National Cancer Patient Experience Survey 2016
Technical Documentation
July 2017
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1. Introduction

This document sets out the methodology used in the analysis of the response data to the 2016 National Cancer Patient Experience Survey, and gives some guidance on how to interpret the results. This includes how percentage scores have been derived for individual questions (section 2); how Significance Tests have been used for national data to establish differences between different groups of respondents (section 3); and how statistical confidence intervals around those scores have been calculated (section 5).

The same statistical approaches as last year have been used to analyse the data:

- Case-mix adjustment has been used to allow us to account for the impact that differing patient populations might have on results (looking at age, gender, ethnicity, deprivation and tumour group). This is described in section 4.

- “Expected Ranges” have been calculated for each organisation, for each question, in order to report comparative performance between organisations and to produce the Comparability Charts that are published in the Trust- and CCG-level reports. These are based on the approach used by the Care Quality Commission for other national patient surveys, and are described in section 6.

These methods make comparisons between Trusts, and between CCGs, more robust.

In addition, for this year’s results, we have included analysis to test the statistical significance of changes in scores between 2015 and 2016. This is described in section 7.

All of the national and local-level results, and further background material to the survey, are available at www.ncpes.co.uk.

For further information on the methodology and details of the statistical analysis, please contact info@quality-health.co.uk.

*We acknowledge the work of Dr Gary Abel, Senior Lecturer in Statistics at the University of Exeter, in the development of the case-mix adjustment protocol and his technical advice on the implementation of the ‘CQC’ method for outlier identification; and input by Dr Yoryos Lyratzopoulos, Reader in Cancer Epidemiology at University College London.*

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1 All of the statistical analysis was carried out in Stata: StataCorp. 2015. *Stata Statistical Software: Release 14.* College Station, TX: StataCorp LP.
2. Scoring

Introduction

Scores have been presented for the 52\(^2\) questions in the questionnaire that relate directly to patient experience. For most questions, these have been presented as the percentage of responses which were positive.

Positive, negative and neutral scores

To calculate these scores, each individual answer option to a question has been identified as either positive, negative, or neutral. The percentage score is calculated using the positive total as the numerator, and the total of positive and negative responses as the denominator. Neutral scores (e.g. “Don’t know / can’t remember”) are excluded from the scoring calculation (i.e. not included in either the numerator or denominator).

For example, for question 7 in the survey, asking about the explanation of test results, the following scoring approach is used:

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer option</th>
<th>Scoring key (1=positive, 0=negative, blank=neutral)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were the results of the test explained in a way you could understand?</td>
<td>1 Yes, completely</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2 Yes, to some extent</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>3 No, I did not understand the explanation</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>4 I did not have an explanation but would have liked one</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>5 I did not need an explanation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 Don’t know / can’t remember</td>
<td></td>
</tr>
</tbody>
</table>

In this case, answer option 1 has been identified as the only positive answer, and included in both the numerator and denominator for the scoring calculation. Answer options 2, 3 and 4 have been identified as negative answers, and are included only in the denominator for the calculation. Answer options 5 and 6 have been identified as neutral scores, and are excluded from the scoring calculation (i.e. not included in either the numerator or denominator).

Full tables showing the mapping of positive, negative and neutral scores for all questions are included within the CCG- and Trust-level data tables at [www.ncpes.co.uk](http://www.ncpes.co.uk).

A copy of the questionnaire itself, with these scores marked up in the same way for each question, is also available at [www.ncpes.co.uk](http://www.ncpes.co.uk).

\(^2\) There are two additional scored questions since the 2015 survey: questions 5 and 25. All other questions are identical as in 2015, apart from question 8, where answer options have been changed. Therefore, year-on-year comparisons are presented only for 49 questions, as these three (5, 8, 25) are not comparable between 2015 and 2016.
Alternative approaches for other questions

*Question 59*

Question 59 asks respondents to rate their overall care on a scale of 0 to 10. Scores have been given as the average on this scale.
3. Significance Tests (for national data)

Introduction and rationale

We have continued to use a range of Significance Tests to establish whether there are statistically significant differences between groups of respondents on a particular question.

What they should be used for

The results of the Significance Tests should be used when examining differences between different groups of patients (by gender, age, ethnicity, deprivation and tumour group).

