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## Cancer Awareness Research

### Dip One Full Report FINAL

Prepared for Becky Whiteman, Macmillan Nurse Director  
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# 1. Executive Summary

Public Knowledge were commissioned by the Arden Cancer Network to conduct research to assess baseline levels of cancer awareness across the area served by the Network, which covers NHS Coventry, NHS Warwickshire and parts of NHS Worcestershire (specifically Bromsgrove and Redditch). In total 989 interviews were conducted with a broad range of respondents, using a street methodology, in October and November 2009.

This section summarises the main findings within the sample as a whole. Further information with regard to variation according to location and sample demographics can be found in the main body of the report.

## 1.1. Awareness of the Signs and Symptoms of Cancer

The first section of the survey asked respondents about warning signs and symptoms of cancer. By far the most common sign/symptom of cancer spontaneously given by the sample was lumps or swellings, with 57% of the total sample mentioning this. Bleeding (18%), pain (16%), weight loss (14%) and tiredness/fatigue (14%) were also common responses.

However, one in five (20%) of the sample were unable to name any signs or symptoms of cancer at all. This increased to 35% when excluding the most commonly known sign/symptom - lumps/swellings; indicating a need for increased education in terms of awareness of the symptoms of cancer.

Awareness of the symptoms of cancer was further assessed using a prompted question in which respondents were asked which from a list of potential symptoms they thought could be a sign of cancer. Respondents were most likely to agree that unexplained lumps or swellings (93% overall agreement) and a change in the appearance of a mole (93%) could be a sign/symptom of cancer. Unexplained bleeding (86%) and a persistent change in bowel or bladder habits (84%) were also symptoms which respondents were most likely to agree could be signs/symptoms of cancer.

Respondents were least likely to agree that a persistent cough or hoarseness (72% overall agreement) or a sore that does not heal (70%) could be a sign of cancer.

## 1.2. Contacting a Doctor Regarding Symptoms

Respondents were then asked how soon they would contact a doctor to make an appointment to discuss each of the symptoms prompted in the previous question.

Respondents would wait the shortest time before seeing a doctor for an unexplained bleeding (5.3 days on average) and for a symptom they thought might be a sign of cancer (5.4 days on average).

Unexplained weight loss (18.8 days on average), a persistent cough or hoarseness (15.9 days on average) and a sore that does not heal (12.5 days on average) were the symptoms that respondents would leave for the longest time before contacting a doctor. This supports the fact that these were the symptoms respondents were least likely to agree could be signs of cancer.

When read a list of reasons why people might put off visiting a doctor to discuss symptoms respondents were most likely to agree that they would be worried about what the doctor might find (47%). Feeling scared (34%), or embarrassed (20%) and difficulty making an appointment (21%) were other common reasons respondents gave for putting off visiting a doctor.

## 1.3. Factors Affecting the Chances of Getting Cancer

Using an open question, respondents were then questioned about factors that affect the chances of getting cancer. By far the most common response, given by 71% of the total sample, was smoking. Diet (30%), genetics/heredity/family history etc. (19%) and drinking alcohol (17%) were the most common other responses given spontaneously, but these were only recalled by a relatively small proportion of the sample.

A smaller proportion of the sample also mentioned the following factors: sunburn (7%), pollution (7%), stress (5%) and being overweight (5%), in addition to a minority of other responses.

The fact that 10% of the sample said that they couldn't name any factors that can cause cancer further illustrates the need for education within these area.

When prompted, respondents were most likely to agree that the following factors could be causes of cancer: smoking any cigarettes at all (95% agreement), exposure to another

person's cigarette smoke (86% agreement), getting sunburnt more than once as a child (67% agreement) and having a close relative with cancer (80% agreement).

There were low levels of agreement that each of the following could cause cancer: eating red or processed meat once a day or more (46%), eating less than 5 portions of fruit or vegetables a day (41%) and doing less than 30 minutes of moderate physical activity 5 times a week (43%).

#### 1.4. The Number of People who Develop Cancer

Around one in three people develop cancer in their lifetime. To assess awareness of this respondents were shown a picture of 100 people and were asked how many they thought would develop cancer at some point in their lives.

22% of the sample thought that between 31 and 40 people would develop cancer at some point in their lives and were thus correct in this regard. Furthermore, 27% thought that between 21 and 30 people develop cancer in their lives and the mean score of 32.7 is largely accurate.

However, 12% thought that 10 or fewer people in 100 develop cancer at some point in their lives, 3% thought more than 71% of people, and 3% gave the answer 'don't know'.

#### 1.5. Awareness of Different Types of Cancer

To assess awareness of different types of cancer, respondents were asked what they thought were the first, second and third most common cancers in both men and women.

Respondents correctly named breast cancer as the most common cancer in women with 98% mentioning this at either the first, second or third mention. Despite low incidence levels, cervical cancer was named as the second most common cancer in women, with 69% of respondents mentioning this at either the first, second or third mention. Almost one-half of the sample (47%) named lung cancer but only 18% named the third most common cancer in women, colorectal cancer.

Respondents were most likely to think that prostate cancer is the most common cancer in men, with 78% naming this at either the first, second or third mention. Lung (69%), bowel (49%) and testicular (45%) cancer were also mentioned by a high proportion of the sample.

## 1.6. Awareness of NHS Cancer Screening Programmes

Respondents were then asked about their awareness of the NHS cancer screening programmes for breast, cervical and bowel cancer. Respondents were significantly more likely to be aware of both the NHS breast (83% awareness) and cervical cancer (83% awareness) screening programmes, than they were the NHS bowel cancer screening programme (58% awareness). Lower levels of awareness for the NHS bowel cancer screening programme is to be expected as this programme has been operating for significantly less time than breast and cervical cancer screening.

Respondents who were aware of each of the NHS cancer screening programmes were asked at what age they thought people were invited for screening.

Women are typically invited to attend breast cancer screening between 50-53 years of age. As such, 42% of the total sample correctly attributed the age of invitation for breast cancer screening and females (45%) were only somewhat more likely to correctly attribute this age compared to males (38%).

Almost four-in-ten (39%) respondents correctly attributed the age of first invitation for cervical cancer screening at 25-29 years of age, with females being more likely to do so. An additional 17% opted for the slightly lower 20-24 year age band which was correct until relatively recently. The mean score of 23.2 years also falls within this lower band which suggests that there is a lack of awareness of the new age of first invitation.

Just 18% of the sample correctly attributed the age of invitation for NHS bowel cancer screening as between 60 and 69 years of age. A notable proportion gave the answer don't know (29%) or attributed the age of invitation to before 49 years (17%).

## 1.7. Factors Contributing to Cancer Incidence

The final question in the survey asked respondents to rate 5 factors according to their contribution to the incidence of cancer in the UK. Lifestyle (e.g. smoking, diet, physical activity) was considered to be the most important contributing factor, with 64% of the sample selecting this as the factor which contributes the most. This was followed by genetic inheritance, chance, environmental factors (e.g. pollution, radiation) and finally, aging was thought to be the least important factor.

## 2. Background and Objectives

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

Consequently, at the end of 2007, the Department of Health launched the Cancer Reform Strategy which outlined actions to improve UK wide cancer services within the NHS and reduce inequalities in incidence, access to services and outcomes. The reform has set a clear direction in terms of UK cancer services over the next five years and by 2012 it is hoped that the UK's cancer services will be amongst the best in the world.

To help achieve these objectives the National Awareness and Early Diagnosis Initiative (NAEDI) and the National Cancer Equality Initiatives (NCEI) were launched.

The key component of the work undertaken by NAEDI is highlighting the importance of raising awareness of cancer within the general population. This is crucial as one of the main factors associated with a delay in seeking help for cancer is a failure to recognise early cancer symptoms.

The work undertaken by the NCEI focuses on identifying and bridging inequalities within cancer in terms of key indices (gender, age, ethnicity, socio-economic status, religious belief, disability, sexual preference and language). This will allow targeted interventions to be implemented, focusing on the most vulnerable groups of the population.

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

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



Public Knowledge were commissioned by the Arden Cancer Network to undertake 1,800 interviews across the areas served by the network, which covers NHS Coventry, NHS Warwickshire and parts of NHS Worcestershire, using this validated measure.

Half of these interviews, comprising the first 'dip' of the research were undertaken in the Autumn 2009 in order to examine baseline levels of cancer awareness. This will be followed by a second dip of 900 interviews in the summer of 2011, allowing the evaluation of specific social marketing measures implemented in the intervening period.

### 3. Methodology

A face-to-face street interview methodology, including a proportion of door knocking days, was used to assess baseline levels of cancer awareness across the areas served by the Arden Cancer Network.

A face-to-face methodology was selected as most appropriate as cancer is an emotive and sensitive subject and therefore, better suited to discussion in person. All interviewers were fully briefed prior to data collection, which ensured that they were knowledgeable with regards to the answers to the questions, allowing them to confidently answer any questions posed by respondents at the end of the survey.

A street methodology was also advantageous as this allowed our interviewers to hand out leaflets detailing where further help, support and information could be obtained, at the end of the survey. This is particularly important given that the overall objective of this research is to increase awareness of cancer.

A total of 900 interviews were required and the sample was broken down to reflect the population served by the Arden Cancer Network, in each of the 3 NHS areas, as shown in Table 1.

**Table 1: Sample breakdown according to the population served by the Arden Cancer Network.**

| Location                        | Population     | % of Population | Approximate Sample size |
|---------------------------------|----------------|-----------------|-------------------------|
| NHS Coventry                    | 301,000        | 30%             | 270                     |
| NHS Warwickshire                | 527,000        | 53%             | 477                     |
| NHS Worcestershire (Bromsgrove) | 88,000         | 9%              | 81                      |
| NHS Worcestershire (Redditch)   | 79,000         | 8%              | 72                      |
| <b>Total</b>                    | <b>995,000</b> | <b>100%</b>     | <b>900</b>              |

In total 989 interviews were completed and a breakdown of the interviews required and achieved according to location, in addition to associated confidence levels at the 95% confidence level, is presented in Table 2.

**Table 2: Required and achieved interviews by location.**

| <b>NHS area</b>    | <b>Specific area</b>        | <b>Interviews required</b> | <b>Interviews achieved</b> | <b>Confidence Level</b> |
|--------------------|-----------------------------|----------------------------|----------------------------|-------------------------|
| NHS Coventry       | <b>Total Coventry</b>       | <b>270</b>                 | <b>296</b>                 | <b>5.70%</b>            |
| NHS Warwickshire   | Nuneaton                    | 96                         | 120                        | <b>4.34%</b>            |
|                    | Bedworth                    | 48                         | 66                         |                         |
|                    | Lemington Spa               | 80                         | 67                         |                         |
|                    | Rugby                       | 64                         | 62                         |                         |
|                    | Stratford                   | 80                         | 76                         |                         |
|                    | Kenilworth                  | 48                         | 50                         |                         |
|                    | Warwick                     | 64                         | 70                         |                         |
|                    | <b>Total Warwickshire</b>   | <b>480</b>                 | <b>511</b>                 |                         |
| NHS Worcestershire | Bromsgrove                  | 80                         | 82                         | <b>7.26%</b>            |
|                    | Redditch                    | 80                         | 100                        |                         |
|                    | <b>Total Worcestershire</b> | <b>160</b>                 | <b>182</b>                 |                         |
| <b>Total</b>       |                             | <b>910</b>                 | <b>989</b>                 | <b>3.12%</b>            |

Confidence in data increases as sample size increases. As such, the data collected in the area served by NHS Warwickshire displays the greatest degree of confidence, with a margin of error of 4.34% at the 95% confidence level. The data collected in the area served by NHS Worcestershire displays the least confidence with a margin of error of 7.26%. Overall confidence in the data set as a whole is much more reliable, with a margin of error of 3.12% based on 95% confidence.

The majority of the data was collected in high footfall areas, typically town centres, which is the most cost effective way to complete face-to-face interviewing. However, in order to ensure that respondents in deprived and ethnic areas were included, a proportion of the data was collected using a door-knocking methodology. Specifically, three days door-knocking was undertaken, one in each of the following areas: Foleshill in Coventry, Camphill in Nuneaton and Barpool in Bedworth.

All data was collected by experienced interviewers, in line with the MRS code of conduct. The data was collected in October and November 2009 on a combination of week and weekend days and 10% of the data was back-checked to ensure that the data was collected when and where specified and that the interviewers were polite and considerate.

Quotas were imposed to ensure that the data was broadly representative of the three areas in terms of age, gender (stable between areas) and ethnicity (which varied between areas). Required and achieved percentages are specified in Table 3 on the following page.

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

| Demographic      |               | NHS Worcestershire |             | NHS Coventry |             | NHS Warwickshire |             |
|------------------|---------------|--------------------|-------------|--------------|-------------|------------------|-------------|
|                  |               | Required           | Achieved    | Required     | Achieved    | Required         | Achieved    |
| <b>Gender</b>    | Male          | 50%                | 48%         | 50%          | 50%         | 50%              | 47%         |
|                  | Female        | 50%                | 52%         | 50%          | 50%         | 50%              | 53%         |
| <b>Age</b>       | 18-24 years   | 9%                 | 13%         | 9%           | 11%         | 9%               | 10%         |
|                  | 25-34 years   | 17%                | 22%         | 17%          | 20%         | 17%              | 17%         |
|                  | 35-44 years   | 20%                | 21%         | 20%          | 19%         | 20%              | 19%         |
|                  | 45-54 years   | 19%                | 17%         | 19%          | 16%         | 19%              | 16%         |
|                  | 55-64 years   | 16%                | 15%         | 16%          | 16%         | 16%              | 18%         |
|                  | 65 years plus | 19%                | 12%         | 19%          | 18%         | 19%              | 21%         |
| <b>Ethnicity</b> | White         | 88%                | 85%         | 81%          | 74%         | 96%              | 93%         |
|                  | Asian         | 7%                 | 7%          | 12%          | 17%         | 2%               | 4%          |
|                  | Black         | 2%                 | 4%          | 3%           | 4%          | 1%               | 1%          |
|                  | Mixed         | 1%                 | 2%          | 2%           | 2%          | 1%               | 3%          |
|                  | Chinese/other | 2%                 | 2%          | 2%           | 3%          | 1%               | 0%          |
| <b>Total</b>     |               | <b>100%</b>        | <b>100%</b> | <b>100%</b>  | <b>100%</b> | <b>100%</b>      | <b>100%</b> |

### Significance testing

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

This data has been assessed for statistical significance according to the following variables: location at the PCT level (NHS Worcestershire, NHS Warwickshire and NHS Coventry), location within Warwickshire (North Warwickshire: Nuneaton, Bedworth and Rugby and South Warwickshire: Lemington, Stratford, Kenilworth and Warwick), age, gender, ethnicity, smoking behaviour, education and personal experience of cancer.

## 4. Respondent Characteristics

The first section of the questionnaire assessed demographics of the sample and these characteristics are shown in Tables 4-6 on the following pages.

**Table 4: Primary demographics of respondents.**

| Demographic Characteristics |               | All data* |
|-----------------------------|---------------|-----------|
| Gender                      | Male          | 48%       |
|                             | Female        | 52%       |
| Age                         | 18-24 years   | 11%       |
|                             | 25-34 years   | 19%       |
|                             | 35-44 years   | 19%       |
|                             | 45-54 years   | 16%       |
|                             | 55-64 years   | 17%       |
|                             | 65 years plus | 18%       |

*\*Please see Table 3 for a breakdown of age and gender at the PCT level.*

As shown in Table 3, a slightly higher proportion of female respondents (52%) were interviewed than males (48%), as females are generally more willing to participate in street research.

Quotas ensured that respondents were drawn from a good cross section of ages.

Table 5 shows the secondary demographics of the sample (working status, marital status, education, living arrangements and vehicle ownership) and this is discussed further on the subsequent pages.

**Table 5: Secondary demographics of respondents.**

| Demographic characteristics      |   | All data | NHS<br>Worcestershire | NHS<br>Coventry | NHS<br>Warwickshire |
|----------------------------------|---|----------|-----------------------|-----------------|---------------------|
| <b>Working status</b>            | Employed full-time                                | 39%      | 45%                   | 40%             | 36%                 |
|                                  | Employed part-time                                | 13%      | 12%                   | 7%              | 16%                 |
|                                  | Unemployed  | 9%       | 13%                   | 4%              | 10%                 |
|                                  | Self-employed                                     | 3%       | 7%                    | 1%              | 2%                  |
|                                  | Full-time homemaker                               | 6%       | 3%                    | 7%              | 5%                  |
|                                  | Retired   | 23%      | 14%                   | 26%             | 24%                 |
|                                  | Student   | 7%       | 4%                    | 14%             | 4%                  |
| Disabled or too ill to work      | 1%  | 2%       | 1%                    | 1%              |                     |
| <b>Marital status</b>            | Married/living with spouse                        | 50%      | 43%                   | 49%             | 52%                 |
|                                  | Single/never married                              | 32%      | 43%                   | 35%             | 27%                 |
|                                  | Widowed   | 8%       | 5%                    | 8%              | 8%                  |
|                                  | Divorced  | 6%       | 7%                    | 5%              | 7%                  |
|                                  | Married/separated from partner                    | 2%       | 2%                    | 1%              | 3%                  |
| Civil partnership                | 2%  | 1%       | 1%                    | 3%              |                     |
| <b>Educational qualification</b> | O Level/GCSE (Grade D-G)                          | 21%      | 12%                   | 36%             | 15%                 |
|                                  | O Level/GCSE (Grade A-C)                          | 19%      | 16%                   | 10%             | 25%                 |
|                                  | A-levels or highers                               | 11%      | 10%                   | 10%             | 11%                 |
|                                  | Degree or higher degree                           | 10%      | 7%                    | 9%              | 11%                 |
|                                  | Higher education qualification below degree level | 7%       | 4%                    | 11%             | 6%                  |
|                                  | ONC/BTEC  | 2%       | 2%                    | 2%              | 2%                  |
|                                  | Other   | 6%       | 13%                   | 3%              | 6%                  |
| No formal qualifications         | 24%   | 36%      | 16%                   | 24%             |                     |
| <b>Living arrangements</b>       | Own mortgage                                      | 31%      | 30%                   | 27%             | 33%                 |
|                                  | Own outright                                      | 24%      | 12%                   | 29%             | 26%                 |
|                                  | Rent from Local Authority/<br>Housing Association | 18%      | 25%                   | 14%             | 18%                 |
|                                  | Rent privately                                    | 13%      | 12%                   | 20%             | 10%                 |
|                                  | Squatting   | 0%       | 1%                    | 0%              | 0%                  |
|                                  | Other (e.g. living with family/<br>friends)       | 13%      | 21%                   | 11%             | 12%                 |
| <b>Vehicle ownership</b>         | Yes, one car or van                               | 56%      | 18%                   | 27%             | 21%                 |
|                                  | Yes, more than one car or<br>van                  | 22%      | 58%                   | 52%             | 57%                 |
|                                  | None  | 22%      | 24%                   | 21%             | 22%                 |

## Working Status

Over one-half of the sample are in employment, be that full-time (39%), part-time (13%) or self-employed (3%). Nearly one-quarter (23%) are retired and 9% of the sample report unemployment, which is similar to the current national average of 7.9%<sup>1</sup>.

As would be expected, respondents aged 55 years and above were significantly more likely to be retired (36% of 55-64 year olds and 87% of those aged 65 plus). Respondents aged 18-24 years were significantly more likely to be studying (36%) and those aged between 25-54 years were significantly more likely to be working full-time. Female respondents were significantly more likely to be full-time home makers (10%) or working part-time (18%), while male respondents were significantly more likely to be working full-time (46%), to be unemployed (13%) or to be self-employed (4%).

Overall, 7% of the sample described themselves as students. In 2008/09 around 3.3% of the UK population were registered as being in full or part-time higher education<sup>2</sup> but this does not include respondents who may be in other forms of education. There were significantly more students interviewed in Coventry (14%) than in the other NHS areas, presumably due to the presence of the university. Additionally, significantly less data was collected from the unemployed in Coventry (4%) than in the areas served by NHS Worcestershire (13%) and Warwickshire (10%), possibly because this is a more urban area. In the area served by NHS Worcestershire significantly less respondents interviewed were retired (14%) and this reflects a smaller proportion of those aged 65 years plus interviewed in this area.

Finally, non-white respondents were significantly more likely to be working full-time (51%) or studying (17%), and were also significantly less likely to be unemployed (5%).

## Marital Status

The greatest proportion of the sample is married (50%). A third (32%) are single, 8% are widowed, 8% are separated or divorced and 2% are in a civil partnership.

