



NHS North of Tyne

Cancer Awareness in Deprived Areas Research

Street and Door Knocking Interviews

Full Report v2

Prepared for Malathi Natarajan

December 2010

Report prepared by:

Dr Nicky Turnill
Head of Public Sector Research

Dr Judith Welford

Public Sector Research Executive

Public Knowledge

Part of Dipsticks Research Limited The Mill Hexham Business Park Burn Lane Hexham Northumberland NE46 3RU

Tel: 01434 613273

Email: nicola@publicknowledge.eu

Fax: 01434 611161

Twitter: @PKResearchNE46

Contents

1. Executive Summary 5
1.1. Awareness of the Signs and Symptoms of Cancer5
1.2. Help Seeking Behaviour5
1.3. Factors Affecting the Chances of Getting Cancer6
1.4. Cancer Incidence6
1.5. Awareness of Different Types of Cancer6
1.6. Awareness of NHS Cancer Screening Programmes
1.7. Factors Contributing to Cancer Incidence
1.8. Personal Experience of Cancer and Screening
1.9. Communications 8
2. Background and Objectives
3. Methodology
5. Respondent Characteristics
5.1. Age and Gender
5.2. Other Demographics
5.3. Ethnicity, language and length of time living in the UK
5.4. Smoking Behaviour
5. Full Summary of Results
5.1. Awareness of the Signs and Symptoms of Cancer
5.2. Help Seeking Behaviour29
5.3. Factors Affecting the Chances of Getting Cancer
5.4. The Number of People who Develop Cancer
5.5. Awareness of Different Types of Cancer
5.6. Awareness of NHS Cancer Screening Programmes49
5.7. Factors Contributing to Cancer Incidence
5.8. Personal Experience of Cancer and Screening59
5.9. Communications

6.10. Segmentation Analysis	72
7. Conclusions and Recommendations	76
8. Appendices	77
8.1. Final Questionnaire	77
8.2. Socio-Economic Grade	87
8.3. Most Common Cancers in Men and Women by Location	88
8.4. Factors Contributing to Cancer Incidence in the UK by Location	94

1. Executive Summary

Public Knowledge were commissioned by NHS North of Tyne to conduct research to assess baseline levels of cancer awareness across the areas served by NHS Newcastle, North Tyneside and Northumberland. In total 1,445 interviews were conducted with a broad range of respondents, using both a street and a door knocking methodology in October and November 2010. This section summarises the main findings within the sample as a whole and further information can be found in the following sections.

1.1. Awareness of the Signs and Symptoms of Cancer

The first section of the survey asked respondents about warning signs and symptoms of cancer. By far the most common sign/symptom of cancer spontaneously given by the sample was lumps or swellings (51%). Weight loss (22%), bleeding (16%) and pain (12%) were also common responses and 'other' responses were also given by 14% of the sample.

However, 23% of respondents were unable to name any signs or symptoms of cancer and 17% were **only** able to name the most commonly known sign/symptom – 'lumps/swellings'; indicating a need for increased education in terms of awareness of the symptoms of cancer.

When prompted, respondents were most likely to agree that unexplained lumps or swellings (95%) were a warning sign of cancer, followed by a change in the appearance of a mole (92%), an unexplained weight loss (88%) and a persistent change in bowel or bladder habits (86%). Respondents were both least likely to agree and most likely to disagree that a persistent cough or hoarseness or a persistent difficulty swallowing could be a sign/symptom of cancer.

1.2. Help Seeking Behaviour

Respondents were then asked how soon they would contact a doctor to make an appointment to discuss each of the symptoms prompted previously. Respondents were most likely to say that they would contact a doctor within 1-3 days for an unexplained bleeding (52%), an unexplained lump or swelling (49%), a symptom that they thought was a sign of cancer (48%) and a persistent unexplained pain (42%).

When read a list of reasons why people might put off visiting a doctor to discuss symptoms, the main reason given was worry about what the doctor might find (25%). Feeling scared (20%), difficulty making an appointment (18%) and being embarrassed (12%) were the main other reasons respondents gave for putting off visiting a doctor.



1.3. Factors Affecting the Chances of Getting Cancer

Using an open question, respondents were then questioned about factors that can affect the chances of getting cancer. By far the most common response, given by 69% of the sample, was smoking. Diet (20%) and drinking alcohol (19%) and family history/genetics (14%) were also common responses, although 11% gave the answer 'don't know'.

When prompted, respondents were most likely to agree that the following factors could be causes of cancer: smoking any cigarettes at all (94% agreement), exposure to another person's cigarette smoke (87% agreement) and having a close relative with cancer (75% agreement). There were low levels of agreement for eating red or processed meat once a day or more (21%), eating less than 5 portions of fruit and vegetables a day (23%) and being over 70 years of age (33%).

1.4. Cancer Incidence

Around one in three people develop cancer in their lifetime and when respondents were asked to estimate incidence the mean score of 36.8 was relatively accurate. However, only 17% thought that between 31 and 40 people would develop cancer at some point in their lives. Respondents were equally as likely to estimate low as they were high, with 39% giving an estimation of less than 31 people out of 100, and 40% estimating more than 40 out of 100.

When asked about the age at which respondents are most likely to develop cancer, two-thirds of respondents gave the answer 'any age' and only 4 respondents (0%) gave the correct answer of '80 years and above.'

1.5. Awareness of Different Types of Cancer

To assess awareness of different types of cancer, respondents were asked what they thought were the first, second and third most common cancers in men and women. Respondents correctly named breast cancer as the most common cancer in women with almost all (95%) mentioning this at either the first, second or third mention; the majority (82%) at the first mention. Despite low incidence levels, cervical cancer was named as the second most common in women (57%) while only 24% named the third most common cancer in women - colorectal cancer. Respondents were most likely to think that prostate cancer is the most common cancer in men based on the first mention (32%), however on combined first, second and third mention, lung cancer was identified as the most common (64%). Bowel/colorectal (55% combined mention) cancer was also mentioned by a high proportion of the sample.



1.6. Awareness of NHS Cancer Screening Programmes

Respondents were then asked about their awareness of the NHS breast, cervical and bowel cancer screening programmes. Respondents were significantly more likely to be aware of both the NHS breast (77% awareness) and cervical cancer (79% awareness) screening programmes than the NHS bowel cancer (47% awareness) screening programme which is to be expected as this programme has been operating for significantly less time than breast and cervical cancer screening.

Respondents who were aware of each of the NHS cancer screening programmes were asked at what age they thought people were invited for screening. Women are typically invited to attend breast cancer screening between 50-53 years of age. Four-in-ten (42%) respondents correctly attributed the age of invitation but 18% thought that screening took place before 44 years and the mean score of 45.0 years reflects this. One third (34%) of those who were aware of the cervical cancer screening programme correctly attributed the age of first invitation as between 25-29 years old, and the mean score of 25.9 years is largely accurate. However, an additional 15% opted for the slightly lower 20-24 year age band and 9% opted for the higher age bracket of 35 years and above. Over a third (36%) of respondents also correctly attributed the age of invitation for NHS bowel cancer screening as 60-69 years of age, with a majority (34%) giving an answer between 60-64 years. However, 20% thought that screening took place before 60 years and the mean score of 53.3 years reflects this.

1.7. Factors Contributing to Cancer Incidence

Respondents were then asked to rate five factors according to the extent to which they contribute to the incidence of cancer in the UK. Overall, lifestyle was considered to be the most important factor contributing to cancer in the UK, with 57% of the sample selecting this as the factor which contributes the most, in addition to the lowest mean score of 1.7 (with 1 being the most important factor). This was followed by genetic inheritance with 18% of the sample selecting this as the most important factor followed by the environment (15%). Finally, chance and aging were rated fourth and fifth with mean scores of 3.7 and 4.2 respectively.

1.8. Personal Experience of Cancer and Screening

Most respondents have some experience of cancer; 58% report that a 'close' family member has suffered from cancer, 37% an 'other' family member and 30% a close friend. Just 7% of



respondents have themselves suffered from cancer and 19% gave the answer 'none of the above'.

Respondents in the target age ranges were also asked whether they had been invited to attend screening and if so whether they had attended. The majority (83%) of women aged 50 years and above said they had been invited to attend breast cancer screening and of these, 98% have attended screening with 68% attending in the last 3 years. A similar proportion of females aged between 25-64 years have also received an invitation to attended cervical cancer screening (88%) and 97% of these have attended screening with 79% attending in the last 3 years. In contrast, only 51% of target age respondents said they have received an invitation to attend bowel cancer screening. However, completion rates were high with 86% uptake amongst those who recall an invitation; 80% in the last two years.

1.9. Communications

In order to help the NHS North of Tyne tailor communication material to people of different demographics, all respondents were asked how they would like to be kept up to date with information about the NHS and the services offered. The most popular means of communication selected was doctor's waiting rooms (41%), closely followed by TV (36%) and leaflets/flyers (32%).



2. Background and Objectives

According to the Office for National Statistics, one in three people in the UK develop cancer across the course of their lives and around one in four people who develop cancer will die as a result. Statistics have shown that the UK has lower levels of cancer survival in comparison with other Western Countries; an issue which needs to be tackled.

Consequently, at the end of 2007, the Department of Health launched the Cancer Reform Strategy which outlined actions to improve UK wide cancer services within the NHS and reduce inequalities in incidence, access to services and outcomes. The reform has set a clear direction in terms of UK cancer services and by 2012 it is hoped that the UK's cancer services will be amongst the best in the world. To help achieve these objectives the National Awareness and Early Diagnosis Initiative (NAEDI) and the National Cancer Equality Initiatives (NCEI) were launched.

The key component of the work undertaken by NAEDI is highlighting the importance of raising awareness of cancer within the general population. This is crucial as one of the main factors associated with a delay in seeking help for cancer is a failure to recognise early cancer symptoms. The work undertaken by the NCEI focuses on identifying and bridging inequalities within cancer in terms of key indices (gender, age, ethnicity, socio-economic status, religious belief, disability, sexual preference and language). This will allow targeted interventions to be implemented, focusing on the most vulnerable groups of the population.

A key component of this work highlighted the importance of raising awareness of cancer within the general population. This is crucial as one of the main factors associated with a delay in seeking help for cancer is a failure to recognise early cancer symptoms and later diagnosis is strongly associated with poorer survival rates.

To aid this process the Cancer Awareness Measure (CAM) was designed and extensively validated by CR-UK. This measure has now been extensively used nationally to assess awareness of the warning signs and symptoms of cancer, knowledge of the types and incidence of cancer, awareness of the screening programmes for bowel, breast and cervical cancer and health seeking behaviours and barriers to seeking GP consultation.

Public Knowledge were commissioned by NHS North of Tyne to undertake 1,400 street and door-knocking interviews using this validated measure across the areas served by North of Tyne, namely NHS Newcastle, North Tyneside and Northumberland.



3. Methodology

A street and face-to-face door-knocking interview methodology was used to assess baseline levels of cancer awareness across the most deprived areas served by NHS North of Tyne using the validated CAM (please see Appendix 7.1 for the final version).

A face-to-face methodology was selected as most appropriate as cancer is an emotive and sensitive subject, and therefore, better suited to discussion in person. All interviewers were fully briefed prior to data collection, which ensured they were knowledgeable and able to confidently answer any questions posed by respondents at the end of the survey. A face-to-face methodology was also advantageous as it allowed interviewers to hand out information leaflets at the end of the survey which particularly important given that the overall objective of this research is to increase awareness of cancer. To encourage response all interviewers were also provided with a signed verification letter supplied by NHS North of Tyne.

The data were collected from the 10 most deprived wards served by NHS North of Tyne, as shown in Table 1.

<u>Table 1: Sample requirements according to the 10% most deprived wards served by NHS North of Tyne.</u>

Local Authority Area	Ward	No living in most deprived decile	% of sample	No of completes	No of street days	No of door- knocking days
Newcastle	Walker	12,790	17%	224	14	0
	Byker	9,779	13%	176	11	0
	Elswick	11,014	14%	192	12	0
	Benwell/Scotswood	7,590	10%	144	9	0
	Kenton	5,861	8%	104	4	4
North Tyneside	Riverside	7,947	10%	140	5	6
	Chirton	3,581	5%	72	2	4
	Howdon	1,673	2%	32	2	0
Northumberland	Croft (Blyth)	3,294	4%	48	3	0
	Cowpen (Blyth)	1,238	2%	32	2	0
	Kitty Brewster (Blyth)	2,579	3%	48	3	0
	College (Ashington)	2,676	3%	48	3	0
	Hirst(Ashington)	2,624	3%	48	3	0
	Ashington Central	2,141	3%	48	3	0
	Seaton with Newbiggin West	2,297	3%	48	3	0
		77,084	100%	1,404	9:	3

All data were collected by experienced interviewers, in line with the MRS code of conduct, between 25th October and 26th November 2010 on a combination of week and weekend days. In accordance with the MRS code of conduct, for quality purposes, 20% of the data submitted by each interviewer was back-checked to ensure that the data were collected when and where specified and that the interviewers were polite and considerate.

In total 1,445 interviews were completed and associated confidence levels at the 95% confidence level are shown in Table 2.

Table 2: Sample size and confidence level.

Area	Number of interviews	Margin of error at 95% confidence
Newcastle	832	3.4%
North Tyneside	288	5.77%
Northumberland	325	5.44%
TOTAL	1,445 interviews	2.58%

Confidence in data increases as sample size increases. Overall confidence in the data set as a whole is reliable, with a margin of error of 2.58% based on 95% confidence. Within the area sub-sets, the data collected in the area served by NHS Newcastle displays the greatest degree of confidence, (3.4%) with somewhat lower levels of confidence in the area served by NHS North Tyneside (5.77%).

Quotas were imposed to ensure that the data were representative of each area in terms of age, gender and ethnicity. Required and achieved percentages are shown in Table 3 and achieved quotas broadly match those required to a margin of \pm 0 in all cases.

Table 3: Required and achieved quotas according to age, gender and ethnicity.

Domogram	Demographic		Newcastle		North Tyneside		Northumberland	
Demographic		Required	Achieved	Required	Achieved	Required	Achieved	
Gender	Female	50%	51%	50%	50%	50%	56%	
	Male	50%	49%	50%	50%	50%	44%	
Age	18-24 years	20%	19%	11%	12%	11%	12%	
	25-34 years	17%	18%	15%	15%	12%	11%	
	35-44 years	16%	16%	19%	19%	18%	16%	
	45-54 years	16%	16%	18%	18%	18%	18%	
	55-64 years	12%	13%	15%	14%	18%	19%	
	65 years plus	19%	19%	22%	22%	23%	23%	
Ethnicity	White	89%	89%	96%	95%	98%	98%	
	BME	11%	11%	4%	5%	2%	2%	



In addition, interviewers were also asked to record refusal rates. These can be seen below Table 4.

Table 4: Refusal Rates and Incomplete interviews by NHS area.

Location	Refusals	Incomplete
Northumberland	8	1
Newcastle	1,442	6
North Tyneside	276	3
Total	1,726	10

As can be seen, the refusal rate was highest in Newcastle, although few respondents ended the interview before completing the questionnaire.

4. Data Processing and Analysis

The data collected was input at our head offices in Hexham and 20% of the data input by each individual was checked for accuracy. Data for the open questions (e.g. spontaneous awareness of the symptoms and causes of cancer) was input into the code frames specified within the CAM tool kit. The data were then processed using Askia and SPSS to produce the data tables and raw data that accompany this report.

Throughout the report the research findings have been illustrated using easy to read colour charts, which provide an immediately accessible graphical overview of the answers given by respondents in each area. The charts are clearly labelled with the corresponding question from the questionnaire included at the bottom of each chart for ease of reference, in addition to the 'base' or sample size for each question.

Within this report any mention of 'significance' refers to statistical significance. Statistical significance is used to refer to a result that is unlikely to have occurred by chance and in this case is tested using chi-square. Significance can be calculated to different percentages, with higher percentages representing more noteworthy responses, and in this report, only responses with a significance of 95% or 99% are commented on.

This data has been assessed for statistical significance according to the following variables: NHS area (Newcastle, North Tyneside, Northumberland), gender, age, age in relation to gender, ethnicity, smoking behaviour, education, housing tenure, working status, personal experience of cancer, awareness of breast, cervical and bowel cancer screening programmes within the target age ranges and cluster (see Section 6.10).