How to interpret the results

The relevant tabs in the published national data tables have cells for each question that are marked either “Sig.” or “Not Sig.” to show whether differences in the scores are statistically significant or not. The significance level was set at p<0.05.

Methodology

In order to establish whether differences between groups of respondents on a particular question are statistically significant, two standard tests of significance have been used:

- a test of proportion (Stata’s prtest) to test whether there is a significant difference between the scores of two groups (e.g. gender)

- a chi-squared test, to test whether there are significant differences in scores across multiple patient sub-groups (e.g. across ethnic groups, or across age bands).

Both tests examine, for any particular question, differences in the proportion of ‘positive’ responses across the various sub-groups, e.g. age bands. If there were no differences, the proportion of ‘positive’ responses would be constant across all sub-groups (and equal to the proportion overall).

Question 59 – the overall experience question

For question 59, an average score is calculated (rather than a "percentage positive"). Significance Testing for this question takes two forms:

(i) for the gender breakdown, a t-test compares the average scores for males and females. Similarly, for deprivation, a t-test compares the average scores for the 1st and 5th deprivation quintiles

(ii) for cancer type, age band and ethnic group, t-tests compare each sub-group to the national score.
4. Case-mix Adjustment

Introduction and rationale

From detailed analyses of previous iterations of the National Cancer Patient Experience Survey (and from other patient surveys), we know that different demographic groups tend to report their experience of care differently. For example, previous analysis indicates: that women generally report a significantly less positive experience than men; that black and Asian patients report a less positive experience than white patients on many questions; and that there are significant differences in the experiences reported by patients with different types of cancer.

Because the mix of patients varies between organisations (for example, one Trust may serve a considerably older population than another; and one CCG might be in a more deprived area than another), this could potentially lead to the results for an organisation appearing better or worse than they would if they had a slightly different profile of patients.

Case-mix adjustment is a methodology for ‘standardising’ the data to account for these differences, to allow comparisons to be made more fairly.

What they should be used for

Case-mix adjusted scores, alongside the case-mix adjusted confidence intervals, should be used when comparing scores between different organisations.

How to interpret the results

The case-mix adjusted scores are the score we would expect a Trust or CCG to obtain had their case-mix of respondents been the same as that of the whole survey.

The following example is from the unadjusted scores for an organisation with 500 respondents to question 7 in the survey, asking about the explanation of test results.

<table>
<thead>
<tr>
<th>Question</th>
<th>Numbers of responses</th>
<th>Unadjusted score</th>
<th>Case-mix adjusted score</th>
<th>National average score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were the results of the test explained in a way you could understand?</td>
<td>500</td>
<td>79%</td>
<td>77%</td>
<td>78%</td>
</tr>
</tbody>
</table>

In this case, the unadjusted score is 79%, slightly higher than the national average of 78%. But once the characteristics of the organisation’s population are taken into account, the case-mix adjusted score is below the national average, at 77%. It is this second figure which should be used when making comparisons between different organisations.
Methodology

The following variables were used in the case-mix adjustment: age, gender, ethnicity, cancer type and deprivation. In detail:

- Age was derived from the sample data provided by Trusts (year of birth), categorised into a number of age bands: “16 to 24”; “25 to 34” and similar ten-year age bands to “75 to 84”; and “85+”

- Gender was taken from the sample data provided by Trusts

- Ethnicity was derived from patient responses to question 69 in the questionnaire, categorised into the following broader groups: Asian, black, mixed, other, white, not given

- Cancer type was derived from 3-digit ICD10 codes provided in the sample data from Trusts (the mapping is shown separately in Section 6 of this document)

- Deprivation uses Index of Multiple Deprivation (IMD) quintiles, derived from mapping the postcode provided in the sample data provided by Trusts against its local super output area (LSOA) using the ONS postcode directory file of February 2016. The full 2015 Index of Multiple Deprivation (IMD) score and hence quintile for each postcode was obtained from files linking the LSOAs to IMD scores from http://opendatacommunities.org/def/concept/general-concepts/imd.

Note that observations for which the country of residence of the patient was not England have been excluded before calculating case-mix adjusted scores for both Trusts and CCGs.

Case-mix adjustment for Trusts, and for CCGs

The case-mix adjustment methodology chosen uses a logistic regression model to quantify the impact of each of the five variables above on each of the scored questions in the questionnaire. This produces a statistical case-mix adjustment model for each question. This is based on the 2013 paper produced by Abel, Saunders & Lyatzopoulos.

