1
Persistent chest infection	2
Persistent cough	3
Shortness of breath	4
Tiredness or lack of energy	5
Chest pain	6
Shoulder pain	7
Coughing up blood	8
Ache or pain when breathing	9
Loss of appetite	10
Painful cough	11
Finger clubbing	12
Stridor (unexplained, loud, high pitched sound when breathing)	13
Worsening or change in an existing cough	14
Difficulty breathing	15
Hoarse voice	16
Feeling unwell	17
Tight chest	18
Back pain	19
Enlarged lymph nodes	20
Yellow or grey skin tone	21
Excess sputum	22
Fluid in the lungs	23
Other	24
Nothing	25
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 that unexplained weight loss could be a sign of lung cancer?	3	2	1
Lung_weightLossC			
Do you think that a persistent (3 weeks or longer) chest infection cold be a sign of lung cancer?	3	2	1
Lung_chestInfectionC			
Do you think that a cough that does not go away for two or three weeks could be a sign of lung cancer?	3	2	1
Lung_persistentCoughC			
Do you think that persistent shortness of breath could be a sign of lung cancer?	3	2	1
Lung_breathShortnessC			
Do you think that persistent tiredness or lack of energy could be a sign of lung cancer?	3	2	1
Lung_tirednessC			
Do you think that persistent chest pain could be a sign of lung cancer?	3	2	1
Lung_chestPainC			
Do you think that persistent shoulder pain could be a sign of lung cancer?	3	2	1
Lung_shoulderPainC			
Do you think that coughing up blood could be a sign of lung cancer?	3	2	1
Lung_coughingBloodC			
Do you think that an ache or pain when breathing could be a sign of lung cancer?	3	2	1
Lung_achePainBreathingC			

Question followed by corresponding		Scoring	
SPSS/Excel Variable Name			
	Yes	No	Don't know
Do you think that a painful cough could be a sign of lung cancer?	3	2	1
Lung_coughPainC			
Do you think that changes in the shape of your fingers or nails could be a sign of lung cancer?	3	2	1
Lung_fingerClubbingC			
Do you think that developing an unexplained loud high pitched sound when breathing could be a sign of lung cancer?	3	2	1
Lung_stridorC			
Do you think that worsening or change in an existing cough could be a sign of lung cancer?	3	2	1
Lung_coughChangeC			

3. SEEKING HELP

Variable name: Lung_cancerSignTime	
Type in verbatim	

4. LUNG CANCER AGE

Lung_ageC	
A 30 year old	1
A 50 year old	2
A 70 year old	3
Lung cancer is unrelated to age	4

5. OPEN RISK FACTORS

Create 24 variables labelled **Lung_risk01**, 2, 3 etc, up to **Lung_risk20**. Each risk factor must be recorded as a new variable using the coding frame below. For example if the first response is 'passive smoking' code as '2' in **Lung_riskO1**. If the second response is 'lack of exercise' code as '16' in **Lung_riskO2** etc.

To code a variable that is not on the list code as 'Other' (code 19) create additional variables e.g. **Lung_riskO21**, **Lung_riskO22**, etc and write the response the participant has given verbatim

Risk Factor	Code
Exposure to radon gas	1
Passive smoking	2
Past cancer treatment	3
Close relative with lung cancer	4
Exposure to chemicals	5
Past cancer history	6
Air pollution	7
Being a smoker	8
History of lung disease	9
Genes	10
Work environment	11
Unhealthy lifestyle	12
Stress	13
Drinking alcohol	14
Secondary cancer site	15
Lack of exercise	16
Being overweight	17
Unhealthy/poor diet	18
Other	19
Nothing	20
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
Exposure to radon gas (a naturally occurring radioactive gas)	1	2	3	4	5
Lung_radonC					
Exposure to another person's cigarette smoke	1	2	3	4	5
Lung_passiveSmokingC					
Having had treatment for any cancer in the past	1	2	3	4	5
Lung_cancerTreatmentC					
Having a close relative with lung cancer	1	2	3	4	5
Lung_relativeCancerC					
Exposure to chemicals (such as asbestos)	1	2	3	4	5
Lung_ChemicalsC					
Having a previous history of cancer such as head and neck cancer	1	2	3	4	5
Lung_cancerHistoryC					
Air pollution	1	2	3	4	5
Lung_airPolllutionC	'	2	3	4	5
Being a smoker	4	0	2		_
Lung_smokingC	1	2	3	4	5
Having a previous history of lung disease such as, Chronic Obstructive Pulmonary Disease (COPD)	1	2	3	4	5
LungDiseaseC					