The main report explores the findings obtained in the total sample and at the individual NHS area level (Northumberland, Newcastle and North Tyneside). The data is presented graphically in all cases and any significant variation is discussed in the text. The data has also been compared and contrasted with that detailed within the UCL Public Awareness of Cancer in Britain Report. This data is based on a sample of 2,216 cases, representative according to the UK population and collected at the end of 2008.¹

Please note that this report is accompanied by data tables and raw data files where further information can be found, if required.

¹ The UCL Public Awareness of Cancer in Britain Report can be accessed at: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH 10 8749



5. Respondent Characteristics

5.1. Age and Gender

The age and gender of respondents within the sample as a whole is shown in Table 5.

Table 5: Primary demographics of respondents.

Demogra	phic Characteristics	All data	Northumberland	Newcastle	North Tyneside
Gender	Male	48%	44%	49%	50%
	Female	52%	56%	51%	50%
Age	18-24 years	16%	12%	19%	12%
	25-34 years	16%	11%	18%	15%
	35-44 years	16%	16%	16%	19%
	45-54 years	17%	18%	16%	18%
	55-64 years	15%	19%	13%	14%
	65 years plus	20%	23%	19%	22%

As shown, a roughly equal proportion of male and female respondents (48%/52%) were interviewed and quotas ensured that respondents were drawn from a representative spread according to age in each area.

The population surveyed in Newcastle was generally younger with a significantly higher proportion of 18-24 year olds (19%) and 25-34 year olds (16%). In contrast, the populations in Northumberland and North Tyneside have an older average age with a significantly greater proportion of 55-64 year olds in Northumberland (19%) and a higher, though not significantly higher, percentage of respondents aged 65 years and above in Northumberland (23%) and North Tyneside (22%).

5.2. Other Demographics

Tables 6 and 7 shows the secondary demographics of the sample (working status, marital status, education and housing tenure in addition to vehicle ownership) and this is discussed further on the subsequent pages.

Table 6: Secondary demographics of respondents.

Demographic c		All data	Northumberland	Newcastle	North Tyneside
Working	Unemployed	25%	19%	29%	19%
status	Retired	25%	32%	23%	22%
	Employed full-time	24%	26%	23%	27%
	Employed part-time	10%	12%	10%	9%
	Full-time homemaker	8%	9%	6%	15%
	Disabled or too ill to work	4%	2%	4%	6%
	Student	3%	1%	4%	2%
	Self-employed	1%	0%	1%	0%
Marital status	Married/living with spouse	45%	50%	42%	50%
	Single/never married	33%	25%	38%	29%
	Divorced	9%	11%	9%	10%
	Widowed	9%	11%	8%	9%
	Married/separated from partner	3%	4%	4%	2%
Educational	No formal qualification	48%	52%	48%	42%
qualification	O Level or GCSE equivalent (Grade A - C)	15%	10%	15%	22%
	O Level or GCSE (Grade D - G)	13%	12%	15%	9%
	A-levels or highers	6%	6%	5%	7%
	ONC/BTEC	6%	4%	6%	8%
	Degree or higher degree	5%	4%	5%	6%
	Higher education qualification below				
	degree level	2%	3%	1%	1%
	Other qualification	6%	10%	6%	5%
Housing	Rent from local authority/Housing				
Tenure	association	53%	35%	61%	51%
	Own outright	16%	28%	10%	20%
	Rent privately	14%	16%	14%	13%
	Own mortgage	10%	19%	7%	9%
	Squatting	0%	0%	0%	0%
	Other (e.g. living with family/friends)	6%	2%	7%	6%
Vehicle	None	66%	50%	73%	61%
ownership	Yes, one	31%	43%	24%	38%
	Yes, more than one	4%	7%	3%	1%

Table 7: Socio-economic grade.²

Social Class	All data	Northumberland	Newcastle	North Tyneside
Α	0%	0%	0%	0%
В	4%	6%	4%	4%
C1	18%	21%	16%	19%
C2	17%	21%	16%	15%
D	17%	19%	16%	15%
E	45%	33%	48%	47%

Working Status

Just over a third (35%) of the sample were employed, be that full-time (24%), part-time (10%) or self-employed (1%). One quarter (25%) were retired, which directly reflects the 20% of data collected from those aged 65 years and above plus a proportion of retired individuals aged under 65 years. A quarter (25%) report unemployment, which is substantially higher than the current national average of 7.7%³ and a further 8% were homemakers, 4% were unable to work due to sickness or disability and 3% were students.

Respondents in North Tyneside were most likely to be working full time (27%) and those in Newcastle were least likely to do so (23%).

As would be expected, respondents aged 55 years and above were significantly more likely to be retired (37% of 55-64 year olds and 93% of those aged 65 and above). Respondents aged 18-24 years were significantly more likely to be studying (14%), to be unemployed (42%) or to be working part-time (16%) and respondents aged 25-54 years were significantly more likely to be working full-time, which reflects the situation in the current UK economy.

Female respondents were significantly more likely to be full-time home makers (15%) or working part-time (14%), while male respondents were significantly more likely to be working full-time (28%) or to be unemployed (30%). Finally, BME respondents were significantly more likely to be working part-time (20%), whereas White respondents were more likely to be retired (26%) or unemployed (26%).

Marital Status

The greatest proportion of the sample were married and living with their spouse (45%). A third (33%) were single, 9% were widowed, 9% were divorced and 3% were separated. This

³ According to the Office of National Statistics and based on data collected between July to September 2010. http://www.statistics.gov.uk/cci/nugget.asp?id=12



² A description of how socio-economic grade is coded can be found in the appendices 8.2.

breakdown is largely reflective of the UK population as a whole⁴, based on estimated figures produced by the Office of National Statistics.

Significantly more single people were interviewed in Newcastle (38%) which reflects the demographic profile of this area in that there are a greater proportion of 18-24 and 25-34 year olds living here. As would be expected, respondents aged 18-34 years were significantly more likely to be single (81% of 18-24 year olds and 47% of 25-34 year olds). Older respondents were significantly more likely to be married and those aged over 55 years of age were significantly more likely to have been widowed (34% of those aged 65 years plus).

A significantly higher proportion of females interviewed (12%) were widowed and a significantly higher proportion of men were single and never married (39%).

Educational Qualifications

The greatest proportion of the sample (48%) reported having no formal qualifications which is well above the UK average of around 30%. Only 5% hold a degree or higher degree which is considerably lower than the UK average of almost 20%.⁵ O Levels or GCSE's were the most common qualifications held by respondents (30% Grade A-C and D-G).

Respondents in Northumberland (3%) were significantly more likely to hold a higher qualification below degree level, but were also more likely to report having no formal qualifications (52%) than respondents in Newcastle and North Tyneside.

Older respondents (68% of 55-64 year olds and 72% of those aged 65 years and above) were significantly more likely to have no formal qualifications. Male respondents (6%) were significantly more likely to have a degree or higher degree, while females were significantly less likely to do so (3%).

Living Arrangements

The highest proportion (53%) of respondents rent from the local housing authority which is substantially higher than the national average of 17.5%, 6 18% own their home outright, 14% rent privately, 10% own a home that is mortgaged and 0% (n=1) reported squatting. The remainder of the sample (6%) gave the response 'other' (e.g. living with family/friends).

⁶ Based on ONS estimates for 2009 http://www.statistics.gov.uk/cci/nugget.asp?id=1105



⁴ Based on estimated figures produced by the ONS: http://www.statistics.gov.uk/cci/nugget.asp?id=2312

⁵ http://www.statistics.gov.uk/census2001/profiles/commentaries/people.asp

Respondents in Newcastle (61%) were significantly more likely to rent from a local authority or housing association, whilst those in North Tyneside and Northumberland were more likely to own their home outright (28%). Those in Northumberland were also more likely to own a house with a mortgage (19%).

As would be expected, respondents aged 55 years and over were significantly more likely to own their own home outright (31% of 55-64 year olds and 38% of those aged 65 and above), while respondents aged 25-54 years were significantly more likely to have a mortgage (16% of 25-34 years old, 22% of 35-44 year olds and 16% of 45-54 year olds). Similarly, younger respondents are significantly more likely to be renting privately (23% of 18-24 year olds). Non-white respondents (29%) were significantly more likely to be renting privately and White respondents were more likely to own their home outright (17%).

Vehicle Ownership

Two-thirds (66%) of the sample reported that they do not own a vehicle and 31% said they owned one vehicle. The proportions who do not own a vehicle was higher than that observed in previous CAM projects, however as non-ownership was highest in Newcastle (73%) this may be explained by the prevalence of public transport facilities including the Metro and bus services. In contrast, those in the more rural and isolated Northumberland reported higher levels of car ownership (43% own 1 and 7% own more than 1 vehicle).

The youngest and oldest age groups were also significantly more likely to say that they do not own a car (78% of 18-24 year olds and 77% of those ages 65 and above).

Socio-Economic Grade

In terms of social class, the majority of the sample (45%) falls into group E, with those in Newcastle significantly more likely to fall into this group (48%) and respondents from Northumberland significantly less likely to do so (33%).

Only 4% of the entire sample is graded in group AB and these respondents were more likely to be living in Northumberland, though this is not statistically significant. Respondents in Northumberland were also significantly more likely to be graded in group C1 and C2 (21% in each group).

White respondents were significantly more likely to fall into the E group (46% in this group were white compared to 23% from other ethnic groups) whereas BME respondents were more likely to be graded in the C1 category (42%).



5.3. Ethnicity, language and length of time living in the UK

Respondents were also asked about ethnicity, language spoken at home, religion and length of time spent living in the UK (Tables 8a/b).

Table 8a: Ethnicity.

Demograph	nic characteristics	All data	Northumberland	Newcastle	North Tyneside
Ethnicity	White TOTAL	97%	92%	89%	94%
_	British	97%	91%	88%	94%
	Irish	0%	0%	0%	0%
	Other White background	0%	1%	1%	0%
	Mixed TOTAL	0%	0%	1%	0%
	White and Black Caribbean	0%	0%	0%	0%
	White and Black African	0%	0%	1%	0%
	White and Asian	0%	0%	0%	0%
	Other Mixed background	0%	0%	0%	0%
	Asian or Asian British TOTAL	1%	4%	5%	1%
	Indian	1%	2%	3%	1%
	Pakistani	0%	1%	1%	0%
	Bangladeshi	0%	0%	0%	0%
	Other Asian background	0%	1%	1%	0%
	Black or Black British TOTAL	0%	2%	3%	2%
	Caribbean	0%	0%	1%	0%
	African	0%	2%	2%	2%
	Chinese/Other TOTAL	0%	0%	0%	1%
	Chinese	0%	0%	0%	0%
	Chinese/Other	0%	0%	0%	1%

As can be seen in Table 7a, 92% of respondents were White and quotas were imposed on the data to ensure a representative spread in the 3 NHS areas.

White respondents were most highly represented in Northumberland (97%) and least represented in Newcastle (89%). Higher numbers of mixed race respondents were in Newcastle (1%), the highest percentage of Asian or Asian British respondents was in Newcastle (5%), the highest percentage of Black or Black British respondents was in Newcastle (3%), and the highest percentage of Chinese/Other respondents was in North Tyneside (1%).



There was an association between age and ethnicity and there was a significantly higher proportion of White respondents aged 55-64 and 65 years and above, while BME respondents were more likely to be drawn from the younger age ranges.

There was also a slight gender bias and a higher proportion of White respondents interviewed were female (54%) in comparison to a higher proportion of men in the BME group (76%).

Table 8b shows the characteristics of respondents in terms of language and length of time living in the UK.

Table 8b: Language and length of time spent living in the UK.

Demographic characteristics		All data	Northumberland	Newcastle	North Tyneside
Language spoken at	English	99%	97%	95%	100%
home	Urdu	0%	1%	1%	0%
	Punjabi	0%	0%	1%	0%
	Sylheti	0%	0%	0%	0%
	Cantonese	0%	0%	0%	0%
	Gujarati	0%	0%	0%	0%
	Other	1%	2%	3%	0%
Length of time living	0 - 9 years	0%	3%	5%	1%
in the UK (years)	10 - 19	3%	6%	6%	6%
	20 - 29	15%	18%	20%	14%
	30 - 39	13%	16%	17%	15%
	40 - 49	18%	16%	14%	19%
	50 - 59	19%	14%	12%	16%
	60 - 69	18%	14%	13%	14%
	More than 70 years	15%	13%	12%	15%

Overall, 97% of the sample speaks English as their first language at home. This was significantly higher in North Tyneside (100%) and significantly lower in Newcastle (95%) which is in-line with the demographic profile of these areas according to ethnicity.

There is some variation in the other languages spoken by respondents including Urdu (1%) and a small number of respondents who record speaking Punjabi (n=6), Sylheti (n=4), Cantonese (n=4) and Gujarati (n=1). Other languages specified by respondents



included French (n=4), Malay (n=3), African (n=2), Telugu (n=2) and 10 respondents reported speaking 'other' languages.

The length of time that respondents have lived in the UK varies considerably and as would be expected this is strongly correlated with age of the respondent. BME respondents are more likely to have lived in the UK for less than 19 years which most likely reflects the younger age of the BME group.

5.4. Smoking Behaviour

Figure 1a shows the proportion of people who said that they currently smoke cigarettes. This question is an addition to the validated CAM measure and is considered important in order to allow an analysis of the relationship between smoking and cancer awareness.

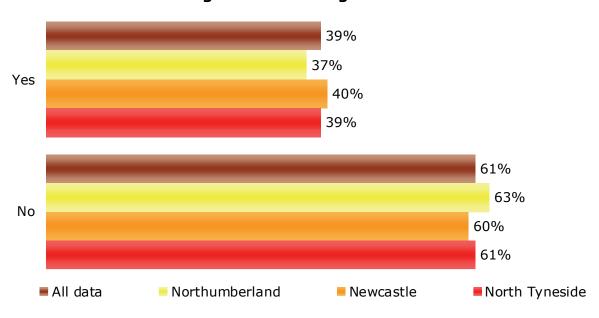


Figure 1a: Smoking Behaviour

D12. Do you currently smoke any cigarettes at all?

Base: All respondents - 1,445 , Northumberland - 325, Newcastle - 832, North Tyneside - 288.

In total, 39% of the sample said they currently smoked cigarettes, which is significantly higher than the national average of $21\%^7$.

White respondents (40%) were significantly more likely to smoke, while those of Asian (12%) descent were significantly less likely to do so.

⁷ Based on data collected for the Office for National Statistics in 2009. http://www.statistics.gov.uk/cci/nugget.asp?id=313



Those aged 18-24 (46%) and 25-34 years (48%) were significantly more likely to say they currently smoke, while those aged 65 years plus (19%) were significantly less likely to do so.

Respondents with a degree/higher education qualification (3%) were significantly less likely to smoke, while those with no formal qualifications (51%) and the unemployed (41%) were both significantly more likely to smoke.

Respondents who said they did smoke cigarettes were asked how many they smoke each day (Figure 1b).

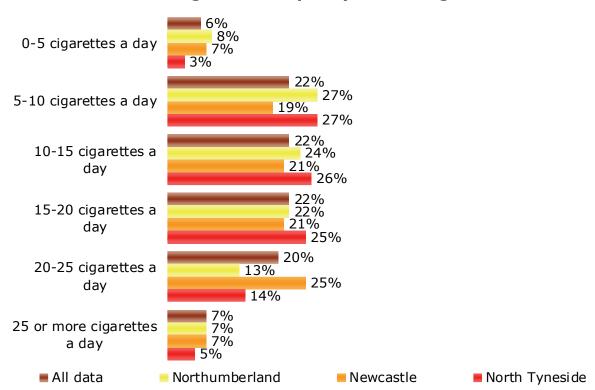


Figure 1b: Frequency of Smoking

D12a. Which of the following best describes how many cigarettes you smoke a day?

Base: All respondents - 566, Northumberland - 120, Newcastle - 333, North Tyneside - 113.

Most respondents smoke between 5-10 (22%), 10-15 (22%) or 15-20 cigarettes a day (22%). A large proportion of respondents (27%) smoke more than 20 cigarettes a day and 6% only smoke 0-5 cigarettes a day.