These individual models were then run for each question to produce a case-mix adjusted score that takes account of how the demographics of an individual Trust differ from the national average (for a Trust with exactly the same demographics as the national average, the case-mix adjusted score would be the same as the unadjusted score).

A similar process was run for each CCG. Although there are 222 CCG codes represented in the overall data file, a small number of responses (487 out of 72,788) were received from patients who were resident in parts of the UK outside of England (e.g. patients resident just inside the Welsh border, but treated at a Trust in England). These records were removed from both the Trust and CCG analysis.

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Some questions had a zero response from a few organisations (CCGs and/or Trusts). These organisations were removed from the modelling process for these individual questions.

**Question 59 – the overall experience question**

For question 59, which is an average score, a different approach is necessary. The same five variables are used, and a similar process, but this time the case-mix adjustment methodology chosen uses a linear (rather than logistic) regression model.
5. Confidence Intervals

Introduction and rationale

The single percentage figures given as a score for each organisation for each question are an estimate of the score from that population, based on the responses received. Assuming the sample is representative of the organisation, confidence intervals are a method of describing the uncertainty around these estimates. The most common methodology, which has been used here, is to produce and report 95 per cent confidence intervals around the results. At the 95 per cent confidence level, on average, the confidence interval is expected to contain the true value 95 per cent of the time.

What they should be used for

Confidence intervals should be used to understand and describe the accuracy of a single point score for a question.

How to interpret the results

The following example is from the unadjusted scores for an organisation with 500 respondents to question 7 in the survey, asking about the explanation of test results.

<table>
<thead>
<tr>
<th>Question</th>
<th>Numbers of responses</th>
<th>Lower 95% Confidence Interval</th>
<th>Unadjusted Score</th>
<th>Upper 95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were the results of the test explained in a way you could understand?</td>
<td>500</td>
<td>75%</td>
<td>79%</td>
<td>82%</td>
</tr>
</tbody>
</table>

In this case, the unadjusted score is 79%, and the confidence interval is calculated as between 75% and 82%. In other words, we could say that “It is 95% certain that the score for this organisation lies between 75% and 82%”.

Methodology

Confidence intervals for unadjusted scores for all questions have been calculated using Wilson’s Confidence Intervals. This particular approach has been chosen as it is more robust for small numbers (both numerators and denominators), and for results close to 0% or 100%.

For case-mix adjusted scores, confidence intervals have been calculated using a binomial approach with Wilson adjustment.
Question 59 – the overall experience question

For question 59, which is an average score, a different approach is necessary. For unadjusted scores, confidence intervals in this case are +/- 1.96 standard errors, which are calculated by:

$$S.E. = \frac{\sigma}{\sqrt{N}}$$

where σ is the standard deviation of responses for that particular organisation.

For case-mix adjusted scores, +/- 1.96 standard errors are again used, derived as a by-product of the regression routine itself.
6. Expected Values and Comparability Charts

Introduction and rationale

We have continued to use an adapted version of the Care Quality Commission's standard for reporting comparative performance, based on calculation of expected ranges, adjusted for over-dispersion.

A standard technique for comparing organisations’ performance to the national mean is to identify the range of scores (for a given size of organisation) outside of which there is evidence that the score is different to the national mean (i.e. it is statistically significantly different). The problem with this method is that when the sample size is large and standard errors on organisational scores are small a large number of organisations may be flagged as outliers even when their score is close to the national mean. This variation in organisational performance gives rise to over-dispersion, i.e. there is more variation in the scores than described by the binomial distribution.

By identifying and quantifying the real variation between organisations (rather than that due to chance) we can then calculate an expected range of scores. This expected range is the range of scores expected for organisations of a given sample size to lie within if their underlying performance (rather than measured performance) was within the core of the distribution of performance between organisations.

So the organisations outside this range are flagged as outliers and have scores that are not expected for most organisations. The method is a way of fairly treating organisations of different sizes in the presence of natural variation between them.

The methodology to detect over-dispersion is described in detail in the methodology section that follows. Its purpose is to allow organisations of different sizes to be judged equally.

What they should be used for

For an individual organisation, expected values and comparability charts should be used to compare to the national distribution.