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<sup>1</sup> According to the Office of National Statistics and based on data collected between August to October 2009. <http://www.statistics.gov.uk/cci/nugget.asp?ID=12>

<sup>2</sup> Based on data from the higher education statistics authority <http://www.hesa.ac.uk/>

As would be expected, respondents aged 18-34 years were significantly more likely to be single (89% of 16-24 year olds and 54% of 25-34 year olds). Older respondents were significantly more likely to be married and those aged over 65 years of age were significantly more likely to have been widowed (34%).

Females were significantly more likely to be married (54%) and to be widowed (11%), while males (41%) and non-white respondents (44%) were more likely to be single (41%).

A significantly higher proportion of respondents interviewed in the areas served by NHS Worcestershire were single (43%) and this was significantly lower in the areas served by NHS Warwickshire (27%).

Within Warwickshire, a higher proportion interviewed in South Warwickshire were in a civil partnership (5%) compared to North Warwickshire (0%).

### **Educational Qualifications**

The greatest proportion of the sample did not have any formal qualifications (24%), or had GCSE's only (40%), 10% had a degree or higher degree.

Respondents interviewed in Bromsgrove and Redditch were significantly more likely to have no formal qualifications (36%) while those interviewed in Coventry were significantly less likely to give this response (36%), possibly because Coventry is a more urban area, with a university.

Older respondents (33% of 55-64 year olds and 36% of those aged 65 years and above) were significantly more likely to say that they had no formal qualifications. Male respondents (13%) were more likely to have a degree or higher degree than female respondents (7%), as were non-white respondents (20% compared to 8% within white respondents).

### **Living Arrangements**

Almost one quarter (24%) of respondents own their own home outright, 31% own a home that is mortgaged, 18% rent from the local housing authority and 13% rent privately. The remainder of the sample gave the response 'other' (e.g. living with parents).



As would be expected, respondents aged 55 years and over were significantly more likely to own their own home outright (49% of 55-64 year olds and 69% of those aged 65 plus), while respondents aged 35-54 years were significantly more likely to have a mortgage (57% of 35-44 year olds and 47% of 45-54 year olds).

In contrast, those aged 18-34 years (28% of 18-24 year olds and 34% of 25-34 year olds) and non-white respondents (28%) were significantly more likely to be renting privately.

Respondents interviewed in Coventry were significantly more likely to say they own their own home outright (29%) suggesting a greater degree of affluence within this sub-group which is surprising as Coventry is a relatively deprived area. Those interviewed in Coventry were also significantly more likely to say that they rent privately (20%), which is likely to be a result of the greater number of students interviewed in this area.

### **Vehicle Ownership**

Just over one-half of the sample own one car or van (56%). 22% own more than one car or van and 22% do not own a vehicle at all.

Respondents in Coventry were significantly more likely not to own a vehicle (27%), presumably as this is a more urban area with better access to public transport and also possibly as a result of the higher proportion of students interviewed in this area. The youngest age group (18-24 year olds) were also significantly more likely to say that they do not own a car (39%).

Respondents were also asked about ethnicity, language spoken at home and length of time spent living in the UK. As can be seen in Table 6, 85% of respondents were white and 97% speak English as a main language at home. As would be expected the length of time spent living in the UK correlates strongly with respondent age.

**Table 6: Ethnicity, language and length of time spent living in the UK.**

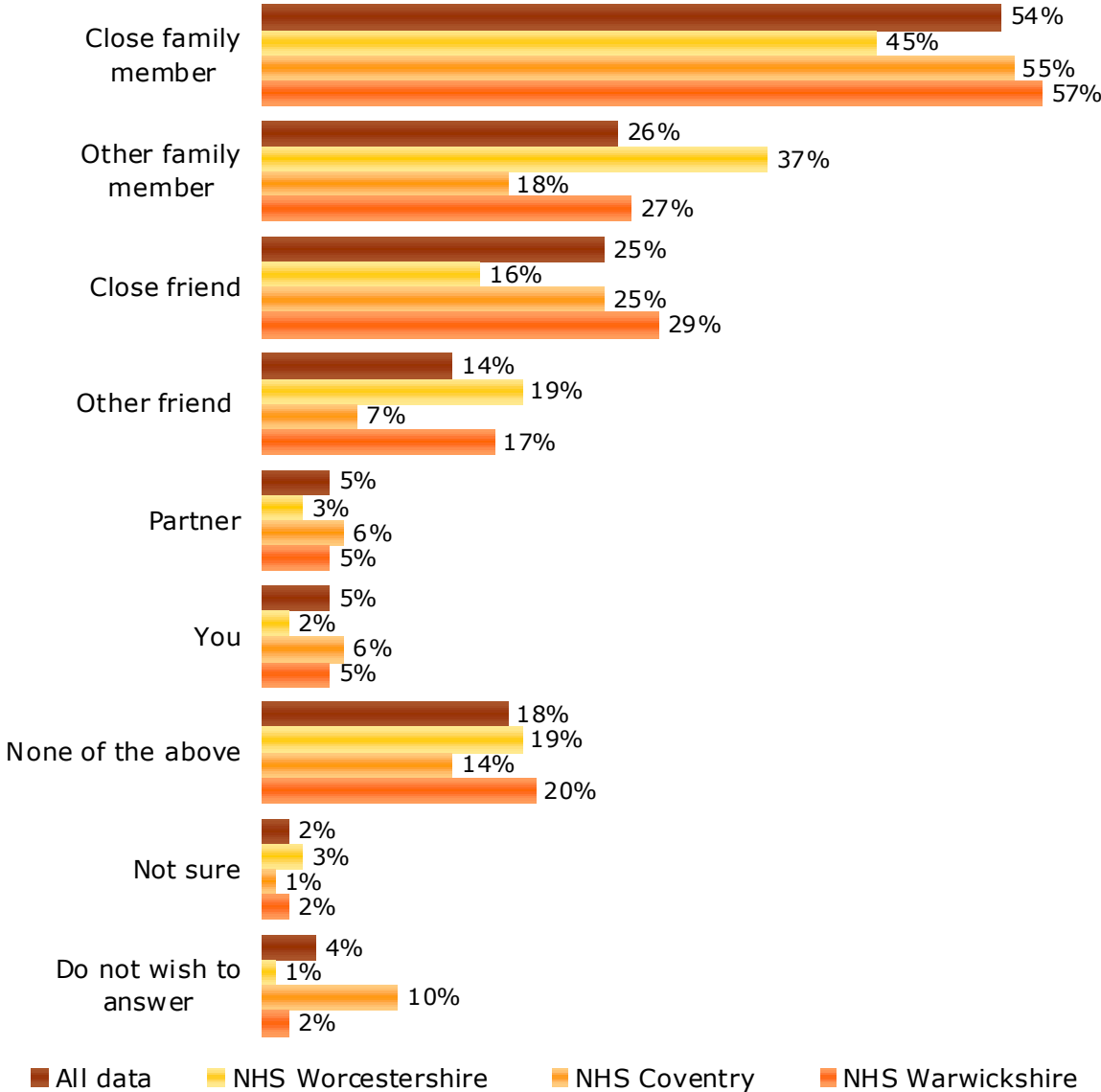
| Demographic characteristics                    |                    | All data | NHS Worcestershire | NHS Coventry | NHS Warwickshire |
|--|--------------------|----------|--------------------|--------------|------------------|
| <b>Ethnicity</b>                               | White              | 85%      | 85%                | 74%          | 93%              |
|  | Asian              | 8%       | 7%                 | 17%          | 4%               |
|  | Black              | 3%       | 4%                 | 4%           | 1%               |
|  | Mixed              | 2%       | 2%                 | 2%           | 3%               |
|  | Chinese/Other      | 1%       | 2%                 | 3%           | 0%               |
| <b>Language spoken at home</b>                 | English            | 97%      | 95%                | 97%          | 99%              |
|  | Urdu               | 1%       | 3%                 | 0%           | 0%               |
|  | Punjabi            | 1%       | 2%                 | 0%           | 0%               |
|  | Gujarati           | 1%       | 0%                 | 1%           | 0%               |
|  | Other              | 1%       | 1%                 | 2%           | 0%               |
| <b>Length of time living in the UK (years)</b> | Less than 10 years | 6%       | 2%                 | 16%          | 3%               |
|  | 10 - 19            | 5%       | 3%                 | 5%           | 5%               |
|  | 20 - 29            | 15%      | 19%                | 14%          | 14%              |
|  | 30 - 39            | 17%      | 25%                | 11%          | 17%              |
|  | 40 - 49            | 16%      | 18%                | 14%          | 16%              |
|  | 50 - 59            | 15%      | 16%                | 10%          | 17%              |
|  | 60 - 69            | 13%      | 10%                | 7%           | 17%              |
|  | More than 70 years | 8%       | 6%                 | 5%           | 10%              |
| Don't know                                     | 6%                 | 1%       | 17%                | 1%           |                  |

A greater proportion of the non-white respondents interviewed were in the younger age ranges, particularly the 18-24 year bracket (19%). This is reflected in a smaller proportion of respondents in the older age ranges, particularly the 65 plus age bracket (5%). Non-white respondents interviewed were also more likely to be male (62%) than female (38%).

A higher proportion of respondents living in Coventry say that they have lived in the UK for less than 10 years (16%), which reflects the higher proportion of ethnic respondents interviewed in this area.

In this first section respondents were also asked about their personal experiences of cancer (Figure 1) and whether or not they currently smoke (Figure 2).

**Figure 1: Experience of Cancer amongst Respondents.**



**D9. Have you or any of your family or close friends had cancer?**

Base: All respondents - 989, NHS Worcestershire - 182, NHS Coventry - 296, NHS Warwickshire - 511

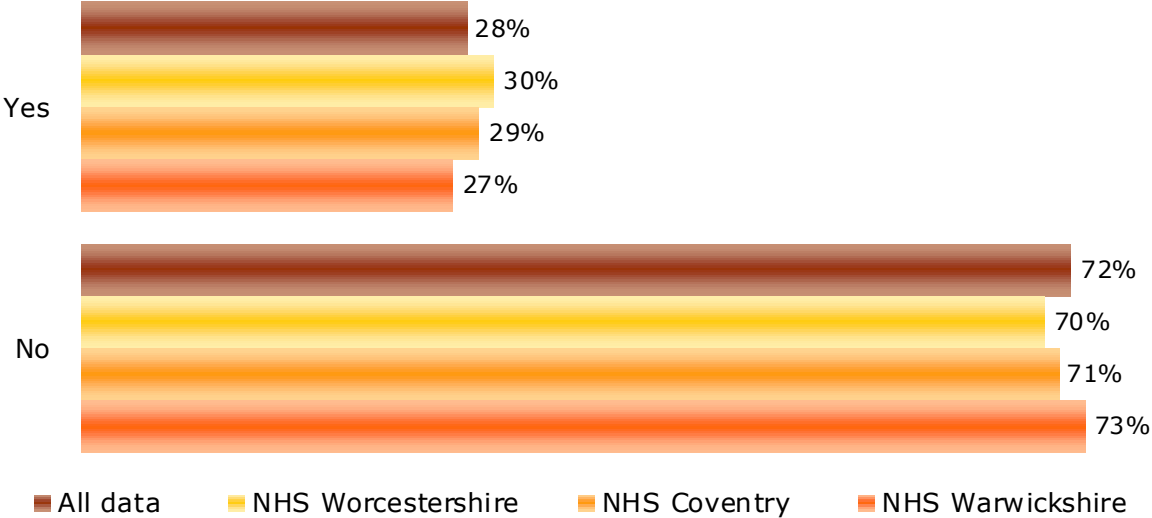
The majority of respondents have some experience of cancer, with over one-half (54%) reporting that a 'close' family member has suffered from cancer, 26% an 'other' family member and 25% a close friend.

Furthermore, 5% of respondents have themselves suffered from cancer and only 18% gave the answer 'none of the above'.

As would be expected, older respondents were more likely to have personal experience of cancer while those in the youngest age band (18-24 years) were significantly more likely to give the response 'none of the above' (29%).

Figure 2 shows the proportion of people who said that they currently smoke cigarettes. This question is an addition to the validated CAM measure and is considered important in order to allow an analysis of the relationship between smoking and cancer awareness.

**Figure 2: Smoking behaviour within the sample.**



**D12. Do you currently smoke any cigarettes at all?**

Base: All respondents - 989, NHS Worcestershire - 189, NHS Coventry - 296, NHS Warwickshire - 511

In total, 28% of the sample said they currently smoked cigarettes, which is somewhat higher than the national average of 21%<sup>3</sup>. Those aged 25-34 years (37%) and males (32%) were significantly more likely to say they currently smoke. Respondents with a degree/higher education qualification (22%) were significantly less likely to smoke, while the unemployed (56%), single respondents (36%) and those with no formal qualifications (34%) were significantly more likely to say they smoke.

There were no significant differences in the incidence of smoking between the three NHS areas served by the Arden Cancer Network, although respondents in North Warwickshire (32%) were significantly more likely to smoke than those in South Warwickshire (23%).

<sup>3</sup> Based on data collected for the Office for National Statistics in 2009. <http://www.statistics.gov.uk/cci/nugget.asp?id=313>

## 5. Full Summary of Results

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

### 5.1. Awareness of the Signs and Symptoms of Cancer

The first question in the main section of the survey asked respondents to name as many warning signs and symptoms of cancer as they were able (Figure 3a on the following page) and used an open format, which was coded into the code frames specified within the CAM tool kit.

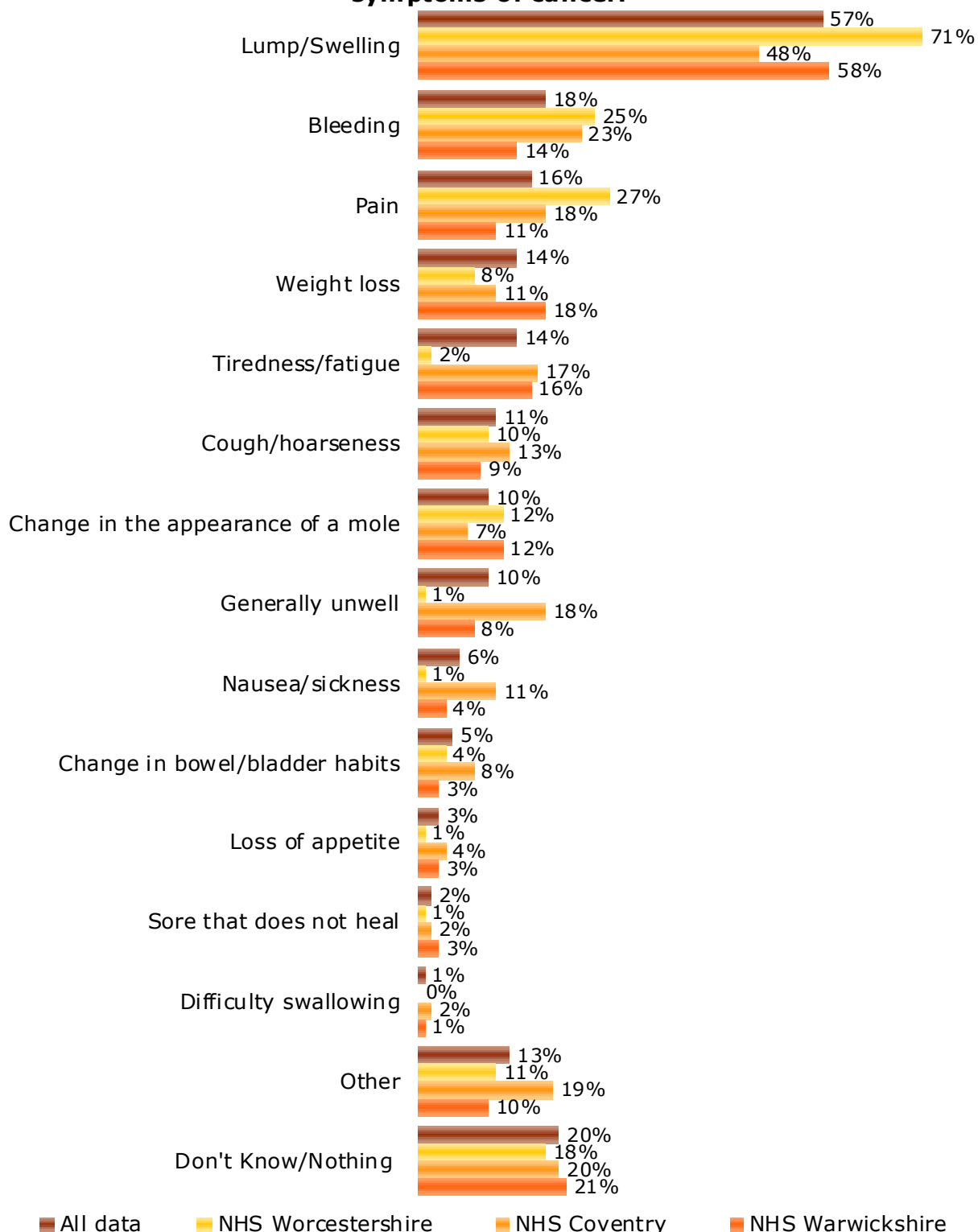
By far the most common sign/symptom of cancer spontaneously given by the sample was lumps or swellings, with 57% of the total sample mentioning this. Bleeding (18%), pain (16%), weight loss (14%) and tiredness/fatigue (14%) were also common responses and 'other' responses were given by 13% of the sample.

However, one in five (20%) respondents were unable to name any signs or symptoms of cancer and this increased to 35% when excluding the most commonly known sign/symptom - lumps/swellings; indicating a need for increased education in terms of awareness of the symptoms of cancer.

Respondents in both the youngest (24% of 18-24 year olds) and oldest age bands (22% of those aged 65 plus) were more likely to be unable to give any response when asked about the signs and symptoms of cancer. Males were also significantly more likely to give the response 'don't know' (24%) when compared to females (13%), as were non-white respondents (26%) when compared to white respondents (17%).

Although there was some significant variation according to the signs and symptoms named between the 3 NHS areas served by the Arden Cancer Network there is no consistent variation (e.g. higher levels of overall awareness in one area).

**Figure 3a: Spontaneous awareness of the signs and symptoms of cancer.**

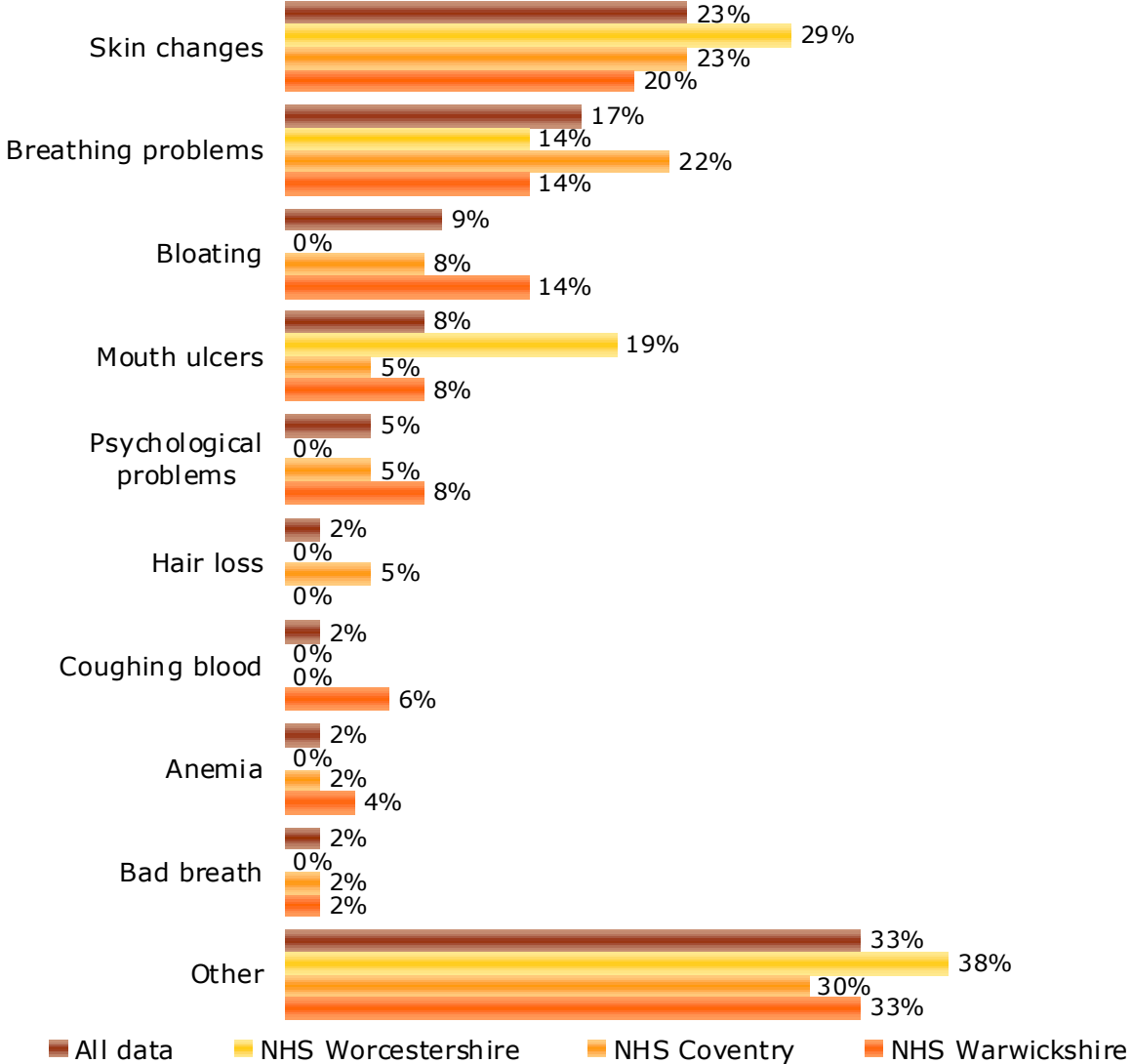


**Q1. There are many warning signs and symptoms of cancer. Please name as many as you can think of?**

Base: All respondents - 989, NHS Worcestershire - 182, NHS Coventry - 296, NHS Warwickshire - 511

Figure 3b details the 'other' responses obtained when respondents were asked about the signs and symptoms of cancer, and is based on a sample size of those who gave some other response only.