7. CONFIDENCE

Variable name: Lung_symptomConfidence						
Not at all confident	Not very confident	Fairly confident	Very confident			
1	2	3	4			

Demographic Questions

1. What is yo	ur age?			Prefer not	to say
Age	L			98	
Record actual age					
2. What is yo	ur 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					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 you	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	2	3	4	5	6	98				

6. What	6. What is the highest level of education qualification you have obtained?							
Highes	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	A-levels or highers	8	No formal qualifications					
4	ONC/BTEC	9	Other					
5	Still studying	98	Prefer not to say					

7. Please	7. Please tick the box which best describes your living arrangement:									
LivingA	LivingArrangement									
	To code an education that is not on the list code as 'Other' (code 6) and write the education verbatim in 'LivingArrangementOther'									
Own outright										
1	1 2 3 4 5 6 98									

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

10. A	10. Are you currently:					
Emp	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	•	1	•			
Partner	1	2	3	98		
CancerPartner	•	1	,	30		
Close family member	1	2	3	98		
CancerCloseFamily	•	_				
Other family member	1	2	3	98		
CancerOtherFamily	•					
Close friend	1	2	3	98		
CancerCloseFriend	•			33		
Other friend	1	2	3	98		
CancerOtherFriend						

Optional items:

Which of the following best applies to you? (only tick one response)	
I smoke cigarettes (including hand-rolled) every day	1
I smoke cigarettes (including hand-rolled), but not every day	2
I do not smoke cigarettes at all, but I do smoke tobacco of some kind (e.g. pipe or cigar)	3
I have stopped smoking completely in the last year	4
I stopped smoking completely more than a year ago	5
I have never been a smoker (i.e. smoked for a year or more)	6
Don't Know	7

OR

Do you smoke cigarettes at all nowadays?						
Yes	No	Don't know	Prefer not to say			
1	2	3	98			

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 (Lung 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 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
- o 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

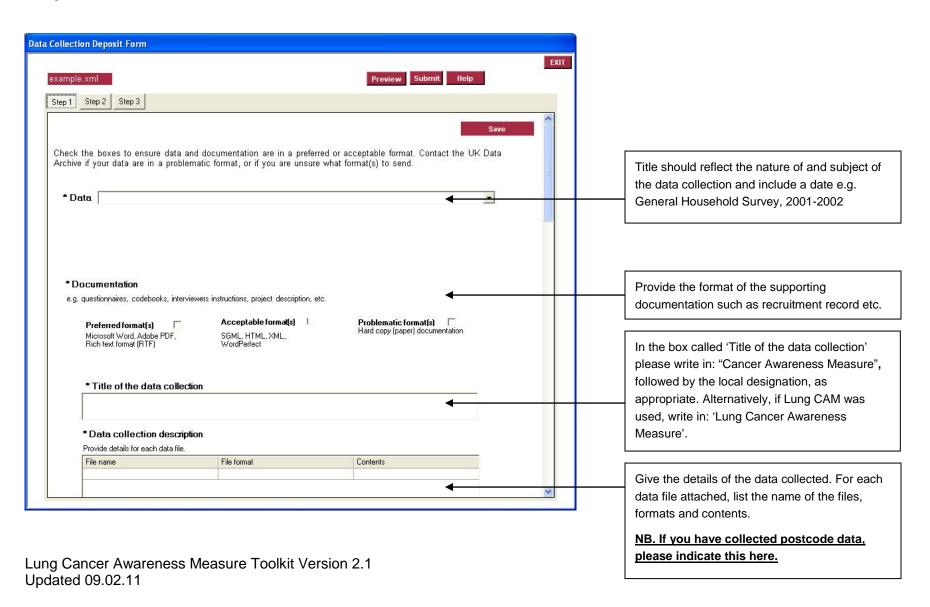
Access to the Data Catalogue, including online documentation such as questionnaires, does not require registration. However, to download any CAM data you must register. Go to: http://www.data-archive.ac.uk/sign-up/credentials-application