How to interpret the results

The following example shows the scores for an organisation with 500 respondents to question 7 in the survey, asking about the explanation of test results.

---

<table>
<thead>
<tr>
<th>Question</th>
<th>Numbers of responses</th>
<th>Case-mix adjusted scored percentage</th>
<th>Performance rating</th>
<th>Expected range (lower)</th>
<th>Expected range (upper)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were the results of the test explained in a way you could understand?</td>
<td>500</td>
<td>84%</td>
<td>1</td>
<td>76%</td>
<td>80%</td>
</tr>
</tbody>
</table>

In this case, the expected range calculated for this organisation is between 76% and 80%. The case-mix adjusted score is 84%, which is above the expected range. This organisation is therefore performing at a higher level than expected on this question. We have flagged the performance rating in such cases as dark blue (in the local CCG- and Trust-level reports, and in the Data Tables).

The following example shows how we would report the score for the same organisation if it were 75%.

<table>
<thead>
<tr>
<th>Question</th>
<th>Numbers of responses</th>
<th>Case-mix adjusted scored percentage</th>
<th>Performance rating</th>
<th>Expected range (lower)</th>
<th>Expected range (upper)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were the results of the test explained in a way you could understand?</td>
<td>500</td>
<td>75%</td>
<td>3</td>
<td>76%</td>
<td>80%</td>
</tr>
</tbody>
</table>

In this case, the expected range calculated for this organisation is still between 76% and 80%. The case-mix adjusted score is 75%, which is below the expected range. This organisation is therefore performing at a lower level than expected on this question. We have flagged the performance rating in such cases as pale blue (in the local CCG- and Trust-level reports, and in the Data Tables).

The following example shows the scores for another, smaller, organisation, with 100 respondents, to the same question.

<table>
<thead>
<tr>
<th>Question</th>
<th>Numbers of responses</th>
<th>Case-mix adjusted scored percentage</th>
<th>Performance rating</th>
<th>Expected range (lower)</th>
<th>Expected range (upper)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were the results of the test explained in a way you could understand?</td>
<td>100</td>
<td>75%</td>
<td>2</td>
<td>74%</td>
<td>82%</td>
</tr>
</tbody>
</table>
In this case, the expected range calculated for this organisation is wider (as the results are less certain because the sample size is smaller), between 74% and 82%. The case-mix adjusted score is 75%, which is within the expected range. This organisation is therefore performing within the expected range on this question. We have flagged the performance rating in such cases as grey (in the local CCG- and Trust-level reports, and in the Data Tables).

This illustrates how reducing smaller sample size will widen the expected range of results, due to the increased influence of chance. Hence a given score could be inside the expected range for one organisation and outside it for another if their sample sizes differ.

It is important to note that the second two examples show different organisations with the same case-mix adjusted scores, but different performance ratings – due to the different levels of statistical uncertainty around the scores.

**Methodology**

The calculations use three steps: (1) testing for over-dispersion; (2) adjusting for over-dispersion; and (3) identifying the expected range, and assigning a performance rating. These are described in detail below.

**Testing for over-dispersion**

For each organisation, for each question, the standard error (S.E.) around the national figure ($p_{Nj}$) is calculated using the number of responses ($n_{ij}$), as follows:

$$S.E._{ij} = \sqrt{\left(p_{Nj} \times (1 - p_{Nj}) / n_{ij}\right)}$$

Z-scores ($Z_{ij}$) are calculated, as follows:

$$Z_{ij} = (p_{ij} - p_{Nj}) / S.E._{ij}$$

The z-scores are ranked within each question. The z-scores of those in the bottom 20% are set to be equal to the z-score of the 20th percentile. Similarly, the z-scores of those in the top 80% are set to be equal to the z-score of the 80th percentile (a process known as Winsorisation). These adjusted z-scores are squared and $\phi$ is calculated for each question by summing the squares and dividing by the number of relevant organisations (CCGs or Trusts), i.e. by 209 or 148. For example, for CCGs:

$$\phi = \sum Z_{adj}^2 / N$$

From this, if

$$N \times \phi > N-1$$

then the scores are taken to be over-dispersed and need adjustment. If not, the scores are assumed to not be over-dispersed and the original z-scores can be used.