**Figure 3b: Spontaneous awareness of the signs and symptoms of cancer - 'other' responses.**



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

Base: Respondents who gave 'other' responses - 132, NHS Worcestershire - 21, NHS Coventry - 60, NHS Warwickshire - 51

**Please note that due to the small base sizes within the sub-groups, this data should be interpreted with caution.**

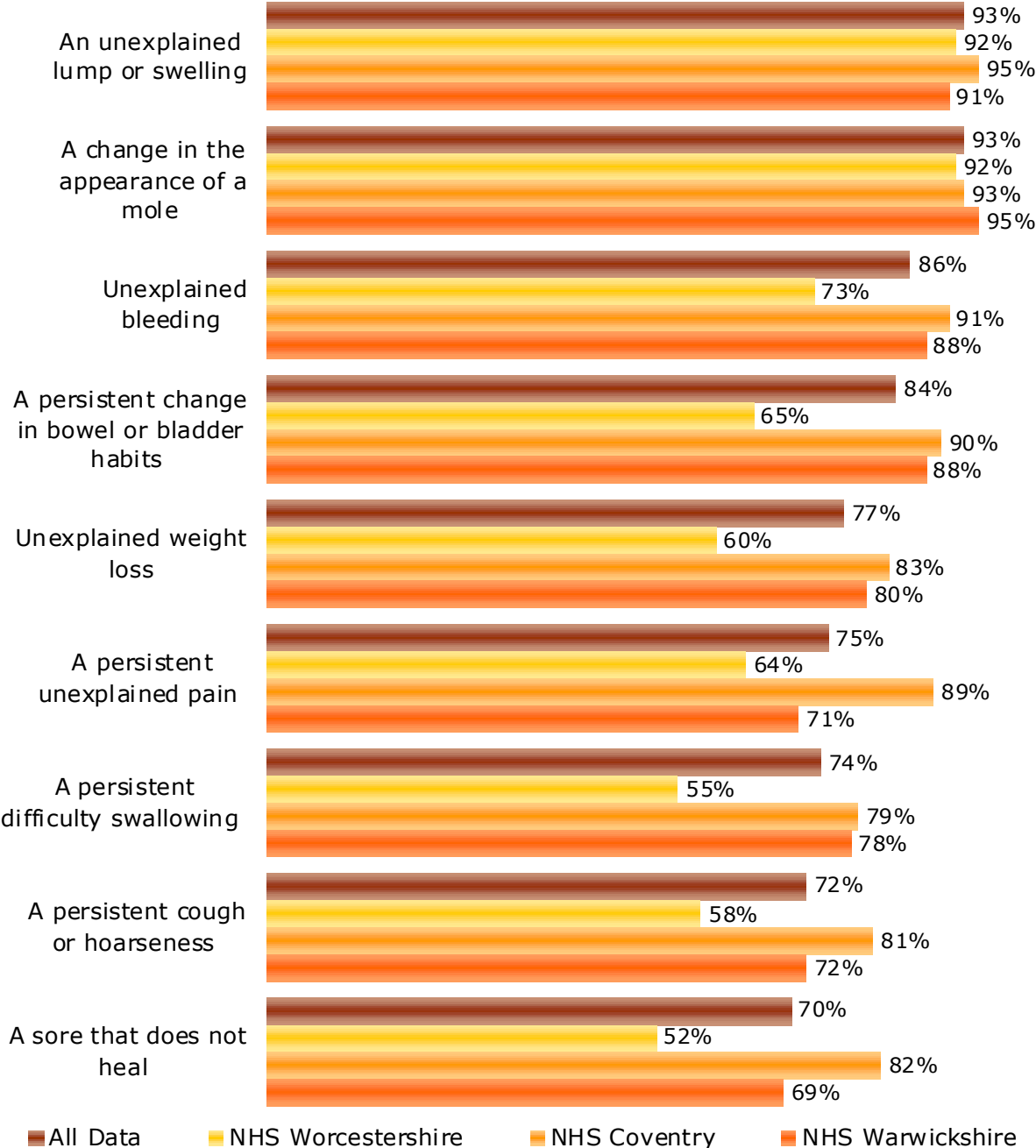
The most common 'other' symptom of cancer named by the sample was a rash or changes to the skin (23%). Breathing problems (17%), bloating (9%), mouth ulcers (8%) and psychological problems (5%) were also mentioned.

In addition to the data presented in Figure 3b, there were many other possible signs and symptoms of cancer named within the sample, both correctly attributed, such as yellow eyes, vomiting blood and turning yellow; and incorrectly attributed, such as night sweats, not being able to get over minor colds and ailments, feeling dizzy, and dilated pupils.



In the second question respondents were read a list of potential signs and symptoms and were asked whether they thought each of these could be a sign of cancer. The percentage of 'yes' responses to this question in each NHS area are shown in Figure 4.

**Figure 4: Prompted awareness of the signs and symptoms of cancer.**



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

Base: All respondents - 989, NHS Worcestershire - 182, NHS Coventry - 296, NHS Warwickshire - 511

As can be observed, respondents were most likely to agree that unexplained lumps or swellings (93% overall agreement) were a warning sign of cancer, which replicates the findings obtained within the spontaneous question. A high proportion of the sample also agreed that a change in the appearance of a mole (93%) could be sign/symptom of cancer despite the fact that only 10% mentioned this spontaneously in the previous question.

An unexplained bleeding (86%) and a persistent change in bowel or bladder habits (84%) were also the symptoms which respondents were most likely to agree could be signs/symptoms of cancer.

In contrast, respondents were least likely to agree that a persistent cough or hoarseness (72% overall) or a sore that does not heal (70%) could be a sign of cancer.

With the exception of 'unexplained lumps/swellings' and 'changes to the appearance of a mole', respondents interviewed in Coventry tended to be more likely to agree that the symptoms listed could be a sign/symptom of cancer. In contrast, respondents in the area covered by NHS Worcestershire tended to be least likely to agree. It is possible that this is the result of the demographics of the respondents interviewed in these areas. For example, we know that a higher proportion of students were interviewed in Coventry and that respondents in this area were also significantly less likely to report having no formal qualifications. It should also be considered that it is possible that this data is skewed because of the relatively high margin of error in this sub-sample, as discussed on page 11.

Respondents in North Warwickshire were more likely to agree that each of the symptoms listed could be sign of cancer than those in South Warwickshire, which is known to be a more deprived area.

Respondents aged between 18-24 years were generally more likely to give the answer 'no' or 'don't know' when asked whether they thought the signs and symptoms listed could be a sign of cancer, while those aged 55 years and above were significantly more likely to give the response 'yes'. Although the younger age ranges are also the least at risk of developing cancer this illustrates a need for increased education within this group.

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

There was also a relationship between both personal experience of cancer and education and agreement that the signs/symptoms listed could be a cause of cancer. On the whole respondents with no formal education were less likely to agree that each of the symptoms listed could be a sign of cancer and respondents with personal experience of cancer were more likely to do so.

## 5.2. Contacting a Doctor Regarding Symptoms

Respondents were then asked how soon they would contact a doctor to make an appointment to discuss each of the symptoms initially listed at Q2. Overall responses are shown in Figure 5a and mean scores for length of time respondents would wait in each area are shown in Figure 5b on the following pages.

As shown in Figure 5a, respondents were most likely to say that they would contact a doctor within 1-3 days for each of the following symptoms: An unexplained lump or swelling (52%), an unexplained bleeding (57%) and a symptom that they thought was a sign of cancer (59%).

This is corroborated by the mean scores presented in Figure 4b, which show that respondents would wait for the shortest time for an unexplained bleeding (5.3 days on average) and for a symptom they thought might be a sign of cancer (5.4 days on average) before contacting a doctor. Surprisingly, respondents would actually wait slightly longer (6.5 days) before contacting a doctor with regard to an unexplained lump/swelling.

Unexplained weight loss (18.8 days), a persistent cough or hoarseness (15.9 days) and a sore that does not heal (12.5 days) were the symptoms that respondents would leave for the longest time before contacting a doctor. This is consistent with the fact that these were the symptoms respondents were least likely to agree could be a sign of cancer.

It is worrying that a small percentage of respondents said that they would never see a doctor for the symptoms listed, particularly in the case of a persistent cough or hoarseness (3%) and unexplained weight loss (2%). Furthermore, 2 respondents (0%) said that they would not visit a doctor even if they thought the symptom might be a sign of cancer. These respondents were both white males, one aged 35-44 years and the other aged 45-54 years.

Respondents who say they would never visit the doctors were much more likely to be male and the mean scores also indicate a strong relationship between gender and length of wait before seeing a doctor; with females being consistently more likely to initiate contact with a doctor sooner than males.

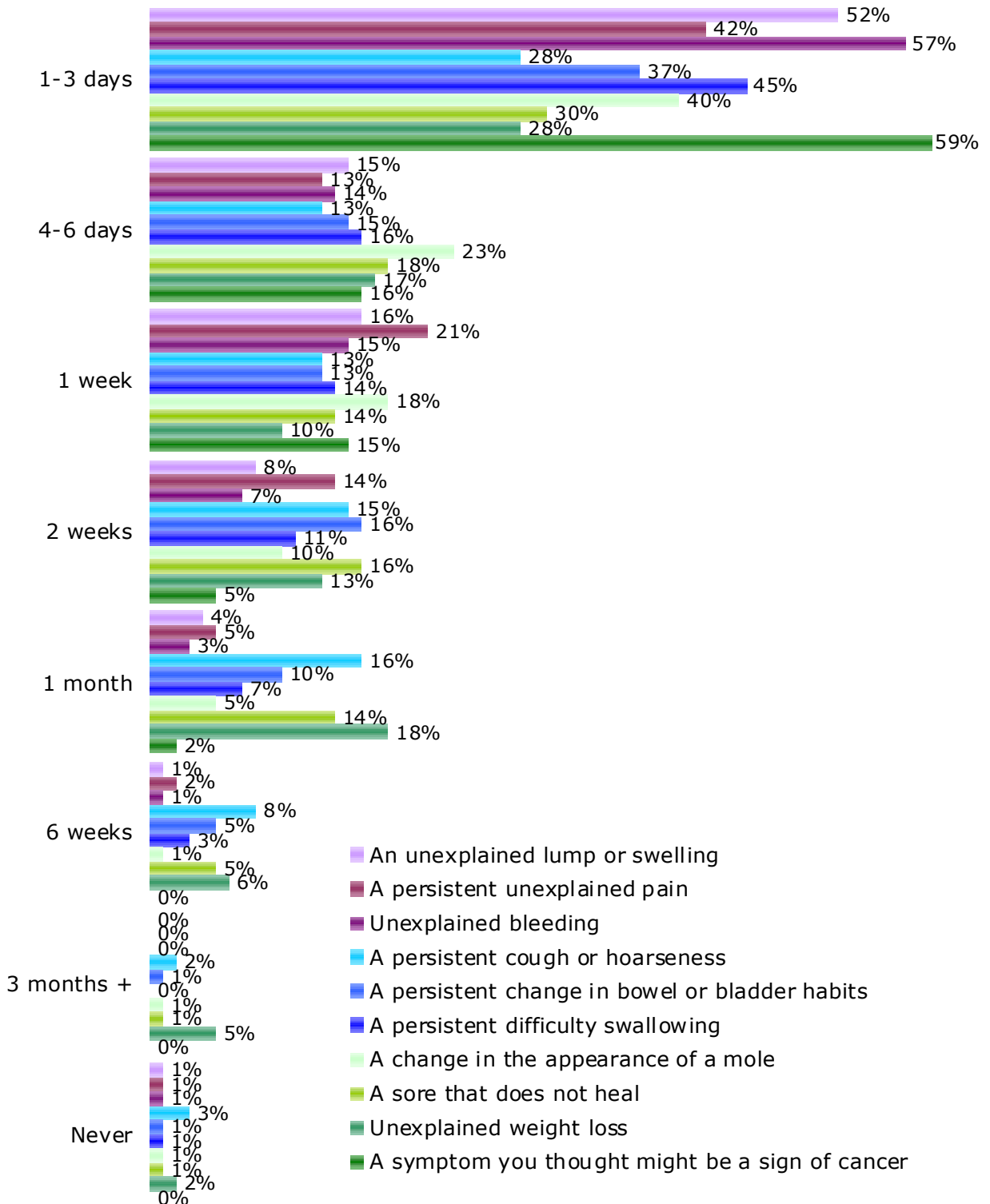
Respondents in Worcestershire were also consistently more likely to say that they would wait longer before going to see a doctor. This is possibly the result of the slightly younger demographic profile in Worcestershire, as discussed further below.

There were also differences within Warwickshire. Those in the North were consistently more likely to say that they would visit a doctor sooner for each of the signs and symptoms listed than those in the South. This supports the fact that these respondents were less concerned about these symptoms in the previous question.

There was also a strong correlation between age and the length of time respondents would wait before contacting a doctor. Younger respondents (those aged between 18-24 and 25-34 years of age) were consistently significantly less likely to say that they would visit the doctor within 1-3 days and the mean scores illustrate that older respondents are typically more likely to initiate contact sooner.

There were no consistent differences according to smoking or ethnicity, but respondents who had suffered from cancer themselves were more likely to contact the doctor sooner and respondents with no formal qualifications tended to say they would wait longer.

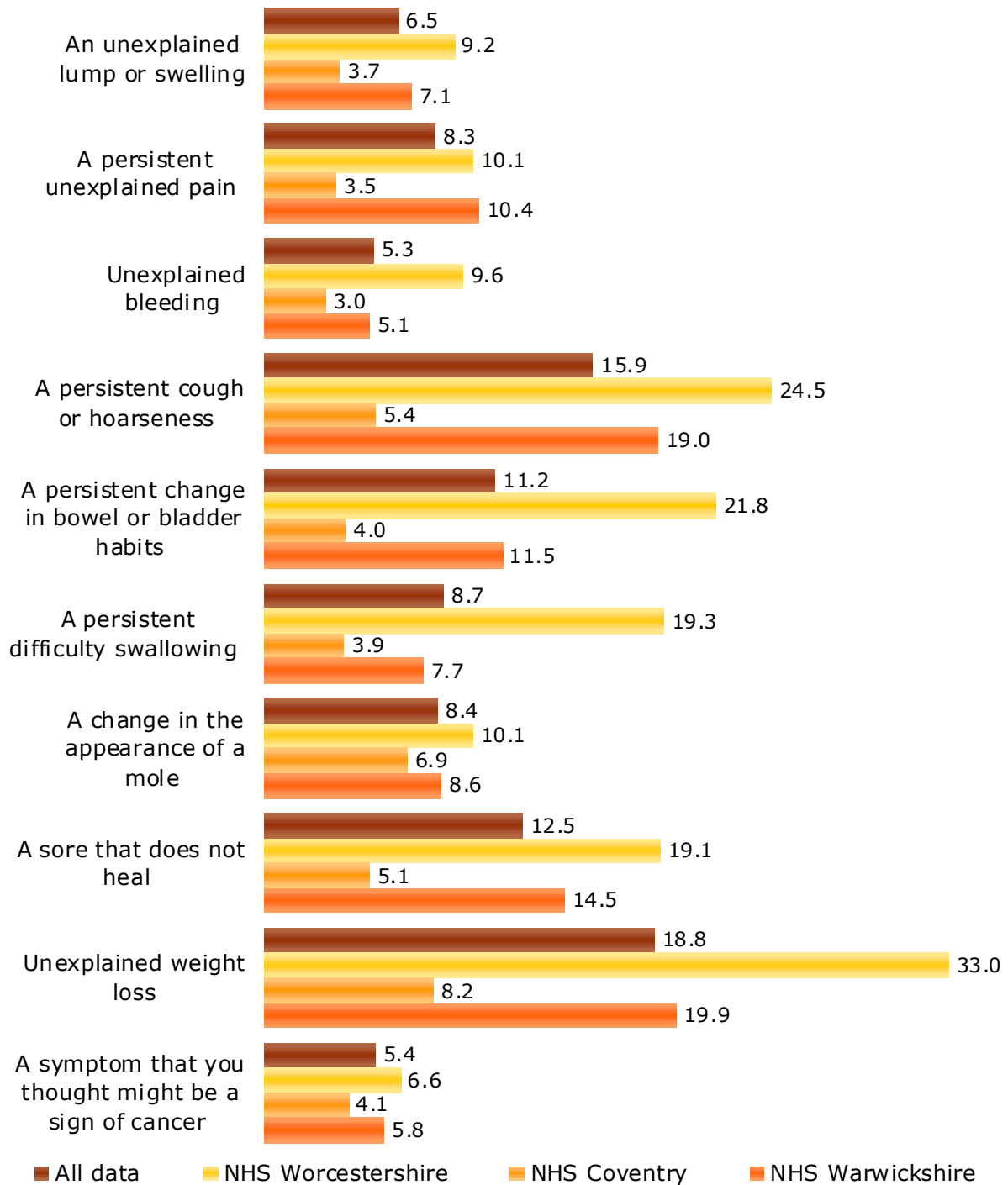
**Figure 5a: Length of wait before seeing a doctor to discuss symptoms.**



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

Base: All respondents - 989

**Figure 5b: Mean scores for the length of wait before contacting a doctor to discuss symptoms.**

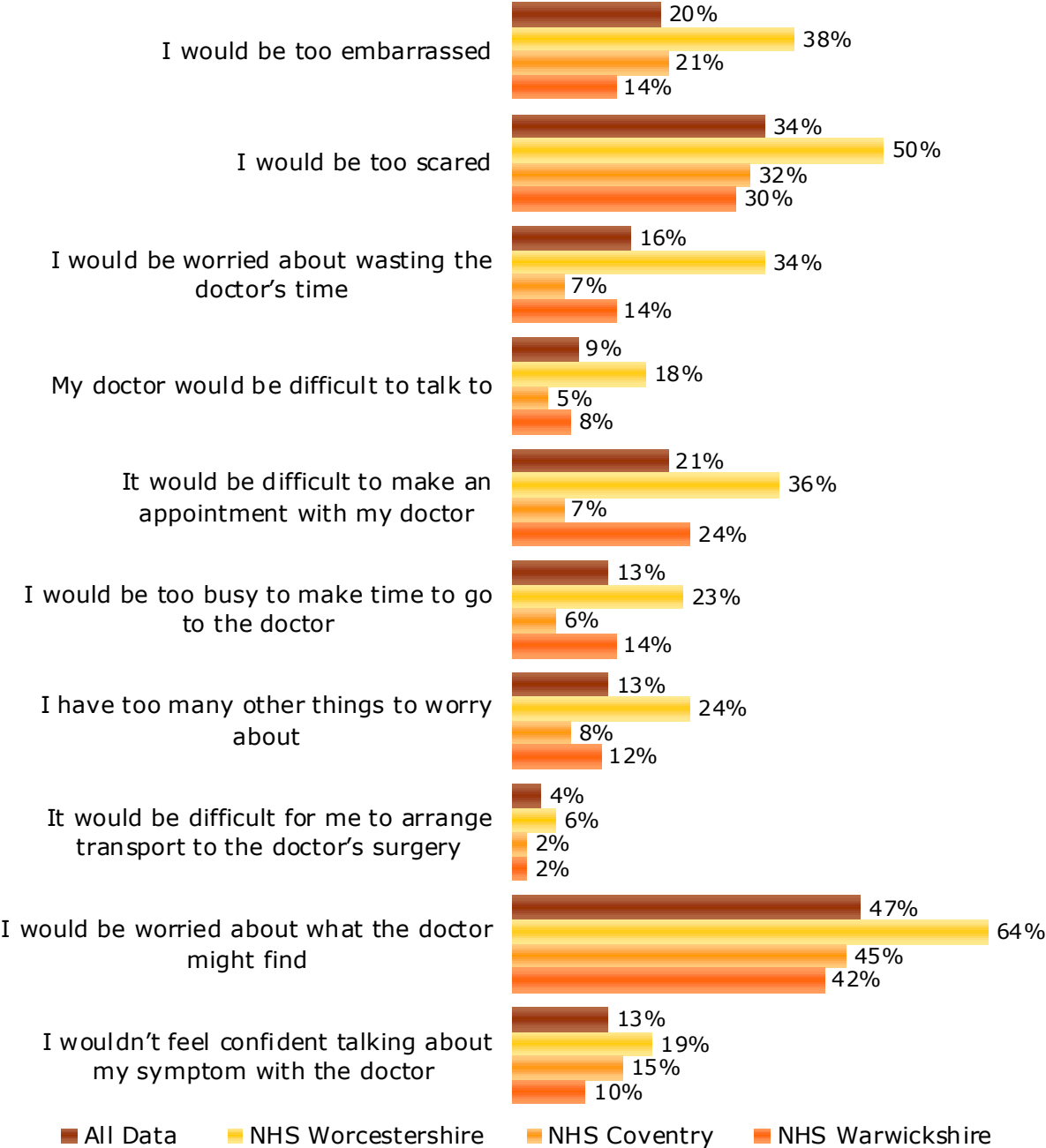


**Q3/4. If you noticed any of the following unexplained symptoms how soon would you contact your doctor to make an appointment to discuss it?**

Base: All respondents - 989, NHS Worcestershire - 182, NHS Coventry - 296, NHS Warwickshire - 511

In the following question, respondents were read a list of reasons why people might put off going to see a doctor, even when they think the symptoms might be serious, and were asked if any of these reasons would personally cause them to delay contact. Figure 6a gives the number of 'yes, often' and 'yes, sometimes' responses for each reason.