The heaviest smokers were White respondents, with 28% of this sub-sample smoking more than 20 cigarettes each day.



6. Full Summary of Results

6.1. Awareness of the Signs and Symptoms of Cancer

The first question in the main section of the survey asked respondents to name as many warning signs and symptoms of cancer as they were able (Figure 2a on the following page) and used an open format, which was coded into the code frames specified within the CAM tool kit (NB – The CAM tool-kit was developed after the UCL data were collected and as a result some of the symptoms in the UCL study are omitted).

By far the most common sign/symptom of cancer spontaneously given by the sample was lumps or swellings, with 51% of the total sample mentioning this. Weight loss (22%), bleeding (16%) and pain (12%) were also common responses and 'other' responses were also given by 14% of the sample.

Due to low percentage levels of awareness (1% or lower) the following signs/symptoms specified with the CAM tool kit have been excluded from Figure 2a: feeling weak (1%), difficulty swallowing (1%), a sore that does not heal (1%) and bruising (0%).

Almost a quarter (23%) of respondents were unable to name any signs or symptoms of cancer and 17% were **only** able to name the most commonly known sign/symptom - lumps/swellings - indicating a need for increased education in terms of awareness of the symptoms of cancer.

In all cases awareness is lower than that observed in the UCL study in which 68% spontaneously mentioned a lump/swelling (17% higher), 27% pain (15% higher), 26% a change in the appearance of a mole (22% higher) and 19% a change in bowel/bladder habits (14% higher). The mean number of symptoms named overall was 1.4 and this is also somewhat lower than the mean score of 2.2 named in the UCL study.

Respondents in the youngest age category (42% of 18-24 year olds overall, of which the higher proportion, 46%, were males in comparison to 36% of females) were significantly more likely to be unable to give any response when asked about the signs and symptoms of cancer. Males were also significantly more likely to give the response 'don't know' (29%), while females (17%) were significantly less likely to do so.

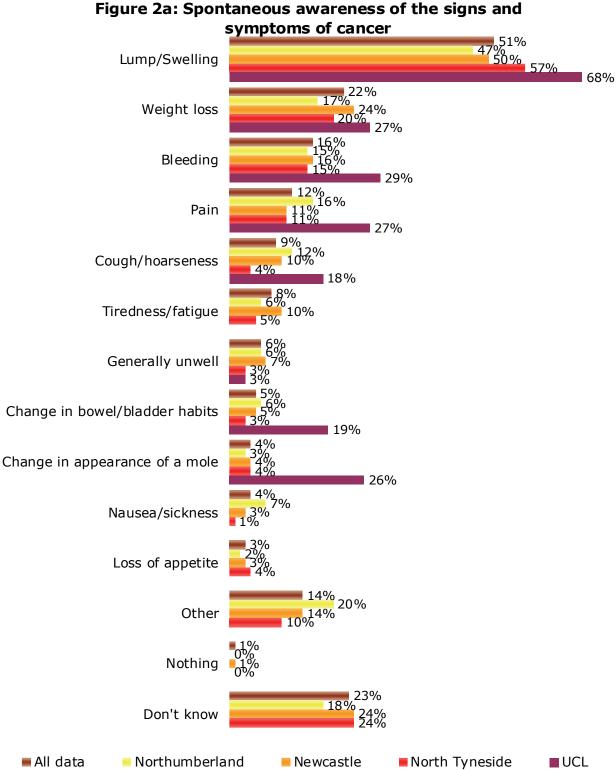


BME groups (39% overall) were also more likely to give the answer 'don't know' when compared to White respondents (21%), particularly those classified as Black (45%) and Chinese/Other (49%), as were respondents who smoke (25%).

Personal experience of cancer has a notable association with awareness of signs and symptoms of cancer. Those with a personal experience of cancer (i.e. through a partner, family member or friend) were evidently more aware of symptoms, whilst 33% of those with no personal experience of cancer said 'don't know'.

Respondents who were aware of NHS screening programmes were also considerably less likely to give a 'don't know' response as were respondents in the AB SEG category (12%).





Q1. There are many warning signs and symptoms of cancer. Please name as many as you can think of.

Base: All respondents - 1445, Northumberland - 325, Newcastle - 832, North Tyneside - 288, UCL - 2216.



Figure 2b details the 'other' responses obtained when respondents were asked about the signs and symptoms of cancer, and is based on a sample size of those who gave some other response only.

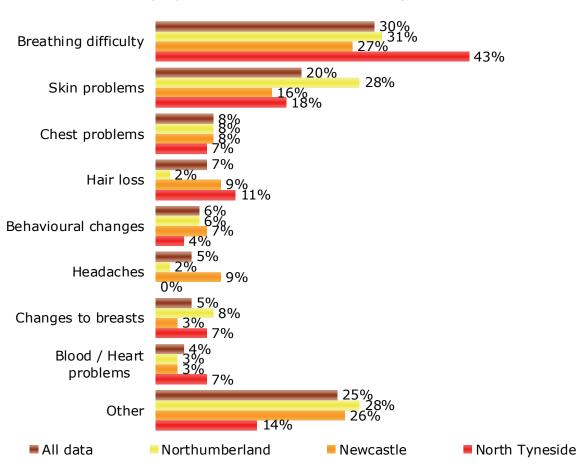


Figure 2b: Spontaneous awareness of the signs and symptoms of cancer - other responses

Q1. There are many warning signs and symptoms of cancer. Please name as many as you can think of.

Base: All respondents - 209, Northumberland - 65, Newcastle - 116 , North Tyneside - 28.

WARNING LOW BASES

Respondents in the SEG group AB (23%) and those who had some personal experience of cancer were more likely to mention 'other' signs or symptoms. The most common 'other' symptoms of cancer named by the sample were breathing difficulties (30%), skin problems (e.g. a rash or changes to the skin (20%)) and chest problems (8%).

Hair loss (7%), behavioural changes (6%) headaches (5%), changes to the breasts (5%) and blood/heart problems (4%) were also mentioned.



In addition to the data presented in Figure 2b, there were many other possible symptoms of cancer named within the sample, both correctly and incorrectly attributed, such as discharge, nipple leakage, bloating, shaking, eating a lot, yellow teeth, night sweats, hardening arteries, passing out and indigestion.

In the second question respondents were read a list of potential signs and symptoms and were asked whether they thought each of these could be a sign of cancer. The percentage of 'yes' responses to this question are shown in Figure 3.

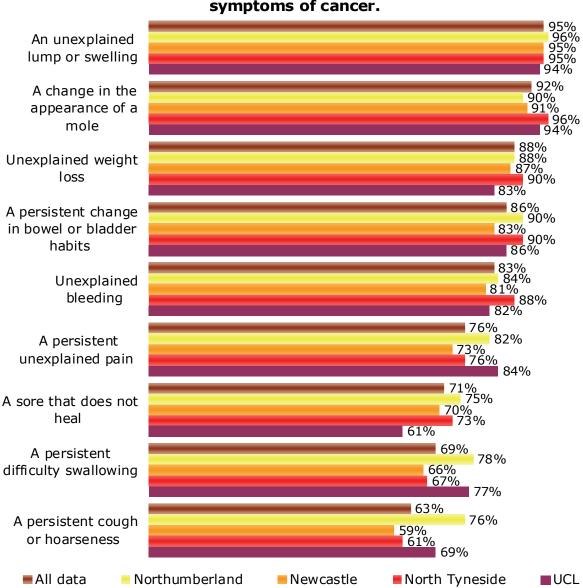


Figure 3: Prompted awareness of the signs and symptoms of cancer.

Q2. Do you think that XXX could be a sign of cancer?

Base: All respondents - 1445, Northumberland - 325, Newcastle - 832, North Tyneside - 288,

UCL - 2216



As can be observed, respondents were most likely to agree that unexplained lumps or swellings (95% overall agreement) were a warning sign of cancer, which replicates the findings obtained within the spontaneous question. A high proportion of the sample also agreed that a change in the appearance of a mole (92%) could be a sign/symptom of cancer despite the fact that only 4% mentioned this spontaneously in the previous question.

Unexplained weight loss (88%) and a persistent change in bowel or bladder habits (86%) were also the symptoms which respondents were most likely to agree could be signs/symptoms of cancer.

In contrast, respondents were least likely to agree that a persistent difficulty swallowing (69%) or a persistent cough or hoarseness (63% overall) could be a sign of cancer.

Prompted awareness levels are broadly similar to that observed within the UCL study and there is no consistent pattern in terms of an increase or decrease in awareness although the mean score of 7.0 symptoms out of the possible 9 in the UCL study is slightly higher than the mean score of 6.3 obtained within the North of Tyne sample.

Respondents in Northumberland were generally significantly more likely to agree that less common symptoms could be a sign of cancer in contrast with respondents in Newcastle who were significantly less likely to do so.

Respondents aged between 18-24 years were significantly less likely to say 'yes' for every symptom listed, while those aged 45 years and above were significantly more likely to give the response 'yes'. Although the younger age ranges are also the least at risk of developing cancer this illustrates a need for increased education within this group.

Males and BME respondents were also significantly more likely to give the response 'no' or 'don't know' in the majority of cases.

Once again, there was a correlation between personal experience of cancer and agreement that the signs/symptoms listed could be a cause of cancer. On the whole respondents with personal experience were more likely to agree that the symptoms could be a sign of cancer while those with no experience were more likely to give the response 'no' or 'don't know'.



6.2. Help Seeking Behaviour

Respondents were then asked how soon they would contact a doctor to make an appointment to discuss each of the symptoms prompted at Q2. Overall responses are shown in Figure 4a and mean scores for the length of time respondents would wait in each NHS area are shown in Figure 4b on the following pages.

As shown in Figure 4a, respondents were most likely to say that they would contact a doctor within a week for each of the following symptoms: An unexplained bleeding (70%), an unexplained lump or swelling (63%), a symptom that they thought was a sign of cancer (63%), and a persistent unexplained pain (58%).

This is corroborated by the mean scores presented in Figure 4b, which show that respondents would wait for the shortest time for an unexplained bleeding (6.4 days on average) and a lump or swelling (7.9 days on average) before contacting a doctor. Surprisingly, respondents would actually wait slightly longer (8.1 days) before contacting a doctor with regard to a symptom they thought might be a sign of cancer.

Unexplained weight loss (16.5 days), a persistent cough or hoarseness (16.9 days) and a persistent change in bowel or bladder habits (11.5 days) were the symptoms that respondents would leave the longest before contacting a doctor. This is somewhat inconsistent with the fact that unexplained weight loss and a persistent change in bowel or bladder habits were symptoms respondents were more likely to agree could be a sign of cancer.

It is worrying that a small percentage of respondents said that they would never see a doctor for the symptoms listed, particularly in the case of a persistent cough or hoarseness (3%) and an unexplained lump or swelling (1%) and a persistent change in bowel or bladder habits (1%). Furthermore, 5 respondents (0%) said that they would not visit a doctor even if they thought the symptom might be a sign of cancer. These respondents were predominantly White (4 White and 1 BME), but included 3 males and 2 females.

The mean scores do indicate a strong relationship between gender and length of wait before seeing a doctor; with females being consistently more likely to initiate contact with a doctor sooner than males.

There was also a strong correlation between age and the length of time respondents would wait before contacting a doctor. Those aged 55-64 years and 65 years and above were

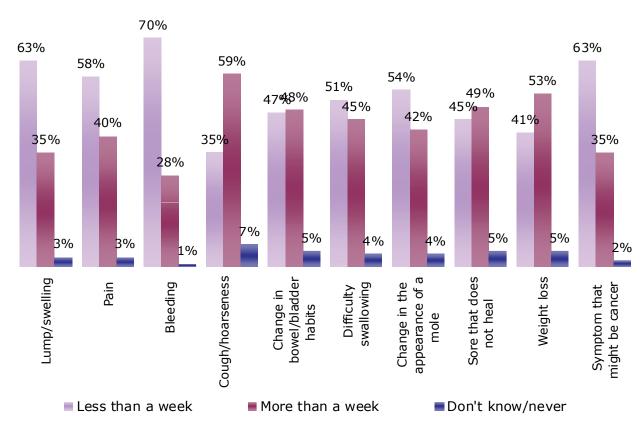


generally more likely to say that they would visit the doctor within 1-3 days and the mean scores illustrate that older respondents were typically more likely to initiate contact sooner.

White respondents were also generally more likely to say that they would visit a doctor within 1-3 days for the symptoms listed than the BME population were overall.

Mean scores indicate that respondents in Newcastle would generally wait longer before contacting a doctor for each of the symptoms listed, including waiting an average of 9.7 days before visiting a doctor about a symptom they thought might be a sign of cancer, while those in Northumberland would wait an average of only 5.4 days.

Figure 4a: Length of wait before seeing a doctor to discuss symptoms.

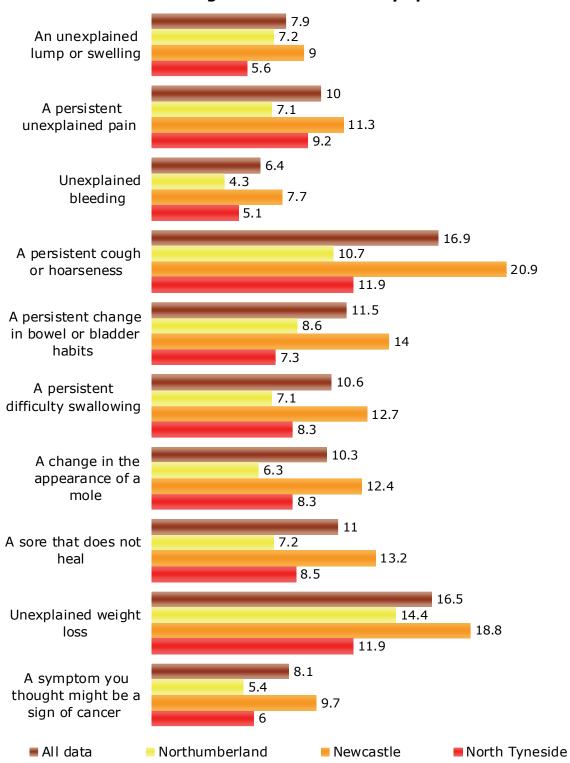


Q3. If you noticed any of the following unexplained symptoms how soon would you contact your doctor to make an appointment to discuss it?

Base: All respondents - 1445



Figure 4b: Mean scores for the length of wait before contacting a doctor to discuss symptoms.



Q3/4. If you noticed any of the following unexplained symptoms how soon would you contact your doctor to discuss it?

Base: All respondents - 1,445, Northumberland - 325, Newcastle - 832, North Tyneside - 288



In the following question, respondents were read a list of reasons why people might put off going to see a doctor, even when they think the symptoms might be serious, and were asked if any of these reasons would personally cause them to delay contact. Figure 5a gives the number of 'yes, often' and 'yes, sometimes' responses for each reason.

visiting a doctor. 10% 14% I would be too embarrassed 10% 21% 20% 11% I would be too scared 26% 13% 25% 10% 13% I would be worried about wasting the 9% doctor's time 8% 38% 7% 13% My doctor would be difficult to talk to 6% 3% 13% 18% 24% It would be difficult to make an 17% appointment with my doctor 11% 41% 6% 9% I would be too busy to make time to go to 6% the doctor 5% 28% . 10% I have too many other things to worry 7% about 4% 22% 2% 2% It would be difficult for me to arrange 2% transport to the doctor's surgery 1% 5% 25% 18% I would be worried about what the doctor 30% might find 17% 37% 6% 10% I wouldn't feel confident talking about my 6% symptom with the doctor 3% 12% ■ All data Northumberland Newcastle ■ North Tyneside UCL

Figure 5a: Reasons why respondents might put off visiting a doctor.

Q5. Could you say if any of these might put you off going to the doctor?

Base: All respondents - 1,445, Northumberland - 325, Newcastle - 832, North Tyneside - 288, UCL - 2216



The main reason respondents gave for putting off visiting the doctor was worries about what the doctor might find (25%). Feeling scared (20%) and difficulties making an appointment with the doctor (18%) were the main other reasons respondents gave for why they might put off visiting the doctor.

When compared to the UCL data, respondents were consistently less likely to agree that they would put of visiting the doctor for any of the reasons listed.