**Adjusting for over-dispersion**

Where over-dispersion has been identified across organisations, within a question, then there is a need to estimate the expected variance between organisations. This is done by calculating the standard deviation of individual CCG or Trust scores.

First, we calculate for each organisation within the question under consideration:

$$w_i = 1 / S.E._{ij}^2$$

Then, $\tau^2$ is calculated from:

$$\tau^2 = ((N \times \phi) - (N -1)) / (\Sigma w_i - \Sigma w_i^2 / \Sigma w_i)$$

Having calculated $\tau^2$, this is added to the squared standard error, and used to calculate revised z-scores for each organisation for this question using the following formula:

$$Z_{ij}(rev) = (p_{ij} - p_{Nj}) / \sqrt{(S.E._{ij}^2 + \tau^2)}$$

**Identifying the expected range, and assigning a performance rating**

Once the appropriate z-scores have been calculated (either the original z-scores, or revised z-scores if there is over-dispersion for a particular question), then an expected range can be calculated around the national figure for each organisation for each question.

First, expected ranges are calculated by finding the scores that would have produced a revised z-score of either 1.96 or -1.96 using the formula directly above. Thus organisations with revised z-scores either great than 1.96 or less than -1.96 can be considered as lying outside of the expected range.

Organisations with scores below the lower limit are outside the expected range, performing lower than expected and coloured pale blue in the tables and comparability charts. Organisations with scores above the lower limit are outside the expected range, performing higher than expected and coloured dark blue in the tables and comparability charts. Organisations with scores between the upper and lower limits are within the expected range, and coloured grey in the tables and comparability charts.

To summarise, the equations for calculating expected range are:

$$\text{Lower}_{-}\text{exp} = (S.E._{ij} \times (-1.96)) + p_{Nj}$$

$$\text{Higher}_{-}\text{exp} = (S.E._{ij} \times (1.96)) + p_{Nj}$$

Where over-dispersion has been identified across organisations for this question, a revised S.E._{ij}, S.E._{z}, should be substituted in the Lower_{-}exp and Higher_{-}exp equations above, where S.E._{z} is calculated as follows:

$$S.E._{z} = (p_{ij} - p_{Nj}) / Z_{ij}(rev)$$
Question 59 – the overall experience question

For question 59, all of the steps described above are repeated in exactly the same way as for the other questions, with the exception of the first step – calculating standard errors. In this case, the standard errors are derived as a by-product of the regression routine itself.
7. Comparisons between 2015 and 2016

Introduction

Where possible, the (unadjusted) scores for each of the scored questions in 2016 were compared with those of 2015 to see if there was a significant difference between the two years. Comparisons were made at national, trust and CCG level. This comparison was not possible with previous years, as the questions have changed.

Methodology

A longitudinal logistic regression model was used to determine whether there was a significant difference in scores between years. Linear regression was used to determine whether there was a difference in responses to question 59. Age, IMD quintile, ethnic group and tumour type were added as covariates since these variables differed significantly between years.

Since 13.3% of the respondents in 2015 also replied to the 2016 survey, robust standard errors, clustering on the patient ID, were used in the regression analysis.

For this part of the analysis, the significance level was set at 0.01 in order to account for the multiple comparisons. The figure of 0.01 was determined empirically.

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5 i.e. for the 49 scored questions that are identical between the two years.
8. A note on the use of IMD quintiles

English Index of Multiple Deprivation (IMD) quintiles have been used in the analysis of results at national level, and in the Case Mix Adjustment methodology. These were generated by mapping the postcode of referral for each patient, against the most recently available published English IMD data.

In some cases (487 this year), patients from outside England (from Wales, Scotland, Northern Ireland, the Channel Islands or the Isle of Man) are referred to English NHS Trusts for treatment. This figure is described as “Non-England” in the national tables.

The responses from these patients are included in the overall national analysis; and in the results for the relevant NHS Trust. However, they do not appear in any of the CCG results, as these are only presented for relevant English CCGs. And they are not used in the calculations for case-mix adjusted scores for both Trusts and CCGs.

As described in the previous section, IMD quintiles are also used as part of the regression models for the comparison between 2015 and 2016. As a few respondents in 2015 did not have valid postcodes to generate IMD quintiles, there are some of the counts in the 2015 data that do not match previously published results.