**Figure 6a: Reasons why respondents might put off visiting a doctor.**



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

Base: All respondents - 989, NHS Worcestershire - 182, NHS Coventry - 296, NHS Warwickshire - 511



The main reason respondents gave for putting off visiting the doctor was that they would be worried about what the doctor might find (47%). Feeling scared (34%), or embarrassed (20%) and difficulty making an appointment (21%) were the main other reasons respondents gave for putting off visiting a doctor.

Respondents in Worcestershire were significantly more likely to say they would put off going to the doctor for each of the reasons listed. As noted previously, respondents in Worcestershire were also consistently more likely to say that they would wait longer before going to see a doctor and this is possibly the result of the slightly younger demographic profile in this subset.

Responses with regards to 'difficulty making an appointment' are particularly important. As noted above, respondents in Worcestershire were most likely to say they would put off contacting a doctor because of difficulty getting an appointment, but again the relatively high margin of error must be considered. Within Warwickshire 27% of respondents in the south (Lemington Spa, Stratford, Kenilworth and Warwick) felt that it was difficult to make an appointment to see a doctor, compared to 19% in north Warwickshire (Nuneaton, Bedworth and Rugby). Younger respondents were also more likely to feel that it was difficult to make an appointment when compared to older respondents, but there was no other significant variation.

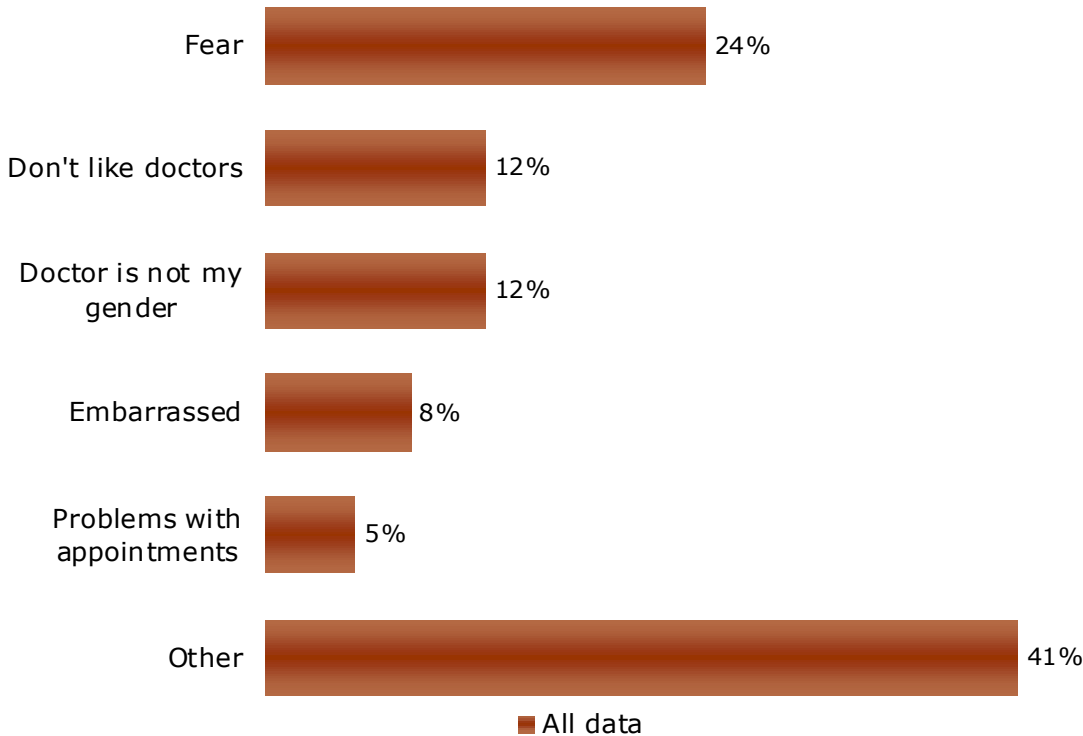
Again there was an overall association with age, and with the exception of difficulty making an appointment, respondents aged 55 years and above were generally less likely to say they would put off going to see a doctor for each of the reasons listed.

Female respondents were more likely to say that they would put off going to see a doctor because of feeling scared (38% compared to 29% of males).

Using an open question respondents were also asked if there were any other reasons they might put off going to see a doctor. The responses obtained from people who gave a further reason are shown in Figure 6b.

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

**Figure 6b: Other reasons respondents might delay going to the doctors.**



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

Base: Respondents who gave other reasons - 66

The most common responses to this question involved a reiteration of the points previously mentioned such as being fearful (24%) or having problems getting an appointment (5%).

Other reasons mentioned included not having access to a doctor of the same gender (12%) and just not liking doctors generally (12%). It should be noted that it was not only female, but also male respondents, who said they were uncomfortable with a doctor who was not their own gender.

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

'I would prefer to see a male doctor.'

'I'm never able to see the same doctor.'

'I just wouldn't believe it. I'd be ignorant to the symptoms'.

'I've not been taken seriously in the surgery in the past.'

'It's difficult to get time off work.'

'Just laziness.'

'If I didn't like the doctor.'

'I haven't been to the doctor's for 17 years.'

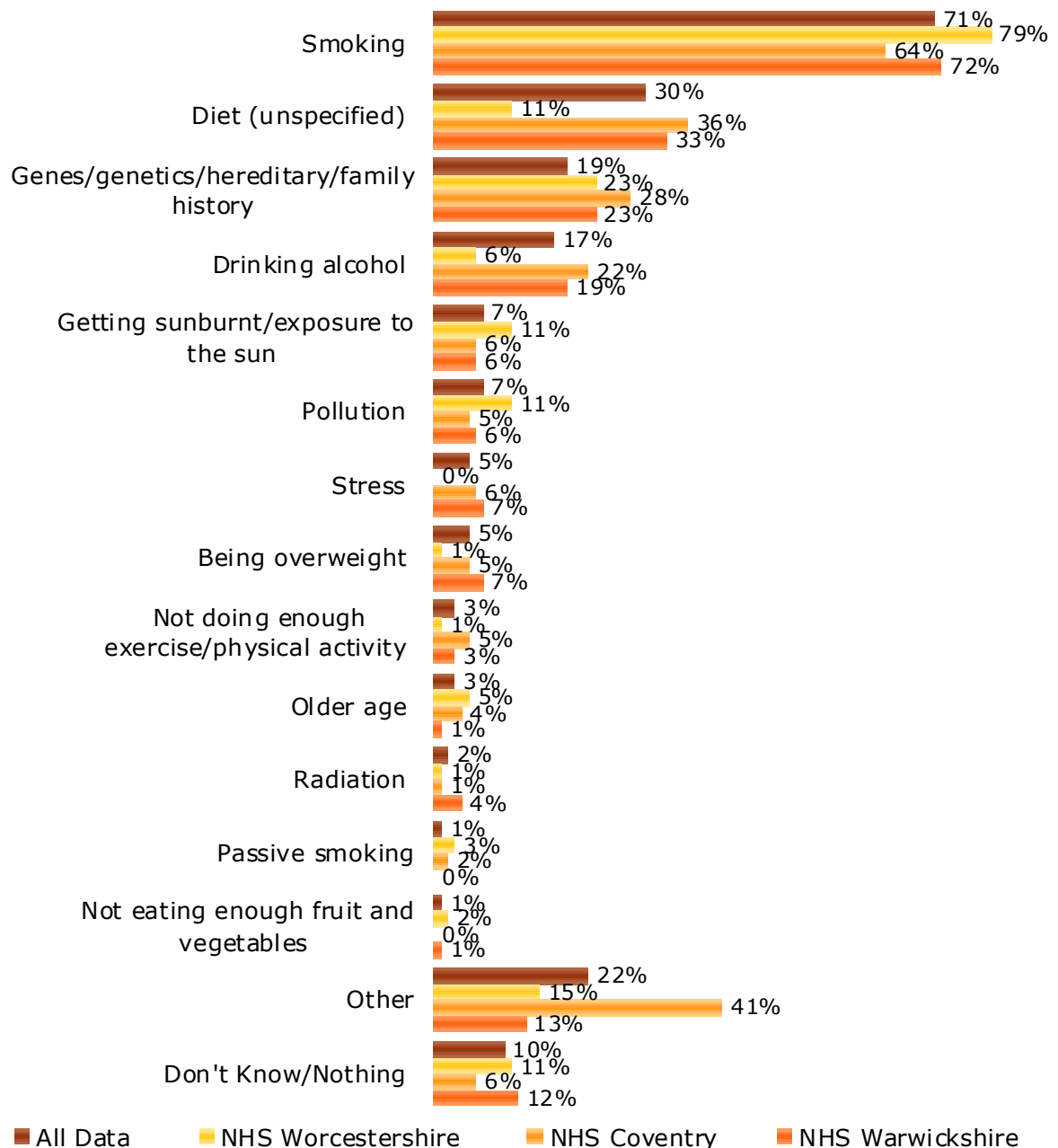
'I don't like the way I've been treated by my doctor in the past.'

'I just can't be bothered with hospitals and doctors.'

### 5.3. Factors Affecting the Chances of Getting Cancer

Respondents were then asked what factors they think affect the chances of getting cancer, using an open question. The most common responses received, as coded into the code frames specified within the CAM tool kit, are shown in Figure 7a, below.

**Figure 7a: Spontaneous awareness of factors that may cause cancer.**



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

Base: All respondents - 989, NHS Worcestershire - 182, NHS Coventry - 296, NHS Warwickshire - 511

By far the most common response, given by 71% of the total sample, was smoking. Diet (30%), genetics/heredity/family history etc. (19%) and drinking alcohol (17%) were also common responses.

A smaller proportion of the sample also mentioned the following factors: sunburn (7%), pollution (7%), stress (5%), being overweight (5%) and not doing enough exercise (3%), in addition to a minority of other responses.

It is concerning that one in ten respondents (10%) said they couldn't name any factors that can cause cancer. Furthermore, when excluding the most common cause of cancer named by the sample (smoking) the number of respondents unable to name any causes of cancer increased to 30%, again illustrating a need for further education.

Respondents in Coventry were significantly less likely to be unable to name any causes of cancer than those in Warwickshire and Worcestershire. Within Warwickshire, those in the North were generally more likely to be able to name each of the most common causes of cancer and were slightly less likely to give the answer 'don't know'.

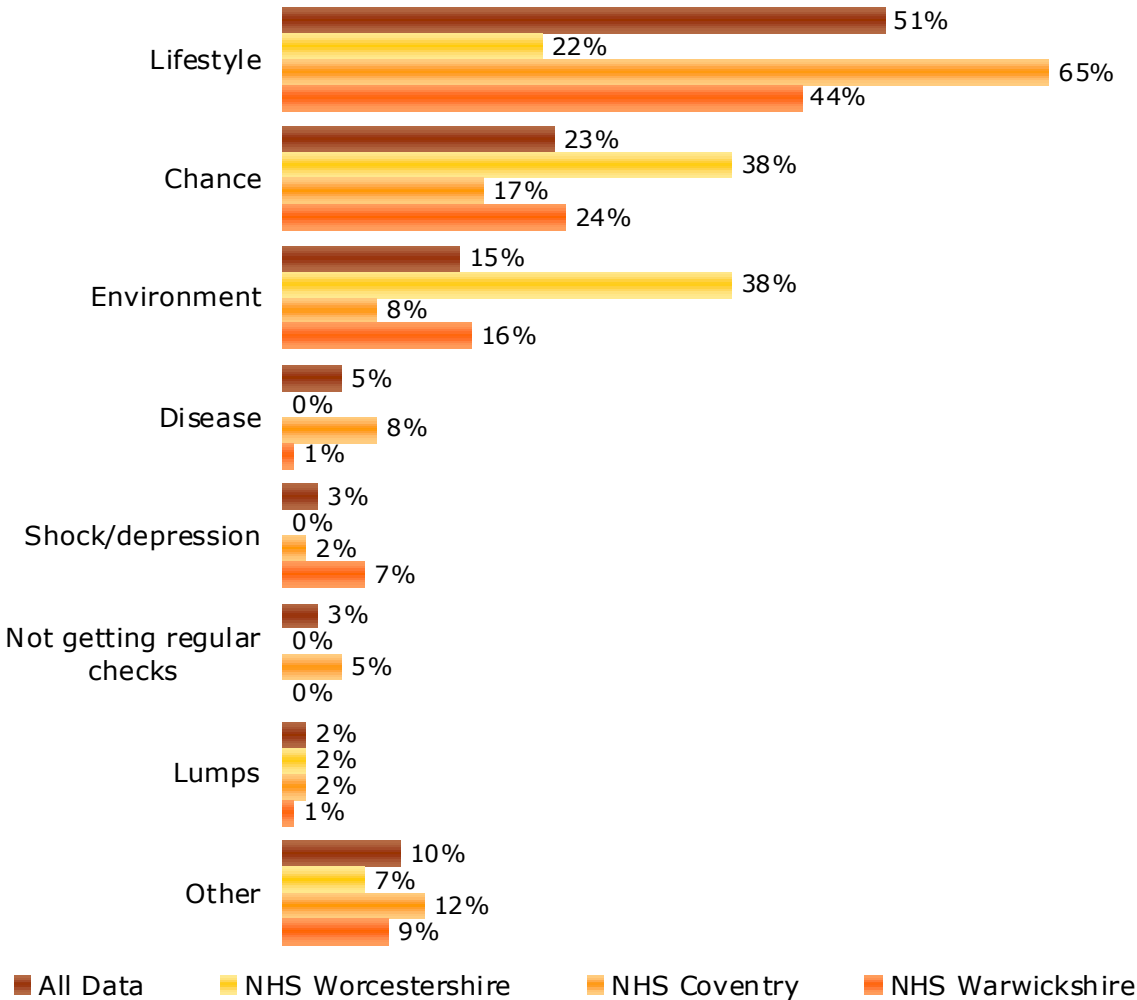
There was no variation according to age, gender or ethnicity. However, respondents with no formal qualifications were generally less likely to name each of the most common causes of cancer. Similarly, respondents in Coventry were significantly less likely to give the answer 'don't know', which is liable to reflect the increased education within this sub-sample.

More than one in five respondents named 'other' causes of cancer not specified within the CAM toolkit, and these are shown in Figure 7b.

As shown, by far the most common 'other' response given by the sample was 'lifestyle' with 51% of the total sample giving this response. 'Chance' or 'bad luck' was given by 23% of the sample and 'environment' by 15%. This is interesting as to some extent, this mirrors the list of factors contributing to cancer, as assessed at Q11 and discussed in section 5.7.

**Caution is advised in the interpretation of this data due to the small bases sizes.**

**Figure 7b: Spontaneous awareness of factors that may cause cancer - Other responses.**



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

Base: Respondents who gave 'other' responses - 259, NHS Worcestershire - 45, NHS Coventry - 132, NHS Warwickshire - 82

The next question in the survey used a prompted format to assess awareness of factors which may increase the chances of getting cancer. Respondents were asked the following: 'Medical scientists suggest that these are some of the things that can increase the chances of getting cancer. How much do you agree that each of the following can increase the chances of getting cancer?' Figure 8 on the following page, shows the percentage of 'agree' and 'strongly agree' responses only.

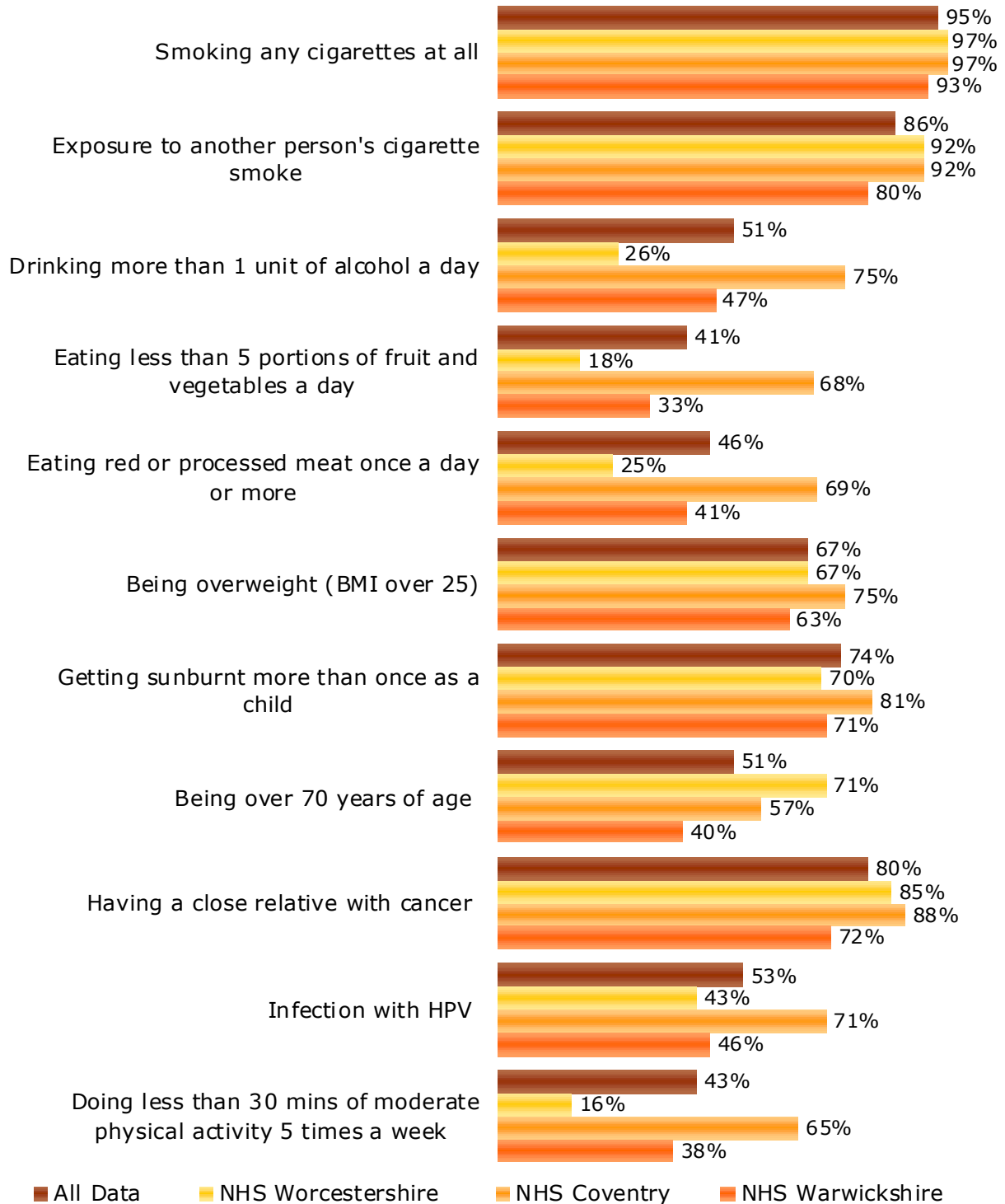
Respondents were most likely to agree that the following factors were causes of cancer: smoking any cigarettes at all (95% agreement), exposure to another person's cigarette smoke (86% agreement), getting sunburnt more than once as a child (67% agreement) and having a close relative with cancer (80% agreement).