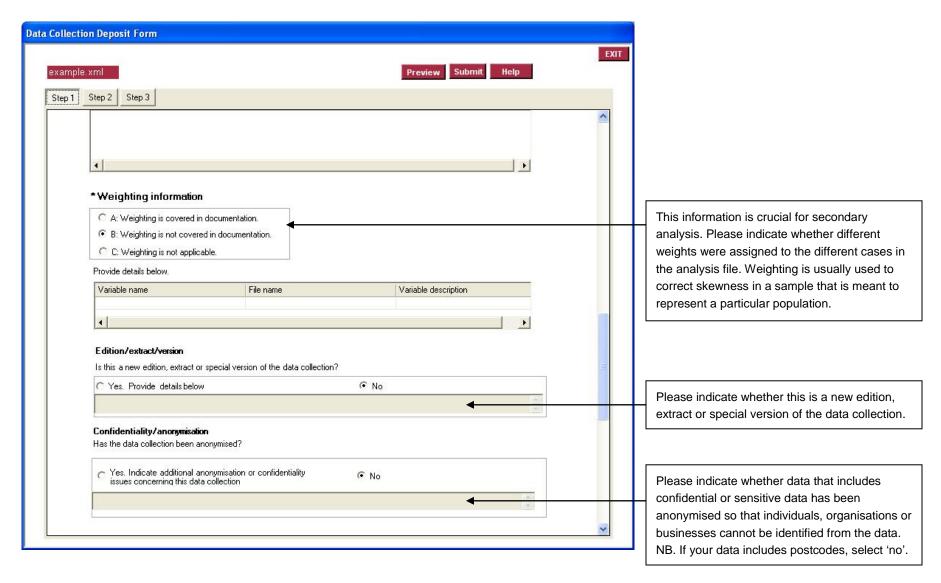
Once you have registered and have a username and password you can access CAM data. To do so:

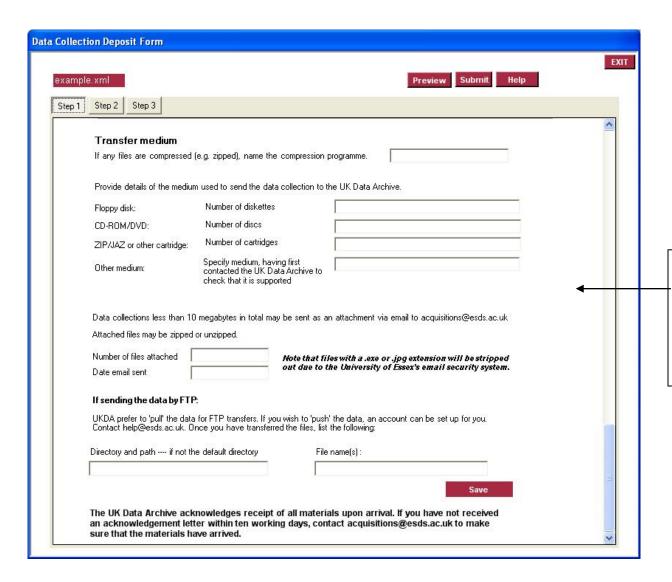
- 1. Go to: http://www.esds.ac.uk/newRegistration/newLogin.asp
- 2. Login via 'UK Federation'
- 3. Select 'UK data archive' as your home institution (unless you are an academic in which case select your university)
- 4. Type in your username and password
- 5. Click on 'Data Catalogue' and go to 'data 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





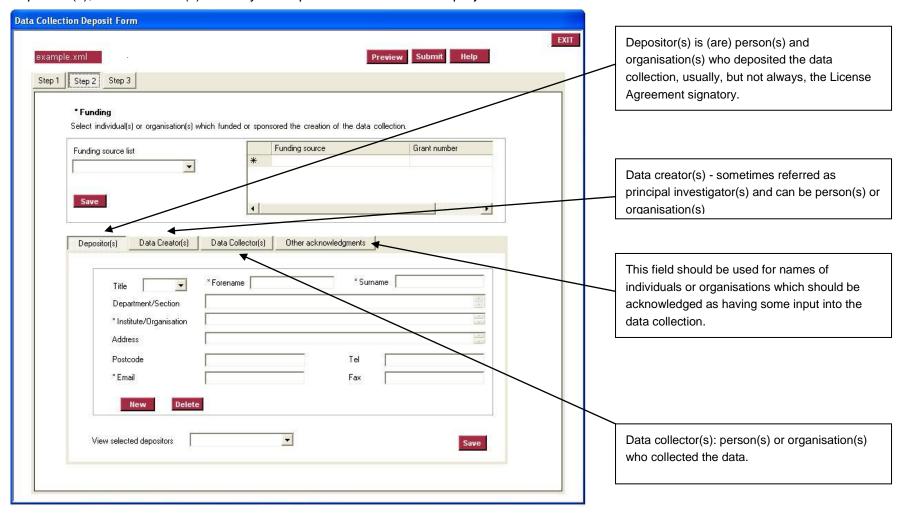


Provide the details of medium/method used to send the data to the UK Data Archive.

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.