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6 Note that this “Non-England” category differs from the “Not available” category reported in the 2015 results. “Not available” in that case included all of the same Non-England countries; but also a small number of cases were postcode data was not available and therefore IMD quintiles could not be mapped.
9. A note on suppression

In some of the breakdown tables for the national results, there are questions where the number of respondents selecting a given option is less than 6. In order to minimise the risk that the results (as presented here, and in future publications) could be disclosive, we have suppressed these small numbers, which are shown as blank cells. Any further cells which could be used to calculate the suppressed number have also been suppressed.

Similarly in some of the breakdown tables for the local results, there are questions where the number of respondents answering a question is less than 21. We have suppressed these small numbers, which are shown as blank cells. Any further cells which could be used to calculate the suppressed number have also been suppressed. This is done in order to minimise the risk that the results (as presented here, and in future publications) could be disclosive, and also to ensure the results are statistically robust.
### 10. Tumour Groups

The table below shows the detailed mapping of 3-digit ICD codes to tumour groups. This has been used throughout the national and local-level reporting of the 2015 results, and is an identical mapping to previous years.

<table>
<thead>
<tr>
<th>Tumour group</th>
<th>Cancer type (for case mix adjustment)</th>
<th>ICD code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brain / CNS</td>
<td>Brain</td>
<td>C71</td>
<td>Malignant neoplasm of brain</td>
</tr>
<tr>
<td>Breast</td>
<td>Breast</td>
<td>C50</td>
<td>Malignant neoplasm of breast</td>
</tr>
<tr>
<td></td>
<td>DCIS</td>
<td>D05</td>
<td>Carcinoma in situ of breast</td>
</tr>
<tr>
<td>Colorectal / LGT</td>
<td>Rectal</td>
<td>C19, C20</td>
<td>Malignant neoplasm of recto-sigmoid junction (C19) and of rectum (C20)</td>
</tr>
<tr>
<td></td>
<td>Colon</td>
<td>C18</td>
<td>Malignant neoplasm of colon</td>
</tr>
<tr>
<td></td>
<td>Anal</td>
<td>C21</td>
<td>Malignant neoplasm of anus and anal canal (C21)</td>
</tr>
<tr>
<td></td>
<td>Small Intestine</td>
<td>C17</td>
<td>Malignant neoplasm of small intestine</td>
</tr>
<tr>
<td>Gynaecological</td>
<td>Ovarian</td>
<td>C56</td>
<td>Malignant neoplasm of ovary</td>
</tr>
<tr>
<td></td>
<td>Endometrial</td>
<td>C54, C55</td>
<td>Malignant neoplasm of corpus uteri (C54) and of uterus, part unspecified (C55)</td>
</tr>
<tr>
<td></td>
<td>Cervical</td>
<td>C53</td>
<td>Malignant neoplasm of cervix uteri</td>
</tr>
<tr>
<td></td>
<td>Vulva / vaginal</td>
<td>C51, C52</td>
<td>Malignant neoplasm of vulva (C51) and vagina (C52)</td>
</tr>
<tr>
<td>Haematological</td>
<td>Non-Hodgkins lymphoma</td>
<td>C82, C83, C84, C85</td>
<td>Follicular [nodular] non-Hodgkin’s lymphoma (C82), diffuse non-Hodgkin’s lymphoma (C83), Mycosis Fungoides (C84) other and unspecified types of non-Hodgkin’s lymphoma (C85)</td>
</tr>
<tr>
<td></td>
<td>Multiple myeloma</td>
<td>C90</td>
<td>Multiple myeloma and malignant plasma cell neoplasms</td>
</tr>
<tr>
<td></td>
<td>Leukaemia</td>
<td>C91, C92, C93, C94, C95</td>
<td>Lymphoid (C91), myeloid (C92), monocytic (C93), and other leukaemia of specified (C94) and unspecified (C95) cell type</td>
</tr>
<tr>
<td></td>