There were low levels of agreement for each of the following: eating red or processed meat once a day or more (46%), eating less than 5 portions of fruit or vegetables a day (41%) and doing less than 30 minutes of moderate physical activity 5 times a week (43%).

Over one-half (53%) of the sample agreed that infection with human papillomavirus (HPV) could cause cancer, but a high proportion (42%) gave the response 'not sure'. As HPV infection can lead to cervical cancer it is surprising that female respondents (55%) were not significantly more likely to agree that HPV can be a cause of cancer than males (50%).

Respondents in Coventry were generally more likely to agree that each of the causes listed could be a sign of cancer, which is liable to be the result of the higher levels of education observed within this sub-group. Again there was a relationship within Warwickshire, and with the exception of smoking, passive smoking and age, respondents in north Warwickshire were generally more likely to agree that each of the factors listed could be a cause of cancer, than those in the south.

**Figure 8: Prompted awareness of factors which may increase the chances of getting cancer.**



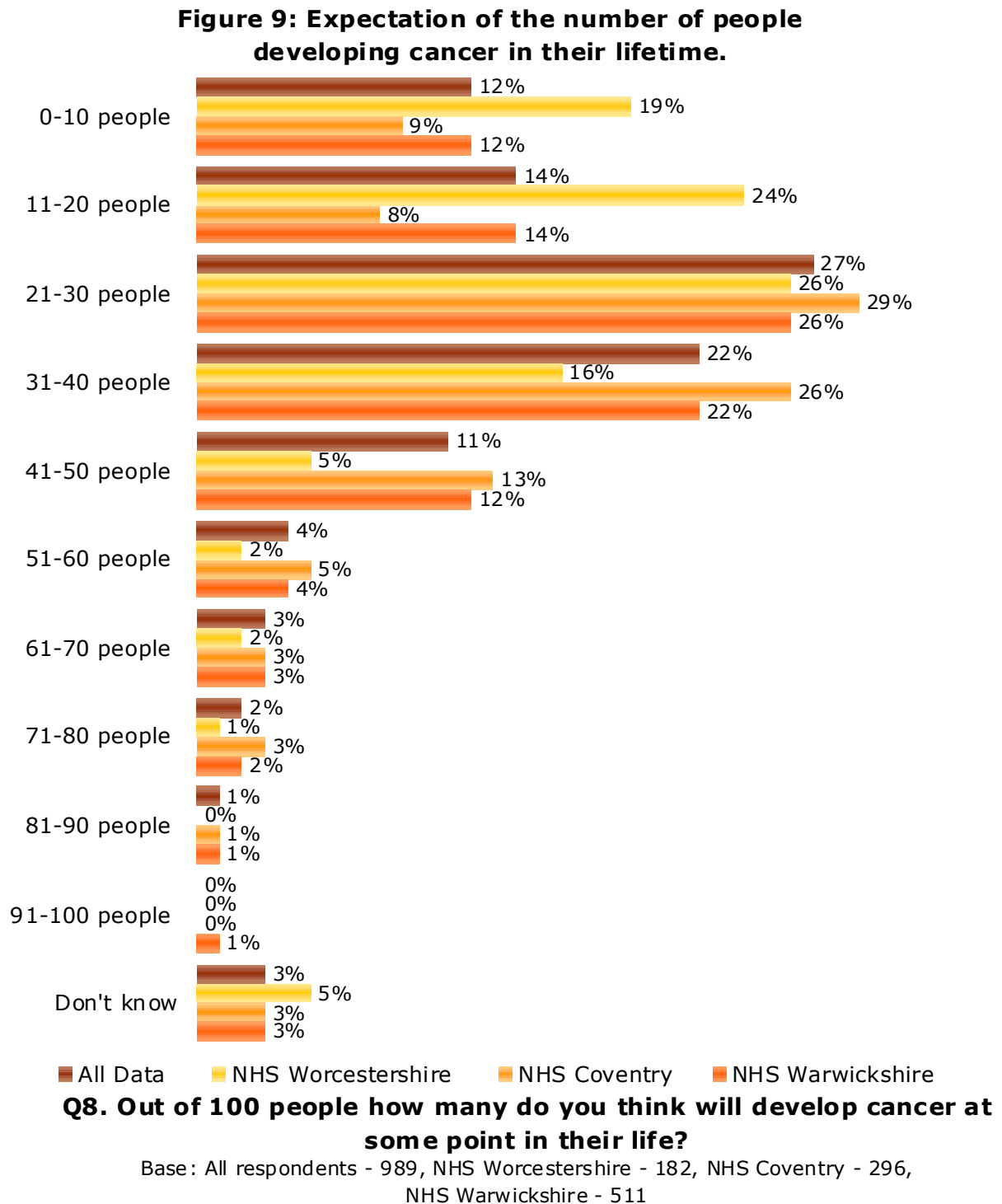
**Q7. How much do you agree that each of these can increase the chances of getting cancer?**

Base: All respondents - 989, NHS Worcestershire - 182, NHS Coventry - 296, NHS Warwickshire - 511



## 5.4 The Number of People who Develop Cancer

Respondents were shown a picture of 100 people and were asked how many people out of this 100 they thought would develop cancer at some point in their lives. Responses are shown in Figure 9.



Around one in three people develop cancer in their lifetime. Around one-in-five (22%) respondents thought that between 31 and 40 people would develop cancer at some point in their lives and were thus correct in this regard. Furthermore, 27% thought that between 21 and 30 people develop cancer in their lives and the mean score of 32.7 is largely accurate.

However, 12% thought that 10 or fewer people in 100 develop cancer at some point in their lives, 3% thought more that at least 71% of people develop cancer, and 3% gave the answer 'don't know'.

Respondents in Worcestershire (mean score = 25.3) tended to underestimate the people who develop cancer in their lives in comparison to respondents in Coventry (mean score = 35.4) and Warwickshire (mean score = 33.8).

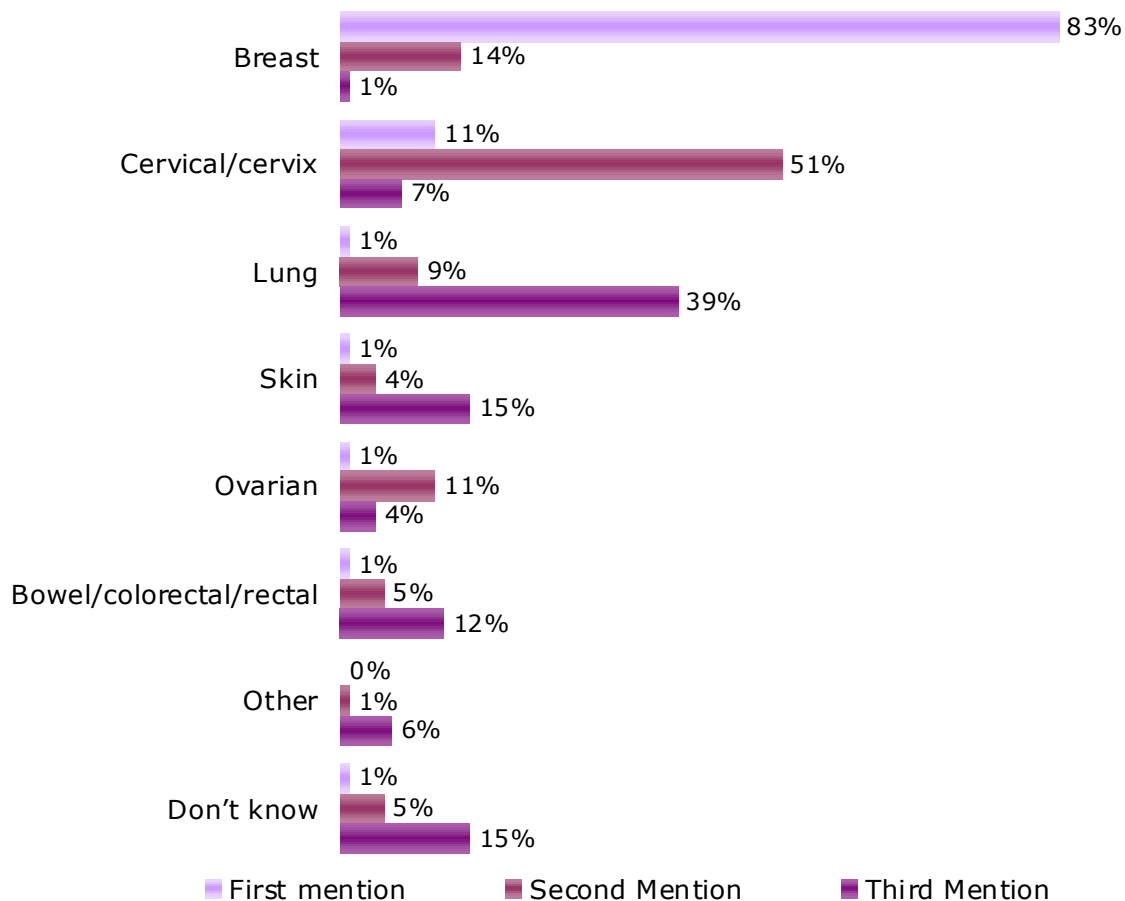
Female respondents tended to slightly over estimate the number of people who develop cancer in their lives (mean score = 35.8), while males tended to underestimate (mean score = 29.3). Non-white respondents (mean score = 28.3) also tended to underestimate the number of people who develop cancer.

## 5.5. Awareness of Different Types of Cancer

Respondents were asked what they thought were the first, second and third most common cancers in both men and women. The data for the whole sample is shown in Figures 10 (women) and 11 (men) and further information, breaking this data down by NHS area, can also be seen in Figures 17a-f in Appendix One.

According to Cancer Research UK the three most common cancers in women are in descending order – breast, lung and colorectal, while the three most common in men are prostate, lung and colorectal<sup>4</sup>, although there are regional variations.

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



### Q9i-iii. What is the first/second/third most common cancer in women?

Base: All respondents - 989

<sup>4</sup> <http://info.cancerresearchuk.org/cancerstats/incidence/commoncancers/>

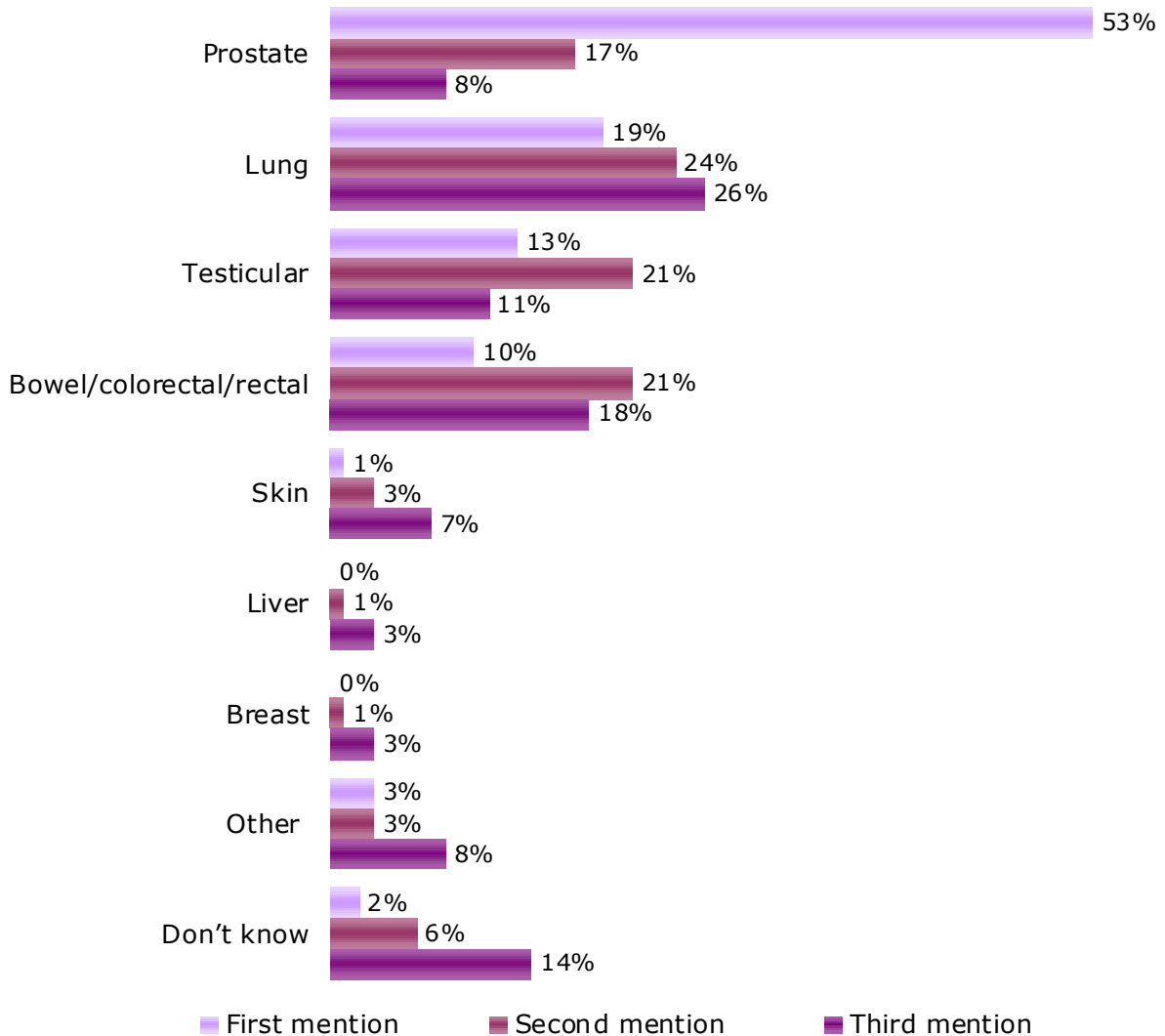
Respondents correctly named breast cancer as the most common cancer in women with almost all respondents (98%) mentioning this at either the first, second or third mention, the majority (83%) at the first mention.

Cervical cancer was named as the second most common cancer in women, with 69% of respondents mentioning this at either the first, second or third mention. Although a high proportion of respondents think cervical cancer is one of the most common cancers in women cervical cancer actually affects a relatively small proportion of women, in relation to other types of cancer. It is possible that high rates of awareness are partly the result of recent media attention surrounding celebrity Jade Goody, who died of cervical cancer in 2009, and the recent controversy over raising the age of first invitation.

Almost one-half of the sample (47%) named lung cancer, but only 18% named the third most common cancer in women, colorectal cancer.

Female respondents were significantly more likely to say ovarian cancer at the combined first, second and third mentions (27%) than males (13%). White respondents were also more likely to be able to name all of the most commonly perceived cancers in women than their non-white counterparts.

**Figure 11: First, second and third most common cancers in men.**



**Q9iv-vi. What is the first/second/third most common cancer in men?**

Base: All respondents - 989

Respondents were most likely to think that prostate cancer is the most common cancer in men, with 78% naming this at either the first, second or third mention. Lung (69%) and bowel/colorectal (49%) cancer were also mentioned by a high proportion of the sample, as was testicular cancer (45%), although this actually only affects a small proportion of men.

Female respondents were significantly more likely to say prostate cancer at a first mention (60%), while male respondents were significantly more likely to say lung (22%) and testicular cancer (17%).

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

It is interesting that respondents are much more likely to think that males will contract both lung cancer (69%) and bowel/colorectal cancer (49%) than females (47% for lung cancer and just 18% for colorectal cancer), when these cancers are actually some of the most common cancer in both males and females in the UK.

As testicular cancer is more likely to affect younger men, while prostate cancer is more likely to affect older men, the relationship between age and awareness of different types of cancer in men is important. Tables 7a and 7b below show the variation according to age and spontaneous awareness of both testicular and prostate cancer within men only.

**Tables 7a: Age and awareness of prostate cancer in males.**

| Prostate cancer                     | Age         |             |             |             |             |               |
|-------------------------------------|-------------|-------------|-------------|-------------|-------------|---------------|
|                                     | 18-24 years | 25-34 years | 35-44 years | 45-54 years | 55-64 years | 65 years plus |
| First mention                       | 33%         | 38%         | 48%         | 43%         | 54%         | 53%           |
| Combined first/second/third mention | 63%         | 65%         | 77%         | 75%         | 86%         | 80%           |

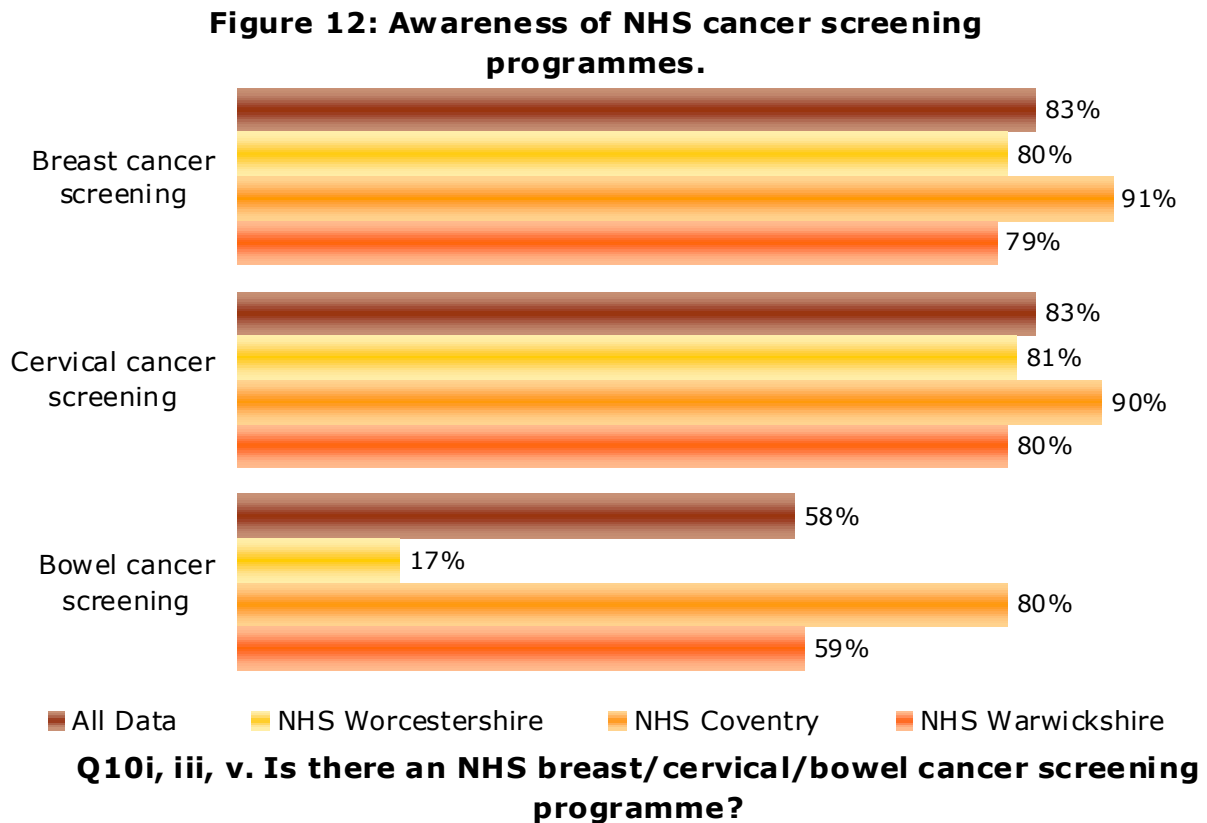
**Tables 7b: Age and awareness of testicular cancer in males.**

| Testicular cancer                   | Age         |             |             |             |             |               |
|-------------------------------------|-------------|-------------|-------------|-------------|-------------|---------------|
|                                     | 18-24 years | 25-34 years | 35-44 years | 45-54 years | 55-64 years | 65 years plus |
| First mention                       | 26%         | 22%         | 16%         | 27%         | 9%          | 6%            |
| Combined first/second/third mention | 52%         | 47%         | 52%         | 53%         | 40%         | 38%           |

As can be seen in the tables above there is a direct association between age and awareness of both testicular and prostate cancer in men. Younger respondents tend to be more likely to spontaneously name testicular cancer, while older respondents are more likely to spontaneously name prostate cancer, which is encouraging.

