

Public awareness of cancer in Britain

Report for the National Awareness and Early Diagnosis Initiative

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EXECUTIVE SUMMARY

This report provides the results from two national surveys using the newly-developed CR-UK Cancer Awareness Measure (CAM). Data were obtained from the Office for National Statistics (ONS) *Opinions Survey* (n=2216), which uses stratified random probability sampling to recruit a population-representative sample of the UK population, and the Ethnibus survey (n=1500) which uses quota sampling to recruit participants from the six largest ethnic groups in the UK (Indian, Pakistani, Bangladeshi, Caribbean, African and Chinese). Both surveys collect data using home-based face-to-face interviews. The results provide a benchmark of current awareness which will enable evaluation of future policy initiatives aimed at improving cancer awareness.

Awareness of cancer signs and symptoms

Unprompted recall of cancer symptoms was poor (<30%) with the exception of 'lump or swelling', but recognition of warning signs was considerably higher (ONS). Awareness of cancer warning signs was lower in men, younger people and those from lower socioeconomic status (SES) groups and ethnic minorities. Recall and recognition of warning signs was lower across all ethnic groups in the Ethnibus survey as compared to the ONS survey, but there was significant variation between ethnic groups.

Help-seeking behaviour

Few respondents anticipated that they would delay seeking help for a potentially serious symptom and the majority said they would contact their doctor within two weeks (ONS and Ethnibus). Respondents who were younger or from lower socioeconomic (SES) backgrounds anticipated longer delay (ONS and Ethnibus), but ethnic minority groups reported faster help-seeking compared to white respondents (ONS). The most widely endorsed barriers to help-seeking were difficulty making an appointment, not wanting to waste the doctor's time and worry about what the doctor might find (ONS), difficulty making an appointment, having too many other things to do and embarrassment (Ethnibus). Women were more likely to report emotional barriers (being worried about what the doctor might find, embarrassed, and not confident talking to the doctor about the symptom) (ONS and Ethnibus) and in the

ONS survey this was also true of lower SES groups. Practical barriers (e.g. too busy) were more prominent in higher SES groups (ONS survey).

Awareness of risk factors

For both surveys, smoking was the most recalled and recognised risk factor for cancer. Recall was lowest for HPV infection, and poor for dietary factors, being overweight and older age (ONS and Ethnibus). Recognition of alcohol, dietary factors, HPV infection, and exercise was poor in both surveys. Women had greater awareness than men and there was a strong SES gradient with higher SES groups showing higher awareness than lower SES groups (ONS). Recognition of cancer risk factors varied across different ethnic groups (Ethnibus).

Awareness of cancer incidence and common cancers

Estimated lifetime cancer incidence was slightly overestimated in the ONS sample (34%) and underestimated in the Ethnibus survey (24%). Participants were aware of the high prevalence of breast cancer but significantly overestimated the prevalence of cervical cancer: 10% of respondents in the ONS survey and 7% in the Ethnibus wrongly believed it to be the most common cancer in women. Additionally, 11% of respondents in the ONS survey and 13% in the Ethnibus survey wrongly believed testicular cancer to be the most common cancer in men.

Awareness of cancer screening programmes

In both surveys, awareness of the breast and cervical cancer screening programme was good (>80% ONS, >60% Ethnibus), however awareness of the much newer bowel cancer screening programme was poor (23% ONS, 30% Ethnibus). Women were more knowledgeable than men. In the Ethnibus survey, there were variations in awareness between ethnic groups, but in general Caribbean respondents showed highest awareness and Chinese the lowest.

Contribution to cancer

Most respondents ranked lifestyle as the most important contributing factor towards cancer, whereas very few respondents thought ageing was the most important. 'Chance' was most likely to be ranked as the least important contributing factor.

Key recommendations

- There is a need to raise awareness of several cancer warning signs and risk factors, especially in more deprived and in certain ethnic groups in the UK, to facilitate improvements in early presentation and cancer prevention behaviours.
- There is a need to address barriers to seeking help, such as fear and lack of confidence to discuss symptoms with GPs.
- There is a need to increase awareness of the bowel cancer screening programme.

1. Introduction

1.1 Background

This report provides the results from two national surveys using the newly-developed CR-UK Cancer Awareness Measure (CAM) (appendix, page 95). The CAM has been developed as part of the National Awareness and Early Diagnosis Initiative (NAEDI) to help ensure delivery of the Cancer Reform Strategy. The purpose of the surveys was to benchmark current levels of cancer awareness on a national basis to provide a baseline against which to evaluate policy initiatives designed to improve awareness.

1.2 The sample

The data come from two surveys: i) an Office for National Statistics (ONS) *Opinions Survey* which is sampled to be representative of the UK population; and ii) an Ethnibus survey of the main ethnic minority groups in England.

The ONS survey was carried out in September and October 2008 and used stratified random probability sampling (see Robb et al, in press, for further details). In summary, 3,653 households were identified and an adult aged over 16 years invited to participate in a face-to-face computer-assisted interview. The interview included a range of socio-demographic questions and the following were included in the present analyses: gender; age; ethnicity (white; other ethnic backgrounds) and occupation (National Statistics-Socioeconomic Classification: managerial/professional; intermediate/small employers/lower supervisory; semi-routine/routine). Because of the relatively small numbers of ethnic minorities in population-based samples, ethnicity was only divided into 'white' vs. 'non-white' groups for analyses.

The Ethnibus survey used quota sampling to recruit 1,500 participants aged 18 and older from the six largest ethnic groups in the UK (Indian, Pakistani, Bangladeshi, Caribbean, African and Chinese) in proportion to their representation in the UK population. The survey was conducted in October and November 2008 (see Waller et al., in press, for further details). Face-to-face interviews were conducted in the language of the participants' choice. Interviews included questions on: gender; age group; ethnicity and occupation (a classification frequently used in market research

was used: AB managerial/professional; C1 supervisory; C2 skilled manual; D semi-skilled/unskilled manual; E state pensioners or casual/lowest grade workers).

1.3 CR-UK Cancer Awareness Measure (CAM)

Participants completed the CAM in a face-to-face interview. The topics assessed in the CAM include: awareness of warning signs, anticipated delay in seeking medical help, barriers to seeking medical help, awareness of risk factors, risk factor ranking, awareness of incidence, awareness of common cancers, and awareness of NHS screening programmes. For the sections on warning signs and risk factors there were both 'open' and 'closed' questions. Open questions assess the extent to which cancer signs or risk factors are recalled without prompting, closed questions test recognition of listed symptoms or risk factors. The development process for the Cancer Awareness Measure is described elsewhere (Stubbings et al, in press)

1.4 Statistical methods

Data were analysed using SPSS 14.0. Descriptive statistics were completed for gender, age, ethnicity, and occupational category (SES) and questions from the CAM. Chi-square tests and analyses of variance (ANOVAs) were used to examine relationships between demographic characteristics and responses to items from the CAM. Only differences reaching statistical significance ($p < .05$) are described in the body of the report.

1.5 Response

In the ONS survey, 3,652 households were invited to participate, 2216 (61%) respondents agreed to be interviewed, 1093 (30%) refused, and 324 (8%) could not be contacted after three attempts. Respondent demographics approximated the UK population but with a trend towards higher levels of education and occupational status (see Table 1 and Robb et al, in press for further details).

In the Ethnibus survey, 1,500 adults completed the interview. The response rate for the October wave was 48% and 56% for the November wave. Quotas for the six ethnic minority groups were met, with an approximately even split by gender (742 male and 758 female), and a good range across age and social class groups (see Table 2 and Waller et al, in press, for further details).

1.6 Outline of the report

It is not appropriate to combine the data from the ONS and Ethnibus surveys due to the methodological differences in the data collection. Results from the two surveys are therefore presented separately. The report is divided into the eight main topics covered by the CAM¹: a) cancer signs and symptoms, b) help-seeking, c) barriers to help-seeking, d) risk factors, e) cancer incidence, f) common male and female cancers, g) screening programmes, and h) contribution to cancer. Findings from the ONS and Ethnibus surveys are described in turn within each topic area and tables are presented accordingly in the appendix.

¹ The item assessing delay in help-seeking for a generic cancer symptom was not included in either survey. The 'contribution to cancer' item was included in the ONS survey only.

Table 1: Demographic characteristics of ONS sample (n=2216)

	N	%*
Gender		
Male	970	43.8
Female	1246	56.2
Age		
16-24	170	7.7
25-34	323	14.6
35-44	383	17.3
45-54	311	14.0
55-64	399	18.0
65 and over	630	28.4
Marital status		
Married/civil partnership/co-habiting	986	44.5
Not married	1230	55.5
Ethnicity		
White	2072	93.5
Other ethnic backgrounds	144	6.5
Occupation (SES)		
Higher SES	746	33.7
Mid SES	627	28.3
Lower SES	662	29.9
Highest qualification obtained		
Degree or above	369	16.7
Below degree	792	35.7
Other	255	11.5
No formal qualifications	344	15.5

*Some variables do not add up to 100% due to missing data

Table 2: Demographic characteristics of Ethnibus sample (n=1500)

	Indian (n=467)	Pakistani (n=333)	Bangladeshi (n=126)	Caribbean (n=252)	African (n=216)	Chinese (n=106)
	%					
Sex						
Male	49.9	50.2	52.4	46.8	48.1	50.9
Female	50.1	49.8	47.6	53.2	51.9	49.1
Age group						
18-24	21.8	30.0	30.2	19.4	19.4	18.9
25-34	24.8	27.9	31.0	22.6	30.1	23.6
35-44	22.3	16.2	16.7	19.8	28.7	29.2
45-54	15.6	12.6	8.7	16.3	14.4	12.3
55+	15.4	13.2	13.5	21.8	7.4	16.0
English language						
	30.4	16.2	23.8	100	75.0	20.8
Social class						
AB	13.1	7.8	8.7	6.7	15.3	17.0
C1	30.8	31.5	23.8	19.4	28.7	29.2
C2	23.8	23.7	19.0	17.5	19.4	31.1
D	24.8	27.3	37.3	34.5	22.2	14.2
E	7.5	9.6	11.1	21.8	14.4	8.5

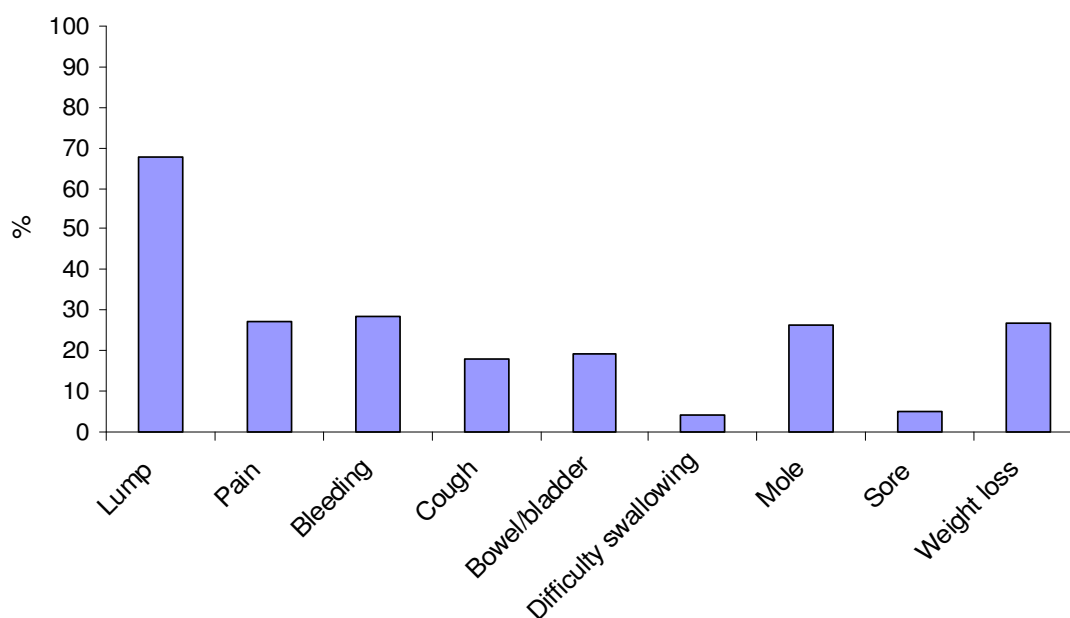
2. Results

2.1 Awareness of cancer signs and symptoms

ONS sample

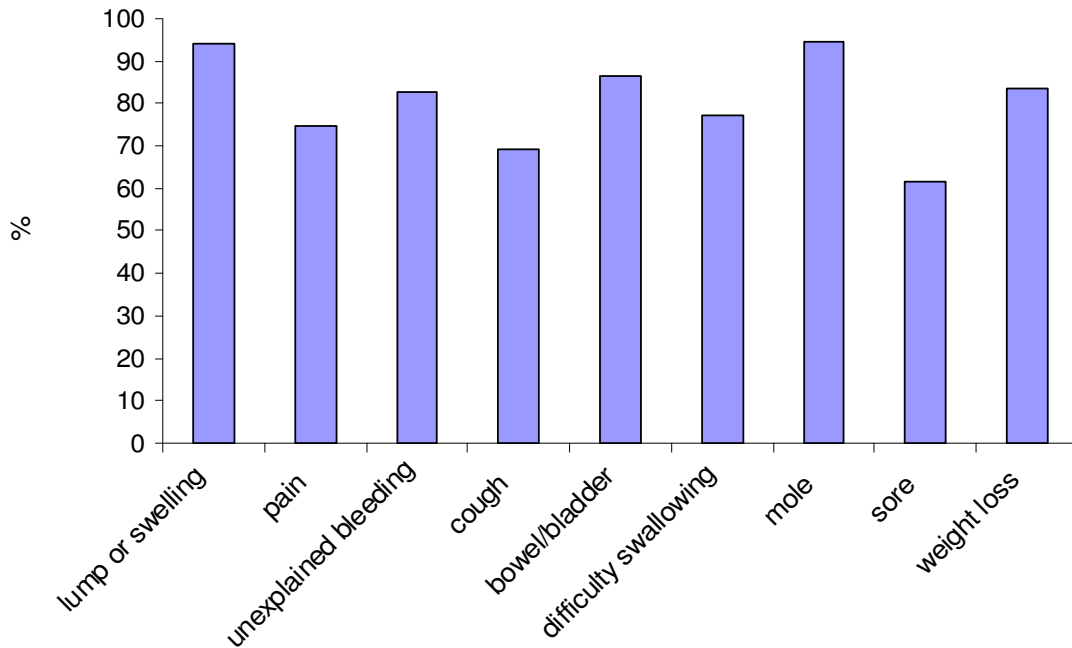
Recall (unprompted) was good for the classic tumour symptom of lump/swelling (68%), but poor for all other symptoms (<30%). Only 4% of respondents mentioned difficulty swallowing and 5% mentioned a sore that doesn't heal (see Figure 1, Table 1, appendices). The mean number of symptoms recalled was 2.2 (95% confidence interval (CI): 0.6-3.8).

Figure 1: Recall of warning signs: ONS sample



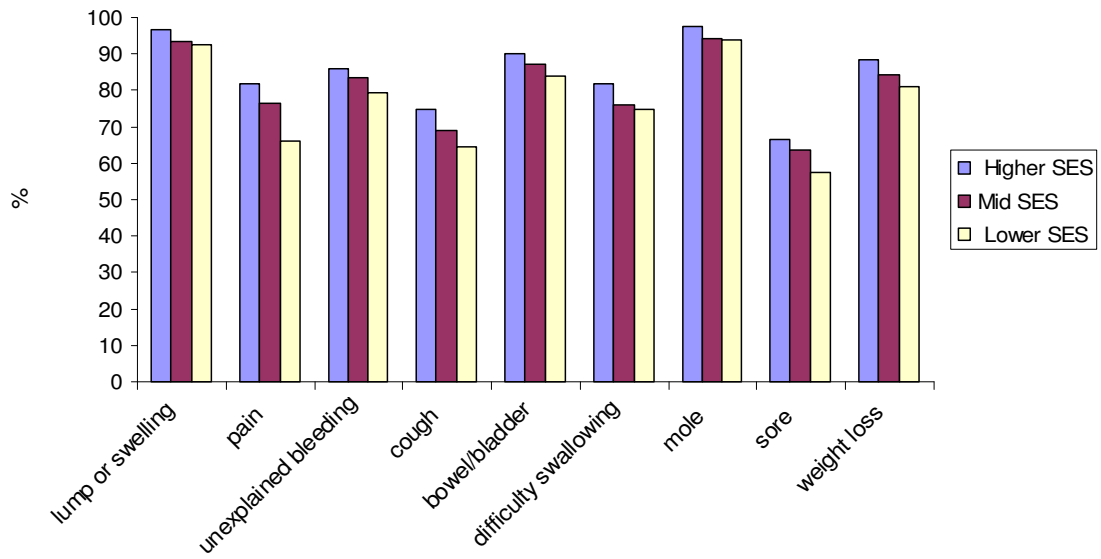
Recognition (closed items) gave a considerably higher score than recall. Change in the appearance of a mole and lump/swelling were the most recognised (both 94%), and even the least recognised sign (a sore that does not heal) was acknowledged by over 60% of participants (see Figure 2, Table 2, appendices). The mean number of symptoms recognised was 7 of out 9 (95% confidence interval (CI): 5.1-9.3).

Figure 2: Recognition of warning signs: ONS sample



Women showed significantly higher recognition of all symptoms compared to men apart from unexplained pain (Table 3, appendices). Older respondents recognised more warning signs than younger respondents and this was true for unexplained bleeding, cough or hoarseness, changes in bowel/bladder habits, difficulty swallowing, a sore that does not heal and weight loss (Table 4, appendices). For example, only 38% of younger participants (18-24 years) recognised 'a sore that does not heal', compared to 69% in the oldest age group (55+years). Those from a white background also scored higher than respondents from non-white backgrounds (apart from recognition of unexplained pain and a sore that does not heal). For example, 96% of white respondents recognised that a change in the appearance of a mole could be a sign of cancer compared to 76% of people in the non-white (Table 5, appendices). There was also a strong SES gradient for recognition of symptoms, with higher SES groups having significantly higher scores across all symptoms (Figure 3, Table 6, appendices).