Respondents in Newcastle were significantly more likely to say they would put off going to the doctor due to worries about what the doctor might find (5% 'yes often' and 25% 'yes sometimes').

Responses with regards to 'difficulty making an appointment' are particularly important. Respondents in Northumberland were most likely to say they would often or sometimes put off contacting a doctor because of difficulty getting an appointment (24%) compared to 17% in Newcastle and 11% in North Tyneside. Respondents in North Tyneside were significantly more likely to say they would not put off going to the doctors because of difficulties making an appointment.

Male respondents were more likely to say that they would 'sometimes' put off going to see a doctor for the majority of reasons listed. BME respondents were also more likely to say they would sometimes put off going to the doctors for a variety of reasons listed.

Using an open question respondents were also asked if there were any other reasons they might put off going to see a doctor. The responses obtained from people who gave a further reason are shown in Figure 5b.

Please note that only the total data have been shown due to the small base size and caution should be used in the interpretation of this data.



Access to doctor 33% Don't like going to 19% the doctors 12% Fear Attitude of doctor / 10% staff Finding the time to 7% Not knowing enough 4% about symptoms 3% Gender of doctor Lack of confidence in doctor Other 16% ■ All data

Figure 5b: Other reasons respondents might delay going to the doctors.

Q5a. Is there anything else you can think of that might put you off going to the doctors?

Base: Respondents who gave other reasons - 115

The majority of people who gave a response to this question stated that access to the doctor (e.g. time taken to get an appointment) would put them off visiting a doctor's (33%) and 19% also reported that they simply don't like going to the doctor's.

Some of the reasons given involved a reiteration of the points previously assessed such as being fearful (12%) and difficulty finding the time to go to the doctor's (7%). Other reasons included the attitude of the doctor (10%), the gender of the doctor (3%) and lack of confidence in the doctor (2%).

Some of the verbatim responses given in response to this question include:

"The waiting rooms make me feel uneasy."

"If I had to see a male doctor with a personal problem."



"I just don't go to the doctors."

"Showing weakness by going."

"The length of time you have to wait."

"The time you have to phone to get an appointment."

"It sometimes takes a week to see a doctor."

"I can't understand the language very well."

"I have to wait over one week which is disgusting, especially for older people."

"I don't like going to the doctors as they aren't very forthcoming/friendly."

"I have seen examples in the past where my doctors have mishandled cases. They have gone on too long before they have been diagnosed."



6.3. Factors Affecting the Chances of Getting Cancer

Respondents were then asked what factors they think affect the chances of getting cancer, using an open question. The most common responses received, as coded into the code frames specified within the CAM tool kit, are shown in Figure 6a, on the following page.

Please note that this table excludes many of the causes listed in the CAM tool kit because only a very low proportion of respondents referred to them. Specifically, eating red or processed meat, infection with viruses (unspecified mention), old age, eating enough fruit and vegetables, radiation, a high fat diet, food additives, living near power lines, being underweight, taking HRT or the contraceptive pill and a low fibre diet (all mentioned by 0% of the sample; between 1 and 6 respondents).

By far the most common response, given by 69% of the total sample, was smoking. However, 24% of these respondents were only able to give this cause and gave no further causes.

Diet (20%) and drinking alcohol (19%) were also common responses but these were mentioned by a smaller proportion of the sample. Ever smaller proportions mentioned the following factors: genetics/family history (14%), stress (6%), getting sunburnt (5%), pollution (4%), being overweight (4%), not doing enough exercise (4%) and exposure to another person's cigarette smoke (1%).

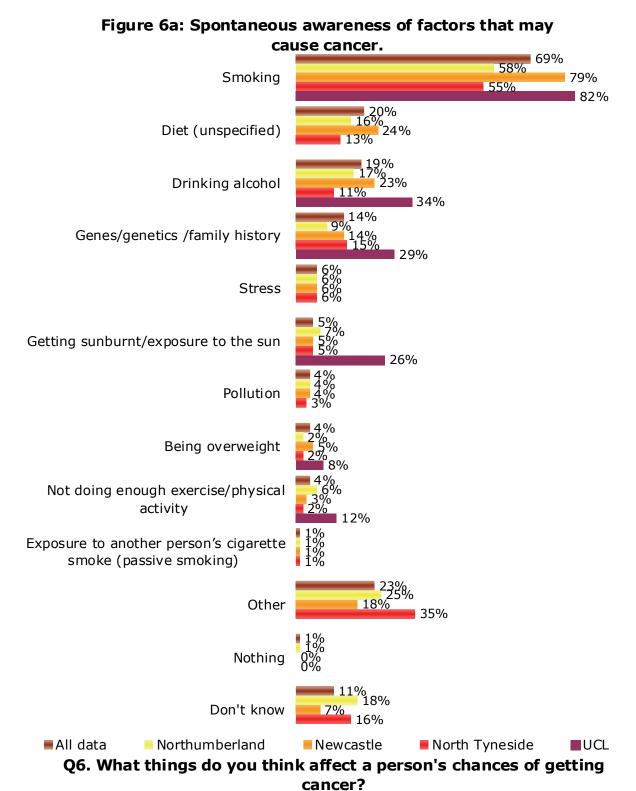
It is concerning that 11% said they couldn't name any factors that can cause cancer and respondents aged 65 years and above were significantly more likely to give this response (15%).

When compared to the UCL data respondents in the North of Tyne sample are less able to spontaneously name the main causes of cancer and the average number of risks mentioned (1.4) was lower than in the UCL sample (2.1).

Respondents in Newcastle were significantly more likely to spontaneously name smoking, diet, drinking and genetics than respondents in the other geographical sub-samples, whilst those in Northumberland (18%) and North Tyneside (16%) were more likely to given a response of 'don't know'.



Respondents who smoke were just as likely to name each of the most common causes of cancer but interestingly, those who do not smoke were significantly more likely to identify smoking as a factor that may cause cancer (72%) than those who do (67%).



Base: All respondents - 1,445, Northumberland - 325, Newcastle - 832, North Tyneside - 288, UCL 2216



Almost one in four (23%) respondents named 'other' causes of cancer not specified within the CAM toolkit, and these are shown in Figure 6b.

NB - Caution is advised in the interpretation of this date due to the small bases sizes within the sub-areas.

As shown on the following page, by far the most common 'other' response given by the sample was 'lifestyle' with 47% giving this response. 'Chance/luck' was given by 16% of the sample and 'environment' was mentioned by 14%. This is interesting as to some extent, this mirrors the list of factors contributing to cancer, as assessed at Q11 and discussed in Section 6.7.

'Other' causes of cancer given by the sample included: abusing your body, society in general, depression, general attitude, pushing yourself too hard, lack of dental hygiene, and germs in the body that build up and cause cancer.



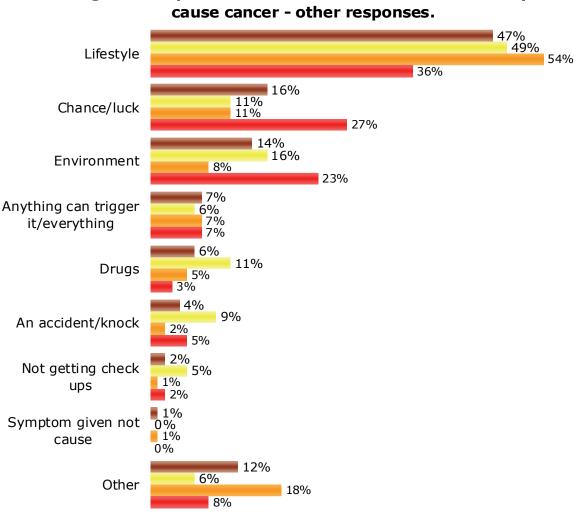


Figure 6b: Spontaneous awareness of factors that may cause cancer - other responses.

Q6. What things do you think affect a person's chances of getting cancer?

Base: Respondents who gave 'other' responses - 334, Northumberland - 82, Newcastle - 152, North

Tyneside - 100

WARNING LOW BASE SIZES

Newcastle

Northumberland

The next question in the survey used a prompted format to assess awareness of factors which may increase the chances of getting cancer. Respondents were asked the following: 'Medical scientists suggest that these are some of the things that can increase the chances of getting cancer. How much do you agree that each of the following can increase the chances of getting cancer?' Figure 7 on the following page, shows the percentage of 'agree' and 'strongly agree' responses only.

Respondents were most likely to agree that the following factors could cause cancer: smoking any cigarettes at all (94% agreement), exposure to another person's cigarette smoke (87% agreement) and having a close relative with cancer (75% agreement).



All data

Northumberland

There were low levels of agreement for each of the following: eating red or processed meat once a day or more (21%), eating less than 5 portions of fruit and vegetables a day (23%), being over 70 years of age (33%) and drinking more than 1 unit of alcohol a day (36%).

Under one half (41%) of the sample agreed that infection with human papillomavirus (HPV) could cause cancer and a notable proportion (56%) gave the response 'not sure'. As HPV infection can lead to cervical cancer it is unsurprising that female respondents (43%) were significantly more likely to agree that HPV can be a cause of cancer than males (38%).

In many cases prompted awareness is notably higher than observed within the UCL data and this is further illustrated by the fact that the mean number of risk factors recognised in the UCL data set was only 4.9 compared to 5.5 in the North of Tyne sample.

Respondents in Newcastle were generally more likely to agree that each of the causes listed could be a sign of cancer, whilst those in Northumberland were more likely to give the response 'not sure'.

Younger respondents (aged 18-24 years) and those who do not smoke were more likely to agree that smoking cigarettes or exposure to another persons' cigarette smoke could increase the chances of getting cancer.

There was a strong relationship again between those with personal experience of cancer and agreement that each cause listed could increase the chance of getting cancer. Those respondents who had no personal experience of cancer were significantly less likely to agree that each cause listed could affect an individual's chances of getting cancer.



94% 90[°]% 97[°]% Smoking any cigarettes at all 94% 85% 87% 78% Exposure to another person's cigarette 94% smoke 75% 76% Drinking more than 1 unit of alcohol a 40% day 28% 25% 23% 23% Eating less than 5 portions of fruit and 25% vegetables a day 19% 26% 21% 24% Eating red or processed meat once a day 22% or more 57% Being overweight (BMI over 25) 67% 49% 44% 60% Getting sunburnt more than once as a 33% child 59% 33% Being over 70 years of age 37% 36% 75% 58% Having a close relative with cancer 78% 84% 61%

Figure 7: Prompted awareness of factors which may increase the chances of getting cancer.



Newcastle

Infection with HPV

Doing less than 30 mins of moderate

physical activity 5 times a week

Northumberland

Base: All respondents - 1,445, Northumberland - 325, Newcastle - 832, North Tyneside - 288, UCL - 2216



■ All data

41%

41% 32%

47%

49%

■ North Tyneside

32%

31%

21%

UCL

6.4. The Number of People who Develop Cancer

Respondents were shown a picture of 100 people and were asked how many people out of this 100 they thought would develop cancer at some point in their lives. Responses are shown in Figure 8a.

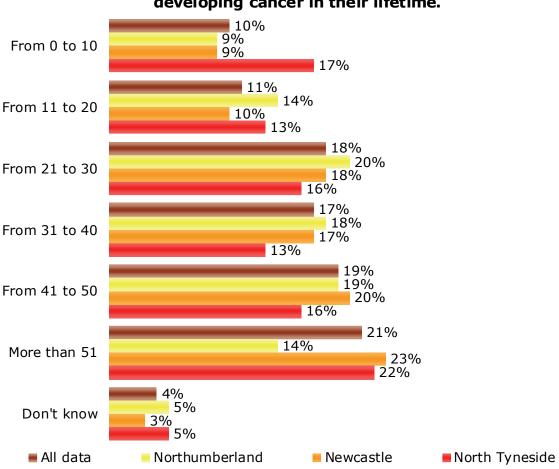


Figure 8a: Expectation of the number of people developing cancer in their lifetime.

Q8. Out of 100 people how many do you think will develop cancer at some point in their life?

Base: All respondents - 1,445, Northumberland - 325, Newcastle - 832, North Tyneside - 288

Around one in three people develop cancer in their lifetime. Just under one in five (17%) respondents thought that between 31 and 40 people would develop cancer at some point in their lives and were thus correct in this regard.

A roughly equal percentage of respondents estimate lower and higher with 39% suggesting that less than 31 people out of 100 and 40% suggesting more than 40 people out of 100 would develop cancer. This is reflected in the mean score of 39.1 people.



Female respondents tended to estimate a higher number of people who develop cancer in their lives (mean score = 43) than males (mean score = 33.8).

Younger respondents were more likely to estimate that 0 to 10 people develop cancer (16% of 18 to 24 year olds), whilst older respondents (those aged 65 years and above) were more likely to estimate higher.

The general correlation between those with personal experience of cancer and awareness of signs, symptoms and causes was again reinforced, with these respondents more likely to identify that between 31 and 40 people would develop cancer in their lives, than those who had no personal experience of cancer.



Respondents were then asked at what age they think people are most likely to develop cancer. Responses are shown in Figure 8b.

Figure 8b: Expectation of the age people develop cancer. Under 20 20-39 years 18% 13% 18% 40-59 years 60-79 years 80 years plus At any age 56% Don't know ■ All data Northumberland Newcastle ■ North Tyneside

Q8b. At what age do you think people are most likely to develop cancer?

Base: All respondents - 1,445, Northumberland - 325, Newcastle - 832, North Tyneside - 288

The risk of developing cancer is closely related to increasing age and therefore people are most likely to develop cancer at 80 years old and above. Only 4 respondents (0%) correctly identified that people are most likely to develop cancer at 80 years old and above, which shows a distinct lack of awareness.

The majority of respondents (64%) suggested that people are most likely to develop cancer 'at any age' and this response was given regardless of personal experience of cancer. This response indicates that many respondents do not connect the development of cancer with the increase of age and reflects the responses given at Q7viii where only 33% agreed that being over 70 years old could increase a person's chances of getting cancer.

Male respondents were significantly more likely to suggest an age of between 40-79 years (34%) compared to women (24%), whereas women were more likely to select 'at any age' (71%).



6.5. Awareness of Different Types of Cancer

Respondents were asked what they thought were the first, second and third most common cancers in both men and women. The data for the whole sample is shown in Figures 9 (women) and 10 (men) and further information, breaking this data down by NHS area, can also be seen in Figures 21a-f in Appendix 8.3.

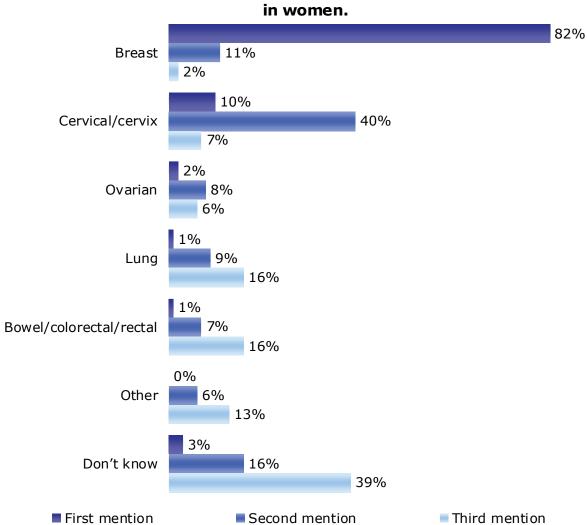


Figure 9: First, second and third most common cancers in women.

Q9iv-vi. What is the first/second/third most common cancer in men?Base: All respondents - 1,445, Northumberland - 325, Newcastle - 832, North Tyneside - 288

According to Cancer Research UK the three most common cancers in women are in descending order – breast, lung and colorectal, while the three most common in men are prostate, lung and colorectal⁸, although there are regional variations.

⁸ http://info.cancerresearchuk.org/cancerstats/incidence/commoncancers/



NHS North of Tyne - Cancer Awareness in Deprived Areas Research Report © Public Knowledge Respondents correctly named breast cancer as the most common cancer in women with almost all respondents (95%) mentioning this at either the first, second or third mention, the majority (82%) at the first mention.

Cervical cancer was named as the second most common cancer in women, with 57% of respondents mentioning this at either the first, second or third mention. Although a high proportion of respondents think cervical cancer is one of the most common cancers in women, cervical cancer actually affects a relatively small proportion of women in relation to other types of cancer.