## 5.6. Awareness of NHS Cancer Screening Programmes

The final section of the survey questioned respondents about their awareness of the NHS screening programmes for breast cancer, cervical cancer and bowel cancer. The percentage of respondents who said they were aware of these screening programmes is shown in Figure 12 below.



Base: All respondents - 989, NHS Worcestershire - 182, NHS Coventry - 296, NHS Warwickshire - 511

Respondents were significantly more likely to be aware of both the NHS breast (83% awareness) and cervical cancer (83% awareness) screening programmes than they were of the NHS bowel cancer (58% awareness) screening programme. Lower levels of awareness for the NHS bowel cancer screening programme are to be expected, as this programme has been operating for significantly less time than breast and cervical cancer screening.

In all cases there were higher levels of awareness in the area served by NHS Coventry. There were particularly low levels of awareness for bowel cancer screening in the area served by NHS Worcestershire (just 17%), but this is to be expected as screening started much later in this area in comparison to NHS Coventry and Warwickshire.

Respondents interviewed in North Warwickshire were significantly more aware of the NHS cancer screening programmes for breast (93% vs. 67%), cervical (94% vs. 68%) and bowel cancer (76% vs. 43%).

As would be expected, female respondents were significantly more likely to be aware of both the NHS breast and cervical cancer screening programmes than were men, but female respondents were also more likely to be aware of the bowel cancer screening programme (Table 8a).

There was also a difference apparent according to ethnicity and, as can be observed in Table 8a, white respondents were significantly more likely to be aware of each of the NHS screening programmes.

**Table 8a: Gender, ethnicity and awareness of the NHS cancer screening programmes.**

| <b>NHS Screening Programme Awareness</b> | <b>Males</b> | <b>Females</b> | <b>White</b> | <b>Non-White</b> |
|--|--------------|----------------|--------------|------------------|
| <b>Breast cancer</b>                     | 75%          | 91%            | 84%          | 76%              |
| <b>Cervical cancer</b>                   | 74%          | 92%            | 85%          | 74%              |
| <b>Bowel cancer</b>                      | 52%          | 63%            | 59%          | 49%              |



As shown in Table 8b, regardless of gender, older respondents were generally more likely to be aware of each of the NHS cancer screening programmes. This is with the exception of awareness of the cervical cancer screening programme, which is consistently high in females of all ages which would be expected given the younger age of first screening.

**Table 8b: Age and awareness of the NHS breast, cervical and bowel cancer screening programmes.**

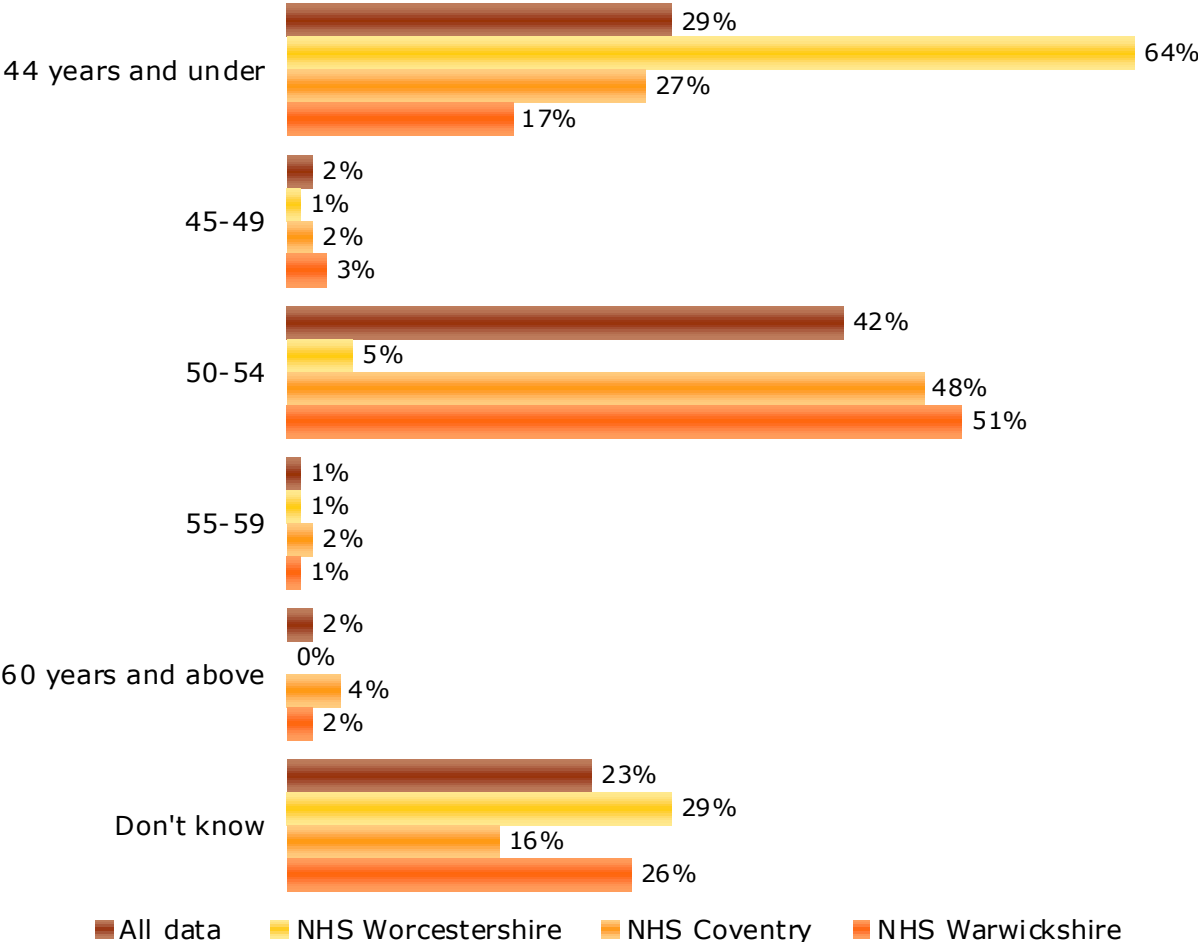
| NHS Screening Programme Awareness | Age of Respondent |             |             |             |             |               |
|-----------------------------------|-------------------|-------------|-------------|-------------|-------------|---------------|
|                                   | 18-24 years       | 25-34 years | 35-44 years | 45-54 years | 55-64 years | 65 years plus |
| <b>Breast cancer (males)</b>      | 57%               | 62%         | 74%         | 82%         | 88%         | 87%           |
| Breast cancer (females)           | 83%               | 86%         | 89%         | 93%         | 96%         | 93%           |
| <b>Cervical cancer (males)</b>    | 57%               | 64%         | 76%         | 86%         | 82%         | 76%           |
| Cervical cancer (females)         | 94%               | 93%         | 92%         | 90%         | 93%         | 93%           |
| <b>Bowel cancer (males)</b>       | 33%               | 35%         | 48%         | 53%         | 71%         | 72%           |
| Bowel cancer (females)            | 49%               | 51%         | 58%         | 58%         | 77%         | 75%           |

Respondents with no formal education were significantly less likely to be aware of each of the NHS screening programmes. Smokers were also significantly less likely to be aware of each of the NHS cancer screening programmes but it is possible that this is a consequence of the relationship between smoking and education.

Respondents who have themselves had cancer or who have a close family member or friend who has suffered from cancer were also significantly more likely to be aware of each of the NHS cancer screening programmes.

Respondents who were aware of each of the NHS cancer screening programmes were then asked at what age they thought people were screened, using an open response format. The coded responses are shown in Figures 13-15 on the following pages.

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



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

Base: Respondents who were aware of the NHS breast cancer screening programme - 822, NHS Worcestershire - 146, NHS Coventry - 270, NHS Warwickshire - 406

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

However, 29% thought that breast cancer screening took place before 44 years of age and the mean score of 41.6 years reflects this. Additionally, 23% gave the response 'don't know'.

Respondents in Worcestershire were significantly less likely to correctly attribute the age of screening (just 5%) and this is reflected in a greater proportion who believe that screening takes place before 44 years of age.

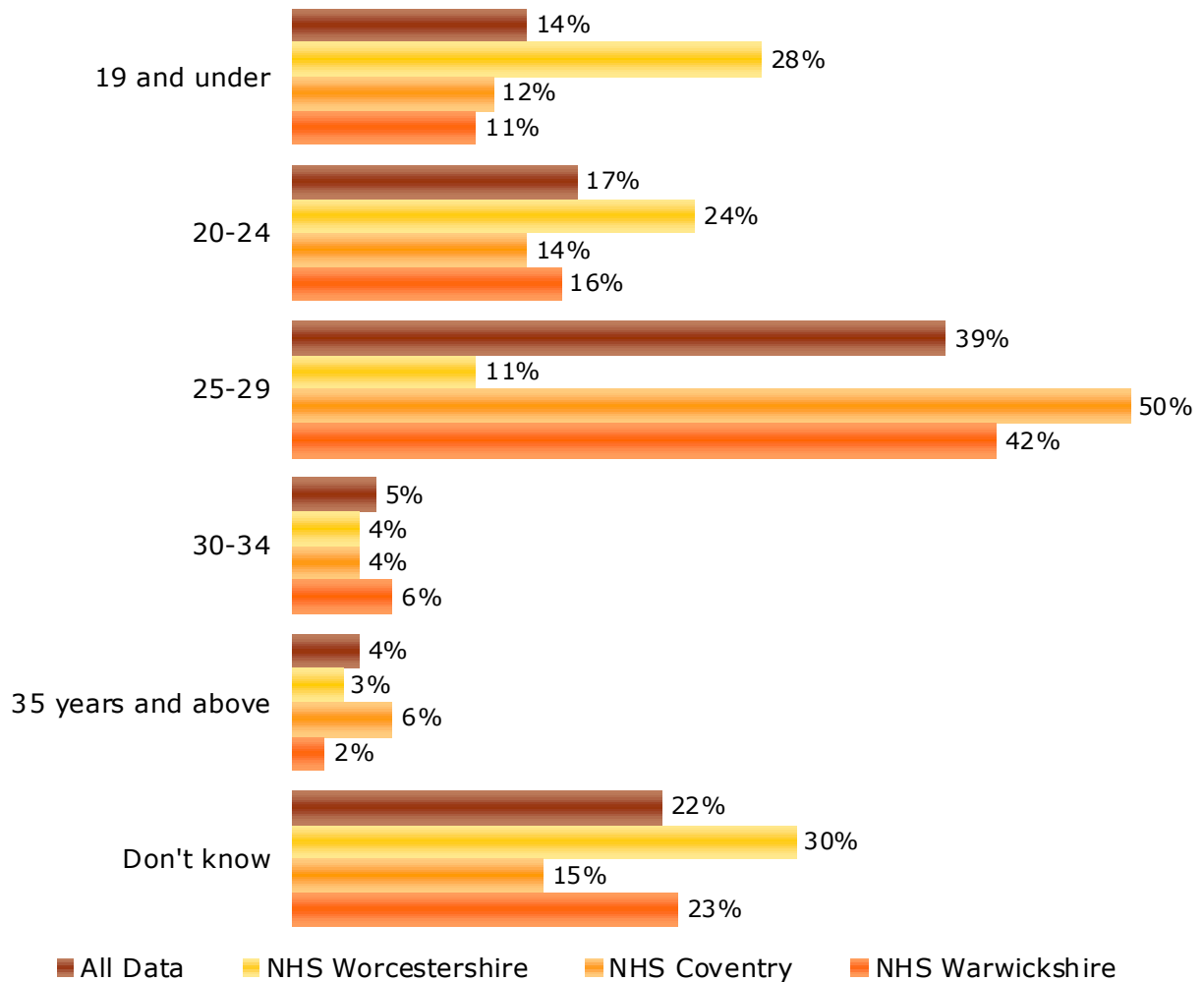
As would be expected, women (45%) were significantly more likely to correctly attribute the age of invitation for breast cancer screening than were males (38%) and Table 9 shows the relationship between age and correct attribution of the age of invitation for breast cancer screening in female respondents only.

**Table 9: Age and correct attribution of the age of invitation for breast cancer screening in females.**

| Age of invitation for breast cancer screening | Age of Respondent |             |             |             |             |               |
|---|-------------------|-------------|-------------|-------------|-------------|---------------|
|   | 18-24 years       | 25-34 years | 35-44 years | 45-54 years | 55-64 years | 65 years plus |
| 50-54 years of age                            | 26%               | 53%         | 40%         | 45%         | 45%         | 48%           |

Surprisingly women in the target age range were not significantly more likely to correctly attribute the age of first invitation for breast cancer screening, although younger women were significantly less likely to correctly attribute the age of invitation.

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



**Q10iv. At what age do you think women are first invited for cervical cancer screening?**

Base: Respondents who were aware of the NHS cervical cancer screening programme - 825, NHS Worcestershire - 147, NHS Coventry - 267, NHS Warwickshire - 411

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

As such, 39% of the sample correctly attributed the age of first invitation for cervical cancer screening. An additional 17% opted for the slightly lower 20-24 year age band and the mean score of 23.2 years falls within this lower band, which suggests that there is a lack of awareness of the new age of first invitation.

As would be expected, females were significantly more likely to correctly attribute the age of cervical cancer screening (61% said 20-29 years) than males (47%).

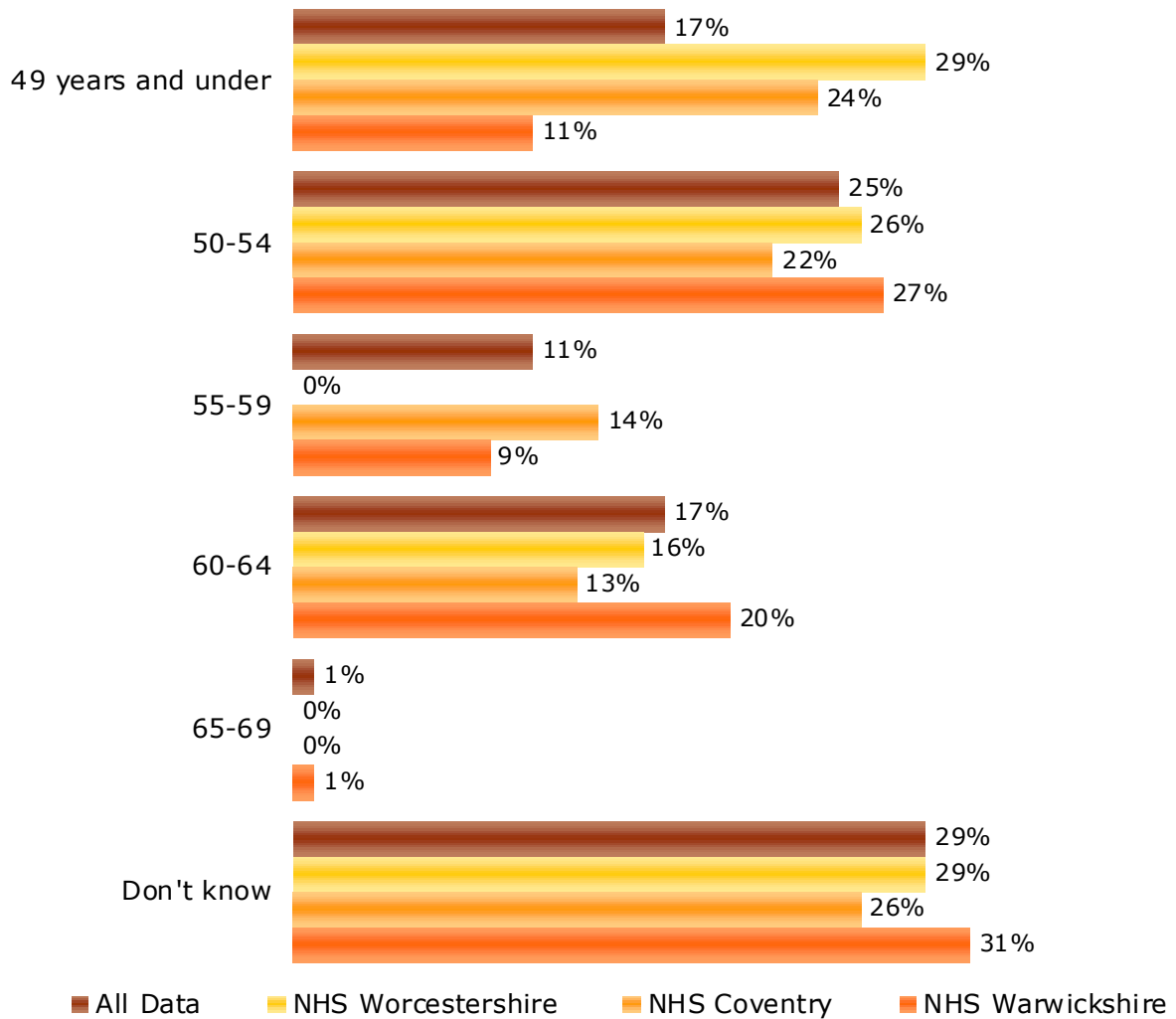
Table 10 shows the relationship between age and invitation for cervical cancer screening amongst female respondents only.

**Table 10: Age and correct attribution of the age of invitation for cervical cancer screening in females.**

| Age of invitation for breast cancer screening | Age of Respondent |             |             |             |             |               |
|---|-------------------|-------------|-------------|-------------|-------------|---------------|
|   | 18-24 years       | 25-34 years | 35-44 years | 45-54 years | 55-64 years | 65 years plus |
| 19 years or younger                           | 20%               | 25%         | 19%         | 16%         | 12%         | 9%            |
| 20-24 years                                   | 16%               | 21%         | 26%         | 21%         | 22%         | 20%           |
| 25-29 years                                   | 50%               | 40%         | 33%         | 42%         | 35%         | 46%           |

As can be seen above, 18-24 year old females were most likely to correctly attribute the age of screening for cervical cancer, but this still accounts for only one-half of the sample.

**Figure 15: Awareness of the age of invitation for NHS bowel cancer screening.**



**Q10vi. At what age do you think people are first invited for bowel cancer screening?**

Base: Respondents who were aware of the NHS bowel cancer screening programme - 569, NHS Worcestershire - 31, NHS Coventry - 236, NHS Warwickshire - 302

***Please note the low base size in the case of NHS Worcestershire. Caution is advised in the interpretation of this data.***

Men and women are first invited for NHS bowel cancer screening between 60 and 69 years of age. As such, 18% of the sample correctly attributed the age of invitation, with a majority (17%) giving an answer between 60-64 years.

However, 29% gave the answer 'don't know' and 17% misattributed the first age of invitation as before 49 years of age. Furthermore, the mean score of 47.6 years is notably lower than the actual age of first invitation.

There was a direct relationship between respondent age and correct attribution of the age of invitation for bowel cancer screening as can be observed in Table 11 below.