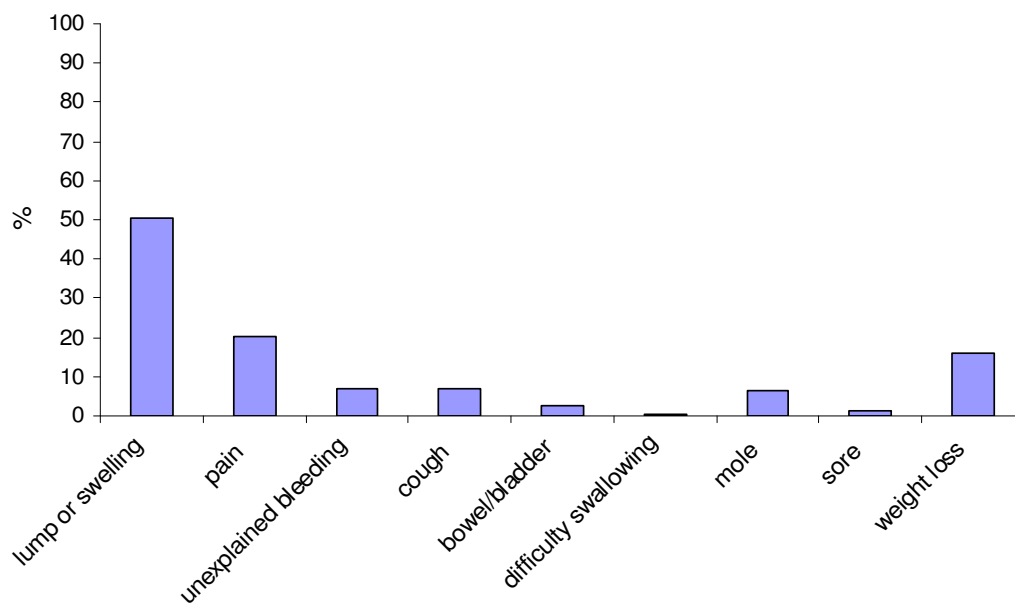
Figure 3: Recognition of warning signs by SES: ONS sample



Ethnibus sample

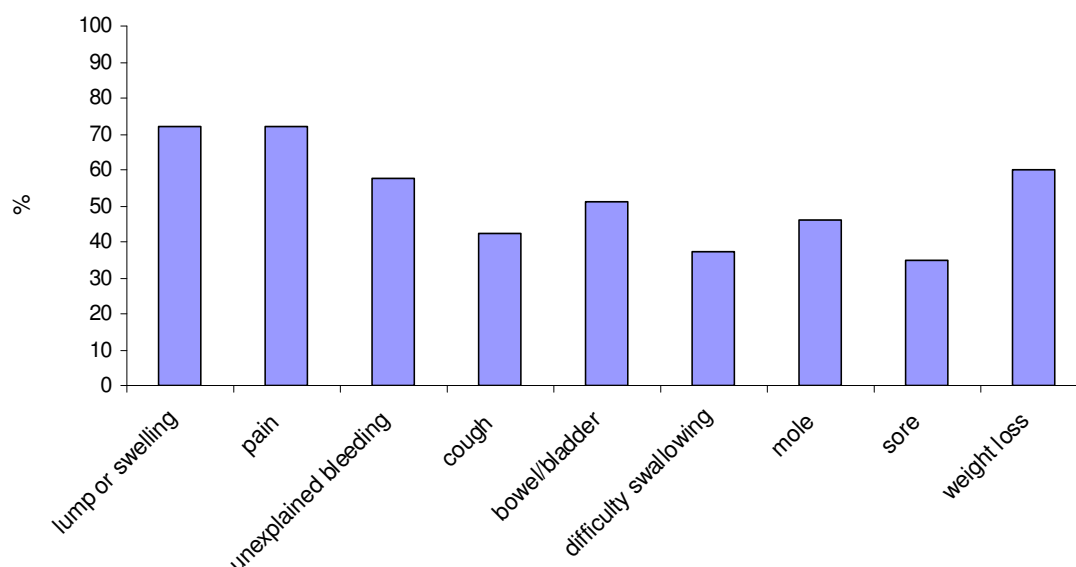
As in the ONS sample, a lump or swelling was the most commonly recalled symptom, mentioned by around 50% of respondents across ethnic groups. Less than 10% in any group mentioned change in bowel/bladder habits, difficulty swallowing, change in a mole, or a sore that doesn't heal. The mean number of symptoms recalled was 1.2 (95% confidence interval (CI): 1.1-1.2) (Figure 4, Table 7, appendices).

Figure 4: Recall of warning signs: Ethnibus sample



Recognition scores were higher than recall and a lump or swelling was the most-recognised symptom, with over 60% endorsement across the groups. The mean number of symptoms recognised was 4.7 out of 9 (95% CI: 4.6-4.8) (Figure 5, Table 8, appendices).

Figure 5: Recognition of warning signs: Ethnibus sample



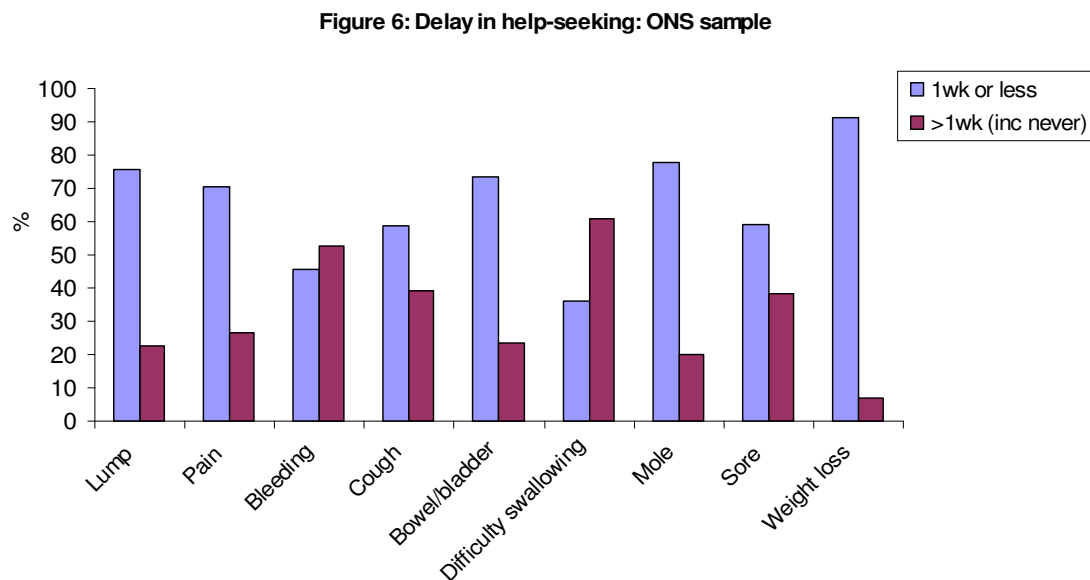
Women showed higher recognition of a lump or swelling and unexplained bleeding, yet men showed higher recognition of a change in the appearance of a mole (Table 9, appendices). Significant differences between age groups were identified for recognition of unexplained pain, cough or hoarseness, change in bowel/bladder habits, difficulty swallowing and weight loss, with some indication that recognition was higher in older respondents (Table 10, appendices). There were significant variations between ethnic groups for all symptoms, for example, only around 40% of the Indian and Pakistani groups recognised a change in bowel/bladder habits, compared with 64% of Bangladeshis and 73% of Caribbeans (Table 11, appendices).

Respondents showed similar recognition scores regardless of SES, although there were differences for the recognition of lump and unexplained weight loss (Table 12, appendices) where the lowest SES group (D) showed lower scores compared to the highest SES group (AB).

2.2 Delay in help-seeking

ONS sample

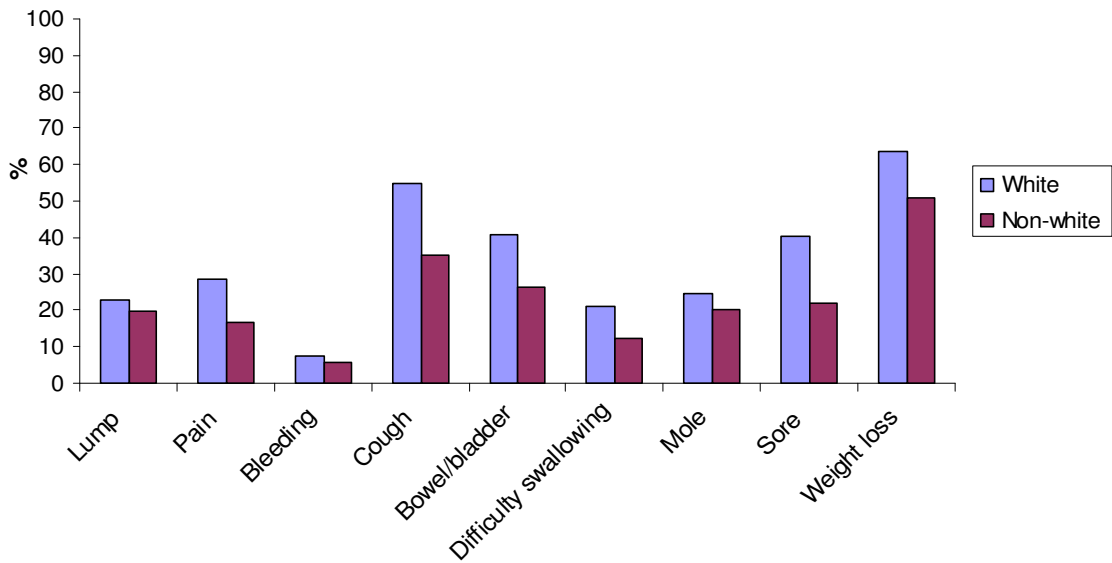
Few respondents anticipated that they would delay in presenting to the GP with any of the listed symptoms, with the majority of respondents claiming they would present in less than two weeks for most symptoms. Unexplained bleeding was associated with the least delay with 71% of respondents claiming they would seek help in 1-3 days whereas nearly half of respondents said they would wait more than one month if they noticed unexplained weight loss (see Figure 6, Table 13, appendices).



When we dichotomised respondents into those who said they would wait more than one week to seek help and those who would seek help more promptly, men were more likely than women to wait longer than one week for a lump/swelling, cough/hoarseness, difficulty swallowing, change in the appearance of a mole, and for a sore that does not heal. For example, 31% men said they would wait more than one week to seek help if they found a lump or swelling, compared to 17% women. In contrast, women were more likely to report delaying if they had 'unexplained bleeding' (Table 14, appendices).

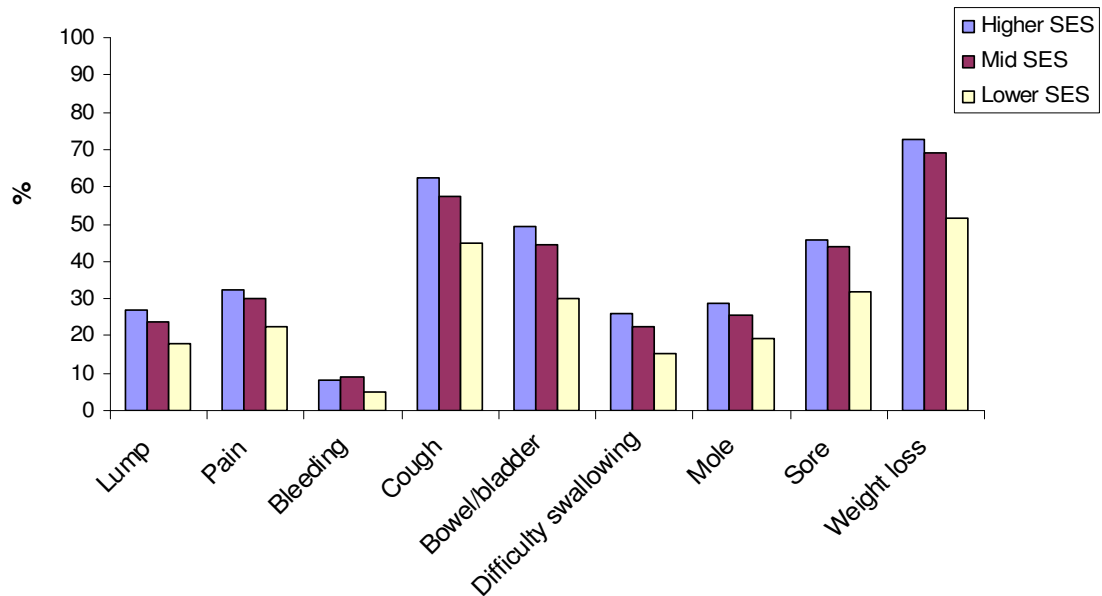
Older people (aged 55+ years) and younger people (aged 18-24 years) were less likely to delay than other age groups for most symptoms (lump/swelling, unexplained pain, unexplained bleeding, cough or hoarseness, 'bowel/bladder habits, difficulty swallowing and unexplained weight loss) (Table 15, appendices). Non-white groups were also less likely to report delaying help-seeking compared to white groups for most symptoms (see Figure 7, Table 16, appendices).

Figure 7: Percentage delaying > one week by ethnicity: ONS sample



For every symptom, there was an SES gradient, with respondents from higher SES groups more likely to report delay than lower SES groups (see Figure 8; Table 17, appendices).

Figure 8: Percentage delaying >one week by SES: ONS sample



Ethnic sample

For all ethnic minority groups, unexplained bleeding was associated with the least anticipated delay and unexplained weight-loss had the highest anticipated delay (Table 18, appendices). Unlike in the ONS survey there were few differences in reported delay according to gender although men were more likely to delay help-seeking for unexplained pain or bleeding than women, and women were more likely to report delay if they had unexplained weight loss (Table 19, appendices). There were variations between age groups in reported delay for lump/swelling, unexplained pain, bowel/bladder habits, a change in a mole, a sore that does not heal and unexplained weight loss, but no obvious trend (Table 20, appendices).

Chinese respondents were more likely to report delay for several symptoms compared to other ethnic minority groups (lump/swelling, unexplained pain, unexplained bleeding, cough or hoarseness, and bowel/bladder habits). For example, 56% of the Chinese group said they would wait more than week before consulting their doctor about a lump or swelling, compared with less than 35% in each of the other groups. Respondents from African backgrounds were least likely to report delaying to seek medical help for all symptoms apart from bowel/bladder habits, for which those from a Caribbean background reported least delay (see Figure 10; Table 21, appendices).

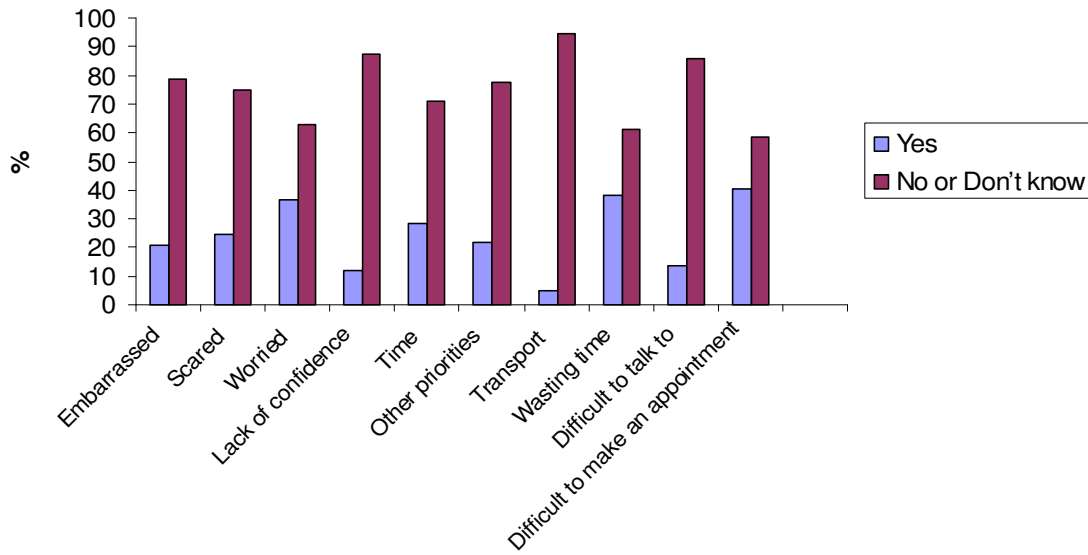
There was no clear pattern of delay according to SES, although for some symptoms (lump or swelling, unexplained pain, change in bowel/bladder habits) it appeared that the highest SES group (AB) and lowest SES groups (D, E) were less likely to report delaying over one week than groups in the middle (C1 and C2). However, lower SES groups were more likely to report delay for a sore that does not heal (Table 22, appendices).

2.3 Barriers to seeking help

ONS sample

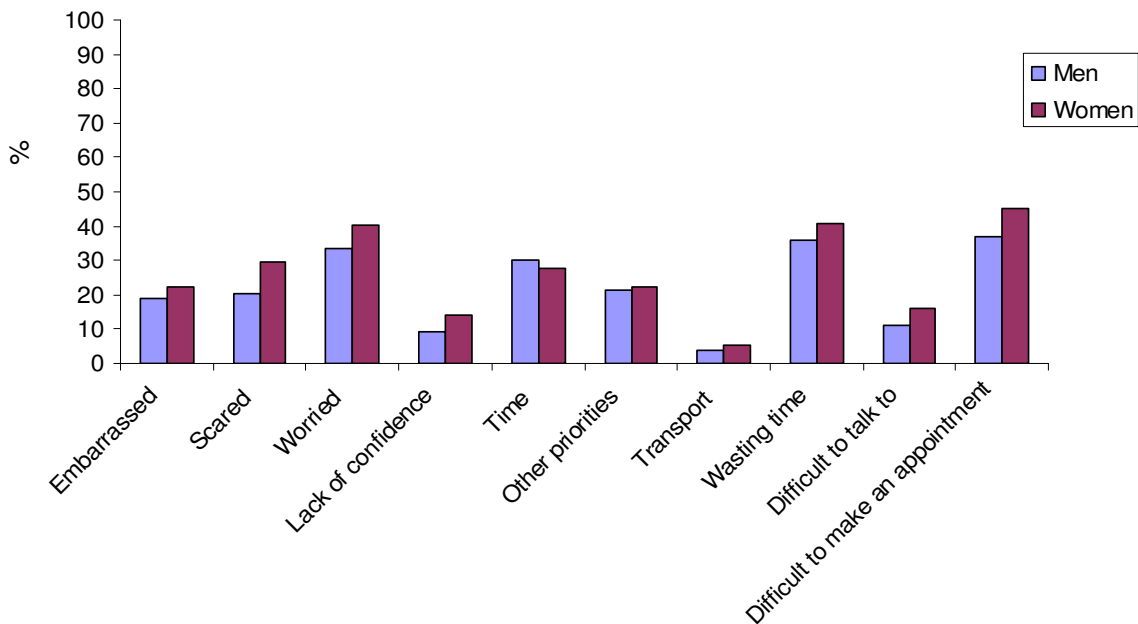
The most widely endorsed barriers to going to the doctor were worry about what the doctor might find (37%), not wanting to waste the doctor's time (38%), and difficulty making an appointment (41%) (see Figure 9; Table 23, appendices).

Figure 9: Barriers to help seeking: ONS sample



Women were more likely to report emotional barriers (being scared, worried, or lacking confidence). For example, 29% of women said they would be ‘too scared’ compared to 20% of men. Women also endorsed more ‘service’ barriers (wasting the doctor’s time, finding the doctor difficult to talk to, difficulty making an appointment) compared to men, for example, 41% of women said they would worry about wasting the doctor’s time, compared to 36% of men (see Figure 10; Table 24, appendices).

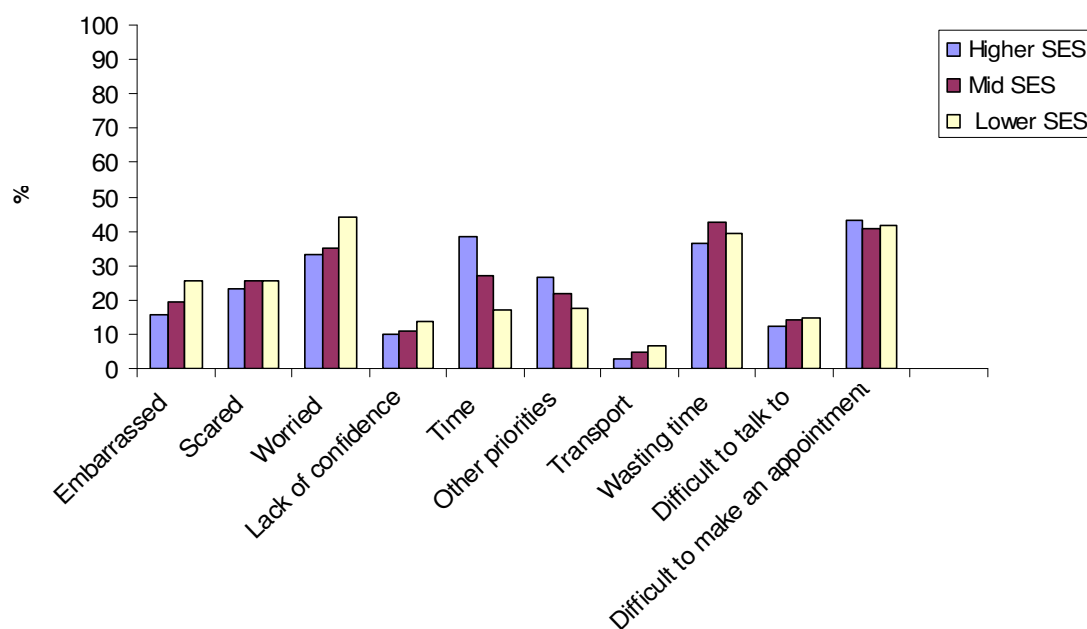
Figure 10: Barriers to help-seeking by gender: ONS sample



Younger people (18-24 years) reported more emotional barriers than older respondents (55+ years), for example 41% of people ages 18-24 years endorsed the barrier ‘too scared’ compared to 21% of older respondents. Younger people were also more likely to say that finding the GP difficult talk to would be a barrier, but were much less concerned about transport (Table 25, appendices).