Only 26% named the second most common cancer in women, lung cancer, and only 24% named third most common cancer, colorectal cancer.

Female respondents were significantly more likely to say cervical cancer at the combined first, second and third mentions (68%) than males (46%). However, white respondents were no more likely to be able to name all of the most commonly perceived cancers in women than BME respondents.



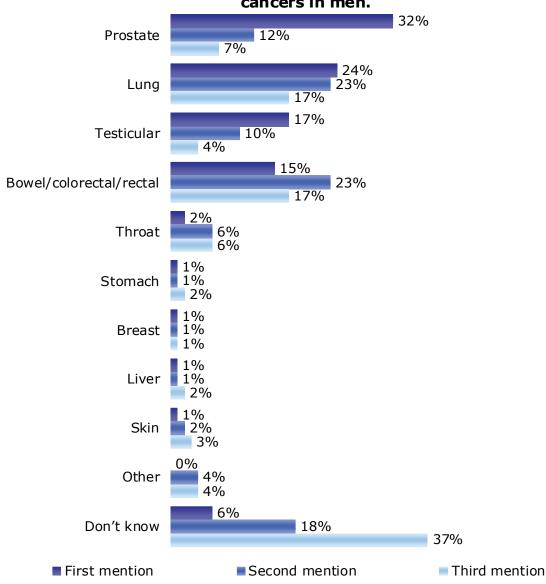


Figure 10: First, second and third most common cancers in men.

Q9iv-vi. What is the first/second/third most common cancer in men?Base: All respondents - 1,445, Northumberland - 325, Newcastle - 832, North Tyneside - 288

Based on the first mention only, respondents were most likely to think that prostate cancer is the most common cancer in men, with 32% recall. However, when considering the combined first, second and third mentions lung cancer was rated the most common cancer in men (64%). Testicular (31%) and bowel/colorectal (55%) cancer were also mentioned by a high proportion of the sample.

Females were more likely to identify prostate cancer as the most common type of cancer amongst men (57% combined mention for females compared to 45% combined mention for males), however males were more likely to identify lung cancer than women.



In contrast to that observed within the most common cancers in women, white respondents were more likely to be able name each of the most commonly recalled cancers in men than were their non-white counterparts.

It is interesting that respondents are much more likely to think that males will contract both lung cancer (64%) and bowel/colorectal cancer (55%) than females (26% for lung cancer and just 24% for colorectal cancer), when these are in fact some of the most common cancers in both males and females in the UK.

As testicular cancer is more likely to affect younger men, while prostate cancer is more likely to affect older men, the relationship between age and awareness of different types of cancer in men is important. Tables 9a and 9b below show the variation according to age and spontaneous awareness of both testicular and prostate cancer within men only.

Tables 9a: Age and awareness of prostate cancer in males.

Prostate cancer	Age						
	18-24	18-24 25-34 35-44 45-54 55-64 65					
	years	years	years	years	years	plus	
First mention							
	17%	18%	31%	21%	24%	35%	
Combined first/							
second/third mention	31%	38%	50%	47%	39%	59%	

Tables 9b: Age and awareness of testicular cancer in males.

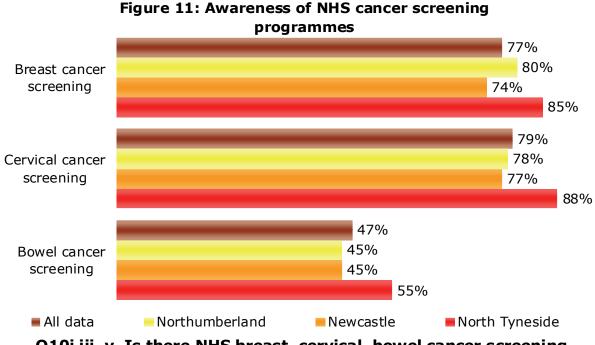
Testicular cancer	Age						
	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65 years plus	
First mention	19%	25%	12%	21%	17%	9%	
Combined first/ second/third mention	28%	39%	30%	38%	38%	22%	

As can be seen in the Table 9a, there does appear to be some association between age and awareness of prostate cancer in men, which is encouraging. Older respondents are more likely to mention prostate cancer at the first and combined mentions. However, an association between age and awareness of testicular cancer in men is not as apparent. Whilst younger respondents aged 25-34 years are more likely to mention testicular cancer at the first and combined mention, those aged 18-24 years are not, revealing some lack of awareness amongst this group. Overall, awareness of prostate cancer is generally higher amongst both younger and older respondents than awareness of testicular cancer.



6.6. Awareness of NHS Cancer Screening Programmes

This section of the survey questioned respondents about their awareness of the NHS screening programmes for breast, cervical and bowel cancer and the percentage of respondents who were aware of each is shown in Figure 11 below.



Q10i,iii, v. Is there NHS breast, cervical, bowel cancer screening

programme? Base: All respondents - 1445, Northumberland - 325, Newcastle - 832, North Tyneside - 288

Respondents were significantly more likely to be aware of both the NHS breast cancer (77% awareness) and cervical cancer (79% awareness) screening programmes than they were of the NHS bowel cancer (47% awareness) screening programme. Lower levels of awareness for the NHS bowel cancer screening programme are to be expected, as this programme has been operating for considerably less time than breast and cervical cancer screening.

In all cases there were higher levels of awareness in North Tyneside (85% versus 77% awareness of breast cancer screening, 88% versus 79% awareness of cervical cancer screening and 55% versus 47% awareness of bowel cancer screening). Furthermore, high levels of 'don't know' responses were recorded in the Newcastle sub-sample.

As would be expected, female respondents were significantly more likely to be aware of the NHS breast and cervical cancer screening programmes than men, but female respondents were also more likely to be aware of the bowel cancer screening programme (Table 9a).



A significant difference also exists in relation to ethnicity and awareness, with white respondents more likely to be aware of each screening programme than BME respondents (Table 10a).

<u>Table 10a: Gender, ethnicity and awareness of the NHS cancer screening programmes.</u>

NHS Screening Programme Awareness	Males	Females	White	ВМЕ
Breast cancer	67%	87%	79%	55%
Cervical cancer	66%	91%	81%	54%
Bowel cancer	43%	51%	48%	35%

As shown in Table 10b, regardless of gender, older respondents were generally more likely to be aware of each of the NHS cancer screening programmes. This is with the exception of awareness of the cervical cancer screening programme, which is consistently high in females of all ages (although slightly lower at 18-24 years). This result is unsurprising given the younger age of first screening.

<u>Table 10b: Age and awareness of the NHS breast, cervical and bowel cancer screening programmes.</u>

NHS Screening Programme Awareness	Age of Respondent							
	18-24	25-34	35-44	45-54	55-64	65		
	years	years	years	years	years	years plus		
Breast cancer (males)	43%	73%	67%	69%	78%	76%		
Breast cancer (females)	66%	83%	85%	94%	100%	91%		
Cervical cancer (males)	44%	77%	66%	66%	74%	71%		
Cervical cancer (females)	74%	94%	96%	98%	97%	89%		
Bowel cancer (males)	17%	39%	35%	35%	58%	73%		
Bowel cancer (females)	28%	43%	34%	46%	74%	74%		

Awareness of the three cancer screening programmes amongst the specific groups they target is particularly important. Women aged 50 years and above are invited to attend breast cancer screening. Of this target group, 95% are aware of the breast cancer screening programme. Cervical cancer screening is targeted at women aged between 25 and 64 years. 96% of this target group are aware of the cervical screening programme. Finally, both men



and women are invited to complete a bowel cancer screening kit from the age of 60. A slightly lower percentage of the targeted group are aware of bowel cancer screening (76%) which suggests further marketing is needed to raise awareness.

As with identification of signs and symptoms of cancer, respondents who had a personal experience of cancer were also significantly more likely to be aware of each of the NHS cancer screening programmes.

Respondents who were aware of each of the NHS cancer screening programmes were then asked at what age they thought people were screened, using an open response format. The coded responses are shown in Figures 12-14 on the following pages.

17% 15% 44 years or under 19% 15% 1% 1% 45 - 49 years 1% 1% 46% 50 - 54 years 43% 37% 2% 2% 55 - 59 years 2% 1% 3% 2% 60 years or more 4% 2% 34% 34% Don't know 31% 44% All data Northumberland Newcastle ■ North Tyneside

Figure 12: Awareness of the age of invitation for NHS breast cancer screening.

Q10ii. At what age do you think women are first invited for breast cancer screening?

Base: Respondents who were aware of NHS screening programme - 1119, Northumberland - 261, Newcastle - 612, North Tyneside - 246

Women are typically invited to attend breast cancer screening between 50-53 years of age, however only 42% of the total sample correctly attributed the age of invitation for breast cancer screening.



Another 18% of the sample thought women are first invited to attend breast cancer screening before the age of 50, 17% gave an age of first invitation of before 44 years and the mean score of 43.4 years reflects this. A third of the sample (34%) also said they didn't know when the first age of invitation is. These respondents were more likely to be from North Tyneside, aged between 18-24 years and/or male.

As would be expected, women (59%) were significantly more likely to correctly attribute the age of invitation for breast cancer screening than males (20%) and Table 11 shows the relationship between age and correct attribution of the age of invitation for breast cancer screening in female respondents only.

<u>Table 11: Age and correct attribution of the age of invitation for breast cancer screening in females.</u>

Age of invitation for breast cancer	Age of Respondent							
screening	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65 years plus		
50-54 years of age	29%	57%	59%	74%	71%	54%		

Women in the target age range were significantly more likely to correctly attribute the age of first invitation for breast cancer screening, whilst younger women were significantly less likely to do so.

5% 19 years or under 10% 10% 15% 11% 20 to 24 years 16% 15% 34% 33% 25 to 29 years 37% 30% 4% 4% 30 to 34 years 5% 4% 5% 6% 35 years or more 5% 4% 33% 42% Don't know 27% 37% ■ All data Northumberland Newcastle ■ North Tyneside

Figure 13: Awareness of the age of invitation for NHS cervical cancer screening.

Q10iv. At what age do you think people are first invited for bowel cancer screening?

Base: Respondents who were aware of NHS screening programme - 1144, Northumberland - 254, Newcastle - 638, North Tyneside - 252

Women are currently invited to attend cervical cancer screening between 25 and 29 years of age, however until relatively recently women were invited to attend from the age of around 20 years.

As such, 34% of the sample correctly attributed the age of first invitation for cervical cancer screening. An additional 15% opted for the slightly lower 20-24 year age band and the mean score of 23.7 years reflects this correct attribution.

As would be expected, females were significantly more likely to correctly attribute the age of cervical cancer screening (64% said 20-29 years) than males (29%). Males (53%) were also significantly more likely to give a 'don't know' response, as were older respondents (53% of those aged 65 and above).



Table 12 shows the relationship between age and invitation for cervical cancer screening amongst female respondents only.

<u>Table 12: Age and correct attribution of the age of invitation for cervical cancer screening in females.</u>

Age of invitation for cervical cancer	Age of Respondent							
screening	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65 years plus		
19 years or younger	7%	8%	19%	11%	5%	3%		
20-24 years	14%	25%	21%	18%	16%	12%		
25-29 years	63%	57%	44%	46%	45%	26%		

As shown above, 18-24 and 25-34 year old females were most likely to correctly attribute the age of screening for cervical cancer, with more than half of each age group correctly attributing age of initial invitation. This result is likely due to their being recently asked to attend screening.

11% 12% 49 years or under 10% 11% 9% 12% 50 to 54 years 8% 7% 0% 1% 55 to 59 years 0% 1% 34% 28% 60 to 64 years 33% 40% 2% 2% 65 years or more 2% 0% 45% 45% Don't know 46% ■ All data Northumberland Newcastle ■ North Tyneside

Figure 14: Awareness of the age of invitation for NHS bowel cancer screening.

Q10iv. At what age do you think people are first invited for bowel cancer screening?

Base: Respondents who were aware of NHS screening programme - 683, Northumberland - 147, Newcastle - 377, North Tyneside - 159

Men and women are first invited for NHS bowel cancer screening between 60 and 69 years of age. As such, 36% of the sample correctly attributed the age of invitation, with a majority (34%) giving an answer between 60-64 years.

However, 20% of the sample misattributed the first age of invitation as below 60 years of age. The mean score of 52.2 years reflects this misattribution and suggests there is still some lack of awareness as to age of initial invitation to attend bowel cancer screening. Correct attribution was lowest in Northumberland, with only 30% of respondents indentifying 60-69 years of age as the age of initial invitation.

There was a direct relationship between respondent age and correct attribution of the age of invitation for bowel cancer screening as can be observed in Table 13 below.



Table 13: Age and attribution of the age of invitation for bowel cancer screening.

Age of invitation for	Age of respondent								
bowel cancer screening	18-24 years	25-34 years							
60-64 years	8%	18%	22%	24%	54%	43%			
65-69 years	0%	0%	0%	0%	1%	5%			

Respondents aged 55-64 years (55%) and 65 years plus (48%) were more likely to correctly attribute the age of NHS bowel cancer screening. White respondents were also significantly more like to correctly identify the first age of invitation than BME respondents.

A high percentage of respondents (45%) gave a 'don't know' response to this question, with the majority of these responses coming from younger respondents, especially those aged under 34 years.

6.7. Factors Contributing to Cancer Incidence

Respondents were next asked to put 5 factors in order of how much they think they contribute to cancer in the UK, with 1 being the most important and 5 being the least important. These factors were: Chance, Ageing, Environmental factors (e.g. pollution, radiation), Genetic inheritance (e.g. runs in the family) and Lifestyle (e.g. smoking, diet, physical activity). The data for the whole sample is shown in Figure 15a, mean scores are presented in Figure 15b and further information, breaking this data down by NHS area, can also be seen in the Appendices in Section 8.4.

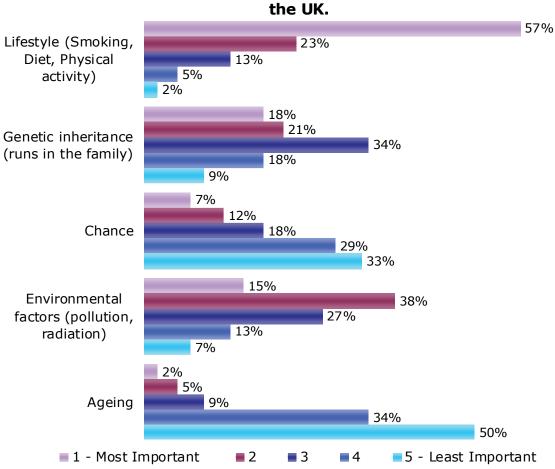


Figure 15a: Factors contributing to cancer incidence in

Q11. Please put the following things in order of how much you think they contribute to cancer in the UK?

Base: All respondents - 1445



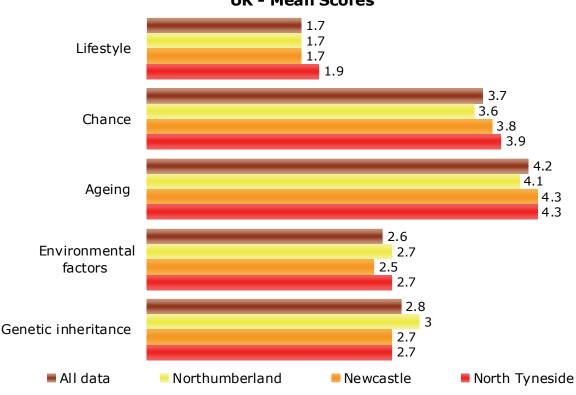


Figure 15b: Factors contributing to cancer incidence in the UK - Mean Scores

Q11. Please put the following things in order of how much you think they contribute to cancer in the UK?

Base: All respondents - 1445, Northumberland - 325, Newcastle - 832, North Tyneside - 288

Overall, lifestyle was considered to be the most important factor, with 57% of the sample selecting this as the factor which contributes the most, in addition to the lowest mean score of 1.7 (with 1 being the most important factor).

This was followed by genetic inheritance, with 18% of the sample selecting this as the most important factor and a mean score of 2.8. Environmental factors came in at third place, and finally, chance and aging were fourth and fifth as the least important factors, with a mean score of 3.7 for chance and 4.2 for ageing.