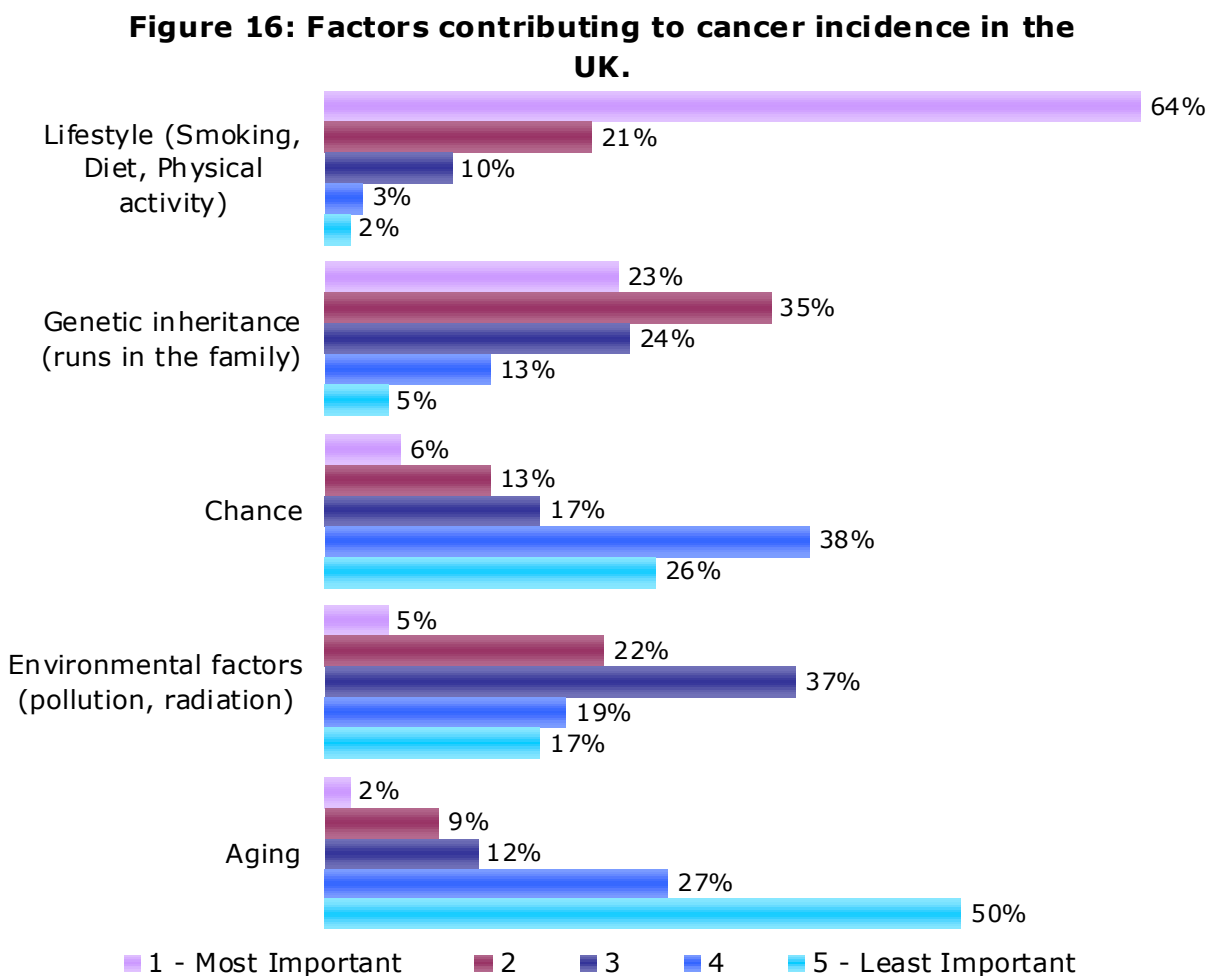
**Table 11: Age and attribution of the age of invitation for bowel cancer screening.**

| Age of invitation for bowel cancer screening | Age of respondent |             |             |             |             |               |
|--|-------------------|-------------|-------------|-------------|-------------|---------------|
|  | 18-24 years       | 25-34 years | 35-44 years | 45-54 years | 55-64 years | 65 years plus |
| 60-64 years                                  | 9%                | 14%         | 9%          | 17%         | 21%         | 22%           |
| 65-69 years                                  | 0%                | 2%          | 1%          | 0%          | 0%          | 0%            |

Respondents aged 55-64 years (21%) and 65 years plus (22%) were more likely to correctly attribute the age of NHS bowel cancer screening.

## 5.7. Factors Contributing to Cancer Incidence

The final question in the survey asked respondents to put 5 factors in order of how much they think they contribute to cancer in the UK. These factors were: Chance, Aging, Environmental factors (e.g. pollution, radiation), Genetic Inheritance (e.g. runs in the family) and Lifestyle (e.g. smoking, diet, physical activity). The data for the whole sample is shown in Figure 16 and further information, breaking this data down by NHS area, can also be seen in Figures 18a-c in Appendix Two.



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

Base: All respondents - 989

Overall, lifestyle was considered to be the most important factor contributing to cancer in the UK, with 64% of the sample selecting this as the factor which contributes the most. This



was followed by genetic inheritance, chance, environmental factors, and finally, aging was thought to be the least important factor.

Respondents in Coventry were significantly more likely to think that genetic inheritance was the most important factor contributing to cancer incidence in the UK. This sub-group were also significantly more likely to think that aging was the factor least likely to contribute to cancer in the UK.

Respondents in Warwickshire were significantly more likely to think that lifestyle was the most important factor and were significantly more likely to think that chance was the least likely factor. This can be attributed to respondents in south Warwickshire, who were significantly more likely to select chance as the first or second most important factor, than those in the north.

The youngest age bracket was significantly more likely to think that lifestyle was the most important factor contributing to cancer. In contrast, the oldest age bracket was significantly more likely to think that genetic inheritance was the most important factor.

There was an association between education and chance as a contributory factor to cancer, with educated respondents tending to be less likely to view chance as a contributory factor and uneducated respondents being more likely to do so.

There was little difference in opinion as to the factors which are most likely to contribute to cancer according to gender, ethnicity or smoking behaviour.

## 6. Conclusions and Recommendations

There are a number of areas where attention should be focused in terms of promoting cancer awareness in the areas served by the Arden Cancer Network.

Respondents were most likely to express concern over 'unexplained lumps or swellings', 'unexplained bleeding' and 'changes in the appearance of moles' and they tended to say that they would quickly visit the doctors to discuss these symptoms.

However, 20% of the sample were unable to name any signs and symptoms of cancer spontaneously and a lack of concern was expressed with regard to some of the signs and symptoms of cancer, in particular 'a persistent cough or hoarseness' and 'a sore which does not heal'.

Almost one in ten respondents (9%) were unable to name any causes of cancer spontaneously and there were low levels of agreement that each of the following can cause cancer when prompted: eating red or processed meat once a day or more (46%), eating less than 5 portions of fruit or vegetables a day (41%) and doing less than 30 minutes of moderate physical activity 5 times a week (43%).

Respondents interviewed in Coventry tended to be more 'aware' while those interviewed in Worcestershire tended to be less aware. While it is possible that this is the result of demographic variation (e.g. higher levels of education and affluence apparent within respondents in Coventry), it is also important to realise the limitations of this data as a result of the smaller base sizes in both NHS Coventry and NHS Worcestershire. These smaller samples have a higher margin of error, which does mean that this data should be interpreted with a degree of caution. On this note, it is interesting that the overall data collected in Warwickshire, which is a larger and thus more reliable subset, falls between that of the other areas and is consistently closer to the data across the sample as a whole.

Within Warwickshire, there were generally higher levels of awareness within the north (Nuneaton, Bedworth and Rugby) than the south (Lemington Spa, Stratford, Kenilworth and Warwick), even though the south is generally a more affluent area. This is difficult to explain in terms of demographic variation, and once again, the higher margin of error caused by sub-dividing this sample must be considered.

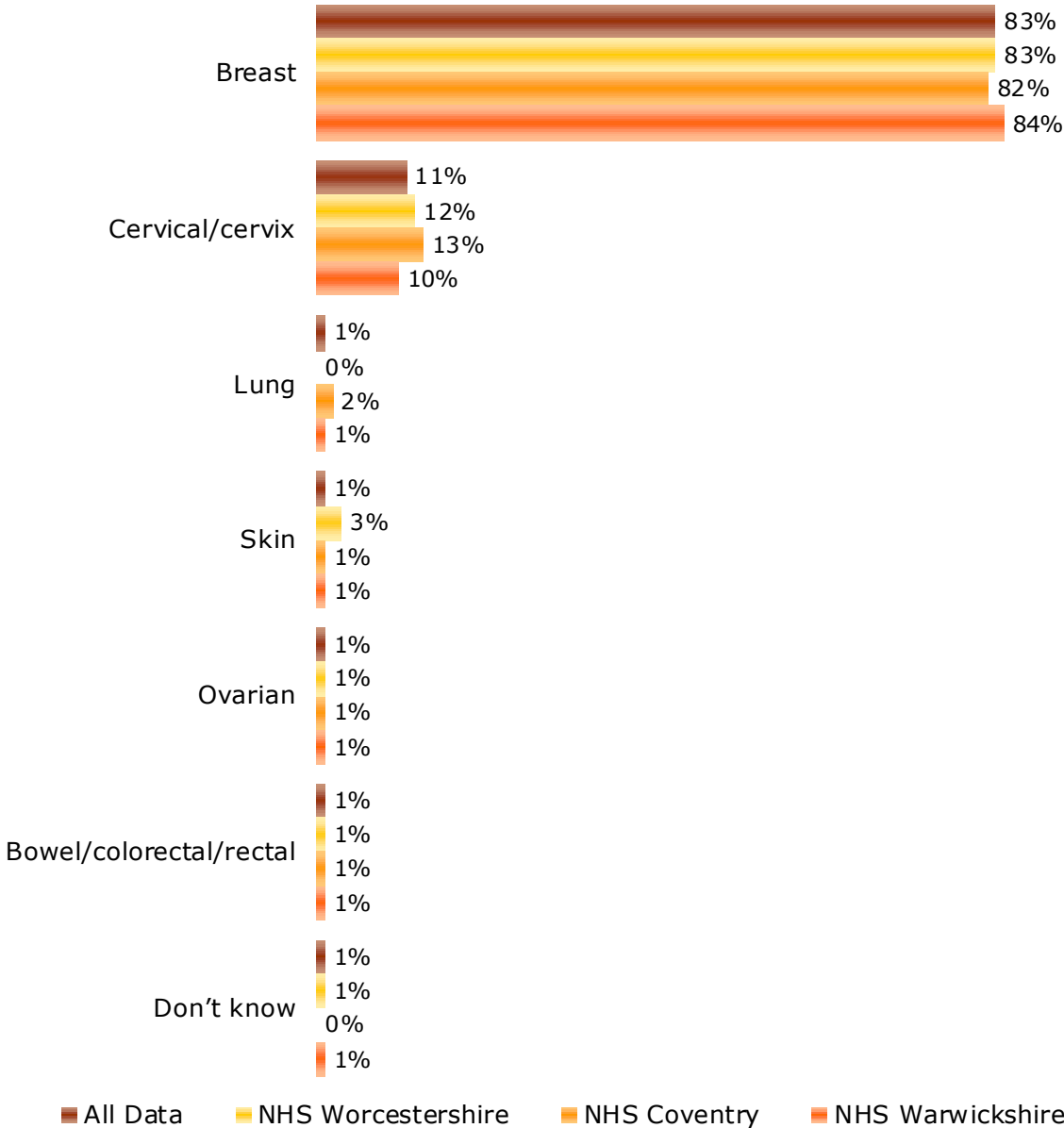
Younger respondents, males and non-white respondents tended to be the groups who lack knowledge in terms of cancer awareness and it may be that these groups need to be targeted specifically to receive further education.

Knowledge of NHS cancer screening programmes could also be improved with increased education throughout the region. Currently a high proportion of people are either unaware of these programmes or do not know at what age people are invited for screening, although it is positive that awareness tends to be higher amongst the target groups.

# 7. Appendices

## Appendix One – First, Second and Third Most Common Cancers in Men and Women by Location

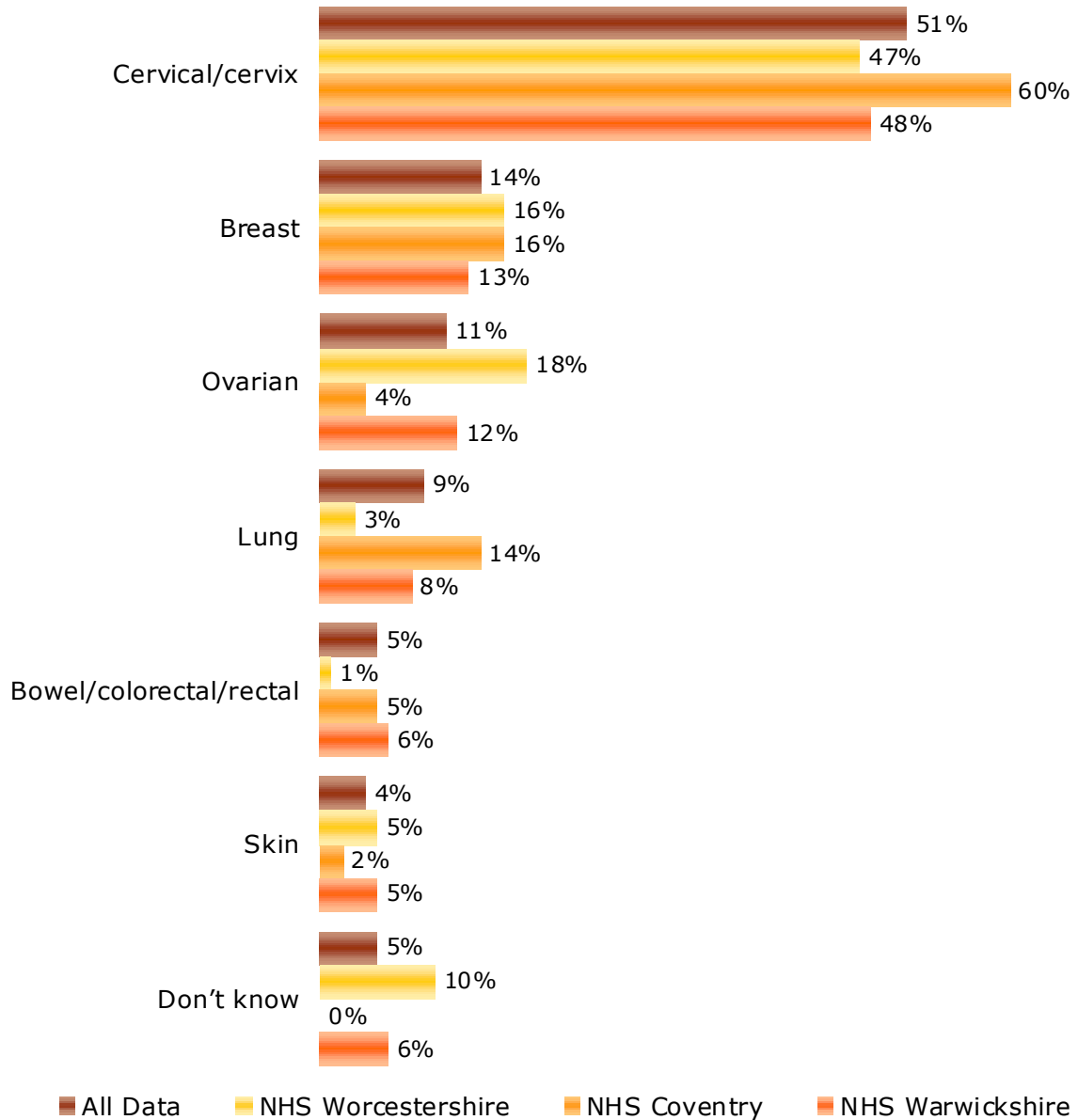
**Figure 17a: Most common cancer in women.**



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

Base: All respondents - 989, NHS Worcestershire - 182, NHS Coventry - 296, NHS Warwickshire - 511

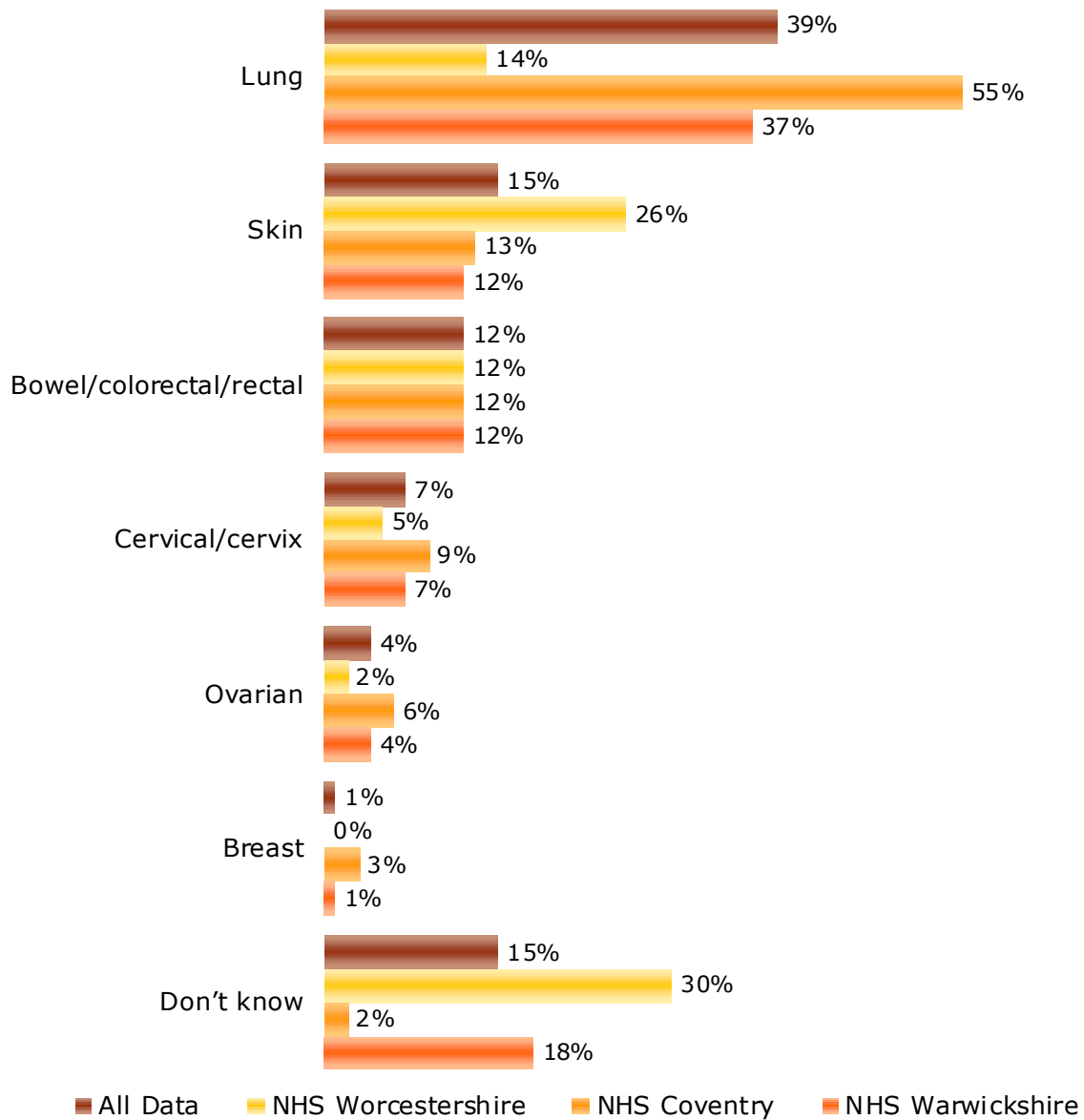
**Figure 17b: Second most common cancer in women.**



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

Base: All respondents - 989, NHS Worcestershire - 182, NHS Coventry - 296, NHS Warwickshire - 511

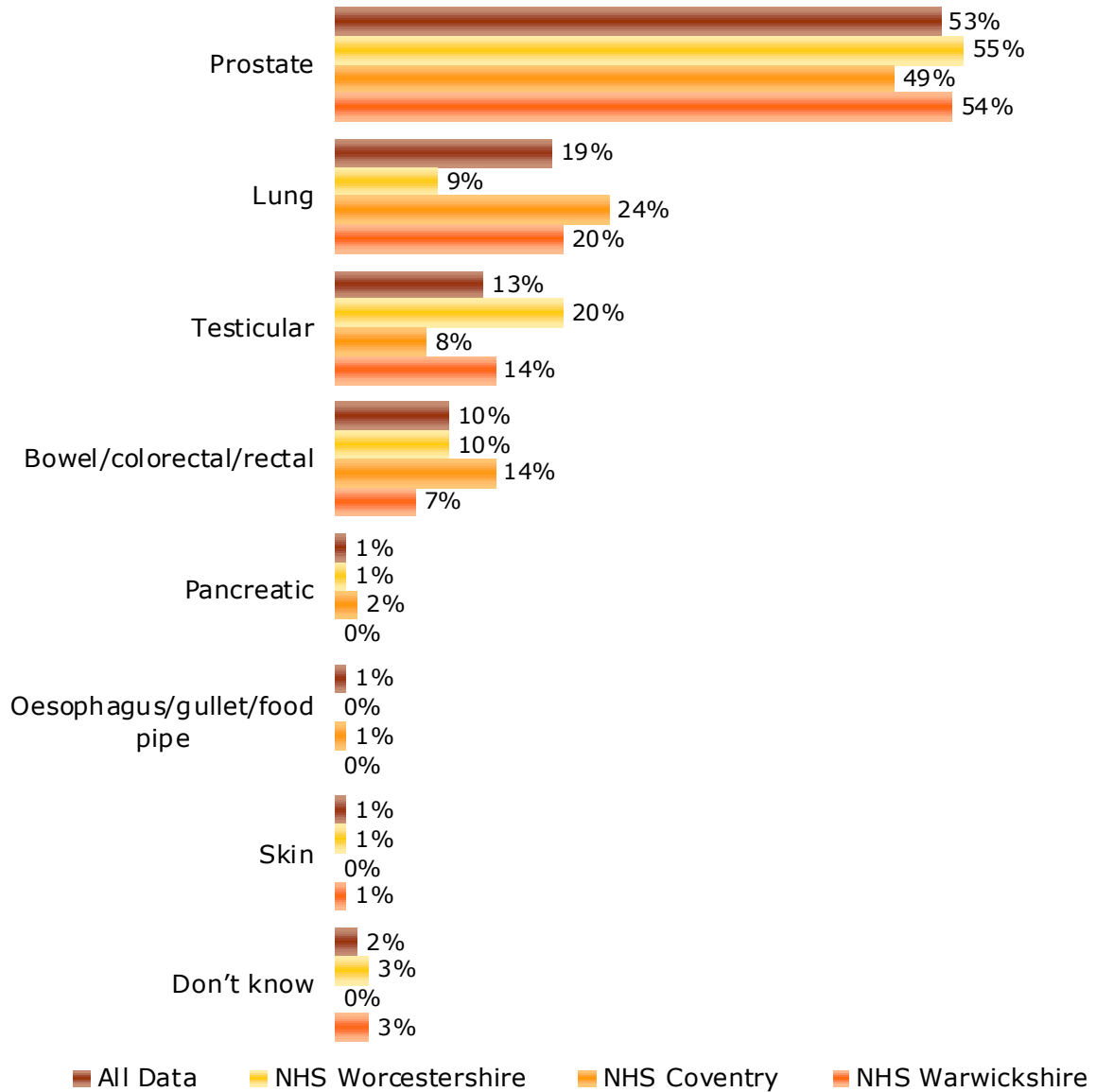
**Figure 17c: Third most common cancer in women.**