Most barriers were equally endorsed by white and non-white groups with the exception of not wanting to ‘waste the doctor’s time’ with 40% of white respondents endorsing this item compared with only 24% of non-white participants (Table 26, appendices). Lower SES respondents generally reported more emotional barriers; 16% of higher SES groups would be ‘too embarrassed’ to seek help, compared to 19% of mid SES groups, and 26% of lower SES groups (Table 27, appendices). Higher SES respondents were more likely to report practical barriers (too busy; having other things to worry about), for example 38% of those from higher SES groups said they would be too busy to make time to go to the GP, compared to 27% in mid SES groups and 17% in low SES groups (see Figure 9, Table 27, appendices). There were no SES differences in service barriers (see Figure 11; Table 27, appendices).

Figure 11: Barriers to help-seeking by SES: ONS sample

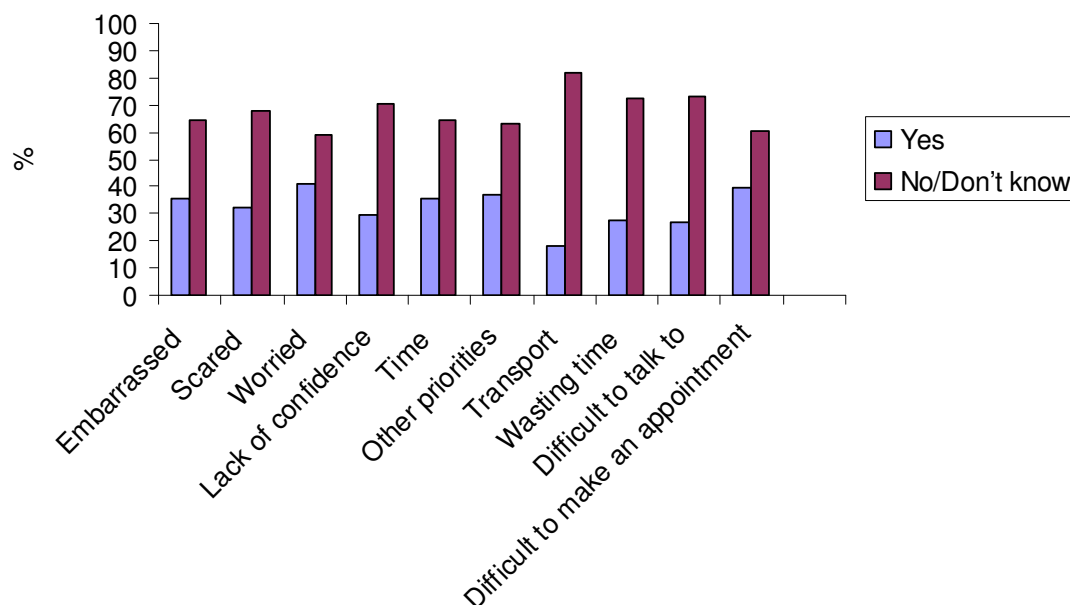


Ethnibus sample

The most frequently endorsed barriers to seeking help were similar to those in the ONS survey: worry about what the doctor might find (41%), difficulty making an

appointment (40%) and having too many other things to worry about (37%), (see Figure 12, Table 28, appendices).

Figure 12: Barriers to help seeking: Ethnibus sample



Similar to the ONS survey results, women were more likely to endorse all barriers including emotional barriers (embarrassment, fear, worry, lack of confidence), for example 42% said they would be ‘too embarrassed’ compared to 29% men (Table 29, appendices). One exception was that men were more likely to say that they would be too busy to make time to see the doctor (38% vs. 16% of women), although among African respondents, women were more likely to endorse this barrier.

Again, younger age groups (18-24 years) generally endorsed more barriers than older groups (55+ years). For example, a higher percentage of younger people cited being ‘too scared’ as a barrier to help-seeking (42% of the youngest group vs. 25% of 55+ year olds) (Table 30, appendices).

The African group had significantly lower endorsement of almost all barriers (too embarrassed, worried about what the doctor might find, too busy to make time, and my doctor would be difficult to talk to), but other patterns were mixed (Table 31, appendices). There was also a socioeconomic gradient for some barriers to help-seeking with respondents in the lowest SES group more likely to be too embarrassed to seek help compared to the highest SES group (42% vs. 24%). Mid-SES respondents (skilled working class; C2) were the most likely to agree that they were

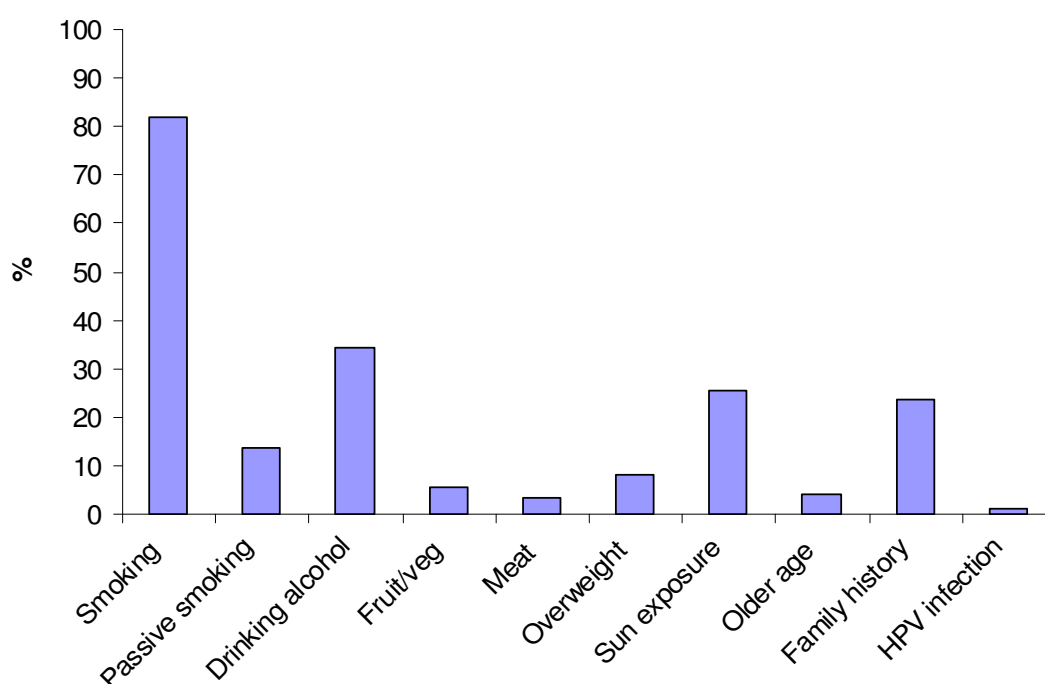
'too busy to make time' (46%) to seek help, or had 'too many other things to worry about' (47%) and would find the doctor difficult to talk to (33%) and (Table 32, appendices).

2.4 Awareness of risk factors

ONS sample

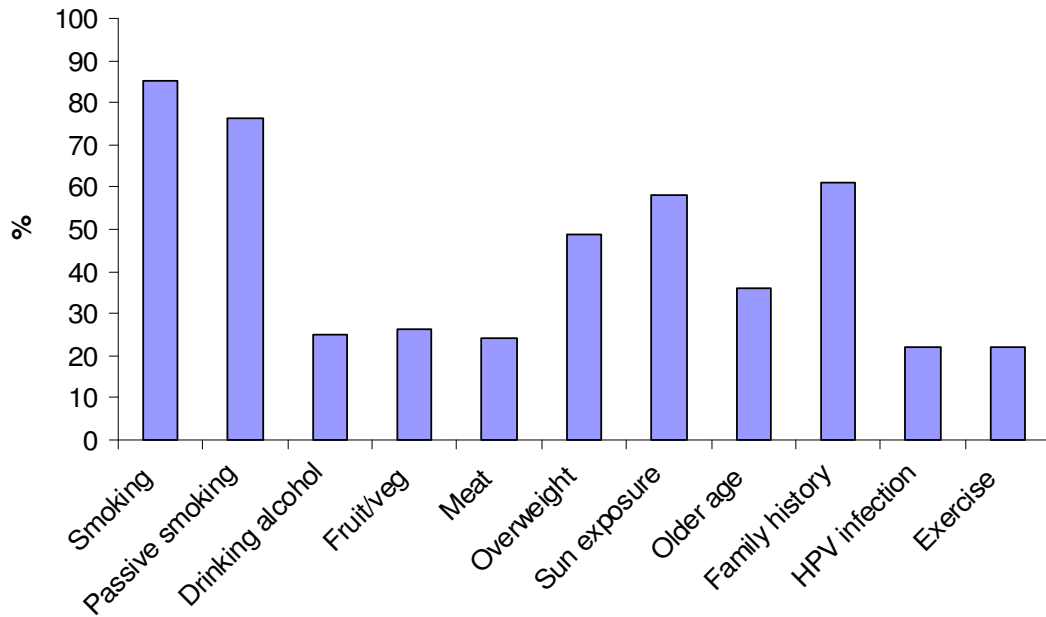
As might be expected, recall (unprompted) of smoking as a risk factor was high (82%), but unprompted awareness of other factors was poor (e.g. passive smoking; 13.5%, exercise; 12.3%, overweight; 8% and older age; 4%). Only 1% of respondents recalled HPV infection as a risk factor. The mean number of risk factors recalled was 2.1 (95% confidence interval (CI): 0.6-3.6) (see Figure 13, Table 33, appendices).

Figure 13: Recall of risk factors: ONS



Recognition gave a higher score for several risk factors including passive smoking (76%), family history (61%), sun exposure (58%), overweight (49%), and older age (36%). However, recognition of alcohol, fruit and vegetable and red meat intake, HPV infection, and exercise remained low at <26%. The mean number of risk factors recognised was 4.9 out of 11 (95% confidence interval (CI): 2.5-7.3) (see Figure 14; Table 34 appendices).

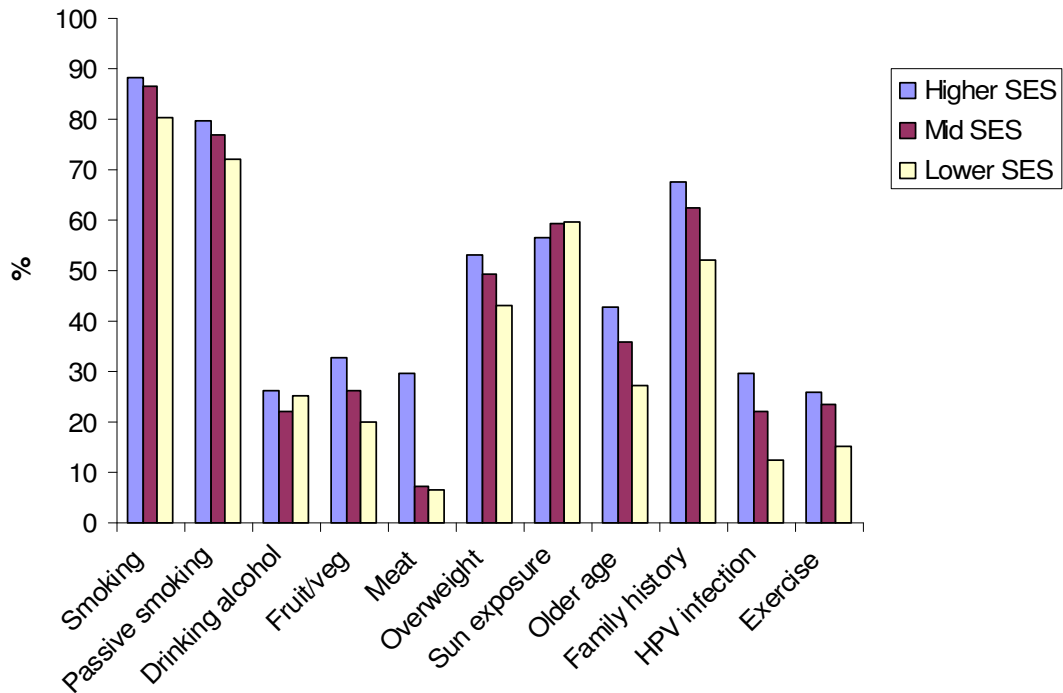
Figure 14: Recognition of risk factors: ONS



Women showed higher scores than men for several risk factors (apart from recognition of older age where men did better), but there were no differences in recognition of smoking, being overweight, and exercise (Table 35, appendices).

There were relatively few differences according to age although younger respondents showed higher recognition that alcohol was a risk factor than older people (37% vs. 21%). Participants in the 35-44 year old age range had the best recognition of dietary factors such as eating less than five portions of fruit and vegetables as well as red meat intake (Table 36, appendices). Those from non-white backgrounds had higher recognition of alcohol compared to non-white groups (43% vs. 24%), yet white groups showed higher awareness of sun exposure (59% vs. 46%). There were no ethnic differences for other risk factors (Table 37, appendices). As with knowledge of cancer symptoms, there was a strong SES gradient for most risk factors, with higher SES groups showing higher knowledge of risk factors than lower SES groups (see Figure 15; Table 38, appendices).

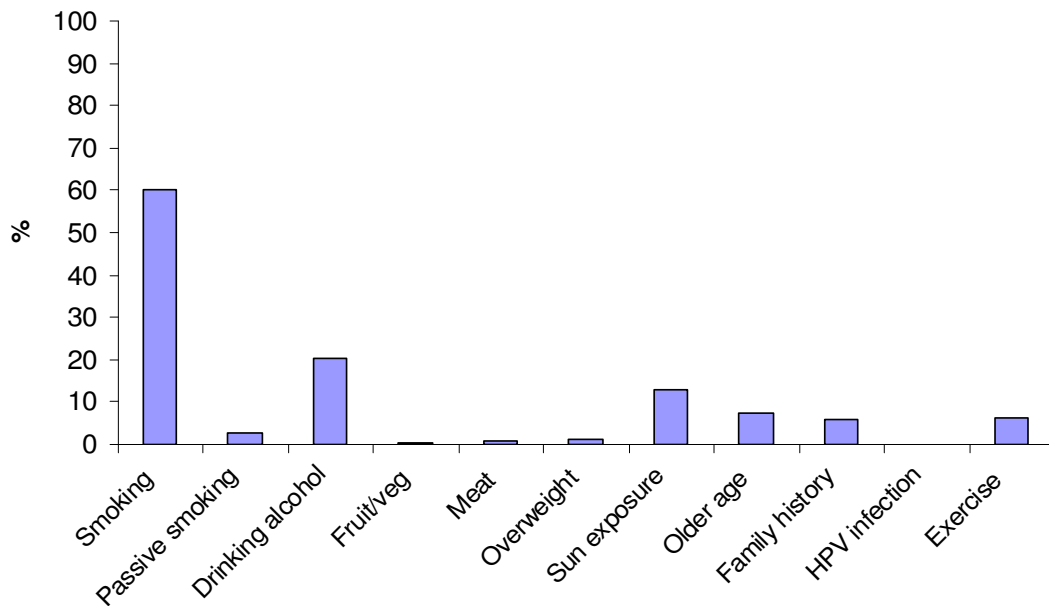
Figure 15: Risk factors by SES for ONS survey



Ethnibus sample

Consistent with the ONS sample, smoking was the most commonly recalled risk factor, mentioned by around 60% of respondents across ethnic groups. A total of 20% people recalled that alcohol was a risk factor. Less than 13% in any group were able to name any other risk factor. The mean number of risk factors recalled was 1.2 (95% confidence interval (CI):0.1-2.3) (see Figure 16, Table 39, appendices).

Figure 16: Recall of risk factors: Ethnibus survey



Again, recognition scores were higher than recall and smoking was the most-recognised symptom, with 93% endorsement. The mean number of symptoms recognised was 5.8 out of 11 (95% CI: 3.5-8.1) (Table 40, appendices).

Men had higher awareness of being overweight as a risk factor (53% vs. 46%), but women were more likely to recognise family history compared to men (74% vs. 67%) (Table 41, appendices). Differences between age groups were found for awareness of several risk factors including passive smoking, being overweight, sun exposure, older age, family history and exercise although there was no obvious pattern. However people aged 45 to 54 years showed the poorest awareness of lack of exercise (20%) and being overweight (35%) compared to other respondents (Table 42, appendices).

There were significant variations between ethnic groups for all risk factors, for example, only 39% of the African group recognised drinking alcohol as a risk factor compared to 66% of Bangladeshis. The African group had the lowest awareness of low intake of fruit and vegetables (11%), compared to Pakistanis' (63%) (Table 43, appendices). The only significant difference between SES groups was for passive smoking, where respondents classified as 'D' and 'C2' showed the highest awareness (84% and 83% respectively) compared to other groups (Table 44, appendices).

2.5 Awareness of cancer incidence

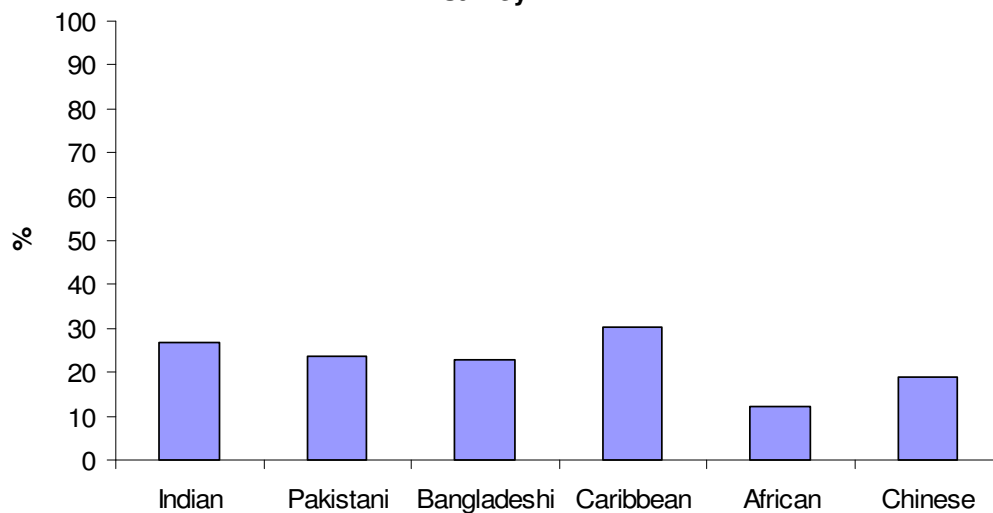
ONS sample

Around 29 people out of 100 will develop cancer at some point in their lives. Average estimated lifetime cancer incidence in the ONS sample was 34%, therefore broadly correct. Women thought more people would develop cancer than men (37% vs. 31%), but there were no differences according to age. Lower SES groups were less accurate than higher SES groups (36% vs 32%) and those from non-white backgrounds also estimated higher than white participants (30% vs 35%) (Table 45, appendices).