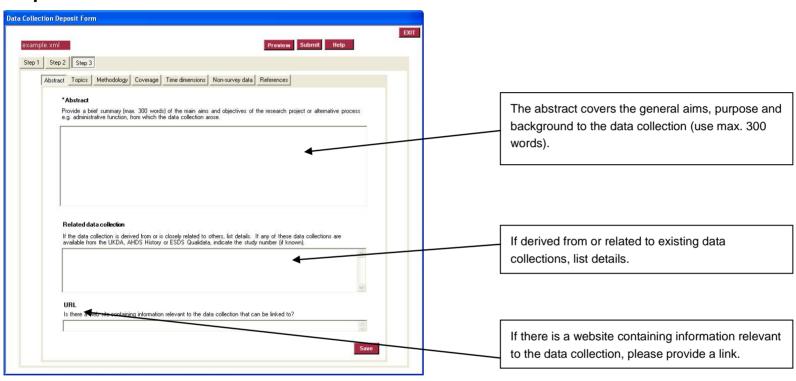
Step 2

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.

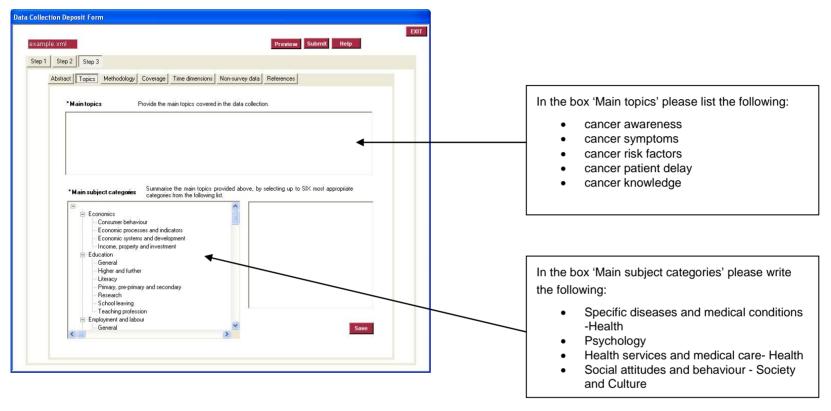




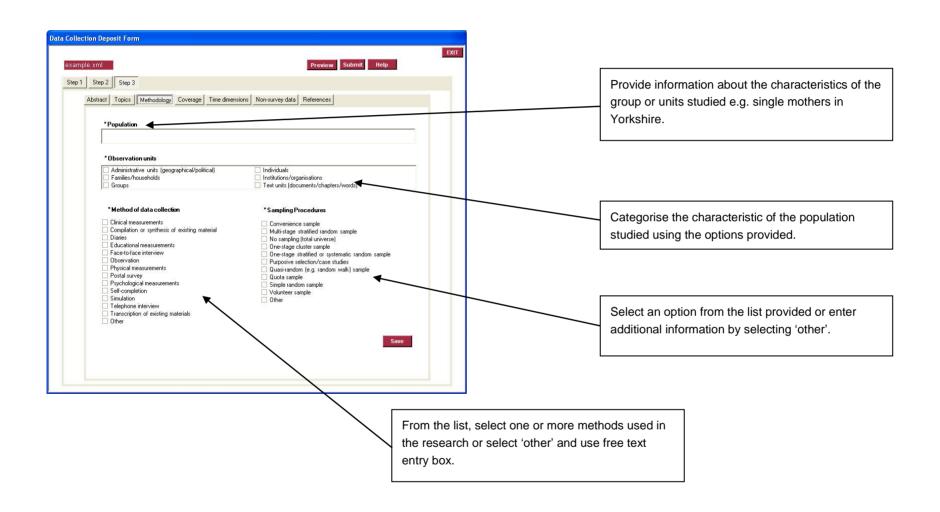
Step 3



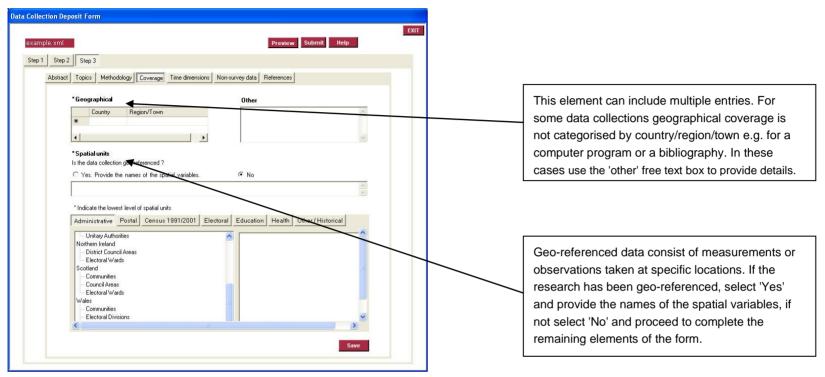




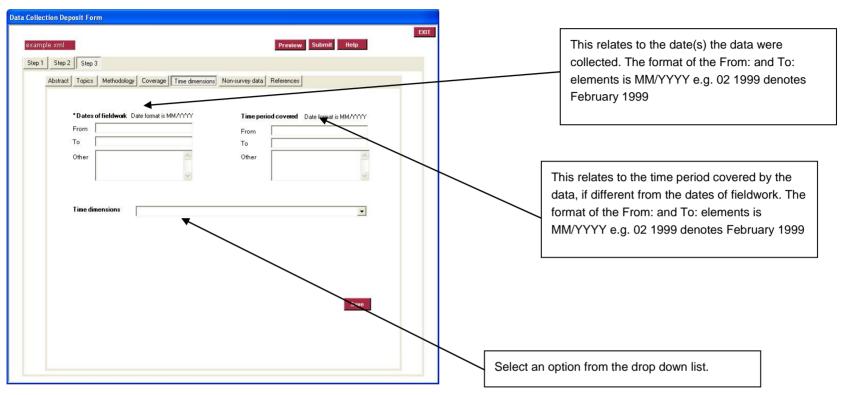




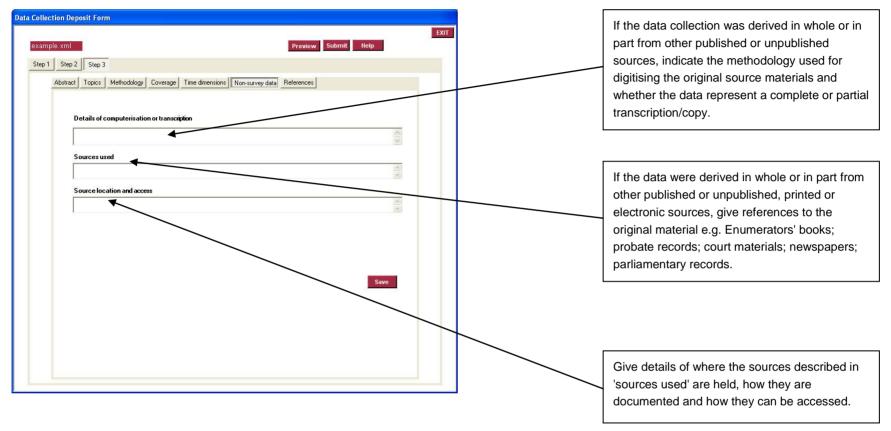




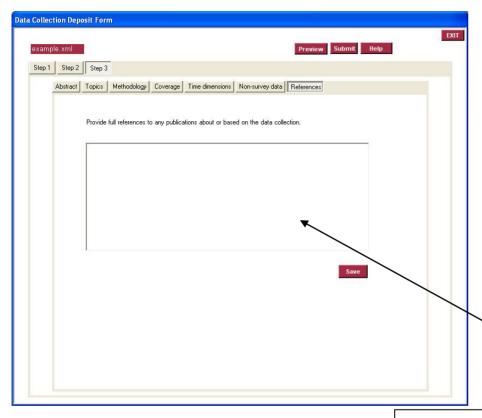












In the box called 'References' please include the following:

- 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 Lung Cancer Awareness Measure (CAM)

Flexibility in using the Lung CAM

This survey instrument (Lung 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 Lung CAM and make it as accessible and easy to use as possible. The Lung CAM includes seven questions and twelve demographic questions and takes between 15-20 minutes to complete. Many researchers will need to shorten the Lung 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 Lung CAM questions.

CAM modules

It is possible to separate the questions in the Lung CAM into distinct 'modules' that can be used on their own, in conjunction with other items from the Lung 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 (14 items)

Module 3. Q3 – Seeking help (1 item)

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

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

Module 6. Q6 - Closed risk factors (9 items)

Module 7. Q7 – Confidence (I item)

Ordering of CAM questions

It is possible to change the order of the Lung CAM modules, for example, you can ask about confidence in detecting lung 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 lung 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 lung 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 Lung 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 Lung CAM questions. For example, if you're using the Lung 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 Lung 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 Lung 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 Lung Cancer Awareness Measure (CAM)

Sampling

This survey instrument (Lung 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

Glossary

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.