Respondents aged 25-34 years were significantly more likely to select lifestyle as the most important factor contributing to development of cancer in the UK as were BME respondents.

Respondents who have some personal experience of cancer appear to be more likely to attribute greater importance to the influence of genetics with 23% of those who have personally suffered from cancer rating this as the most important factor and 21% of those with a partner, close friend or close family member who has suffered from cancer.



6.8. Personal Experience of Cancer and Screening

The final section of the main body of the survey asked respondents about their personal experiences of cancer (Figure 16) and whether or not they have undergone screening for breast, cervical and bowel cancer (Figures 17-19).

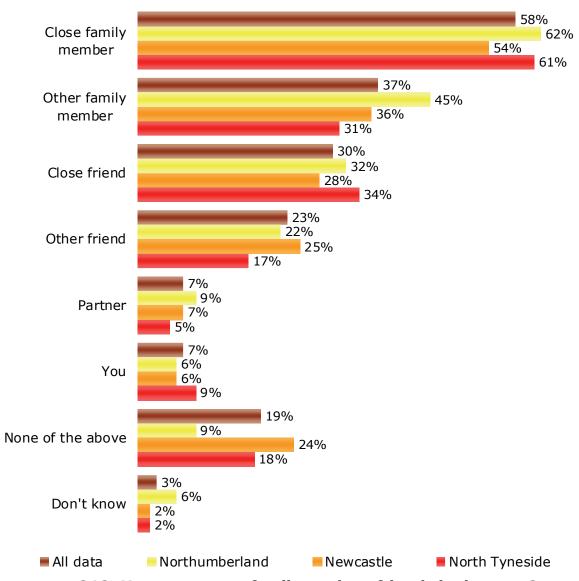


Figure 16: Experience of Cancer amongst respondents

Q12. Have you, your family or close friends had cancer?

Base: All respondents - 1,445, Northumberland - 325, Newcastle - 832, North Tyneside - 288

Most respondents have some experience of cancer; 58% report that a 'close' family member has suffered from cancer, 37% an 'other' family member and 30% a 'close' friend.

A small proportion (7%) of respondents have themselves suffered from cancer and, as would be expected, this is significantly higher amongst those aged 65 years and above (15%).



Almost two in ten respondents (19%) gave the answer 'none of the above'. As would be expected, the youngest age band (34% of 18-24 years) were significantly more likely to give this response, while older respondents were more likely to have personal experience of cancer.

Respondents in Newcastle were significantly more likely to say 'none of the above' (24%). These lower levels of personal experience may be explained by the younger age range interviewed in this sub-sample. Respondents in Northumberland were significantly more likely to report that an 'other' family member (45%) has suffered from cancer, which may be explained by the slightly older age range of the respondents interviewed in this area.

Females are more likely than males to say that a 'close' (65% vs. 49%), or 'other' family member (42% vs. 31%) have suffered from cancer. This is likely to be attributed to the fact that females tend to be more social than males. Males are more likely to say 'none of the above' (23%) when compared to females (16%).

Female respondents aged 50 years and over were asked if they had ever received an invitation to breast cancer screening (mammogram) and responses are shown in Figure 17a.

85% 86% 83% 77% 18% 14% 12% 9% 6% 5% 5% 0% Yes No Don't know ■ All data Northumberland Newcastle ■ North Tyneside

Figure 17a: Breast cancer screening invitation amongst females aged 50 plus

Q13a. Have you ever recieved an invitation to breast cancer screening?

Base: All female respondents age 50 plus - 329, Northumberland - 96, Newcastle - 175, North

Tyneside - 58.

The majority (83%) of women aged 50 years and above have received an invitation to breast cancer screening (mammogram).



Invitation rates were slightly lower in Northumberland (77%) than in Newcastle (85%) and North Tyneside (86%) although the difference was not significant.

As might be expected, invitation rates were also significantly higher amongst women aged 54-65 year (94%) than those aged 50-53 (86%) and those aged 65 years and above (74%).

Women who said they had received an invitation were then asked if they had attended the screening (Figure 17b).

Figure 17b: Breast cancer screening uptake amongst females aged 50 plus

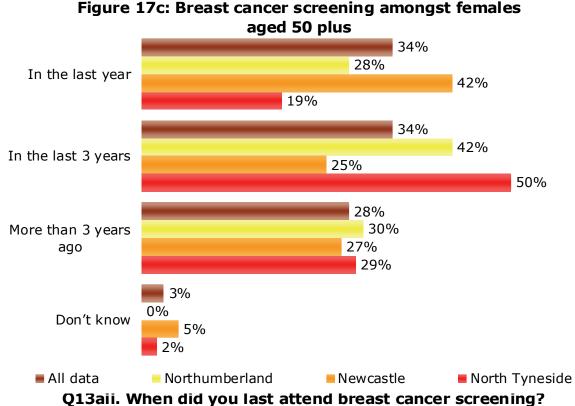
Q13ai. Have you ever attended breast cancer screening?

Base: All who said 'yes'at Q13a - 273, Northumberland - 74, Newcastle - 149, North Tyneside - 50.

As shown, there are high levels of uptake for breast cancer screening with 98% of those who received an invitation attending screening.

Women who had attended were also asked when they last attended (Figure 17c on the following page). One-third of women had attended in the last year (34%) and another third had attended between 1-3 years ago (34%), with the remainder attending more than three years ago (28%).





Base: All who said 'yes'at Q13ai - 268, Northumberland - 74, Newcastle - 146, North Tyneside - 48.

Respondents in Newcastle were significantly more likely to have attended in the last year (42%), while respondents in North Tyneside were significantly less likely to have done so (19%).

Finally, women who were invited but did not attend were asked why this was using an open question. As only 5 respondents gave an answer to this question responses have not been graphed and instead the verbatim comments received are given below.

'My father died and the funeral was on that day.'

'I'll be 90 in January.'

'Just not interested.'

'Too frightened to go.'

'Too painful.'



In the next question, female respondents aged 25-64 years old were asked if they had ever attended cervical cancer screening (Figure 18a).

88% 91% 89%

10% 16% 8% 10%

Yes No Don't know

All data Northumberland Newcastle North Tyneside

O13h Have you ever received an invitation to cervical cancer

Figure 18a: Cervical cancer screening invitation amongst females aged 25 to 64

Q13b. Have you ever received an invitation to cervical cancer screening?

Base: All female respondents age 25 to 64 - 486, Northumberland - 121, Newcastle - 267, North

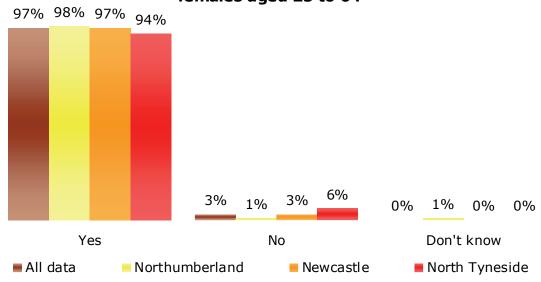
Tyneside - 98.

Overall, 88% of females aged between 25-64 years recall receiving an invitation to attend cervical cancer screening and this is significantly higher in Newcastle (91%) and amongst women aged 45-54 years (94%).

Women who said they were invited were also asked if they had attended (Figure 18b on the following page) and as shown, the vast majority of women who have received an invitation to cervical cancer screening have attended (97%).



Figure 18b: Cervical cancer screening uptake amongst females aged 25 to 64

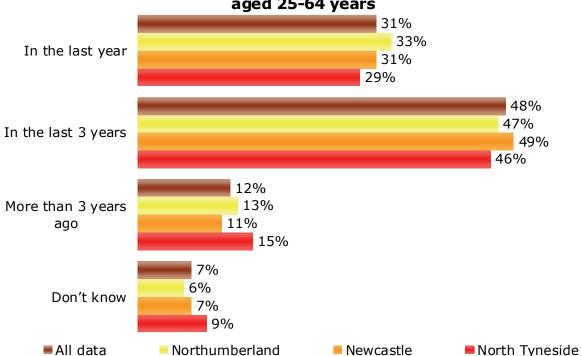


Q13bi. Have you ever attended cervical cancer screening?

Base: If yes at Q13b - 429, Northumberland - 99, Newcastle - 243, North Tyneside - 87.

Women were also asked when they had last attended cervical cancer screening (Figure 18c).

Figure 18c: Cervical cancer screening amongst females aged 25-64 years



Q13bii. When did you last attend cervical cancer screening?

Base: All who said 'yes'at Q13ai - 414, Northumberland - 97, Newcastle - 235, North Tyneside - 82.



The majority of women have attended within the last 3 years (79%), only 12% say they attended more than 3 years ago and the remaining 7% gave the answer 'don't know'.

As with breast cancer, women who recalled receiving an invitation but who did not attend were asked why this was. Of the 14 respondents who were asked this question, the most common responses was that they'd had a hysterectomy (n = 4). Some of the other verbatim comments received are given below.

'I was scared in case something was found.'

'Just not interested.'

'I've moved and I think my records may have been lost.'

'It hurts. I had a bad experience previously.'

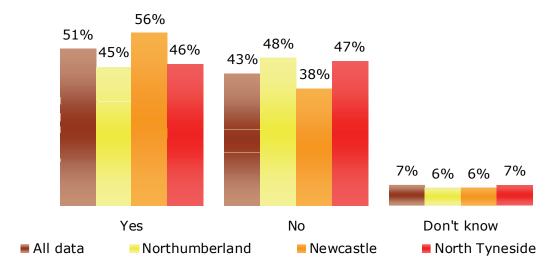
'I've just made an appointment for January.'

'My doctor said it was not necessary.'

Finally, both males and females aged 60 years and over were asked if they had ever attended bowel cancer screening (Figure 19a).



Figure 19a: Bowel cancer screening invitation amongst respondents aged 60 years plus



Q13c. Have you ever received an bowel cancer screening kit?

Base: All respondents aged 60 years and above - 397, Northumberland - 108, Newcastle - 208,

North Tyneside - 81.

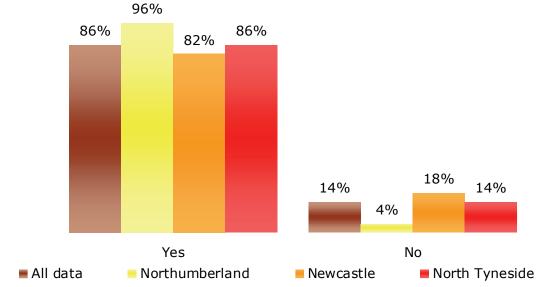
Just over one-half (51%) of respondents in the target age range recall receiving an invitation to bowel cancer s screening and this was significantly higher in Newcastle (56%).

Respondents aged 60-64 years (64%) were significantly more likely to have received an invitation then were older respondents.



As with breast and cervical, those who have received an invitation were also asked if they had attended (Figure 19b).

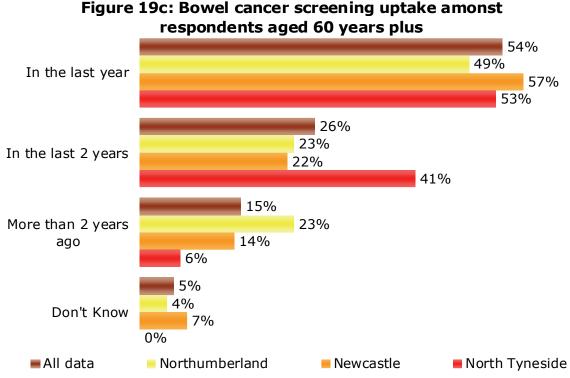
Figure 19b: Bowel cancer screening uptake amongst respondents aged 60 years plus



Q13ci. Have you ever completed an bowel cancer screening kit? Base: If yes at Q14 - 202, Northumberland - 49, Newcastle - 116, North Tyneside - 37.

Overall, 86% of respondents who recalled receiving an invitation have completed the kit. Uptake was highest amongst those in Northumberland (96%) and significantly lower amongst those in Newcastle (82%).

Figure 19c shows the responses when those who have completed a bowel cancer screening kit where asked when they last did so.



Q13cii. When did you last complete a bowel cancer screening kit?Base: All who said 'yes'at Q14ai - 174, Northumberland - 47, Newcastle - 95, North Tyneside - 32.

Just over one-half (54%) of respondents said they had completed the kit within the last year and a further quarter (26%) had completed between one and two years ago.

Those who were invited to complete a kit but did not do so were asked why this was. In total this accounted for 28 respondents and the most common response was simply that they did not wish to (n = 6) or hadn't had time (n = 5). Some of the verbatim comments received are given below:

'I don't like the idea of doing it.'

'I had the test done when I was in hospital.'

'I couldn't be bothered.'

'I forgot.'



```
'No real reason. I just haven't.'

'I threw it away. I don't need it. There's nothing wrong.'

'I didn't know what to do.'

'I wasn't well at the time.'

'It wasn't convenient.'

'I didn't do it. It would make me feel sick.'

'I have only just received it.'

'I was too frightened about what it might say.'
```

Finally, as might be expected there is a strong association between uptake of all 3 screening programmes (where applicable) e.g. women who attend bowel cancer screening are significantly more likely to also attend breast cancer screening.

6.9. Communications

In order to help NHS North of Tyne tailor communication material to reach people of different demographics, all respondents were asked how they would like to be kept up to date with information about the NHS and the services offered (Figure 20 on the following page).

As shown, the most popular means of communication selected was doctor's waiting rooms (41%), closely followed by TV (36%) and leaflets or flyers (32%).

A small proportion of respondents (1% n = 10) gave 'other' responses and were therefore asked to specify. The most common response was contact by post (n = 6) or magazines (n = 2).

Amongst the three most popular forms of communication, respondents in Newcastle were more likely to prefer communication via the doctors' waiting rooms (46%), while respondents in North Tyneside indicated a preference for leaflets or flyers (51%). Respondents in Northumberland prefer TV communications (54%) and leaflets/flyers (40%) rather than doctor's waiting rooms (25%).

Communication via doctor's waiting rooms was popular with all age groups except the 18 to 24 age group, males in particular. These respondents would prefer to be contacted by other methods such as the internet and email. Respondents aged 55 to 64, especially females, are more likely to prefer to be contacted via the doctors' waiting room.



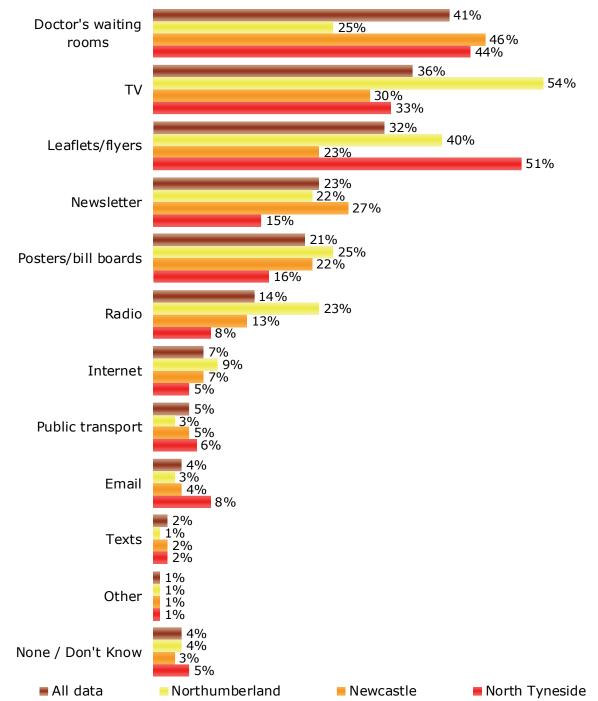


Figure 20: Communication Preferences.

Q14. How would you prefer to be kept up to date with information about the NHS and the services offered?

Base: All respondents - 1,445, Northumberland - 325, Newcastle - 832, North Tyneside - 288



6.10. Segmentation Analysis

'Cluster' or 'segmentation' analysis allows the identification of homogeneous cluster groups according to patterns within the responses obtained. This is useful for subsequent analysis and for targeting specific groups of people in the future, for example via marketing or communications.

Because of the number of variables within the dataset and the presence of data in different formats (e.g. scaled, numerical, binary) the data were converted and condensed into numerical format for key questions.