Ethnibus sample

Across all groups the average cancer incidence rate was perceived to be 24% (Table 46, appendices). There were no differences in judgements according to gender or age, but lower SES groups responded more accurately than higher SES groups (27% in the highest group vs 20% in the lowest group). African respondents had the lowest estimates of cancer incidence at 12% and Caribbean participants were the most accurate at 30% (see Figure 17, Table 46, appendices).

Figure 17: Perception of cancer incidence by ethnicity: Ethnibus survey



2.6 Common cancers²

ONS sample

The most common cancer in men is prostate cancer, followed by lung cancer and bowel cancer. When asked what was the most common cancer in men, the most frequent responses were prostate (43%), lung (28%) and testicular (11%) (Table 47, appendices). The most common cancer in women is breast cancer, followed by bowel cancer, and lung cancer. When asked what the most common female cancer was, 82% accurately said breast cancer, with the next most commonly mentioned being cervical (10%) and lung (2%) (Table 52, appendices).

Women, older respondents and white participants were more likely to be aware that prostate cancer is the most common cancer in men and that lung cancer is the second most common (Tables 48, 49, 50, 51, appendices). Generally, awareness of breast, bowel and lung cancers as the first, second and third most common female cancers was similar for men and women, across age groups, ethnic groups and different SES backgrounds. However, women were more aware that bowel cancer is the second most common female cancer and respondents with higher SES were more aware that lung cancer is the third most common female cancer (Tables 53, 54, 55, 56 appendices).

Ethnibus sample

When asked what the most common cancer in men was, 31% said prostate, 29% said lung, and 13% mentioned testicular cancer (Table 57 appendices). The most common cancer in women was thought to be breast cancer (83%), with 7% mentioning cervical and 2% mentioning lung or skin cancer (Table 62, appendices).

Few people were aware that bowel cancer was the third most common cancer, although men were more aware than women (9% vs.5%). Caribbean groups showed higher awareness of prostate cancer as the most common male cancer than other ethnic groups, with nearly half of respondents (45%) reporting that it was the most common cancer in men (compared to less than 36% across all other ethnic groups) (Tables 58, 59, 60, 61, appendices).

Women had a higher awareness of breast and lung cancer as the first and second most common female cancers (Table 63, appendices). In terms of ethnicity, Chinese

² Differences between demographic groups were assessed for the perceived first, second and third most common cancers in men and women.

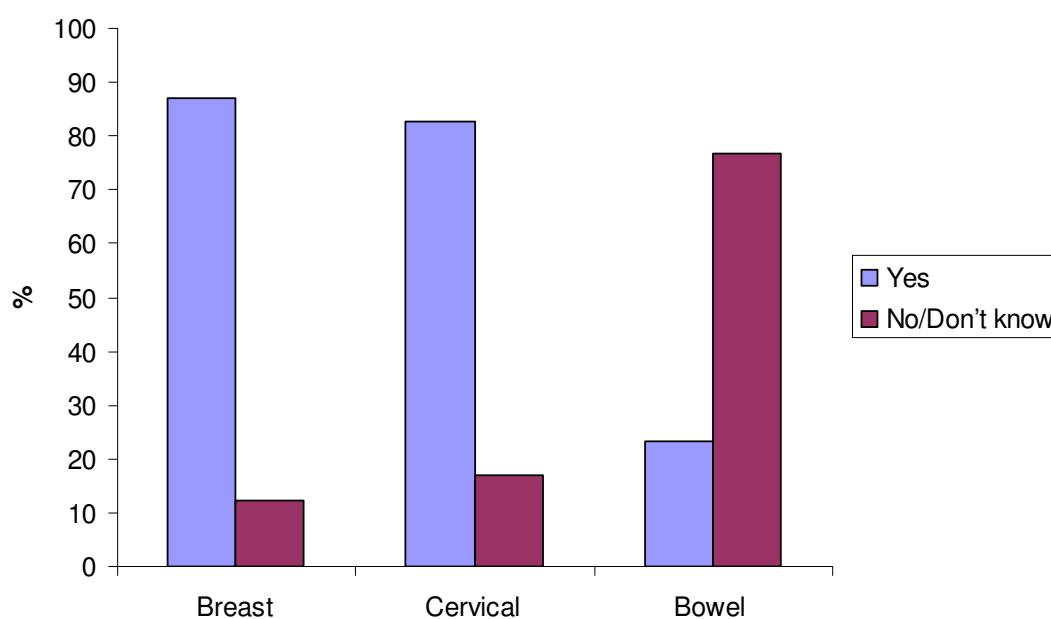
respondents showed lower awareness of all three common female cancers compared to other ethnic groups (Table 65, appendices).

2.7 Awareness of cancer screening programmes

ONS sample

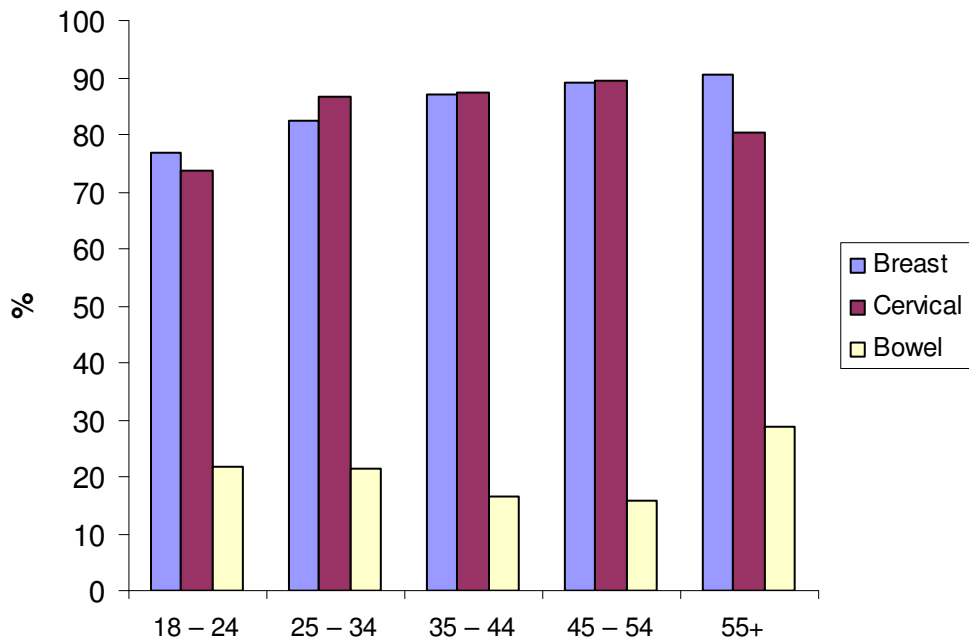
Overall, 88% of participants were aware of the NHS screening programme for breast cancer, 83% were aware of the cervical screening programme, but only 23% were aware of the newer bowel cancer programme (see Figure 18, Table 67, appendices).

Figure 18: Awareness of cancer screening programmes: ONS sample



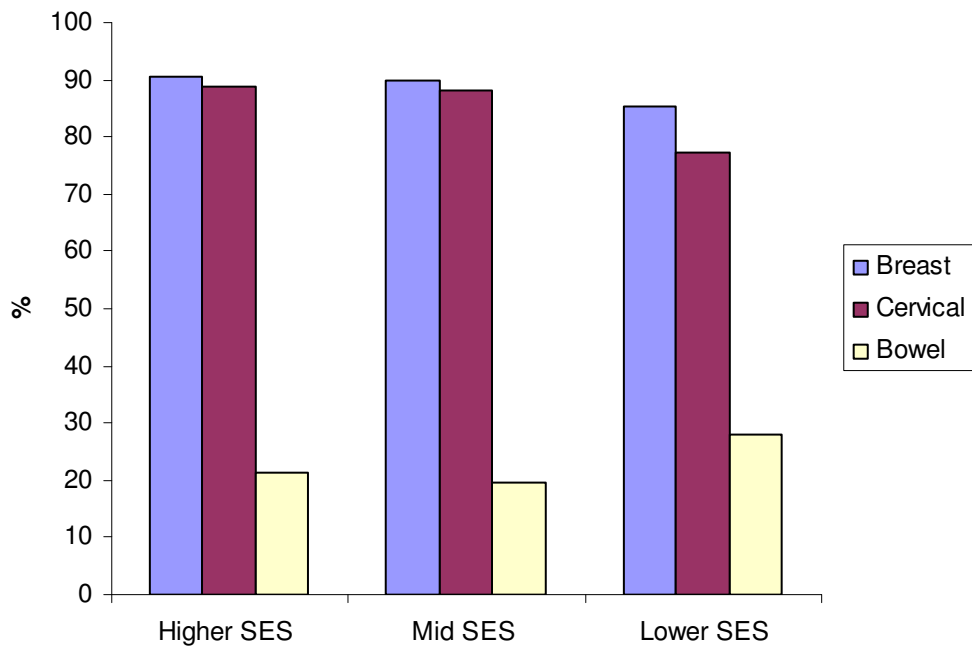
Women had greater awareness of all three screening programmes compared to men. (Table 68, appendices). Awareness of the breast and bowel cancer screening programmes was highest in people aged 55 and over (Table 69, appendices). Awareness of the cervical cancer screening programme was generally lower in the 18-24 and 55 and over age group compared to the other groups (Figure 19, Table 69).

Figure 19: Awareness of cancer screening programmes by age: ONS



White respondents had better knowledge of breast and cervical screening. There was no difference between the ethnic groups regarding awareness of the bowel cancer screening programme (Table 70, appendices). There was a slight SES gradient in awareness of the breast and cervical cancer screening programs, but this was reversed for bowel cancer screening programme with lower SES groups showing greater awareness than higher SES groups (see Figure 20, Table 71, appendices)

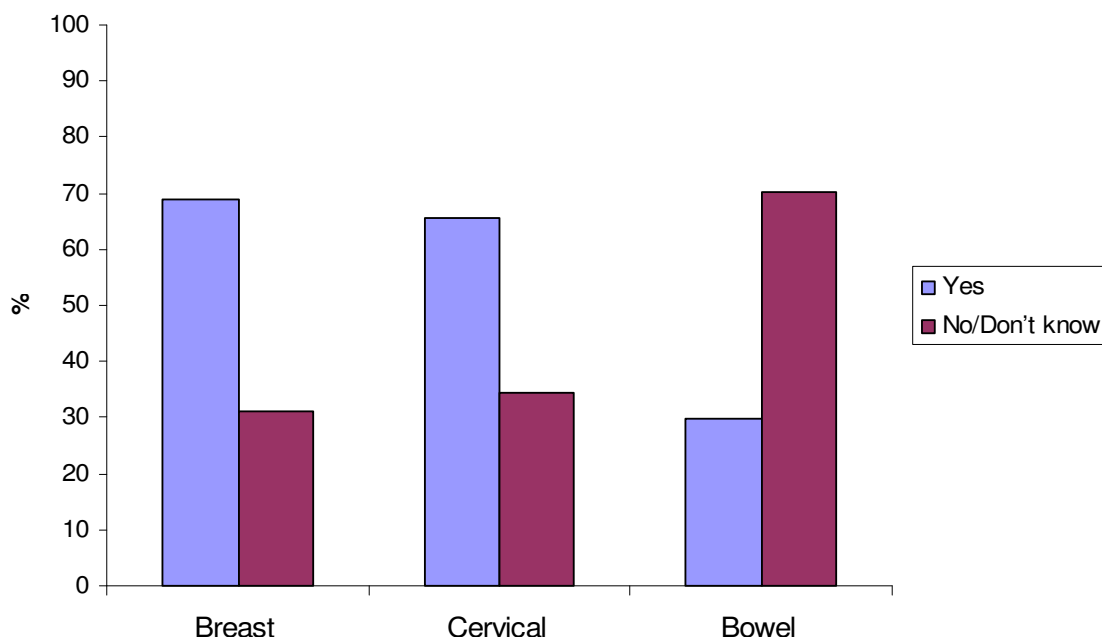
Figure 20: Awareness of cancer screening programmes by SES: ONS



Ethnibus sample

Overall, 69% of respondents were aware of the NHS cancer screening programme for breast cancer, 66% were aware of the cervical programme, and 30% were aware of the bowel cancer programme (see Figure 21, Table 72, appendices).

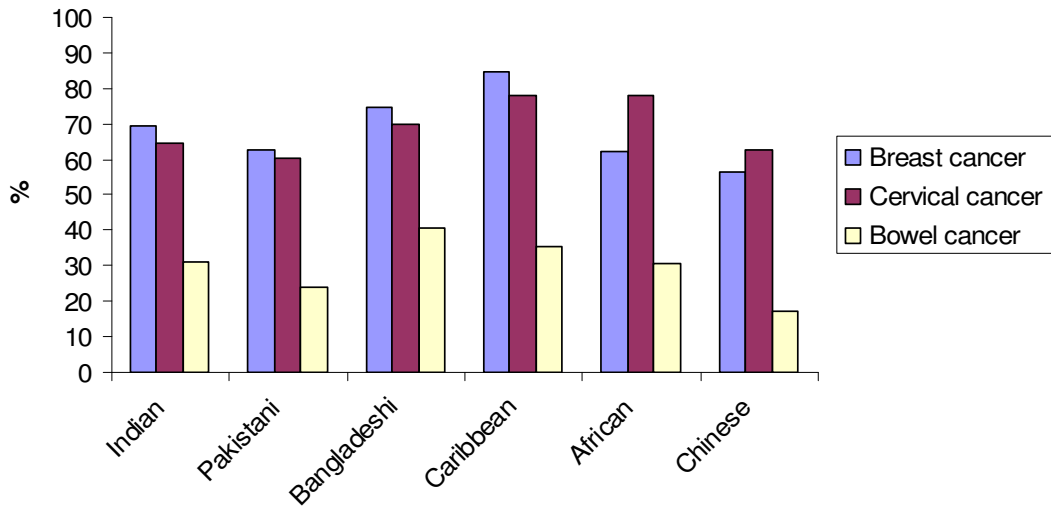
Figure 21: Awareness of screening programmes: Ethnibus survey



Women had higher awareness of both the breast and cervical cancer screening programmes compared to men (76% vs. 62% and 75% vs. 56% respectively) (Table 73, appendices). Awareness of the screening programmes did not differ by age in this sample (Table 74, appendices).

There were variations in awareness of all three cancer screening programmes between ethnic groups. Caribbean participants had the highest awareness of both breast and cervical cancer screening programmes. Bangladeshi respondents had the highest awareness of the bowel cancer screening programme (41%). Chinese respondents had the lowest awareness of all three screening programmes (see Figure 22, Table 75, appendices).

**Figure 22: Awareness of NHS screening programmes by Ethnicity:
Ethnibus survey**



There were differences in screening awareness for the cervical and bowel cancer programmes between different SES groups, but no SES differences in awareness of the breast screening programme. Respondents from the lowest SES group had the highest overall awareness of the bowel cancer screening programme (39%), but there was no clear pattern for cervical cancer screening (Table 76, appendices).

2.8 Contribution to Cancer

ONS sample only

Lifestyle was commonly believed to contribute the most towards cancer (60%). Genetic inheritance was ranked the most important by 23%, 10% thought environmental factors were the largest contributing factor, and chance was chosen by just 4% respondents. Ageing was not considered to be an important factor with only 2% of the sample believing it was the most important. 'Chance' was most likely to be ranked as the least important contributing factor (49%), 34% respondents put ageing in the bottom slot, 8% thought environmental factors were least important, 6% said genetic inheritance and 2% chose lifestyle.

Men were more likely to believe that lifestyle is the biggest contributing factor towards cancer than women (67% vs.57%) and women were more likely to endorse genetic inheritance as the biggest contributing factor compared to men (27% vs.18%) (Table 78, appendices). Younger respondents (18-24 years) were much less likely to rank environmental factors as important (4%), but there were no other variations between age groups (Table 79 appendices). No differences were found between white and

non-white participants or between different SES groups (Tables 80 and 81, appendices respectively).

3. CONCLUSIONS

Findings from both the ONS and Ethnibus survey demonstrate that on the whole, public recollection of cancer symptoms is poor (<30%), apart from the well known 'lump or swelling' (>50%). Men, younger people, non-white and lower SES groups had the poorest awareness of cancer symptoms. This demonstrates the importance of awareness campaigns across the general population as well as targeting particular demographic groups.

In both surveys, most respondents claimed that they would present with potentially serious symptoms to a GP within two weeks. In the ONS sample, having unexplained bleeding was associated with the least delay, particularly in women, whereas unexplained weight loss was associated with greatest anticipated delay in help-seeking. Surprisingly, white respondents, people from higher SES groups and those aged between 35 and 54 were the most likely to anticipate delay in help-seeking.

Barriers to seeking help included concerns about wasting the doctor's time, a lack of confidence in discussing symptoms, having other priorities, difficulty making appointments and worry about what the doctor might find. Emotional barriers such as worry, embarrassment and lack of confidence were more common in women, respondents from lower SES groups, and younger respondents. Chinese participants were more likely to delay seeking help for several symptoms compared to other ethnic groups. Clearly more needs to be done to address these barriers to ensure that people feel able to seek help for symptoms that could mean cancer.

Smoking was well-known as a risk factor for cancer, however recall of other lifestyle risk factors was poor (passive smoking, exercise, overweight), particularly in ethnic minority groups. Recognition of risk factors was particularly low for alcohol, diet (low fruit and vegetable intake and high red meat consumption), HPV infection and exercise. Men had poorer knowledge of cancer risk factors than women, as did respondents from lower SES groups compared to higher SES groups. There were large differences between ethnic groups in terms of risk factor awareness: African groups had the lowest awareness and Caribbean groups had the highest awareness.

This highlights the need for future initiatives to improve public awareness of cancer risk factors – particularly those related to lifestyle.

Participants were aware of the high prevalence of breast cancer but significantly overestimated the prevalence of cervical cancer: 10% of respondents in the ONS survey and 7% in the Ethnibus wrongly believed it to be the most common cancer in women. Additionally, 11% of respondents in the ONS survey and 13% in the Ethnibus survey wrongly believed testicular cancer to be the most common cancer in men. In both surveys, awareness of the breast and cervical cancer screening programme was good (>80% ONS, >60% Ethnibus), however awareness of the much newer bowel cancer screening programme was poor (23% ONS, 30% Ethnibus). Encouragingly, lifestyle was more often ranked as the most important contributing factor towards cancer, suggesting that efforts to increase awareness of specific lifestyle risk factors should be well received.

These studies have strengths and limitations. Firstly although the samples were largely representative, response rates were 61% in the ONS survey and 48% and 56% for the two waves of the Ethnibus survey. Therefore, it is not possible to gauge levels of awareness in the people who did not respond or chose not to take part. Additionally, respondents in the ONS survey were more likely to be from higher educated groups than lower SES groups. The Ethnibus sample however, included a good range of ages and SES backgrounds but the use of quota sampling means that it is difficult to ascertain how representative the sample was of the broader ethnic minority population.

It should also be acknowledged that although this is the first validated tool to assess cancer awareness, it is not perfect. Questions about help-seeking behaviours were hypothetical and therefore response may not be an accurate reflection of actual behaviour in real life situations, nevertheless it is encouraging that the majority of respondents said they would seek help promptly and indicates an awareness of the importance of early diagnosis.