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

Base: All respondents - 989, NHS Worcestershire - 182, NHS Coventry - 296, NHS Warwickshire - 511

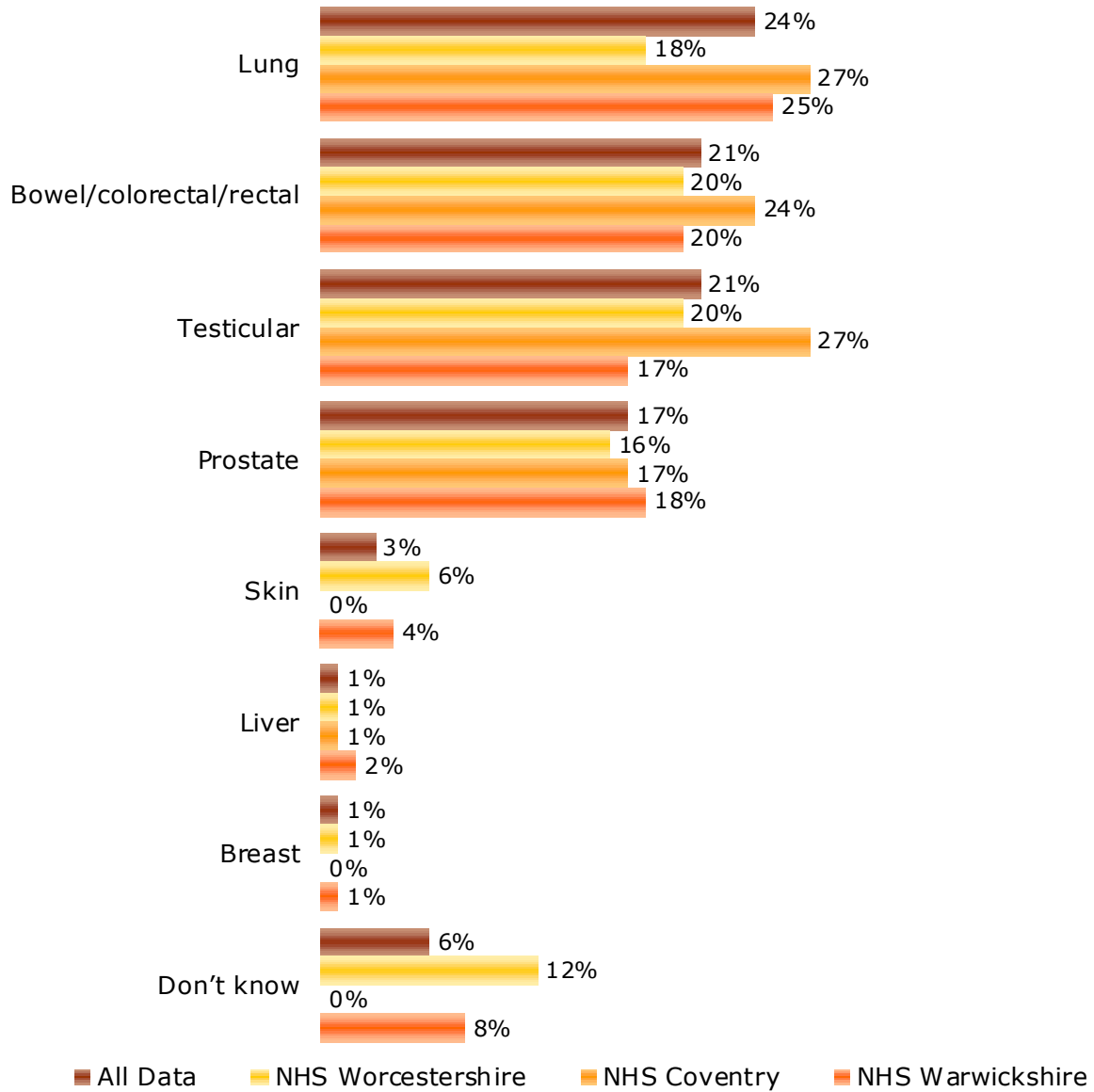
**Figure 17d: Most common cancer in men.**



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

Base: All respondents - 989, NHS Worcestershire - 182, NHS Coventry - 296, NHS Warwickshire - 511

**Figure 17e: Second most common cancer in men.**

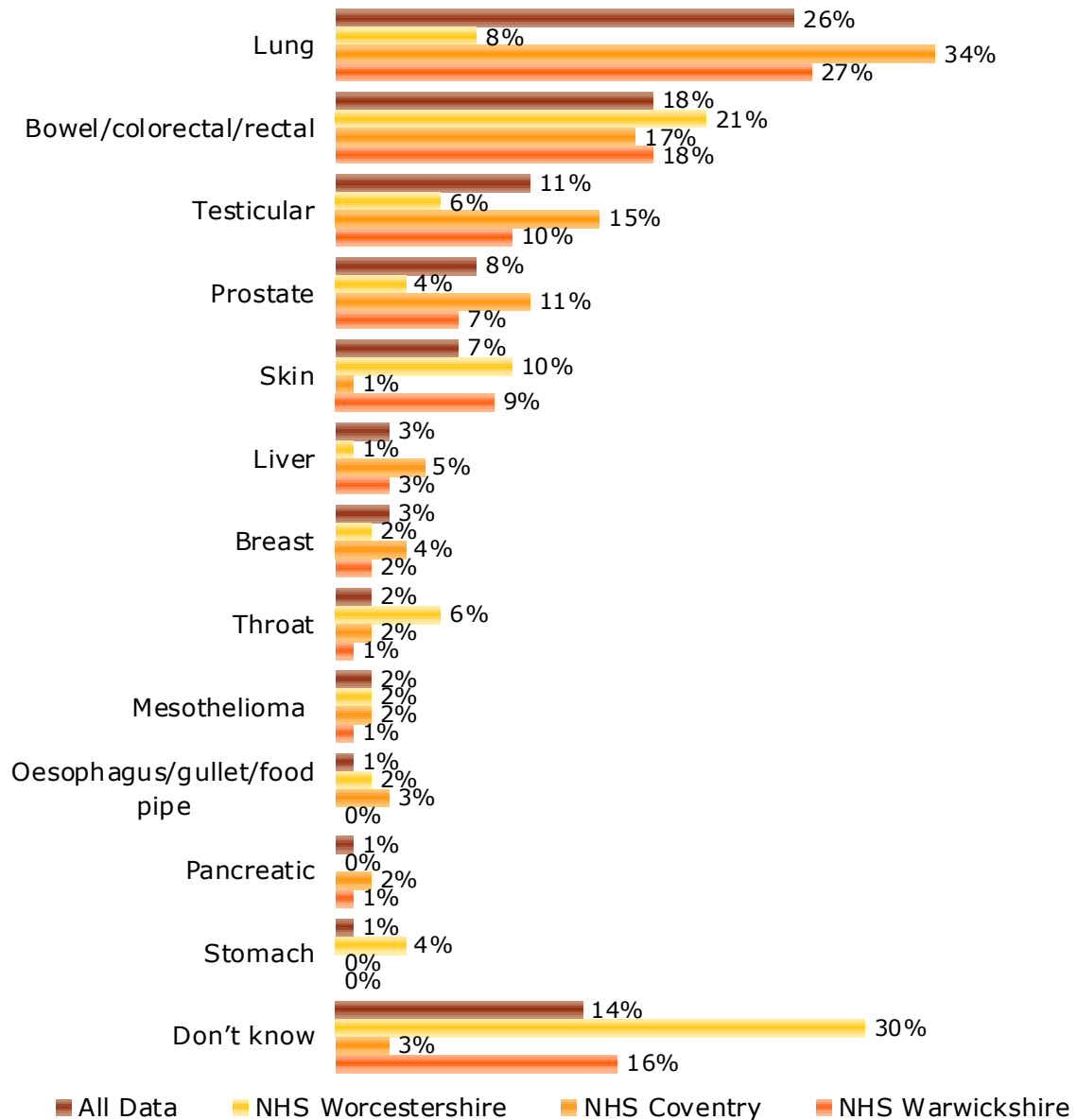


**Q9v. What do you think is the second most common cancer in men?**

Base: All respondents - 989, NHS Worcestershire - 182, NHS Coventry - 296, NHS Warwickshire - 511



**Figure 17f: Third most common cancer in men.**

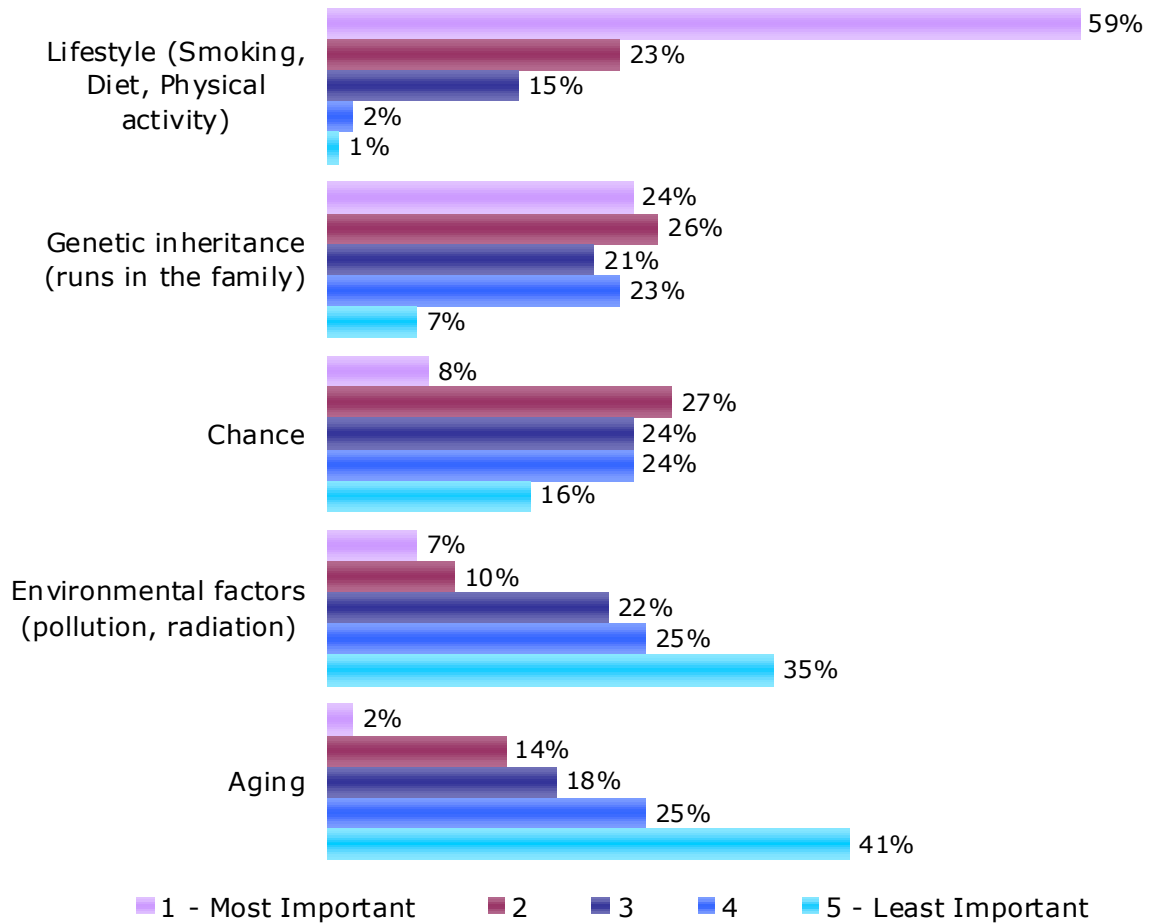


**Q9vi. What do you think is the third most common cancer in men?**

Base: All respondents - 989, NHS Worcestershire - 182, NHS Coventry - 296, NHS Warwickshire - 511

Appendix Two – Factors Contributing to Cancer Incidence in the UK by Location

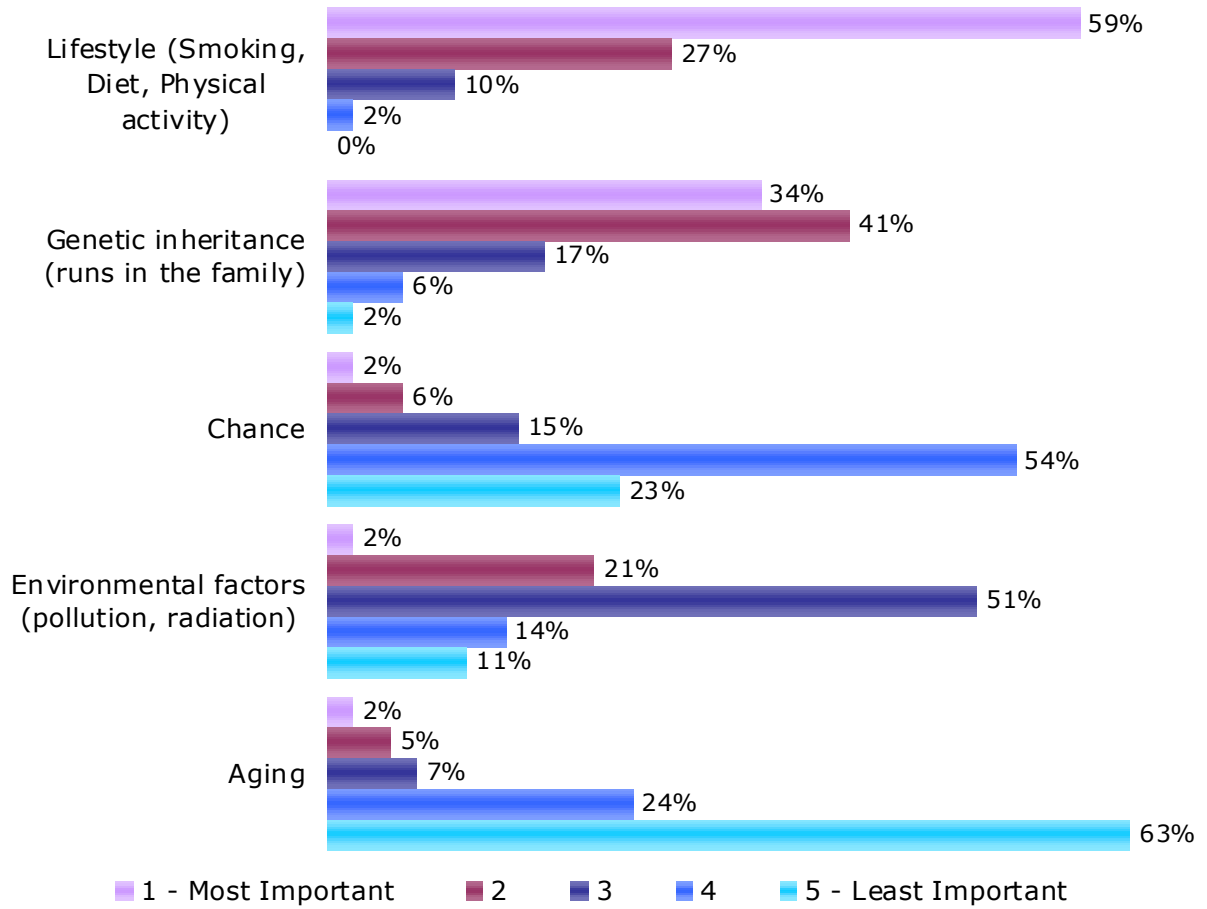
**Figure 18a: Factors contributing to cancer incidence in the UK - Worcestershire**



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

Base: Respondents in Worcestershire - 182

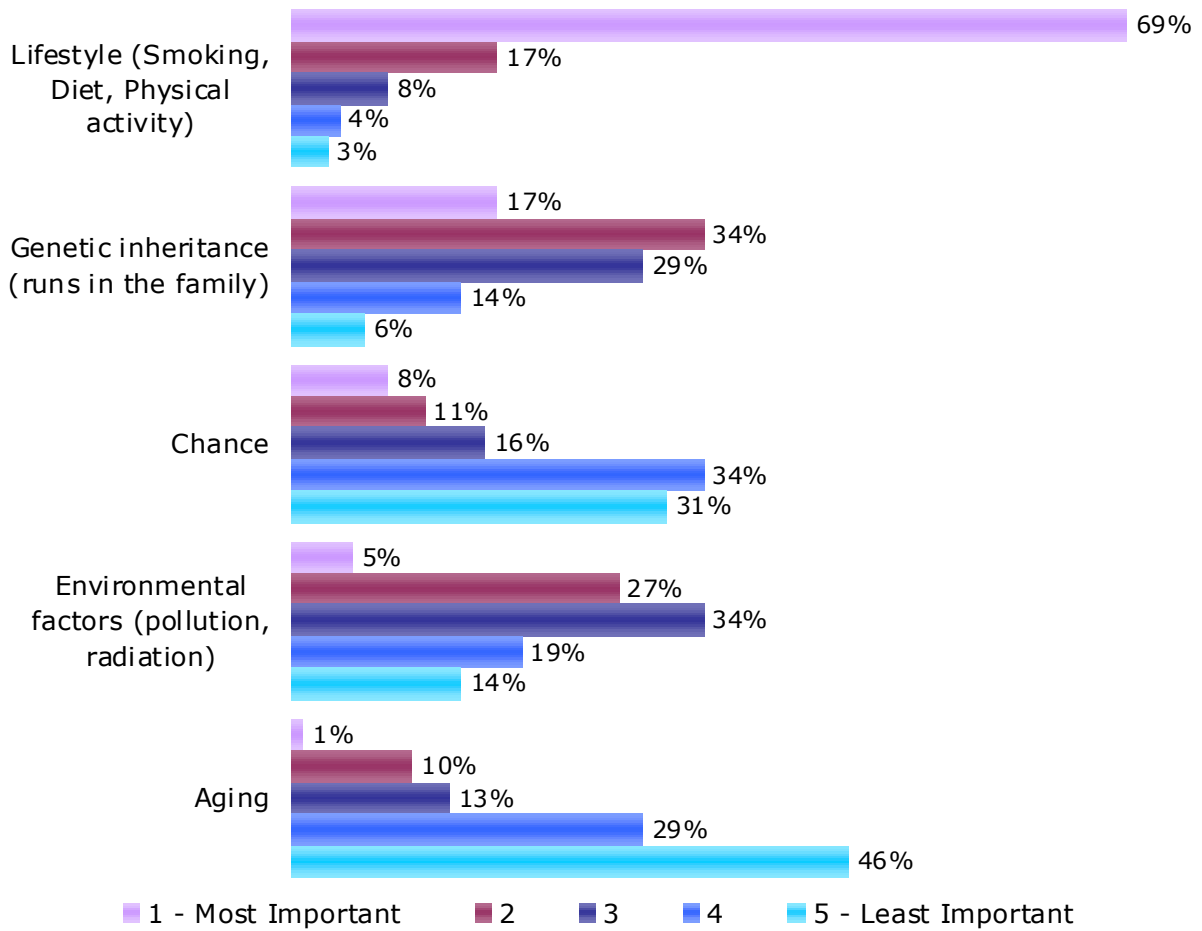
**Figure 18b: Factors contributing to cancer incidence in the UK - Coventry**



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

Base: Respondents in Coventry - 296

**Figure 18c: Factors contributing to cancer incidence in the UK - Warwickshire**



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

Base: Respondents in Warwickshire - 511



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