These key questions are summarised below:

- The number of CAM specified signs and symptoms of cancer spontaneously recalled
- The number of signs and symptoms that the respondent agrees can be a sign of cancer when prompted
- The number of signs and symptoms where respondents indicate they would contact a doctor within a week
- The number of times respondents agree that one of the reasons listed might put them off visiting a doctor
- The number of CAM specified causes of cancer spontaneously recalled
- The number of causes that the respondent agrees can be a cause of cancer when prompted
- The number of times the respondent correctly mentions one of the three most common cancers in women (breast, lung, bowel/colorectal)
- The number of times the respondent correctly mentions one of the three most common cancers in men (prostate, lung, bowel/colorectal)
- The number of NHS cancer screening programmes the respondent is aware of (breast, cervical, bowel)

Demographic questions were naturally excluded as inclusion results in demographic clustering rendering the data meaningless.

Because the data are not scaled consistently, with scales varying from 0-3 in some cases (e.g. awareness of the most common types of cancer and NHS cancer screening programmes) to 0-11 in others (e.g. the maximum number of CAM specified symptoms that



can be recalled spontaneously), the data were first converted to Z scores; a process of normalisation or standardisation of data prior to clustering.

The analysis was then conducted using the two step cluster approach in SPSS. This revealed a best fit based on 3 cluster groups and in order to further assess the accuracy of this grouping, confirmatory discriminant analysis was conducted. This showed that overall the cluster groups are correctly allocated in 92.7% of cases, which is considered statistically valid, and the highest levels of correct allocation are observed for cluster 2 (99.2%; compared to 87.6% for cluster 1 and 90.6% for cluster 3).

Table 1 summarises the mean scores for each of the key questions used within this analysis which have been used to define the characteristics of each cluster.

Table 1: Mean scores for the key questions according to cluster allocation.

		Cluster Group	
Key variable	1	2	3
CAM symptoms spontaneously recalled	0.62	1.51	2.11
Prompted symptoms agreed to be a sign/symptom	4.21	7.58	6.82
Symptoms initiating contact within a week	4.39	9.17	3.17
Reasons to put off visiting a doctor	1.01	0.28	2.05
CAM risks spontaneously recalled	1.07	1.22	2.1
Occasions respondent agrees factor can be a risk	4.27	5.43	6.7
Cancer in women (correct attribution)	1.08	1.56	1.67
Cancer in men (correct attribution)	1.11	1.91	1.97
Awareness of breast/bowel/cervical cancer screening	1.34	2.46	2.24

The characteristics of the cluster groups and the demographic profile of each is summarised below:

Cluster One – Unaware (30.8% of the sample)

Cluster group one is primarily characterised by the lowest levels of awareness of both the symptoms and causes of cancer both spontaneously and when prompted. Respondents in this group are least likely to correctly name the most common cancers in men and women and



are least likely to be aware of the cancer screening programmes. They also display a tendency not to contact a doctor quickly to discuss symptoms and are somewhat likely to put off initiating contact. Cluster group one are also most likely to have no personal experience of cancer (30%) and they are significantly more likely to underestimate the age at which people develop cancer.

Cluster group one are significantly more likely to be 18-24 years old (32%), to be male (60%) and to live in Newcastle (62%). They are significantly more likely to be from BME communities (14%), to be single (46%) and to be classified as socioeconomic group E (51%) according to the higher income earner in the household. They also significantly more likely to be unemployed (35%), living with family/friends (13%), not to own a car/van (35%) and to smoke cigarettes (46%).

This group are significantly more likely to express interest in being contacted by the NHS via the internet (10%), public transport (7%) or email (7%) than the other cluster group although they express the most interest in doctor's waiting rooms (39%) and the TV (35%).

Cluster Two – Medically Keen (34.5% of the sample)

This group show fair levels of awareness of the symptoms and causes of cancer spontaneously and when prompted. However, the defining feature of this group is that they say they would initiate contact with a doctor to discuss almost all symptoms within a week, are highly unlikely to say that any of the reasons listed would put them off contacting a doctor and show the highest levels of awareness of the cancer screening programmes.

Cluster group 2 are significantly more likely to be aged 55-64 (21%) or 65 years and above (27%), to be female (65%) and to live in either Northumberland (28%) or North Tyneside (29%). They are significantly more likely to be White (97%) and to be either married (54%) or widowed (11%). They are also significantly more likely to own their own home outright (24%), to describe themselves as retired (33%) or full time home makers (12%) and to have no formal qualifications (52%) – each of which is likely to be related to age.

As might be expected, cluster group two are more interested in being kept up to date with information from the NHS using more traditional means of communication such as doctors waiting rooms (42%), TV (38%) and leaflets/flyers (35%) and they are significantly less likely to be interested in communication via the internet, newsletter, email or public transport.



Cluster Three – Aware Avoiders (34.7% of the sample)

The third cluster group show the highest levels of awareness of the symptoms and causes of cancer spontaneously and high levels when prompted. They also demonstrate good levels of awareness of the screening programmes and knowledge of the most common types of cancer. However, they are most likely to cite reasons to put off visiting a doctor and are less likely to contact a doctor within a week to discuss symptoms.

Cluster group 3 are significantly more likely to be aged between 35 and 44 years of age (20%) and they are equally as likely to be male (51%) as they are female (49). They are significantly more likely to have a degree or higher degree (7%), to be classified as AB according to the higher income earner in the household (7%) and to be employed full time (28%). They are also significantly less likely to smoke (65%) and are more likely to live in Newcastle (69%).

Cluster group three are significantly more interested in being kept up to date with information via newsletter (29%) than the other groups but they too are most interested in communication via doctor's waiting rooms (42%) and the TV (34%).

7. Conclusions and Recommendations

Overall, awareness levels are generally lower than observed within the UCL study and the data reveals a number of areas where attention should be focused in terms of raising cancer awareness within the most deprived areas served by NHS North Tyneside, NHS Northumberland and NHS Newcastle.

Almost a quarter of respondents (23%) were unable to name any signs and symptoms of cancer spontaneously and when prompted, a lack of concern was expressed with regard to some signs and symptoms, in particular 'a persistent cough or hoarseness', 'a sore which does not heal' and 'a persistent difficulty swallowing'. As such, improving awareness of these symptoms via targeted social marketing could be beneficial.

One-in-ten respondents (11%) were unable to name any causes of cancer spontaneously and this in contrast to signs and symptoms of cancer and there were also generally lower levels of agreement that eating red or processed meat once a day or more and eating less than 5 portions of fruit or vegetables could increase the chances of getting cancer. This suggests that improving awareness of the benefits of healthy living in general could be advantageous.

Knowledge of NHS cancer screening programmes could also be improved with increased education throughout the region. Currently a high proportion of people are either unaware of these programmes or do not know at what age people are invited for screening. Despite this it is positive that awareness of screening tends to be higher amongst the target groups and levels of screening uptake are positive amongst women, although material targeting men in reference to bowel cancer screening would also be beneficial.

Generally, younger respondents, males, those in BME groups and those in classified as E according to socio-economic status, tended to lack knowledge in terms of cancer awareness and it may be that these groups need to be targeted specifically.

Relationships within the three NHS area sub-sets appear to be heavily influenced by demographic profile of respondents, for example, respondents in Newcastle tend to have lower levels of awareness due to the higher proportion of younger males and BME groups.



8. Appendices

8.1. Final Questionnaire

P2436 - NHS North of Tyne - Cancer Awareness Researchfrom an independent research company and I'm conducting a survey about cancer awareness on behalf of NHS North of Tyne. This survey will only take around 12-15 minutes of your time and all information received is strictly confidential, and will be dealt with in accordance with the Market Research Society Code of Conduct. Would you be willing to take part? IF YES: Thank you, first of all we would like to ask you some questions about yourself. **Demographic Questions** D0. Firstly, do you live within <SELECT YOUR LOCATION>? CONTINUE IF RESPONDENT LIVES IN THIS AREA Northumberland Newcastle North Tyneside Walker ☐ Riverton Blyth ☐ Chirton Byker Ashington Seaton/Newbiggin Elswick ☐ Howden Benwell and Scotswood Kenton D1. What is your age? IF 17 OR YOUNGER = SCREEN OUT. QUOTA'S APPLY D2. INTERVIEWER PLEASE CODE GENDER? DO NOT ASK Female - QUOTAS APPLY D3. Which of these best describes your ethnic group? SHOW CARD AND QUOTA ON WHITE/BME OVERALL Mixed - QUOTA Asian or Asian British Black or Black White - QUOTA Chinese/other QUOTA British - QUOTA - QUOTA White British White and Black Indian Black Chinese Caribbean Caribbean П White Irish White and Black Pakistani Black African Other..... African П Any other White White and Asian Bangladeshi Any other Black background background Prefer not to Any other Mixed Any other Asian say background background D4. Which of the following best describes your living arrangement? SHOW CARD Own outright Own mortgage Rent from Local Rent privately Squatting Other (e.g. living Authority/Housing with Association family/friends) \Box D5. What is the main language spoken at home? English Sylheti Urdu Cantonese Punjabi Other Language - Please specify below:



Gujarati

1

D6. How many	years have you been li	ving in the UK?				
D7. What is yo	ur marital status? SHOV	V CARD				
Single/never married	Married/living with spouse	Married/separated from partner	Divorced	I	Widowed	Civil partnership
D8. What is th	e highest level of educa	tional qualification yo	u have obta	ained?	SHOW CARD	
☐ Degr	ee or higher degree			O Leve	el or GCSE equivalent	(Grade A - C)
☐ High	er education qualification	below degree level		O Leve	el or GCSE (Grade D -	- G)
☐ A-lev	els or highers		I	No forr	nal qualifications	
□ ONC	/BTEC			Other o	qualification – Please :	specify below:
	please tell me the occup			in you	r household?	
П	Α			П	C2	
П	В			П	D	
	C1				E	
D10. Which of	the following best desc	ribes your working st	atus? SHOV	N CAR	RD.	
	Employed full-time				Full-time homemake	r
	Employed part-time				Retired	
	Unemployed				Student	
	Self-employed				Disabled or too ill to	work
D11. Does you	ır household own a car	or van?				
	No	Yes, or	ne		Yes, more	than one
]
D12. Do you cu	ırrently smoke (any ciga	arettes at all)?				
	Yes ☐ GO TO D1	2a No	☐ GO TO	IAM C	N QUESTIONS	
IF YES AT D12	2. D12a. Which of the fo	llowing best describe	s how many	/ cigar	ettes you smoke a d	ay? SHOW CARD
	0-5 a day				15-20 a day	
	5-10 a day				20-25 a day	
	10-15 a day				25 or more a day	



2

MAIN QUESTIONS - The following questions are about your awareness of cancer. This is not a test, we are interested in your thoughts and beliefs so please answer the questions as honestly as you can. All your answers are confidential. Please be aware that I am unable to answer questions during the interview, but there will be time to address any queries at the end. Please also be aware that I can not go back to a question that has already been asked.

INTERVIEWER *** REFERS TO POINT OF CLARIFICATION IN THE INSTRUCTION SCRIPT

The first set of questions is about warning signs of cancer.			
Q1. There are many warning signs and symptoms of cancer. Please name a INTERVIEWER PROBE – Is there anything else you can think of?	as many as y	ou can thir	ık of:
Q2. The following may or may not be warning signs for cancer. Please note opinion: DO NOT PROMPT	that we are	interested	in <u>your own</u>
	Yes	No	Don't know/ Not sure – DO NOT READ OUT
i. Do you think an unexplained lump or swelling could be a sign of cancer?			
ii. Do you think persistent unexplained pain could be a sign of cancer?			
iii. Do you think unexplained bleeding could be a sign of cancer?			
iv. Do you think a persistent cough or hoarseness could be a sign of cancer?			
v. Do you think a persistent change in bowel or bladder habits could be a sign of cancer? ***			
vi. Do you think persistent difficulty swallowing could be a sign of cancer?			
vii. Do you think a change in the appearance of a mole could be a sign of cancer?			
viii. Do you think a sore that does not heal could be a sign of cancer?			
xi. Do you think unexplained weight loss could be a sign of cancer?			



The next question is about help seeking Q3. If you noticed any of the following unexplained symptoms how soon would you contact your doctor to make an appointment to discuss it? SHOW CARD 1-3 4-6 2 1 6 3 6 12 Don't 1 Never know days days week weeks month weeks months months months DO NOT READ OUT i. An unexplained lump or swelling ii. An unexplained pain. П iii. An unexplained bleeding iv. A cough or hoarseness v. A change in bowel or bladder habits*** vi. Difficulty swallowing vii. A change in the appearance of a mole viii. A sore that did not heal ix. Unexplained weight loss The next question is about seeking help for a cancer sign or symptom Q4. If you had a symptom that you thought might be a sign of cancer how soon would you contact your doctor to make

an appointment to disc				J				,	,		
	1-3 days	4-6 days	1 week	2 weeks	1 month	6 weeks	3 months	6 months	12 months	Never	Don't know DO NOT READ OUT
A symptom that you thought might be a sign of cancer											

4



The next set of questions is about what barriers may stop you from seeking help

Q5. Sometimes people put off going to see the doctor, even when they have a symptom that they think might be serious. These are some of the reasons people give for delaying. Could you say if any of these might put you off going to the doctor? SHOW CARD						
	Yes often	Yes sometimes	No	Don't know – DO NOT READ OUT		
i. I would be too embarrassed						
ii. I would be too scared						
iii. I would be worried about wasting the doctor's time						
iv. My doctor would be difficult to talk to						
v. It would be difficult to make an appointment with my doctor						
vi. I would be too busy to make time to go to the doctor						
vii. I have too many other things to worry about						
viii. It would be difficult for me to arrange transport to the doctor's surgery						
ix. I would be worried about what the doctor might find						
x. I wouldn't feel confident talking about my symptom with the doctor						
Q5xi. Is there anything else you can think of that m	ight put you of	f going to the do	octors?			



				_
The next set of	ducctions	ic shou	t rick facto	re for oanoor
THE HEXL SEL OF	uuesiions	is abou	L HSK Tacto	is for carricer

Q6. What things do you think affect a person anything else you can think of?	's chance of get	ting cancer? <i>l</i> i	NTERVIEWER	PROBE – Is	there
Q7. Medical scientists suggest that these are so much do you agree that each of these can incre					cancer. How
	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
i. Smoking any cigarettes at all					
ii. Exposure to another person's cigarette smoke					
iii. Drinking more than 1 unit of alcohol a day***					
iv. Eating less than 5 portions of fruit and vegetables a day***					
v. Eating red or processed meat once a day or more***					
vi. Being overweight (BMI over 25)***					
vii. Getting sunburnt more than once as a child					
viii. Being over 70 years old					
ix. Having a close relative with cancer					
x. Infection with HPV (Human Papillomavirus)***					
xi. Doing less than 30 mins of moderate physical activity 5 times a week***					



The next set of	of questions is about the inci	dence	of cancer	
Q8a. Here is a	a picture of 100 people (SHOV	V CAR	RD). Out of 100 people, how r	nany do you think will develop cancer
at some point ALLOW e.g. 10	in their life? Please write in b	elow N	NÚMERICALLY. PLEASE STA	TE ÓNE NUMBER ONLY <u>DO NOT</u>
_	age do you think people are i			
	Under 20		60-79 years	☐ Don't know
	20-39 years		80 years plus	Refused
	40-59 years		At any age	At any age
Q9i. What do y	you think is the most common of	cancer	in women? Please write in belo	DW.
Q9ii. What do	you think is the second most c	ommo	n cancer in women? Please wi	rite in below.
Q9iii What do	you think is the third most com	nmon o	cancer in women? Please write	in helow
com. What do	you amine to the time most com		ancer in women: Trease whe	. III bolow.
Q9iv. What do	you think is the most common	cance	er in men? <i>Please write in belov</i>	v.
Q9v. What do	you think is the second most c	ommo	n cancer in men? Please write	in below.
Q9vi. What do	you think is the third most com	nmon o	cancer in men? Please write in	below.