Importantly, these findings provide a baseline of current UK levels of cancer awareness, which can be used to inform and evaluate future policy initiatives designed to improve awareness and early presentation.

4. KEY RECOMMENDATIONS

- Interventions aimed at improving awareness of cancer signs and risk factors should especially target men, young people, ethnic minority groups and lower SES groups.
- Future initiatives should focus on raising awareness of the association between specific lifestyle risk factors and cancer.
- Primary care initiatives should focus on empowering people to believe their symptom is important and deserves medical attention.
- More work should be done to raise awareness of the NHS cancer screening programmes in ethnic minority groups
- Future initiatives should aim to increase awareness of bowel cancer and the bowel cancer screening programme.

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Ethical approval: This study was carried out under ethical exemption from the University College London Ethics Committee (www.grad.ucl.ac.uk/ethics/contact.php), because it used anonymised data in the public domain, where appropriate permission has already been obtained.

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ACCESS TO THE CANCER AWARENESS MEASURE

More information about the National Awareness and Early Diagnosis Initiative, the Cancer Awareness Measure and guidance for use is available on the Cancer Research UK website:

http://info.cancerresearchuk.org/spotcancerearly/naedi/naedi_cam/index.htm

APPENDIX

AWARENESS OF SIGNS AND SYMPTOMS

Table 1: Recall of warning signs: ONS

Warning signs (n=2196)	% (n)
Lump	67.9 (1490)
Pain	27.4 (602)
Bleeding	28.6 (628)
Cough	18.0 (396)
Bowel/bladder	19.2 (421)
Difficulty swallowing	4.1 (91)
Mole	26.3 (577)
Sore	5.2 (114)
Weight loss	26.7 (586)

Table 2: Recognition of warning signs: ONS

Warning signs (n=2197)	% (n)
Lump	93.8 (2017)
Pain	74.3 (1641)
Bleeding	82.2 (1815)
Cough	68.7 (1517)
Bowel/bladder	86.1 (1900)
Difficulty swallowing	76.9 (1697)
Mole	94.1 (2078)
Sore	61.4 (1356)
Weight loss	83.2 (1837)

Table 3: Recognition of warning signs by gender: ONS

Warning signs % (n)	Men n=968	Women n=1240	Chi- square, p value
Lump	92.8 (894)	95.4 (1177)	6.49, p= .011*
Pain	73.7 (710)	75.4 (931)	0.844, p= .358
Bleeding	79.3 (764)	85.2 (1051)	12.82, p< .001*
Cough	64.6 (621)	72.6 (896)	16.70, p< .001*
Bowel/bladder	83.8 (807)	88.6 (1093)	10.54, p= .001*
Difficulty swallowing	74.6 (718)	79.3 (979)	7.02, p= .008*
Mole	91.7 (883)	96.8 (1195)	27.97, p< .001*
Sore	57.8 (557)	64.7 (799)	10.93, p= .001*
Weight loss	80.8 (778)	85.8 (1059)	9.99, p= .002*

Table 4: Recognition of warning signs by age: ONS

Symptom % (n)	18 – 24 yrs n=134	25 – 34 yrs n=323	35 – 44 yrs n=382	45 – 54 yrs n=310	55+ yrs n=1023	Chi- square, p value
Lump	94.7 (126)	94.7 (305)	93.7 (358)	94.8 (292)	94.0 (955)	0.68, df=4, p= .954
Pain	70.7 (94)	75.7 (243)	75.1 (287)	77.6 (239)	74.6 (758)	2.56, df=4, p= .634
Bleeding	62.4 (83)	80.7 (260)	81.4 (311)	87.0 (268)	85.4 (886)	49.17, df=4, p< .001*
Cough	44.4 (59)	58.7 (189)	66.2 (253)	73.4 (226)	75.7 (769)	79.38, df=4, p< .001*
Bowel/bladder	73.7 (98)	82.0 (264)	83.5 (319)	91.2 (281)	90.1 (915)	44.96, df=4, p< .001*
Difficulty swallowing	66.2 (88)	72.4 (233)	70.9 (271)	81.2 (250)	81.7 (830)	36.55, df=4, p< .001*
Mole	92.5 (123)	92.9 (299)	95.5 (365)	97.4 (300)	94.7 (962)	8.64, df=4, p= .071
Sore	38.3 (51)	49.7 (160)	57.6 (220)	64.0 (197)	69.9 (710)	82.67, df=4, p< .001*
Weight loss	65.4 (87)	77.0 (248)	83.2 (318)	89.9 (277)	87.2 (886)	61.97, df=4, p< .001*

Table 5: Recognition of warning signs by ethnicity: ONS

Warning signs % (n)	White n=2064	Non-White n=144	Chi-square, p value
Lump	95.0 (1952)	83.2 (119)	34.53, p< .001*
Pain	75.0 (1540)	70.6 (101)	1.34, p= .248
Bleeding	83.9 (1723)	64.3 (92)	35.57, p< .001*
Cough	69.8 (1723)	58.7 (84)	7.60, p= .006*
Bowel/bladder	87.7 (1802)	68.5 (98)	42.16, p< .001*
Difficulty swallowing	77.9 (1601)	67.1 (96)	8.89, p= .003*
Mole	95.9 (1969)	76.2 (109)	100.64, p< .001*
Sore	61.8 (1269)	60.8 (87)	0.05, p= .823
Weight loss	84.6 (1737)	69.9 (100)	20.90, p< .001*

Table 6: Recognition of warning signs by SES: ONS

Warning signs % (n)	Higher SES n=744	Mid SES n=430	Lower SES n=853	Chi- square, p value
Lump	96.5 (715)	93.2 (580)	92.5 (604)	11.62, p= .003*
Pain	81.9 (607)	76.4 (475)	66.3 (433)	45.99, p< .001*
Bleeding	86.1 (638)	83.4 (519)	79.2 (517)	11.93, p= .003*
Cough	74.8 (554)	69.1 (430)	64.3 (420)	18.02, p< .001*
Bowel/bladder	90.0 (667)	87.0 (541)	83.9 (548)	11.48, p= .003*
Difficulty swallowing	81.9 (601)	76.0 (473)	75.0 (490)	11.28, p= .004*
Mole	97.4 (722)	94.2 (586)	93.6 (611)	13.21, p= .001*
Sore	66.5 (493)	63.5 (395)	57.4 (375)	12.58, p= .002*
Weight loss	88.3 (654)	84.4 (525)	80.9 (528)	14.70, p= .001*

Table 7: Recall of warning signs: Ethnibus

Warning signs (n =1500)	% (n)
Lump	50.4 (756)
Pain	20.1 (301)
Bleeding	14.5 (217)
Cough	6.8 (102)
Bowel/bladder	2.4 (36)
Difficulty swallowing	0.4 (6)
Mole	6.3 (94)
Sore	1.1 (17)
Weight loss	16.1 (241)

Table 8: Recognition of warning signs: Ethnibus

Warning signs (n=1500)	% (n)
Lump	72.2 (1083)
Pain	72.1 (1081)
Bleeding	59.9 (898)
Cough	42.3 (634)
Bowel/bladder	51.2 (768)
Difficulty swallowing	37.1 (556)
Mole	46.1 (691)
Sore	34.9 (523)
Weight loss	57.9 (869)

Table 9: Recognition of warning signs by gender: Ethnibus

Warning signs % (n)	Men n=742	Women n=758	Chi- square, p value
Lump	69.4 (515)	74.9 (568)	5.71, p= .017*
Pain	70.2 (521)	73.9 (560)	2.50, p= .114
Bleeding	55.1 (409)	64.5 (489)	13.76, p< .001*
Cough	42.1 (315)	64.5 (489)	0.02, p= .885
Bowel/bladder	52.0 (386)	50.4 (382)	0.40, p= .529
Difficulty swallowing	38.8 (288)	35.4 (268)	1.92, p= .166
Mole	50.5 (375)	41.7 (316)	11.82, p= .001*
Sore	34.5 (256)	35.2 (267)	.09, p= .796
Weight loss	58.1 (431)	57.8 (438)	.01, p= .906

Table 10: Recognition of warning signs by age: Ethnibus

Symptom % (n)	18 – 24 yrs n=351	25 – 34 yrs n=395	35 – 44 yrs n=322	45 – 54 yrs n=211	55+ yrs n=221	Chi- square, p value
Lump	70.4 (247)	72.9 (288)	73.9 (238)	75.4 (159)	68.3 (151)	3.86, df=4, p= .426
Pain	72.6 (255)	68.1 (269)	68.9 (222)	75.4 (159)	79.6 (176)	12.13, df=4, p= .016*
Bleeding	60.4 (212)	53.9 (213)	64.3 (207)	60.7 (128)	62.4 (138)	9.13, df=4, p= .058
Cough	42.7 (150)	36.7 (145)	48.8 (157)	37.9 (80)	46.2 (102)	13.60, df=4, p= .009*
Bowel/bladder	45.6 (160)	47.1 (186)	60.2 (194)	49.8 (105)	55.7 (123)	19.59, df=4, p= .001*
Difficulty swallowing	37.3 (131)	30.1 (119)	39.4 (127)	37.0 (78)	45.7 (101)	16.01, df=4, p= .003*
Mole	48.1 (169)	43.5 (172)	42.9 (138)	46.4 (98)	51.6 (114)	5.68, df=4, p= .224
Sore	31.3 (110)	33.7 (133)	32.9 (106)	40.8 (86)	39.8 (88)	8.32, df=4, p= .080
Weight loss	61.5 (216)	49.1 (194)	60.6 (195)	64.0 (135)	58.4 (129)	18.57, df=4, p= .001*

Table 11: Recognition of warning signs by ethnicity: Ethnibus

Warning signs % (n)	Indian n=467	Pakistani n=333	Bangladeshi n=126	Caribbean n=252	African n=216	Chinese n=106	Chi- square, p value
Lump	70.2 (328)	72.4 (241)	61.1 (77)	81.0 (204)	73.6 (159)	69.8 (74)	18.76, p= .002*
Pain	69.9 (325)	68.2 (227)	75.4 (95)	84.9 (214)	63.0 (136)	79.2 (84)	36.92, p< .001*
Bleeding	56.5 (264)	58.6 (195)	65.1 (82)	73.0 (184)	45.4 (98)	70.8 (75)	46.08, p< .001*
Cough	42.8 (200)	39.0 (130)	45.2 (57)	41.3 (104)	38.9 (84)	55.7 (59)	10.84, p= .055
Bowel/bladder	43.7 (204)	39.9 (133)	64.3 (81)	73.0 (184)	51.4 (111)	51.9 (55)	84.12, p< .001*
Difficulty swallowing	35.8 (167)	28.8 (96)	46.8 (59)	44.4 (112)	31.5 (68)	50.9 (54)	32.69, p< .001*
Mole	48.4 (226)	46.5 (155)	58.7 (74)	48.8 (123)	29.2 (63)	47.2 (50)	34.83, p< .001*
Sore	29.1 (136)	42.9 (143)	42.9 (54)	27.0 (68)	38.9 (84)	35.8 (38)	28.37, p< .001*
Weight loss	52.9 (247)	50.8 (169)	61.9 (78)	71.8 (181)	56.9 (123)	67.0 (71)	36.34, p< .001*

Table 12: Recognition of warning signs by SES: Ethnibus

Warning signs % (n)	AB n=166	C1 n=421	C2 n=333	D n=404	E n=176	Chi-square, p value
Lump	78.9 (131)	74.3 (313)	69.4 (231)	67.1 (271)	77.8 (137)	14.09, df = 4, p= .007*
Pain	75.3 (125)	69.8 (294)	76.3 (254)	68.3 (254)	75.0 (132)	8.41, df = 4, p= .078
Bleeding	57.2 (95)	59.9 (252)	60.1 (200)	60.1 (243)	61.4 (108)	0.66, df = 4, p = .956
Cough	41.0 (68)	46.8 (197)	42.3 (141)	39.6 (160)	38.6 (68)	5.78, df = 4, p = .217
Bowel/bladder	51.8 (86)	51.3 (216)	46.5 (155)	51.0 (206)	59.7 (105)	7.96, df = 4, p = .093
Difficulty swallowing	34.9 (58)	36.6 (154)	41.4 (138)	34.4 (139)	38.1 (67)	4.40, df = 4, p = .355
Mole	45.2 (75)	48.0 (202)	44.1 (147)	46.8 (189)	44.3 (78)	1.47, df = 4, p = .832
Sore	40.4 (67)	33.5 (154)	36.3 (121)	33.2 (134)	34.1 (60)	3.43, df = 4, p = .488
Weight loss	60.2 (100)	62.9 (265)	54.7 (182)	53.4 (216)	60.2 (106)	9.68, df = 4, p= .043*

DELAY IN SEEKING HELP

Table 13: Delay in help-seeking: ONS

Warning signs % (n)	1-3 days	4-6 days	1wk	2 wks	1mth	6 wks	3 mths	6 mths	12 mths	Never
Lump	53.7 (1186)	7.9 (175)	14.0 (310)	9.7 (214)	7.9 (174)	1.6 (35)	1.2 (26)	0.6 (13)	0.3 (6)	1.2 (26)
Pain	33.1 (730)	15.5 (342)	21.7 (480)	13.1 (290)	7.5 (166)	1.9 (42)	1.1 (25)	0.6 (14)	0.3 (7)	2.1 (46)
Bleeding	71.1 (1569)	9.1 (200)	11.0 (242)	3.5 (77)	2.1 (47)	0.5 (10)	0.3 (6)	0.2 (5)	0.1 (2)	0.5 (10)
Cough	12.4 (274)	11.7 (258)	21.4 (472)	23.3 (514)	14.4 (318)	4.2 (93)	1.9 (43)	0.7 (16)	0.4 (9)	7.4 (164)
Bowel/ Bladder	24.3 (537)	13.4 (296)	21.0 (463)	16.3 (359)	13.5 (297)	3.0 (67)	2.1 (46)	0.8 (17)	0.3 (7)	3.1 (68)
Difficulty swallowing	39.2 (865)	17.0 (375)	21.6 (478)	12.5 (277)	4.8 (105)	0.8 (18)	0.5 (12)	0.2 (4)	0.0 (0)	1.3 (29)
Mole	45.1 (996)	11.3 (250)	17.0 (376)	8.9 (196)	8.4 (185)	1.6 (35)	1.9 (43)	0.6 (13)	0.4 (9)	1.6 (35)
Sore	24.6 (543)	12.4 (274)	22.1 (488)	20.0 (441)	12.7 (281)	2.1 (46)	1.7 (38)	0.3 (7)	0.2 (5)	1.3 (29)
Weight loss	18.5 (408)	6.7 (148)	10.8 (238)	16.2 (358)	23.3 (515)	7.7 (171)	6.9 (153)	1.9 (42)	0.8 (18)	3.9 (86)

Table 14: Percentage delaying >one week by gender: ONS

Warning signs % (n)	Men n=968	Women n=1240	Chi-square, p value
Lump	30.6 (290)	16.7 (204)	58.23, df = 1, p <0.001*
Pain	29.3 (275)	26.1 (315)	2.72, df = 1, p =0.06
Bleeding	6.0 (57)	8.2 (100)	3.84, df = 1, p =.05*
Cough	56.1 (530)	51.6 (627)	4.37, df = 1, p =.04*
Bowel/bladder	40.4 (381)	39.6 (480)	0.14, df = 1, p =.71
Difficulty swallowing	23.2 (220)	18.5 (225)	7.16, df = 1, p =.007*
Mole	29.0 (270)	20.4 (246)	21.33, df =1, p <.001*
Sore	43.5 (410)	36.1 (437)	12.18, df =1, p <.001*
Weight loss	62.1 (584)	63.4 (759)	0.37, df =1, p =.543

Table 15: Percentage delaying >one week by age: ONS

Symptom % (n)	18 – 24 yrs n=134	25 – 34 yrs n=323	35 – 44 yrs n=382	45 – 54 yrs n=310	55+ yrs n=1023	Chi-square, p value
Lump	25.8 (34)	27.7 (89)	26.9 (101)	23.6 (72)	19.2 (191)	16.22, df = 4, p =.003*
Pain	17.6 (23)	28.8 (92)	30.9 (115)	33.3 (100)	25.5 (251)	15.10, df = 4, p =.003*
Bleeding	5.3 (7)	8.7 (28)	11.2 (42)	9.6 (29)	4.8 (48)	21.86, df =4, p <.001*
Cough	48.5 (64)	63.3 (202)	58.7 (220)	57.8 (175)	48.0 (478)	32.08, df = 4, p <.001*
Bowel/bladder	38.9 (51)	47.8 (152)	45.2 (170)	43.4 (132)	34.8 (346)	24.83, df = 4, p <.001*
Difficulty swallowing	19.7 (26)	24.7 (79)	23.2 (87)	21.2 (65)	18.3 (182)	8.14, df =4, p =.087
Mole	28.2 (37)	24.9 (80)	27.3 (102)	23.8 (72)	22.5 (220)	4.83, df = 4, p =.306
Sore	34.8 (46)	44.7 (143)	43.7 (164)	41.8 (127)	35.9 (354)	13.61, df = 4, p =.009*
Weight loss	61.1 (80)	69.4 (220)	69.5 (257)	66.4 (202)	57.2 (561)	28.06, df = 4, p <.001*

Table 16: Percentage delaying >one week by ethnicity: ONS

Warning signs % (n)	White n=2064	Non-White n=144	Chi-square, p value
Lump	23.0 (467)	19.6 (27)	0.89, df = 1, p =.347
Pain	28.3 (567)	16.8 (23)	8.48, df =1, p =.004*
Bleeding	7.3 (149)	5.8 (8)	0.46, df = 1, p =.499
Cough	54.8 (1109)	35.3 (48)	19.42, df =1, p<.001*
Bowel/bladder	40.8 (825)	26.5 (36)	10.94, df = 1, p =.001*
Difficulty swallowing	21.1 (428)	12.3 (17)	6.15, df =1, p =.013*
Mole	24.4 (489)	20.1 (27)	1.24, df = 1, p =.265
Sore	40.5 (817)	22.1 (30)	18.20, df =1, p <.001*
Weight loss	63.7 (1274)	50.7 (69)	9.12, df = 1, p =.003*

Table 17: Percentage delaying >one week by SES: ONS

Warning signs % (n)	Higher SES n=744	Mid SES n=430	Lower SES n=853	Chi-square, p value
Lump	27.0 (198)	23.4 (144)	16.6 (150)	21.87, df = 2, p <.001*
Pain	32.5 (235)	28.5 (173)	21.5 (137)	20.70, df = 2, p <.001*
Bleeding	8.0 (59)	8.1 (50)	4.7 (30)	7.92, df = 2, p =.019*
Cough	62.5 (459)	54.6 (334)	43.7 (279)	48.69, df = 2, p <.001*
Bowel/bladder	49.4 (362)	40.8 (249)	29.3 (187)	57.25, df =2, p <.001*
Difficulty swallowing	26.2 (192)	20.8 (128)	14.4 (92)	28.48, df = 2, p <.001*
Mole	28.8 (211)	25.8 (157)	17.2 (108)	26.04, df =2, p <.001*
Sore	45.9 (334)	42.2 (258)	29.8 (190)	39.12, df = 2, p <.001*
Weight loss	72.6 (530)	65.9 (400)	49.2 (420)	82.26, df =2, p <.001*

Table 18: Delay in help-seeking: Ethnibus

Warning signs % (n)	1-3 days	4-6 days	1wk	2 wks	1mth	6 wks	3 mths	6 mths	12 mths	Never
Lump	44.8 (672)	13.9 (208)	15.7 (236)	11.1 (167)	8.1 (122)	1.9 (28)	1.9 (29)	1.3 (19)	0.1 (2)	1.1 (17)
Pain	39.6 (594)	19.3 (289)	19.8 (297)	10.4 (156)	9.4 (96)	2.3 (34)	1.2 (18)	0.3 (5)	0.1 (1)	0.7 (10)
Bleeding	59.9 (898)	15.3 (230)	11.8 (177)	6.7 (101)	4.1 (62)	1.1 (17)	0.5 (8)	0.0 (0)	0.0 (0)	0.5 (7)
Cough	11.3 (169)	10.7 (160)	15.5 (233)	29.7 (445)	16.5 (248)	8.2 (123)	3.4 (51)	1.1 (16)	0.4 (6)	3.3 (49)
Bowel/ bladder	28.7 (430)	16.0 (240)	21.8 (327)	16.5 (248)	9.2 (138)	3.7 (56)	1.7 (26)	0.8 (12)	0.0 (0)	1.5 (23)
Difficulty swallowing	25.3 (379)	10.1 (151)	11.0 (165)	24.3 (364)	16.5 (248)	10.3 (154)	1.1 (17)	0.3 (5)	0.1 (1)	1.1 (16)
Mole	30.3 (454)	11.1 (167)	15.5 (232)	14.7 (220)	14.7 (220)	5.7 (85)	3.8 (57)	0.9 (13)	0.8 (12)	2.7 (40)
Sore	22.4 (336)	17.4 (261)	21.6 (324)	18.0 (270)	10.8 (162)	4.6 (69)	2.2 (33)	1.5 (23)	0.3 (5)	1.1 (17)
Weight loss	6.2 (93)	5.4 (81)	8.6 (129)	15.0 (225)	23.6 (354)	14.8 (222)	12.3 (185)	7.5 (112)	1.3 (20)	5.3 (79)

Table 19: Percentage delaying >one week by gender: Ethnibus

Warning signs % (n)	Men n=742	Women n=758	Chi-square, p value
Lump	27.6 (205)	23.6 (179)	3.17, df = 1, p =.075
Pain	23.6 (175)	19.1 (145)	4.44, df = 1, p =.035*
Bleeding	15.5 (115)	10.6 (80)	8.11, df = 1, p =.004*
Cough	61.6 (457)	63.5 (481)	0.56, df = 1, p =.445
Bowel/bladder	33.4 (248)	33.6 (255)	0.01, df = 1, p =.929
Difficulty swallowing	55.8 (414)	51.6 (391)	2.68, df =1, p =.102
Mole	41.5 (308)	44.7 (339)	1.58, df = 1, p =.209
Sore	39.8 (295)	37.5 (284)	0.83, df = 1, p =.362
Weight loss	77.2 (573)	82.3 (624)	6.05, df = 1, p =.014*

Table 20: Percentage delaying >one week by age: Ethnibus

Warning signs % (n)	18 – 24 yrs n=351	25 – 34 yrs n=395	35 – 44 yrs n=322	45 – 54 yrs n=211	55+ yrs n=221	Chi-square, p value
Lump	29.6 (104)	19.5 (77)	30.4 (98)	18.5 (39)	29.9 (66)	22.40, df =4, p <.001*
Pain	24.8 (87)	18.7 (74)	27.6 (89)	14.2 (30)	18.1 (40)	19.46, df = 4, p =.001*
Bleeding	12.8 (45)	15.7 (62)	12.1 (39)	11.8 (25)	10.9 (24)	3.92, df = 4, p =.417
Cough	65.2 (229)	59.0 (233)	65.2 (210)	61.1 (129)	62.0 (137)	4.41, df = 4, p =.353
Bowel/bladder	37.0 (130)	30.4 (120)	38.5 (124)	35.5 (75)	24.4 (54)	15.87, df =4, p =.004*
Difficulty swallowing	53.6 (188)	58.2 (230)	52.5 (169)	53.6 (113)	47.5 (105)	6.86, df =4, p =.144
Mole	51.0 (179)	40.0 (158)	42.2 (136)	43.6 (92)	37.1 (82)	13.83, df = 4, p =.009*
Sore	44.2 (155)	34.2 (135)	42.9 (138)	36.5 (77)	33.5 (74)	13.14, df =4, p =.011*
Weight loss	81.5 (286)	79.2 (313)	84.8 (273)	72.0 (152)	78.0 (173)	13.86, df =4, p =.008*

Table 21: Percentage delaying >one week by ethnicity: Ethnibus

Warning signs % (n)	Indian n=467	Pakistani n=333	Bangladeshi n=126	Caribbean n=252	African n=216	Chinese n=106	Chi-square, p value
Lump	31.7 (148)	24.9 (83)	34.9 (44)	13.5 (34)	7.4 (16)	55.7 (59)	122.15, df = 5, p <.001*
Pain	26.8 (125)	24.3 (81)	22.2 (28)	13.1 (33)	7.9 (17)	34.0 (36)	53.64, df = 5, p <.001*
Bleeding	18.2 (85)	12.3 (41)	11.9 (15)	9.5 (24)	3.7 (8)	20.8 (22)	36.28, df = 5, p <.001*
Cough	63.2 (295)	61.3 (204)	65.1 (82)	69.4 (175)	48.1 (104)	73.6 (78)	30.40, df =5, p <.001*
Bowel/bladder	40.0 (187)	36.3 (121)	46.8 (59)	16.3 (41)	19.9 (43)	49.1 (52)	83.19, df = 5, p <.001*
Difficulty swallowing	60.0 (280)	67.6 (225)	57.9 (73)	43.3 (109)	32.4 (70)	45.3 (48)	87.48, df = 5, p <.001*
Mole	51.0 (238)	42.0 (140)	48.4 (61)	36.9 (93)	31.0 (67)	45.3 (48)	30.38, df = 5, p <.001*
Sore	42.2 (197)	30.0 (100)	46.8 (59)	49.6 (125)	20.8 (45)	50.0 (53)	63.90, df = 5, p <.001*
Weight loss	81.4 (380)	81.4 (271)	86.5 (109)	77.8 (196)	73.1 (158)	78.3 (83)	11.46, df =5, p =.043*

Table 22: Percentage delaying >one week SES: Ethnibus

Warning signs % (n)	AB n=166	C1 n=421	C2 n=333	D n=404	E n=176	Chi-square, p value
Lump	22.3 (37)	27.3 (115)	30.9 (103)	22.5 (91)	21.6 (38)	10.07, df = 4, p =.039*
Pain	16.9 (28)	25.4 (107)	26.1 (87)	17.8 (72)	14.8 (26)	18.20, df = 4, p =.001*
Bleeding	7.8 (13)	15.2 (64)	15.3 (51)	12.4 (50)	9.7 (17)	9.18, df =4, p =.057
Cough	56.6 (94)	64.8 (273)	65.2 (217)	62.4 (252)	58.0 (102)	6.0, df = 4, p =.199
Bowel/bladder	30.1 (50)	36.6 (154)	38.4 (128)	30.4 (123)	27.3 (48)	11.04, df = 4, p =.026*
Difficulty swallowing	50.0 (83)	53.0 (223)	52.3 (174)	59.7 (241)	47.7 (84)	9.57, df = 4, p =.048*
Mole	38.0 (63)	44.4 (187)	45.0 (150)	43.3 (175)	40.9 (72)	2.96, df =4, p =.565
Sore	27.7 (46)	34.9 (147)	43.8 (146)	39.9 (161)	44.9 (79)	17.78, df = 4, p =.001*
Weight loss	75.9 (126)	77.9 (328)	81.4 (271)	81.9 (331)	80.1 (141)	4.16, df = 4, p =.385

BARRIERS TO SEEKING HELP

Table 23: Barriers to help-seeking: ONS

Barriers % (n)	Yes	No/Don't know
Emotional barriers		
Embarrassed	20.5 (452)	78.9 (1743)
Scared	24.8 (547)	74.7 (1648)
Worried	36.5 (807)	62.8 (1388)
Lack of confidence	11.8 (260)	87.7 (1935)
Practical barriers		
Time	28.4 (626)	71.1 (1169)
Other priorities	21.7 (480)	77.7 (1715)
Transport	4.7 (103)	94.8 (2092)
Service barriers		
Wasting time	38.1 (842)	61.3 (1353)
Difficult to talk to	13.4 (296)	86.0 (1899)
Difficult to make an appointment	40.7 (899)	58.7 (1286)

Table 24: Barriers to help-seeking by gender: ONS

Barriers %(n)	Men n=968	Women n=1240	Chi-square, p value
Emotional barriers			
Embarrassed	19.0 (180)	22.3 (272)	3.55, df = 1, p= .060
Scared	20.3 (193)	29.4 (354)	23.14, df= 1, p< .001*
Worried	33.7 (321)	40.1 (486)	9.30, df = 1, p= .002*
Lack of confidence	9.2 (88)	14.2 (172)	12.43, df= 1, p< .001*
Practical barriers			
Time	29.9 (287)	27.7 (339)	1.22, df= 1, p= .269
Other priorities	21.5 (206)	22.5 (274)	0.29, df= 1, p= .588
Transport	4.0 (38)	5.3 (65)	2.18, df= 1, p= .140
Service barriers			
Wasting time	35.8 (342)	41.0 (500)	5.95, df= 1, p= .015*
Difficult to talk to	11.4 (105)	16.0 (191)	9.15, df= 1, p= .002*
Difficult to make an appointment	36.9 (348)	45.3 (551)	15.17, df = 1, p< .001*

Table 25: Barriers to help-seeking by age: ONS

Barriers %(n)	18 – 24 yrs n=134	25 – 34 yrs n=323	35 – 44 yrs n=382	45 – 54 yrs n=310	55+ yrs n=1023	Chi-square, p value
Emotional barriers						
Embarrassed	43.5 (57)	24.5 (79)	22.5 (84)	16.8 (51)	16.7 (168)	57.85, df= 4, p< .001*
Scared	41.4 (75)	28.9 (92)	30.0 (112)	22.9 (70)	20.8 (207)	35.65, df= 4, p< .001*
Worried	45.8 (60)	41.3 (131)	40.9 (152)	39.3 (120)	33.1 (333)	16.38, df= 4, p< .001*
Lack of confidence	19.2 (25)	14.4 (46)	14.6 (55)	11.4 (35)	8.6 (86)	22.02, df= 4, p< .001*
Practical barriers						
Time	33.6 (44)	50.8 (163)	43.0 (163)	35.3 (109)	13.4 (135)	238.42, df= 4, p< .001*
Other priorities	26.9 (35)	36.9 (118)	35.4 (133)	24.7 (76)	10.6 (107)	159.43, df=4, p< .001*
Transport	3.8 (5)	1.9 (6)	2.6 (10)	3.2 (10)	7.0 (71)	23.02, df= 4, p< .001*
Service barriers						
Wasting time	35.9 (47)	43.0 (138)	42.4 (160)	48.0 (147)	34.8 (344)	24.36, df= 4, p< .001*
Difficult to talk to	21.4 (27)	20.9 (64)	14.7 (53)	17.2 (51)	9.6 (95)	36.39, df= 4, p< .001*
Difficult to make an appointment	46.9 (60)	46.8 (147)	43.5 (163)	48.7 (149)	36.8 (368)	21.45, df= 4, p< .001*

Table 26: Barriers to help-seeking by ethnicity: ONS

Barriers %(n)	White n=2064	Non-White n=144	Chi-square, p value
Emotional barriers			
Embarrassed	21.1 (428)	17.3 (24)	1.14, df= 1, p = .285
Scared	25.7 (518)	20.7 (29)	1.73, df = 1, p= .188
Worried	37.8 (765)	30.0 (42)	3.37, df = 1, p = .066
Lack of confidence	12.1 (246)	9.9 (14)	0.61, df = 1, p= .437
Practical barriers			
Time	28.4 (579)	33.6 (47)	1.74, df = 1, p= .187
Other priorities	21.7 (442)	27.1 (38)	2.24, df = 1, p= .134
Transport	4.7 (97)	4.2 (6)	0.08, df= 1, p= .078
Service barriers			
Wasting time	39.7 (808)	24.3 (34)	13.16, df= 1, p< .001*
Difficult to talk to	14.2 (281)	10.9 (15)	1.15, df = 1, p= .283
Difficult to make an appointment	42.1 (851)	34.3 (48)	3.33, df= 1, p= .068

Table 27: Barriers to help-seeking by SES: ONS

Barriers %(n)	Higher SES n=744	Mid SES n=430	Lower SES n=853	Chi-square, p value
Emotional barriers				
Embarrassed	15.6 (115)	19.4 (119)	25.5 (164)	21.07, df= 2, p< .001*
Scared	23.3 (169)	25.7 (158)	25.4 (168)	1.98, df= 2, p= .372
Worried	33.2 (243)	35.2 (217)	44.1 (283)	19.25, df= 2, p< .001*
Lack of confidence	10.1 (74)	10.7 (66)	13.9 (89)	5.44, df= 2, p = .066
Practical barriers				
Time	38.3 (282)	26.9 (167)	16.9 (127)	59.91, df= 2, p< .001*
Other priorities	26.4 (194)	21.7 (134)	17.6 (113)	15.37, df= 2, p< .001*
Transport	2.8 (21)	4.8 (30)	6.6 (43)	11.14, df= 2, p= .004*
Service barriers				
Wasting time	36.4 (269)	42.7 (265)	39.4 (251)	5.59, df= 2, p= .061
Difficult to talk to	12.5 (89)	14.2 (86)	14.5 (90)	1.30, df= 2, p= .521
Difficult to make an appointment	43.3 (315)	40.7 (251)	41.6 (266)	0.91, df= 2, p = .633

Table 28: Barriers to help-seeking: Ethnibus

Barriers % (n)	Yes	No/Don't know
Emotional barriers		
Embarrassed	35.9 (538)	64.1 (962)
Scared	32.4 (486)	67.6 (1014)
Worried	41.2 (618)	58.8 (882)
Lack of confidence	29.7 (446)	70.2 (1054)
Practical barriers		
Time	35.4 (531)	64.6 (969)
Other priorities	36.8 (551)	63.3 (949)
Transport	18.0 (271)	82.0 (1229)
Service barriers		
Wasting time	27.4 (412)	72.6 (1088)
Difficult to talk to	26.6 (399)	73.4 (1101)
Difficult to make an appointment	39.5 (593)	60.5 (907)

Table 29: Barriers to help-seeking by gender: Ethnibus

Barriers %(n)	Men n=742	Women n=758	Chi-square, p value
Emotional barriers			
Embarrassed	29.2 (217)	42.3 (321)	27.99, df= 1, p< .001*
Scared	29.1 (216)	35.6 (270)	7.25, df= 1, p= .007*
Worried	36.1 (286)	46.2 (350)	15.65, df= 1, p< .001*
Lack of confidence	27.0 (200)	32.5 (246)	5.43, df= 1, p= .020*
Practical barriers			
Time	38.4 (251)	16.4 (246)	5.82, df= 1, p< .018*
Other priorities	33.8 (251)	39.6 (300)	5.34, df= 1, p< .021*
Transport	16.7 (124)	19.4 (147)	20.16, df= 1, p< .001*
Service barriers			
Wasting time	22.2 (165)	32.6 (247)	20.16, df= 1, p< .001*
Difficult to talk to	24.0 (178)	29.2 (221)	5.13, df= 1, p= .024*
Difficult to make an appointment	38.9 (289)	40.1 (304)	0.21, df= 1, p = .647

Table 30: Barriers to help-seeking by age: Ethnibus

Barriers %(n)	18 – 24 yrs n=351	25 – 34 yrs n=395	35 – 44 yrs n=322	45 – 54 yrs n=211	55+ yrs n=221	Chi-square, p value
Emotional barriers						
Embarrassed	38.7 (136)	37.5 (148)	32.9 (106)	40.3 (85)	28.5 (63)	9.92, df= 4, p= .042*
Scared	41.9 (147)	31.4 (124)	28.3 (91)	32.2 (68)	25.3 (56)	22.14, df= 4, p< .001*
Worried	47.0 (165)	40.3 (159)	37.6 (121)	44.1 (93)	36.2 (80)	9.78, df= 4, p= .044*
Lack of confidence	30.8 (108)	25.8 (102)	29.2 (94)	36.5 (77)	29.4 (65)	7.74, df= 4, p= .101
Practical barriers						
Time	43.3 (152)	35.9 (142)	35.1 (113)	37.0 (78)	20.8 (46)	30.44, df=4, p< .001*
Other priorities	35.6 (125)	37.5 (148)	37.6 (121)	41.2 (87)	31.7 (70)	4.65, df= 4, p= .352
Transport	14.5 (51)	18.7 (74)	14.3 (46)	23.7 (50)	22.6 (50)	13.81, df= 4, p= .008*
Service barriers						
Wasting time	29.3 (103)	29.1 (115)	23.3 (75)	28.0 (59)	27.1 (60)	4.01, df= 4, p= .404
Difficult to talk to	23.9 (84)	27.8 (110)	21.1 (68)	29.9 (63)	33.5 (74)	13.06, df= 4, p= .011*
Difficult to make an appointment	35.3 (124)	38.2 (151)	44.7 (144)	43.1 (91)	37.6 (83)	8.01, df= 4, p= .091

Table 31: Barriers to help-seeking by ethnicity: Ethnibus

Barriers %(n)	Indian n=467	Pakistani n=333	Bangladeshi n=126	Caribbean n=252	African n=216	Chinese n=106	Chi- square, p value
Emotional barriers							
Embarrassed	28.3 (132)	45.9 (180)	55.6 (70)	39.3 (99)	22.2 (48)	34.0 (36)	66.60, df= 5, p < .001*
Scared	28.5 (133)	42.6 (142)	20.6 (26)	38.1 (96)	23.1 (50)	36.8 (39)	40.30, df = 5, p < .001*
Worried	49.3 (230)	40.2 (134)	34.1 (43)	40.9 (103)	21.3 (46)	58.5 (62)	63.64, df = 5, p < .001*
Lack of confidence	31.5 (147)	28.3 (95)	28.6 (26)	38.5 (97)	19.4 (42)	27.4 (29)	21.48, df=5, p= .001*
Practical barriers							
Time	41.4 (192)	37.2 (124)	38.1 (48)	30.2 (76)	19.0 (41)	47.2 (50)	42.47, df= 5, p < .001*
Other priorities	43.5 (203)	40.8 (136)	46.8 (59)	27.0 (68)	16.7 (36)	46.2 (49)	68.90, df = 5, p < .001*
Transport	29.5 (80)	23.1 (77)	16.7 (21)	18.7 (47)	7.4 (16)	28.3 (30)	30.33, df = 5, p < .001*
Service barriers							
Wasting time	31.1 (146)	33.6 (112)	35.2 (41)	26.6 (67)	9.3 (20)	24.5 (26)	47.86, df=5, p < .001*
Difficult to talk to	24.2 (113)	29.4 (98)	35.7 (45)	23.8 (60)	16.7 (36)	44.3 (47)	37.11, df = 5, p < .001*
Difficult to make an appointment	37.3 (174)	46.5 (155)	41.3 (52)	42.9 (108)	25.9 (56)	45.3 (48)	27.38, df = 5, p < .001*