The next set of questions is about N	NHS screening programmes			
		Yes	No	Don't know
Q10i. Is there an NHS breast cancer s	creening programme?	☐ GO TO Q10ii		
Q10ii. IF YES. At what age do you thin	nk women are first invited for breast	cancer screening?	No No	
Q10iii. Is there an NHS cervical cance test)?	r screening programme (smear	GO TO Q10iv		
Q10iv. IF YES. At what age do you thi	nk women are first invited for cervica	al cancer screening?	No	
Q10v. Is there an NHS bowel cancer s	creening programme?	GO TOQ10vi		
Q10vi. IF YES. At what age do you thin	nk people are first invited for bowel o	cancer screening?		
The next set of questions is related	to the contribution of different fac	ctors to cancer devel	opment	
Q11. Please put the following things	s in order of how much you think	they contribute to car	ncer in the U	JK:
SHOW CARD				
Lifestyle (e.g. smoking, diet, physical Chance	activity)			
Aging Environmental factors (e.g. pollution	, radiation)			
Genetic inheritance (e.g. runs in the RESPONSES CANNOT HAVE JOINT	family).			
1	_ (Most important)			
2	-			
3	-			
4	-			
5	_(Least important)			



The next set of questions are about your own health and personal experience of cancer.

Q12. Have you, your fa	amily or close friends had can	ncer? (please tick all that apply)
You	Yes □ No □	Close Friend Yes □ No □
Partner	Yes □ No □	Other Friend Yes 🗆 No 🗆
Close family member	r Yes □ No □	Not sure □
Other family member	r Yes □ No □	Do not wish to answer \qed
	EMALE AND AGED OVER 50	
		et cancer screening (mammogram)?
Yes		
	ou ever attended breast cance	-
Yes		
	did you last attend breast cand	-
In the last year	•	☐ More than 3 years ago ☐ Don't know ☐ Why have you not attended breast cancer screening?
IF RESPONDENT IS FE	EMALE AND AGED 25 - 64 YE	EARS
Q13b. Have you ever r	eceived an invitation to cervic	cal cancer screening?
Yes	□ No	□ Don't know □
IF YES. Q13bi. Have yo	ou ever attended cervical cand	cer screening?
Yes	□ No	□ Don't know □
IF YES. Q13bii. When o	did you last attend cervical ca	nncer screening?
		s ago □ More than 5 years ago □ Don't know □
IF YES INVITED BUT N	IO NOT ATTENDED. Q13biii. W	Nhy have you not attended cervical cancer screening?
	VER 60 (MALES AND FEMALE eceived a bowel cancer screer	
Yes	_	
IF YES. Q13ci. Have y	ou completed a bowel cancer	screening kit?
Yes	□ No	□ Don't know □
IF YES. Q13cii. When o	did you last complete a bowel	cancer screening kit?
In the last year	☐ In the last 2 years	☐ More than 2 years ago ☐ Don't know ☐
IF YES RECEIVED BUT	•	ciii. Why have you not completed a bowel cancer screening kit?



P2436 - NHS North of Tyne - Cancer Awareness Research Q14. Finally, how would you prefer to be kept up to date with information about the NHS and the services offered? SHOW CARD. SELECT ALL THAT APPLY ☐ Posters/bill boards ☐ Newsletter ☐ Leaflets/flyers □ Texts \square TV ☐ Email ☐ Public transport □ Internet □ Radio ☐ Other (please specify) □ Doctors waiting rooms Thank you. That is the end of the survey. Please can I take some details for verification and quality checking? NAME **ADDRESS** POSTCODE - Interviewer please ensure you record postcode NHS North of Tyne have requested that we supply them with the postcodes of respondents to enable them to undertake additional analysis of this data. None of your other personal details will be supplied. Are you happy for us to supply your postcode? No do not supply postcode Yes supply postcode TELEPHONE NUMBER **EMAIL ADDRESS** FINAL CLOSE - Thank you very much for your participation. This survey has been conducted in accordance with the MRS Code of Conduct. If you wish to check the validity of this survey, or if you have any further questions, you may call Public Knowledge on the following free phone number 0800 1951842 or you can email info@publicknowledge.eu. If you have any further questions about cancer awareness the following leaflet will help you. HAND RESPONDENT LEAFLET EARLY CLOSE/QUOTAS FULL - Thank you, but unfortunately we now have now surveyed enough people who fit this description. This survey has been conducted in accordance with the MRS Code of Conduct. INTERVIEWER NAME DATE OF INTERVIEW LOCATION OF INTERVIEW (please be specific - include town, street names etc)



8.2. Socio-Economic Grade

The socio-economic classification system, used by the National Readership Survey (NRS) and widely for market research in the UK, consists of six social grades: A, B, C1, C2, D and E. The publication *Occupation Groupings: A Job Dictionary* can be used to determine the social grade of respondents and is recommended by the Market Research Society. The publication was used in this research to code socio-economic grade.

8.3. Most Common Cancers in Men and Women by Location

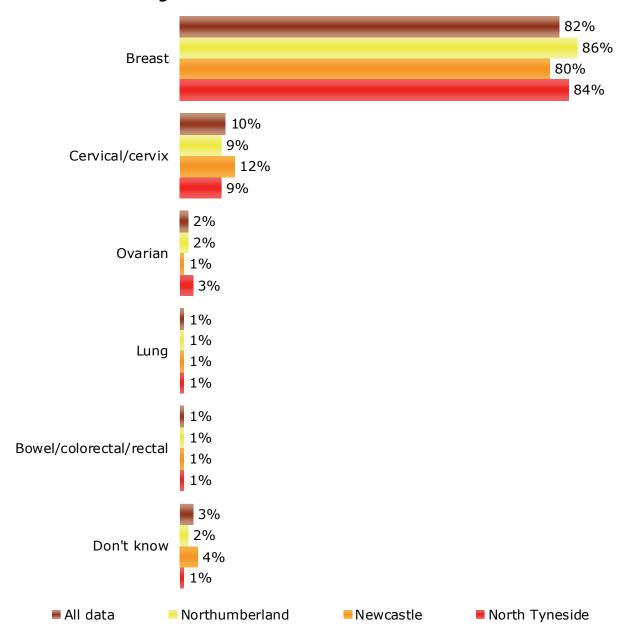


Figure 21a: Most common cancer in women.

Q9i. What do you think is the most common cancer in women?



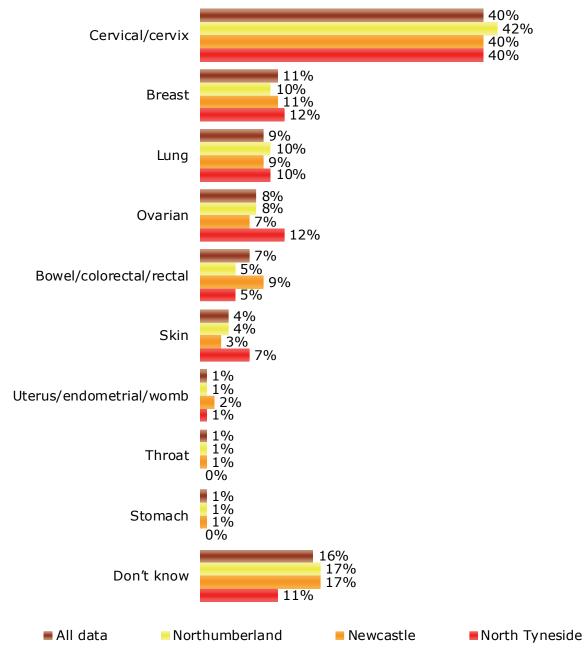


Figure 21b: Second most common cancer in women.

Q9ii. What do you think is the second most common cancer in women?



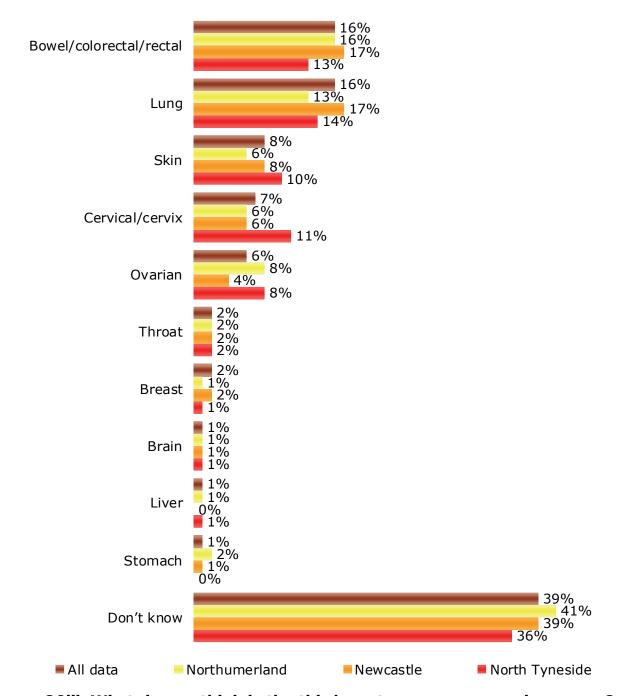


Figure 21c: Third most common cancer in women.

Q9iii. What do you think is the third most common cancer in women?



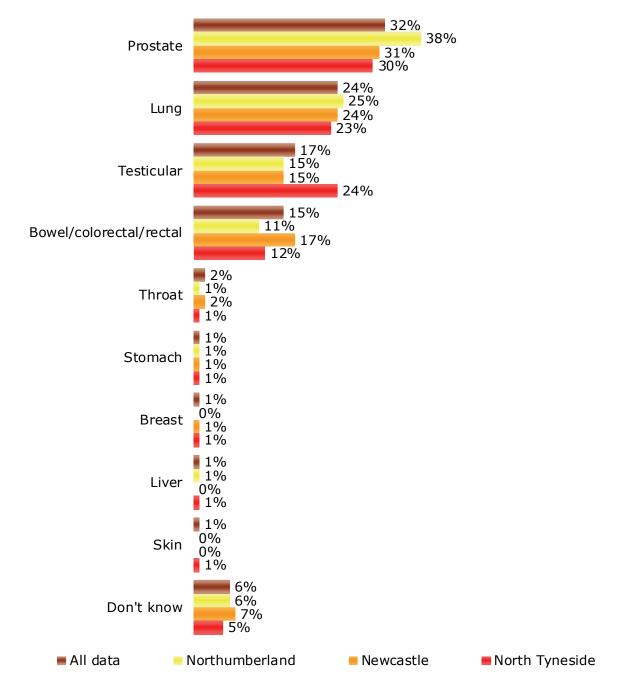


Figure 21d: Most common cancer in men.

Q9iv. What do you think is the most common cancer in men?

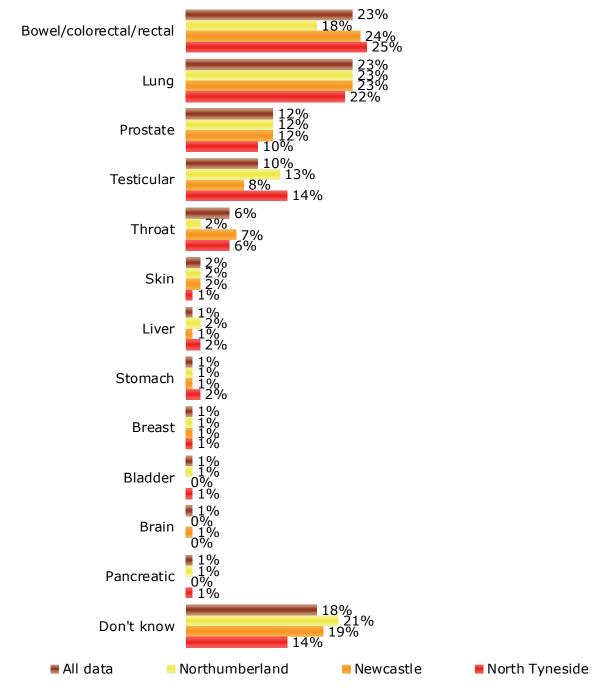


Figure 21e: Second most common cancer in men.

Q9v. What do you think is the second most common cancer in men?



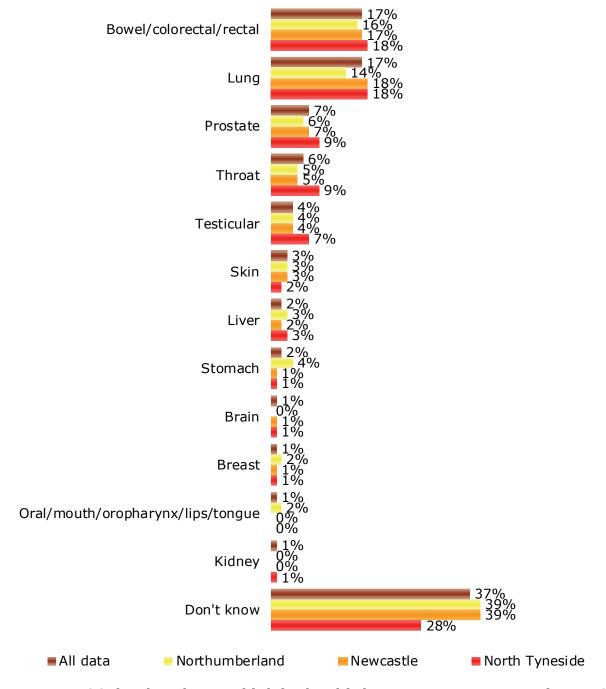


Figure 21f: Third most common cancer in men.

Q9vi. What do you think is the third most common cancer in men?

8.4. Factors Contributing to Cancer Incidence in the UK by Location

59% 22% 12% Lifestyle 5% 1% 6% 17% Chance 24% 17% 37% 3% 6% Aging 15% 37% 40% 16% 34% Environmental 24% factors 18% 9% 16% 22% Genetic inheritance 25% 24% 14% ■1 - Most Important _ 2 **3 4** ■5 - Least Important

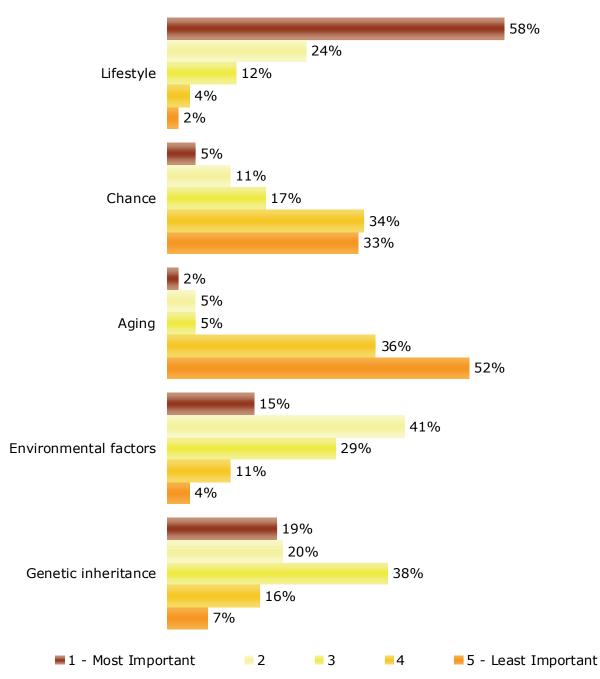
Figure 22a: Factors contributing to cancer incidence in the UK - Northumberland.

Q11. Please put the following things in order of how much you think they contribute to cancer in the UK?

Base: Respondents in Northumberland - 325



Figure 22b: Factors contributing to cancer incidence in the UK - Newcastle.



Q11. Please put the following things in order of how much you think they contribute to cancer in the UK?

Base: Respondents in Newcastle - 832

UK - North Tyneside. 51% 23% 16% Lifestyle 8% 2% 15% 10% Chance 16% 32% 27% 1% 6% Aging 12% 27% 54% 14% 38% Environmental factors 23% 15% 10% 19% 23% Genetic inheritance 33% 17% 7%

Figure 22c: Factors contributing to cancer incidence in the

Q11. Please put the rollowing things in order of now much you think they contribute to cancer in the UK?

3

4

2

Base: Respondents in North Tyneside - 288

■1 - Most Important

■5 - Least Important



Public Knowledge

Public Knowledge The Mill Hexham Business Park Burn Lane Hexham Northumberland NE46 3RU

tel: 01434 611160 fax: 01434 613273

email: nicola@publicknowledge.eu

twitter: PkresearchNE46