Table 32: Barriers to help-seeking by SES: Ethnibus

Barriers %(n)	AB n=166	C1 n=421	C2 n=333	D n=404	E n=176	Chi- square, p value
Emotional barriers						
Embarrassed	24.1 (40)	32.2 (136)	41.4 (138)	37.4 (151)	41.5 (73)	19.63, df= 4, p= .001*
Scared	24.7 (41)	33.0 (139)	33.6 (112)	33.7 (136)	33.0 (58)	5.12, df= 4, p= .275
Worried	36.1 (60)	40.4 (170)	45.0 (150)	41.6 (168)	39.8 (70)	4.07, df= 4, p= .396
Lack of confidence	27.7 (46)	25.9 (109)	30.0 (100)	34.2 (138)	30.1 (53)	7.11, df=4, p= .130
Practical barriers						
Time	30.7 (51)	37.1 (156)	45.9 (153)	29.2 (118)	30.1 (53)	27.21, df= 4, p< .001*
Other priorities	34.3 (57)	33.5 (141)	46.5 (155)	35.6 (144)	30.7 (54)	19.09, df= 4, p = .001*
Transport	13.9 (23)	15.0 (63)	18.0 (60)	20.3 (82)	24.4 (43)	10.90, df= 4, p = .028*
Service barriers						
Wasting time	22.3 (37)	28.5 (120)	29.4 (98)	26.7 (108)	27.8 (49)	3.23, df= 4, p= .521
Difficult to talk to	22.3 (37)	23.8 (100)	32.7 (109)	25.0 (101)	29.5 (52)	11.05, df= 4, p= .026*
Difficult to make an appointment	36.1 (60)	36.3 (153)	40.8 (136)	41.6 (168)	43.2 (76)	4.52, df= 4, p= .340

AWARENESS OF RISK FACTORS

Table 33: Recall of risk factors: ONS

Risk factors	% (n)
Smoking	82.0 (1798)
Passive smoking	13.5 (297)
Drinking alcohol	34.3 (716)
Low fruit/veg intake	5.7 (126)
Eating red meat	3.5 (77)
Overweight	8.2 (179)
Sun exposure	25.6 (562)
Older age	4.0 (87)
Family history	23.8 (521)
HPV infection	1.0 (23)
Low exercise	12.3 (270)

Table 34: Recognition of risk factors: ONS survey

Risk factors	% (n)
Smoking	85.2 (1880)
Passive smoking	76.3 (1683)
Drinking alcohol	24.9 (550)
Low fruit/veg intake	26.2 (577)
Eating red meat	24.3 (537)
Overweight	48.8 (1078)
Sun exposure	58.2 (1283)
Older age	36.0 (794)
Family history	61.0 (1345)
HPV infection	22.2 (490)
Low exercise	22.1 (487)

Table 35: Recognition of risk factors by gender: ONS

Risk factors %(n)	Men n=968	Women n=1240	Chi- square, p value
Smoking	86.6 (838)	84.0 (1042)	2.77, df= 1, p= .096
Passive smoking	73.6 (712)	78.3 (971)	6.78, df= 1, p= .009*
Drinking alcohol	20.2 (196)	28.5 (354)	20.02, df=1, p< .001*
Low fruit/veg intake	24.0 (232)	27.8 (345)	4.19, df=1, p= .041*
Eating red meat	22.2 (215)	26.0 (322)	4.17, df= 1, p= .041*
Overweight	49.3 (477)	48.5 (601)	0.14, df= 1, p= .706
Sun exposure	51.5 (499)	63.2 (784)	30.45, df= 1, p< .001*
Older age	39.9 (386)	32.9 (408)	11.48, df=1, p= .001*
Family history	54.5 (528)	65.9 (817)	29.37, df= 1, p< .001*
HPV infection	17.5 (169)	25.9 (321)	22.37, df= 1, p< .001*
Low exercise	23.7 (229)	20.8 (258)	2.57, df= 1, p= .109

Table 36: Recognition of risk factors by age: ONS

Risk factors %(n)	18 – 24 yrs n=134	25 – 34 yrs n=323	35 – 44 yrs n=382	45 – 54 yrs n=310	55+ yrs n=1023	Chi- square, p value
Smoking	84.3 (113)	87.6 (283)	87.2 (333)	85.2 (264)	83.5 (854)	5.06, df=4, p= .281
Passive smoking	79.1 (106)	83.6 (270)	79.1 (302)	79.0 (245)	71.3 (729)	27.07, df=4, p< .001*
Drinking alcohol	36.6 (49)	30.7 (99)	24.9 (95)	25.2 (78)	21.2 (216)	23.39, df=4, p<. 001*
Low fruit/veg intake	14.2 (19)	26.6 (86)	29.8 (114)	27.0 (86)	26.1 (267)	12.99, df=4, p= .011*
Eating red meat	16.4 (22)	22.9 (74)	29.8 (114)	24.8 (77)	23.6 (241)	11.60, df=4, p= .021*
Overweight	53.7 (72)	53.6 (173)	49.7 (190)	45.8 (142)	46.5 (476)	7.50, df=4, p= .112
Sun exposure	59.0 (79)	58.5 (189)	57.9 (221)	54.5 (169)	67.7 (210)	2.01, df=4, p= .735
Older age	41.0 (55)	36.8 (119)	38.0 (145)	40.0 (124)	33.4 (342)	7.27, df=4, p= .122
Family history	60.4 (81)	68.1 (220)	68.1 (260)	67.7 (210)	54.1 (553)	41.53, df=4, p <.001*
HPV infection	18.7 (25)	25.1 (81)	29.8 (114)	22.9 (71)	18.9 (193)	22.05, df=4, p<. 001*
Low exercise	18.7 (25)	24.1 (78)	23.6 (173)	21.3 (90)	21.1 (216)	2.83, df=4, p= .586

Table 37: Recognition of risk factors by ethnicity: ONS

Risk factors%(n)	White n=2064	Non-White n=144	Chi- square, p value
Smoking	85.4 (1763)	81.3 (117)	1.85, df=1, p= .174
Passive smoking	76.4 (1576)	74.3 (107)	0.31, df= 1, p= .576
Drinking alcohol	23.6 (488)	43.1 (62)	27.12, df=1, p< .001*
Low fruit/veg intake	25.8 (533)	30.6 (44)	1.56, df= 1, p= .211
Eating red meat	23.8 (491)	31.9 (46)	4.87, df=1, p= .027*
Overweight	49.0 (1012)	45.8 (66)	0.55, df= 1, p=.458
Sun exposure	59.0 (1217)	45.8 (66)	6.53, df= 1, p= .002*
Older age	35.9 (740)	37.5 (54)	0.16, df=1, p=. 690
Family history	61.2 (1263)	56.9 (82)	1.02, df=1, p= .313
HPV infection	21.8 (450)	27.8 (40)	2.78, df= 1, p= .095
Low exercise	22.1 (457)	20.8 (30)	0.13, df=1, p= .714

Table 38: Risk factors by SES (ONS):

Risk factors %(n)	Higher SES n=744	Mid SES n=430	Lower SES n=853	Chi- square, p value
Smoking	88.3 (657)	86.6 (542)	80.5 (529)	18.11, df=2, p< .001*
Passive smoking	79.7 (593)	76.8 (481)	72.0 (473)	11.61, df=2, p= .003*
Drinking alcohol	26.3 (196)	22.0 (138)	25.1 (165)	3.52, df= 2, p= .172
Low fruit/veg intake	32.8 (244)	26.2 (164)	19.9 (131)	29.62, df= 2, p< .001*
Eating red meat	29.7 (221)	7.2 (146)	6.4 (129)	19.79, df= 2, p< .001*
Overweight	53.2 (396)	49.4 (309)	43.1 (283)	14.53, df= 2, p= .001*
Sun exposure	56.5 (420)	59.4 (372)	59.7 (392)	1.87, df= 2, p= .393
Older age	42.9 (319)	35.9 (225)	27.2 (179)	37.18, df= 2, p< .001*
Family history	67.7 (504)	62.3 (390)	52.1 (342)	36.75, df= 2, p< .001*
HPV infection	29.7 (221)	22.2 (139)	12.5 (82)	60.79, df= 2, p< .001*
Low exercise	25.8 (192)	23.6 (148)	15.2 (100)	25.00, df= 2, p< .001*

Table 39: Recognition of risk factors: Ethnibus

Risk factors	% (n)
Smoking	60.0 (450)
Passive smoking	2.9 (22)
Drinking alcohol	20.5 (154)
Low fruit/veg intake	0.3 (2)
Eating red meat	0.7 (5)
Overweight	1.1 (8)
Sun exposure	12.7 (95)
Older age	7.6 (57)
Family history	5.7 (43)
HPV infection	0.0 (0)
Low exercise	6.3 (47)

Table 40: Recognition of risk factors: Ethnibus

Risk factors	% (n)
Smoking	92.5 (1388)
Passive smoking	78.7 (1181)
Drinking alcohol	53.3 (799)
Low fruit/veg intake	28.3 (424)
Eating red meat	36.0 (540)
Overweight	49.7 (729)
Sun exposure	57.9 (868)
Older age	48.6 (729)
Family history	70.2 (1053)
HPV infection	39.2 (588)
Low exercise	26.6 (399)

Table 41: Recognition of risk factors by gender: Ethnibus

Risk factors % (n)	Men n=742	Women n=758	Chi- square, p value
Smoking	92.2 (684)	92.9 (704)	0.26, df= 1, p= .610
Passive smoking	80.2 (595)	77.3 (586)	1.86, df= 1, p= .173
Drinking alcohol	53.4 (396)	50.4 (403)	0.01, df= 1, p= .937
Low fruit/veg intake	27.9 (207)	28.6 (217)	0.10, df= 1, p= .753
Eating red meat	36.8 (273)	35.2 (267)	0.40, df= 1, p= .527
Overweight	53.0 (393)	46.6 (353)	6.13, df= 1, p=.013*
Sun exposure	58.5 (434)	57.3 (434)	0.23, df= 0.23, p=.333
Older age	51.1 (379)	46.2 (350)	3.61, df= 1, p= .057
Family history	66.8 (496)	73.5 (557)	7.89, df= 1, p=.005*
HPV infection	35.8 (266)	42.5 (322)	6.92, df= 1, p= .009*
Low exercise	26.7 (198)	26.5 (201)	0.01, df= 1, p= .941

Table 42: Recognition of risk factors by age: Ethnibus

Risk factors % (n)	18 – 24 yrs n=351	25 – 34 yrs n=395	35 – 44 yrs n=322	45 – 54 yrs n=211	55+ yrs n=221	Chi- square, p value
Smoking	93.4 (328)	92.7 (366)	92.2 (297)	90.5 (191)	93.2 (206)	1.86, df=4, p=.762
Passive smoking	77.5 (272)	78.2 (309)	82.3 (265)	71.1 (150)	83.7 (185)	13.46, df=4, p=.009*
Drinking alcohol	53.0 (186)	55.2 (218)	52.2 (169)	46.9 (99)	57.5 (127)	5.66, df=4, p=.226
Low fruit/veg intake	28.5 (100)	28.1 (111)	24.5 (79)	29.9 (61)	33.0 (73)	4.74, df=4, p=.315
Eating red meat	30.5 (107)	38.2 (151)	37.9 (122)	36.5 (77)	37.6 (83)	6.24, df=4, p=.182
Overweight	53 (186)	47.1 (186)	51.6 (166)	35.1 (74)	60.6 (134)	31.67, df=4, p<.001*
Sun exposure	55.3 (194)	54.7 (216)	63.4 (204)	51.7 (109)	65.6 (145)	15.36, df=4, p=.004*
Older age	54.7 (192)	49.1 (194)	48.4 (156)	37.4 (79)	48.9 (108)	15.80, df=4, p=.003*
Family history	76.1 (267)	70.6 (279)	67.7 (218)	60.7 (128)	72.9 (161)	16.69, df=4, p=.002*
HPV infection	41.0 (144)	39.7 (157)	33.5 (108)	37.0 (78)	45.7 (101)	9.23, df=4, p=.056
Low exercise	24.5 (86)	33.4 (132)	20.8 (67)	19.9 (42)	32.6 (72)	24.62, df=4, p<.001*

Table 43: Risk factors by ethnicity (Ethnibus)

Risk factors % (n)	Indian n=467	Pakistani n=333	Bangladeshi n=126	Caribbean n=252	African n=216	Chinese n=106	Chi- square, p value
Smoking	93.1 (435)	88.6 (295)	92.1 (116)	97.6 (246)	95.4 (206)	84.9 (90)	28.67, df=5, p< .001*
Passive smoking	81.2 (379)	70.3 (234)	79.4 (100)	90.1 (227)	70.4 (152)	84.0 (89)	46.04, df=5, p< .001*
Drinking alcohol	56.1 (262)	54.4 (181)	65.9 (83)	55.2 (139)	38.9 (84)	47.2 (50)	29.59, df= 5, p< .001*
Low fruit/veg intake	27.2 (127)	63.3 (121)	44.4 (46)	24.2 (61)	10.6 (23)	34.0(36)	64.03, df=5, p< .001*
Eating red meat	47.5 (222)	39.9 (133)	51.6 (65)	21.4 (54)	16.2 (35)	29.2 (31)	104.57, df= 5, p< .001*
Overweight	51.6 (241)	54.4 (181)	63.5 (80)	52.4 (132)	32.4 (70)	39.6 (42)	44.02, df=5, p< .001*
Sun exposure	52.9 (247)	43.2 (144)	75.4 (95)	74.2 (187)	64.8 (140)	51.9 (55)	83.26, df= 5, p< .001*
Older age	55.0 (257)	45.0 (150)	60.3 (76)	46.0 (116)	41.2 (89)	38.7 (41)	25.92, df=5, p< .001*
Family history	63.6 (297)	65.5 (218)	78.6 (99)	87.3 (220)	59.3 (128)	85.8 (91)	77.52, df= 5, p< .001*
HPV infection	37.5 (175)	38.1 (127)	54.0 (68)	56.0 (141)	15.3 (33)	41.5 (44)	94.05, df= 5, p< .001*
Low exercise	27.8 (130)	35.7 (119)	50.0 (63)	13.9 (35)	9.7 (21)	29.2 (31)	102.69, df= 5, p< .001*

Table 44: Recognition of risk factors by SES: Ethnibus

Risk factors % (n)	AB n=166	C1 n=421	C2 n=333	D n=404	E n=176	Chi- square, p value
Smoking	95.8 (159)	93.3 (393)	91.6 (305)	92.8 (375)	88.6 (156)	7.29, df= 4, p= .121
Passive smoking	73.5 (122)	74.8 (315)	82.9 (276)	83.7 (338)	73.9 (130)	18.35, df= 4, p< .001*
Low fruit/veg intake	52.4 (87)	54.4 (229)	48.0 (160)	56.7 (229)	53.4 (94)	5.80, df= 4, p= .214
Sun exposure	28.9 (48)	29.0 (122)	28.5 (95)	28.5 (115)	25.0 (44)	1.09, df= 4, p= .897
Older age	32.5 (54)	40.4 (170)	36.6 (122)	34.9 (141)	30.1 (53)	7.29, df= 4, p= .121
Family history	45.8 (76)	51.8 (218)	48.6 (162)	52.2 (212)	44.3 (78)	5.18, df= 4, p= .269
Smoking	58.4 (97)	53.4 (225)	59.2 (197)	59.9 (242)	60.8 (107)	4.93, df= 4, p= .294
Passive smoking	49.4 (82)	51.1 (215)	48.6 (162)	46.0 (186)	47.7 (84)	2.18, df= 4, p= .702
Drinking alcohol	71.1 (118)	71.7 (302)	67.7 (225)	67.1 (271)	77.8 (137)	8.43, df= 4, p= .077
Low fruit/veg intake	39.2 (65)	41.3 (174)	38.4 (128)	37.4 (151)	39.8 (70)	1.47, df= 4, p= .832
Eating red meat	24.7 (41)	25.4 (107)	27.0 (90)	29.2 (118)	24.4 (43)	2.47, df= 4, p= .650

CANCER INCIDENCE

Table 45: Estimated cancer incidence per 100 people, by gender, age, ethnicity and SES: ONS

	Mean (SD)	ANOVA
Total	34.34 (19.51)	
Gender		F (1, 2099) = 67.91, p < .001*
Men	30.46 (18.20)	
Women	37.41 (19.97)	
Age		F (4, 2064) = 1.10, p = .356
18 – 24	33.14 (19.41)	
25- 34	33.48 (19.29)	
35 – 44	33.31 (19.38)	
45 – 54	33.44 (18.34)	
55 +	35.26 (20.10)	
Ethnicity		F (1, 2099) = 20.32, p < .001*
White	26.96 (19.21)	
Non-white	34.83 (19.44)	
SES		F (2, 1927) = 8.94, p < .001*
Higher SES	32.08 (17.85)	
Mid SES	34.96 (19.98)	
Lower SES	36.48 (20.45)	

Table 46: Estimated cancer incidence per 100 people, by gender, age, ethnicity and SES: Ethnibus

	Mean (SD)	ANOVA
Total	23.59 (17.38)	
Gender		F (1, 1463) = 2.07, p= .151
Male	22.93 (17.43)	
Female	24.23 (17.31)	
Age		F (4,1463)= 2.34, p= .053
18 – 24	23.96 (16.61)	
25- 34	23.35 (17.32)	
35 – 44	24.87 (18.09)	
45 – 54	20.40 (17.77)	
55 +	24.52 (17.03)	
Ethnicity		F (5, 1463) = 33.72, p < .001*
Indian	26.63 (17.91)	
Pakistani	23.47 (15.96)	
Bangladeshi	22.69 (15.20)	
Caribbean	30.35 (16.31)	
African	12.21 (13.49)	
Chinese	18.71 (18.84)	
SES		F (4,1463) = 4.31, p = .002*
AB	19.78 (16.67)	
C1	23.91 (17.59)	
C2	22.15 (16.94)	
D	24.82 (17.01)	
E	26.54 (18.51)	

COMMON CANCERS

Table 47: Perceived common male cancers: ONS

Cancer type % (n)	Perceived most common cancer n= 2196	Perceived second most common cancer n= 2198	Perceived third most common cancer n= 2199
Prostate	42.9 (941)	16.0 (352)	6.4 (141)
Lung	27.6 (605)	29.8 (655)	13.1 (287)
Bowel	7.4 (162)	17.1 (376)	15.7 (346)
Bladder	0.5 (11)	0.7 (15)	0.9 (19)
Non-Hodgkin's lymphoma	0.0 (0)	0.0 (0)	0.0 (0)
Stomach	0.7 (15)	2.3 (50)	4.3 (95)
Oesophagus	0.0 (0)	0.0 (0)	0.0 (0)
Kidney	0.3 (6)	0.7 (16)	1.0 (22)
Leukaemia	0.3 (6)	0.5 (11)	0.9 (19)
Malignant melanoma	1.0 (22)	3.2 (71)	8.9 (196)
Testicular	10.8 (238)	10.6 (232)	7.7 (169)
Other	3.8 (83)	8.2 (181)	13.6 (298)
Don't know	4.9 (107)	10.9 (239)	27.6 (607)

Table 48: Perceived first, second and third most common male cancers by gender: ONS

Cancer type % (n)	Men n=968	Women n=1240	Chi- square, p-value
Prostate	35.8 (344)	48.4 (597)	35.16, df= 1, p< .001*
Lung	28.0 (269)	31.2 (3860)	2.76, df=1, p< .053*
Bowel	14.7 (141)	16.6 (205)	1.52, df= 1, p= .120

Table 49: Perceived first, second and third most common male cancers by age: ONS

Cancer type % (n)	18 – 24 yrs n=134	25 – 34 yrs n=323	35 – 44 yrs n=382	45 – 54 yrs n=310	55+ yrs n=1023	Chi- square, p value
Prostate	24.8 (33)	28.6 (92)	37.0 (141)	47.9 (148)	50.9 (517)	79.93, df= 4, p< .001*
Lung	29.3 (39)	25.2 (81)	25.5 (97)	30.1 (93)	32.7 (333)	11.00, df= 4, p< .027*
Bowel	9.8 (13)	15.5 (50)	13.9 (53)	20.4 (63)	16.2 (165)	9.62, df= 4, p= .047*

Table 50: Perceived first, second and third most common male cancers by ethnicity: ONS

Cancer type % (n)	White n=2064	Non-White n=144	Chi- square, p value
Prostate	44.1 (905)	25.2 (36)	19.52, df= 1, p< .001*
Lung	30.4 (625)	21.0 (30)	5.69 df= 1, p= .009*
Bowel	16.0 (329)	11.9 (17)	1.71, df= 1, p= .191

Table 51: Perceived first, second and third most common male cancers by SES: ONS

Cancer type % (n)	Higher SES n=744	Mid SES n=430	Lower SES n=853	Chi- square, p value
Prostate	42.6 (316)	45.3 (282)	42.7 (278)	1.18, df= 2, p= .555
Lung	28.6 (212)	31.7 (198)	29.5 (192)	1.67, df= 2, p= .433*
Bowel	17.7 (131)	19.6 (122)	12.3 (80)	13.47, df= 2, p= .001*

Table 52: Perceived common female cancers: ONS

Cancer type % (n)	Perceived most common cancer n= 2195	Perceived second most common cancer n= 2196	Perceived third most common cancer n= 2197
Breast	82.0 (1799)	11.9 (261)	1.0 (21)
Bowel	0.3 (6)	5.0 (110)	11.1 (244)
Lung	1.6 (36)	10.5 (230)	21.8 (479)
Ovarian	1.4 (31)	10.6 (232)	7.5 (164)
Uterus	0.4 (9)	2.7 (60)	2.3 (51)
Malignant melanoma	0.6 (13)	3.1 (69)	14.8 (325)
Non-Hodgkin's lymphoma	0.1 (1)	0.2 (5)	1.2 (26)
Pancreas	0.0 (0)	0.3 (6)	0.6 (13)
Stomach	0.1 (1)	1.0 (22)	1.6 (36)
Leukaemia	0.0 (0)	0.3 (7)	0.8 (17)
Cervical	10.1 (221)	43 (945)	7.6 (167)
Other	0.8 (19)	1.9 (39)	5.4 (117)
Don't know	2.7 (59)	9.6 (210)	24.4 (537)

Table 53: Perceived first, second and third most common female cancers by gender: ONS

Cancer type % (n)	Men n=968	Women n=1240	Chi- square, p-value
Breast	81.9 (788)	82.0 (1011)	0.00, df= 1, p= .502
Bowel	3.3 (32)	6.3 (78)	10.19, df= 1, p= .001*
Lung	22.6 (217)	21.2 (262)	0.57, df= 1, p= .241

Table 54: Perceived first, second and third most common female cancers by age: ONS

Cancer type % (n)	18 – 24 yrs n=134	25 – 34 yrs n=323	35 – 44 yrs n=382	45 – 54 yrs n=310	55+ yrs n=1023	Chi- square, p-value
Breast	89.5 (119)	81.4 (262)	79.5 (303)	79.0 (244)	82.7 (839)	8.91, df= 4, p= .063
Bowel	4.5 (6)	2.8 (9)	4.5 (17)	4.9 (15)	6.0 (61)	5.79, df = 4, p= .216
Lung	17.3 (23)	20.2 (65)	25.5 (97)	25.2 (78)	20.7 (210)	7.95, df = 4, p= .094

Table 55: Perceived first, second and third most common female cancers by ethnicity: ONS

Cancer type % (n)	White n=2064	Non-White n=144	Chi- square, p value
Breast	81.8 (1679)	83.9 (120)	0.40, df= 1, p= .308
Bowel	5.2 (106)	2.8 (4)	1.57 df=1, p= .210
Lung	22.2 (455)	16.8 (24)	2.26, df= 1, p= .078

Table 56: Perceived first, second and third most common female cancers by SES: ONS

Cancer type % (n)	Higher SES n=744	Mid SES n=430	Lower SES n=853	Chi- square, p value
Breast	80.7 (598)	83.4 (519)	81.6 (531)	1.75, df= 2, p= .417
Bowel	4.9 (36)	5.3 (33)	6.1 (40)	1.14, df= 2, p= .565
Lung	26.6 (197)	20.2 (126)	19.7 (128)	12.04, df= 2, p= .002*

Table 57: Perceived common male cancers: Ethnibus

Cancer type % (n)	Perceived most common cancer n= 1500	Perceived second most common cancer n= 1500	Perceived third most common cancer n= 1500
Prostate	30.7 (460)	13.0 (195)	8.2 (123)
Lung	28.5 (427)	24.3 (365)	10.7 (161)
Bowel	5.7 (85)	9.3 (139)	6.9 (103)
Bladder	0.9 (13)	0.9 (14)	0.7 (10)
Non-Hodgkin's lymphoma	0.0 (0)	0.1 (2)	0.0 (0)
Stomach	0.2 (3)	2.3 (34)	1.5 (22)
Oesophagus	0.0 (0)	0.0 (0)	0.0 (0)
Kidney	0.5 (8)	1.0 (15)	2.3 (35)
Leukaemia	1.7 (25)	0.1 (1)	0.1 (1)
Malignant melanoma	2.5 (38)	4.5 (68)	8.0 (120)
Testicular	12.6 (189)	8.3 (125)	6.1 (92)
Other	9.3 (140)	15.5 (233)	13.0 (195)
Don't know	7.5 (112)	20.6 (309)	42.5 (638)

Table 58: Perceived first, second and third most common male cancers by gender: Ethnibus

Cancer type % (n)	Men n=742	Women n=758	Chi- square, p-value
Prostate	31.9 (237)	29.4 (223)	1.12, df= 1, p= .158
Lung	24.4 (181)	24.3 (184)	0.00, df= 1 p= .503
Bowel	8.5 (63)	5.3 (40)	6.06 df= 1, p=.009*

Table 59: Perceived first, second and third most common male cancers by age: Ethnibus

Cancer type % (n)	18 – 24 yrs n=351	25 – 34 yrs n=395	35 – 44 yrs n=322	45 – 54 yrs n=211	55+ yrs n=221	Chi- square, p value
Prostate	29.9 (105)	26.1 (103)	31.7 (102)	34.1 (72)	35.3 (78)	7.58, df= 4, p= .108
Lung	18.8 (66)	28.1 (111)	29.5 (95)	25.6 (54)	17.6 (39)	19.10, df= 4, p= .001*
Bowel	4.6 (16)	7.3 (29)	7.1 (23)	10.9 (23)	5.4 (12)	9.184, df= 4, p= .057

Table 60: Perceived first, second and third most common male cancers by ethnicity: Ethnibus

Cancer type % (n)	Indian n=467	Pakistani n=333	Bangladeshi n=126	Caribbean n=252	African n=216	Chinese n=106	Chi- square, p value
Prostate	31.9 (149)	17.1 (57)	20.6 (26)	44.8 (113)	36.1 (78)	34.9 (37)	62.77, df= 5, p< .001*
Lung	23.3 (109)	21.6 (72)	19.8 (25)	28.6 (72)	30.1 (65)	20.8 (22)	10.05, df= 5, p= .074
Bowel	5.4 (25)	5.4 (18)	4.0 (5)	8.7 (22)	13.0 (28)	4.7 (5)	19.13, df= 5, p= .002*

Table 61: Perceived first, second and third most common male cancers by SES: Ethnibus

Cancer type % (n)	AB n=166	C1 n=421	C2 n=333	D n=404	E n=176	Chi- square, p value
Prostate	25.9 (43)	33.0 (139)	29.7 (99)	28.5 (115)	36.4 (64)	6.61, df= 4, p= .158
Lung	22.9 (38)	25.2 (104)	24.0 (80)	24.3 (98)	24.4 (43)	0.37, df= 4, p= .099
Bowel	3.6 (6)	7.4 (31)	7.5 (25)	6.9 (28)	7.4 (13)	3.20, df= 24, p= .525

Table 62: Perceived common female cancers: Ethnibus

Cancer type % (n)	Most common cancer n=1500	Second most common cancer n=1500	Third most common cancer n=1500
Breast	82.2 (1233)	10.7 (160)	1.7 (26)
Bowel	0.4 (6)	3.6 (54)	6.7 (101)
Lung	1.7 (26)	9.5 (142)	13.9 (209)
Ovarian	1.3 (19)	5.3 (79)	3.0 (45)
Uterus	0.6 (9)	2.5 (38)	1.3 (19)
Malignant melanoma	1.7 (26)	9.6 (144)	9.6 (144)
Non-Hodgkin's lymphoma	0.0 (0)	0.0 (0)	0.0 (0)
Pancreas	0.0 (0)	0.1 (2)	0.1 (2)
Stomach	0.3 (4)	0.6 (9)	1.6 (24)
Leukaemia	0.4 (6)	1.0 (15)	0.3 (4)
Cervical	6.5 (97)	32.5 (488)	6.7 (100)
Other	2.1 (32)	7.6 (115)	11.1 (166)
Don't know	2.8 (42)	16.9 (254)	43.9 (658)

Table 63: Perceived first, second and third most common female cancers by gender: Ethnibus

Cancer type % (n)	Men n=742	Women n=758	Chi- square, p-value
Breast	79.8 (592)	84.6 (641)	5.86, df= 6, p= .009*
Bowel	3.4 (25)	3.8 (29)	0.23, df= 6, p= .369
Lung	11.1 (82)	16.8 (127)	10.17, df= 6, p= .001*

Table 64: Perceived first, second and third common female cancers by age: Ethnibus

Cancer type % (n)	18 – 24 yrs n=351	25 – 34 yrs n=395	35 – 44 yrs n=322	45 – 54 yrs n=211	55+ yrs n=221	Chi- square, p value
Breast	86.0 (302)	82.5 (326)	80.4 (259)	80.6 (170)	79.6 (176)	5.63, df= 4, p= .229
Bowel	1.7 (46)	3.5 (14)	4.7 (15)	4.7 (10)	4.1 (9)	5.59, df= 4, p= .232
Lung	12.8 (45)	16.5 (65)	13.7 (44)	13.7 (29)	11.8 (26)	3.35, df= 4, p= .501

Table 65: Common female cancers by ethnicity: Ethnibus

Cancer type % (n)	Indian n=467	Pakistani n=333	Bangladesh i n=126	Caribbean n=252	African n=216	Chinese n=106	Chi- square, p value
Breast	80.5 (376)	84.7 (282)	77.8 (98)	90.1 (227)	80.1 (173)	72.6 (77)	21.96, df= 5, p= .001*
Bowel	4.9 (23)	0.6 (2)	0.8 (1)	4.8 (12)	7.4 (16)	0.0 (0)	27.82, df= 5, p< .001*
Lung	14.3 (67)	15.9 (53)	14.3 (18)	9.5 (24)	18.5 (40)	6.6 (7)	13.79, df= 5, p= .017*

Table 66: Common female cancers by SES: Ethnibus

Cancer type % (n)	AB n=166	C1 n=421	C2 n=333	D n=404	E n=176	Chi- square, p value
Breast	86.1 (143)	80.0 (337)	81.1 (270)	82.4 (333)	85.2 (150)	4.50, df= 4, p= .343
Bowel	4.8 (8)	2.6 (11)	5.7 (19)	3.0 (12)	2.3 (4)	nr
Lung	14.5 (24)	15.2 (64)	12.9 (43)	14.1 (57)	11.9 (21)	1.49, df= 4, p= .828

nr: not reported due to too few counts in category 'E'

AWARENESS OF CANCER SCREENING PROGRAMMES

Table 67: Awareness of cancer screening programmes: ONS

Screening type % (n)	Yes	No/Don't know
Breast	87.6 (1925)	12.4 (272)
Cervical	83.2 (1828)	16.8 (368)
Bowel	23.3 (510)	76.7 (1684)

Table 68: Awareness of cancer screening programmes by gender: ONS

Screening type % (n)	Men n=968	Women n=1240	Chi- square, p-value
Breast	84.0 (808)	90.4 (1117)	20.76 df= 1, p<.001*
Cervical	77.3 (744)	87.8 (1084)	42.77, df= 1, p<. 001*
Bowel	20.1 (193)	25.9 (319)	10.13, df = 1, p=.001*

Table 69: Awareness of cancer screening programmes by age: ONS

Screening type % (n)	18 – 24 yrs n=134	25 – 34 yrs n=323	35 – 44 yrs n=382	45 – 54 yrs n=310	55+ yrs n=1023	Chi- square, p value
Breast	76.7 (102)	82.6 (266)	87.1 (332)	89.0 (275)	90.6 (921)	31.54, df= 4, p<.001*
Cervical	73.7 (98)	86.6 (279)	87.4 (333)	89.3 (276)	80.2 (814)	31.16, df= 4, p<.001*
Bowel	21.8 (29)	21.4 (69)	16.5 (63)	15.9 (49)	28.9 (293)	37.75, df= 4, p<.001*

Table 70: Awareness of cancer screening programmes by Ethnicity (ONS).

Screening type % (n)	White n=2064	Non-White n=144	Chi square, p value
Breast	88.6 (1819)	74.1 (106)	25.67, df= 1, p< .001*
Cervical	83.9 (1722)	74.1 (106)	9.11, df= 1, p= .003*
Bowel	23.2 (476)	25.2 (36)	0.29, df= 1, p= .586

Table 71: Awareness of cancer screening programmes by SES (ONS)

Screening type % (n)	Higher SES n=744	Mid SES n=430	Lower SES n=853	Chi- square, p value
Breast	90.7 (672)	90.0 (386)	85.2 (721)	13.70, df= 2, p= .003*
Cervical	88.8 (658)	88.1 (377)	77.3 (654)	45.79, df= 2, p< .001*
Bowel	21.3 (158)	19.6 (84)	27.9 (236)	14.7, df= 2, p= .002*

Table 72: Awareness of cancer screening programmes: Ethnibus

Screening type % (n)	Yes	No/Don't know
Breast	68.9 (1034)	31.1 (466)
Cervical	65.5 (983)	34.5 (517)
Bowel	29.9 (449)	70.1 (1051)

Table 73: Awareness of cancer screening programmes by gender: Ethnibus

Screening type % (n)	Men n=742	Women n=758	Chi- square, p-value
Breast	61.9 (459)	75.9 (575)	34.30, df= 1, p< .001*
Cervical	55.5 (412)	75.3 (571)	65.11, df= 1, p< .001*
Bowel	29.0 (215)	30.9 (234)	0.64, df= 1 p= .423

Table 74: Awareness of cancer screening programmes by age: Ethnibus

Screening type % (n)	18 – 24 yrs n=351	25 – 34 yrs n=395	35 – 44 yrs n=322	45 – 54 yrs n=211	55+ yrs n=221	Chi- square value
Breast	66.7 (234)	65.8 (260)	68.0 (219)	75.8 (160)	72.9 (161)	9.02, df= 4, p= .061
Cervical	64.4 (226)	61.3 (242)	66.5 (214)	69.2 (146)	70.1 (155)	6.84, df= 4, p= .145
Bowel	27.6 (97)	28.6 (113)	30.4 (98)	27.5 (58)	37.6 (83)	7.98, df= 4, p= .092

Table 75: Awareness of cancer screening programmes by Ethnicity (Ethnibus).

Screening type % (n)	Indian n=467	Pakistani n=333	Bangladeshi n=126	Caribbean n=252	African n=216	Chinese n=106	Chi- square, p value
Breast	69.4 (324)	62.8 (209)	74.6 (94)	84.5 (213)	62.0 (134)	56.6 (60)	45.78 df= 5, p< .001*
Cervical	64.5 (301)	60.4 (201)	69.8 (88)	77.8 (196)	62.5 (135)	58.5 (62)	25.16, df= 5, p< .001*
Bowel	31.0 (145)	24.0 (80)	40.5 (51)	35.3 (89)	30.6 (66)	17.0 (18)	24.50, df= 5, p< .001*

Table 76: Awareness of cancer screening programmes by SES (Ethnibus)

Screening type % (n)	AB n=166	C1 n=421	C2 n=333	D n=404	E n=176	Chi- square, p value
Breast	71.1 (118)	66.3 (279)	73.6 (245)	65.6 (265)	72.2 (127)	11.74, df= 4, p= .089
Cervical	66.9 (111)	70.1 (295)	66.1 (220)	57.4 (232)	71.0 (125)	18.12, df= 4, p= .001*
Bowel	28.9 (48)	26.8 (113)	31.8 (106)	28.0 (113)	39.2 (69)	10.53, df= 4, p= .032*

CONTRIBUTING FACTORS TO CANCER

Table 77: Perceived highest contributing factor to cancer: ONS

Contribution to cancer % (n)	Perceived highest contributing factor
Lifestyle	60.4 (1333)
Chance	3.7 (82)
Aging	2.1 (47)
Environmental factors	9.6 (211)
Genetic Inheritance	22.5 (487)

Table 78: Perceived highest contributing factor to cancer by gender: ONS

Contribution to cancer % (n)	Men n=968	Women n=1240	Chi-square, p value
Lifestyle	66.1 (639)	56.0 (694)	23.54, df = 1, p<.001*
Chance	3.6 (35)	3.8 (47)	0.04 df = 1, p=.465
Aging	2.0 (19)	2.3 (28)	0.22, df = 1, p=.376
Environmental factors	9.3 (90)	9.8 (121)	0.12, df = 1, p=.392
Genetic Inheritance	17.9 (173)	26.1 (324)	21.02, df = 1, p<.001*

Table 79: Perceived highest contributing factor to cancer by age: ONS

Contribution to cancer % (n)	18 – 24 yrs n=134	25 – 34 yrs n=323	35 – 44 yrs n=382	45 – 54 yrs n=310	55+ yrs n=1023	Chi-square, p value
Lifestyle	61.2 (82)	62.5 (202)	58.5 (223)	61.0 (189)	60.3 (616)	1.26, df = 4, p=.869
Chance	6.0 (8)	4.6 (15)	3.9 (15)	2.3 (7)	3.6 (37)	4.50, df = 4, p=.342
Aging	0.7 (1)	2.2 (7)	2.9 (11)	2.3 (7)	2.1 (21)	2.28, df = 4, p=.684
Environmental factors	11.9 (16)	3.7 (12)	10.2 (39)	8.8 (27)	11.6 (116)	17.66, df = 4, p=.001*
Genetic Inheritance	18.7 (25)	26.0 (84)	23.9 (91)	24.8 (77)	20.2 (206)	8.01, df = 4, p=.091

Table 80: Perceived highest contributing factor to cancer by ethnicity: ONS

Contribution to cancer % (n)	White n=2064	Non-White n=144	Chi- square, p value
Lifestyle	60.4 (1245)	61.1 (88)	0.03, df= 1, p= .468
Chance	3.7 (77)	3.5 (5)	0.03, df= 1, p= .551
Aging	2.2 (46)	0.7 (1)	1.52, df=1, p= .176
Environmental factors	9.4 (193)	12.5 (18)	1.53, df= 1, p= .138
Genetic Inheritance	23.1 (468)	20.6 (29)	3.31, df= 4, p= .506

Table 81: Perceived highest contributing factor to cancer by SES: ONS

Contribution to cancer % (n)	Higher SES n=744	Mid SES n=430	Lower SES n=853	Chi- square, p value
Lifestyle	61.8 (459)	60.1 (376)	59.0 (387)	1.16, df = 2, p= .561
Chance	3.4 (25)	4.2 (26)	3.2 (21)	0.97, df = 2, p= .615
Aging	2.7 (20)	2.7 (17)	0.9 (6)	6.82, df = 2, p= .033*
Environmental factors	7.0 (52)	11.0 (69)	11.9 (78)	10.87, df = 2, p= .004*
Genetic Inheritance	18.7 (25)	26.0 (84)	23.9 (91)	8.01, df = 2, p= .091