<td>Hodgkin’s lymphoma</td>
<td>C81</td>
<td>Hodgkin’s disease</td>
</tr>
<tr>
<td>Head and Neck</td>
<td>Thyroid</td>
<td>C73</td>
<td>Malignant neoplasm of thyroid gland</td>
</tr>
<tr>
<td></td>
<td>Laryngeal</td>
<td>C32</td>
<td>Malignant neoplasm of larynx</td>
</tr>
<tr>
<td></td>
<td>Oropharyngeal</td>
<td>C01, C09, C10</td>
<td>Malignant neoplasm of base of tongue (C01), tonsil (C09) and oropharynx (C10)</td>
</tr>
<tr>
<td></td>
<td>Oral</td>
<td>C02, C03, C04, C06</td>
<td>Malignant neoplasm of other / unspecified parts of tongue (C02), gum (C03), floor of mouth (C04) and other parts of mouth (C06)</td>
</tr>
<tr>
<td></td>
<td>Parotid</td>
<td>C07, C08</td>
<td>Malignant neoplasm of parotid gland (C07) and other / unspecified major salivary gland (C08)</td>
</tr>
<tr>
<td>Lung</td>
<td>Lung</td>
<td>C33, C34</td>
<td>Malignant neoplasm of trachea (C33) and bronchus and lung (C34)</td>
</tr>
<tr>
<td></td>
<td>Mesothelioma</td>
<td>C45</td>
<td>Mesothelioma</td>
</tr>
<tr>
<td>Tumour group</td>
<td>Cancer type (for case mix adjustment)</td>
<td>ICD code</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------------------</td>
<td>----------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Prostate</td>
<td>Prostate</td>
<td>C61</td>
<td>Malignant neoplasm of prostate</td>
</tr>
<tr>
<td>Sarcoma</td>
<td>Soft Tissue Sarcoma</td>
<td>C46, C48, C49</td>
<td>Karposi’s sarcoma (C46). Malignant neoplasm of retroperitoneum and peritoneum (C48) and other connective and soft tissue (C49)</td>
</tr>
<tr>
<td></td>
<td>Bone Sarcoma</td>
<td>C40, C41</td>
<td>Malignant neoplasm of bone and articular cartilage of limbs (C40) and of bones and articular cartilage of other and unspecified sites (C41)</td>
</tr>
<tr>
<td>Skin</td>
<td>Melanoma</td>
<td>C43</td>
<td>Malignant melanoma of skin</td>
</tr>
<tr>
<td>Upper Gastro</td>
<td>Oesophageal</td>
<td>C15</td>
<td>Malignant neoplasm of oesophagus</td>
</tr>
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<td></td>
<td>Stomach</td>
<td>C16</td>
<td>Malignant neoplasm of stomach</td>
</tr>
<tr>
<td></td>
<td>Pancreatic</td>
<td>C25</td>
<td>Malignant neoplasm of pancreas</td>
</tr>
<tr>
<td></td>
<td>Liver</td>
<td>C22</td>
<td>Malignant neoplasm of liver and intrahepatic bile ducts</td>
</tr>
<tr>
<td></td>
<td>Gall Bladder</td>
<td>C23</td>
<td>Malignant neoplasm of gall bladder</td>
</tr>
<tr>
<td>Urological</td>
<td>Bladder</td>
<td>C67</td>
<td>Malignant neoplasm of bladder</td>
</tr>
<tr>
<td></td>
<td>Renal</td>
<td>C64</td>
<td>Malignant neoplasm of kidney, except renal pelvis</td>
</tr>
<tr>
<td></td>
<td>Penile</td>
<td>C60</td>
<td>Malignant neoplasm of penis</td>
</tr>
<tr>
<td></td>
<td>Testicular</td>
<td>C62</td>
<td>Malignant neoplasm of testis</td>
</tr>
<tr>
<td></td>
<td>Ureteric</td>
<td>C65, C66</td>
<td>Malignant neoplasm of renal pelvis (C65) and ureter (C66)</td>
</tr>
<tr>
<td>Other</td>
<td>Secondary</td>
<td>C77, C78, C79</td>
<td>Secondary and unspecified malignant neoplasm of lymph nodes (C77), of respiratory and digestive organs (C78) and of other and unspecified sites (C79)</td>
</tr>
<tr>
<td></td>
<td>Any Other</td>
<td></td>
<td>All other codes C00, C05, C11, C12, C13, C14, C24, C26, C30, C31, C37, C38, C39, C47, C57, C58, C63, C68, C69, C70, C72, C74, C75, C76, C80, C86, C88, C96, C97</td>
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</tbody>
</table>
11. Further Information

All of the national and local-level results, and further background material to the survey, are available at www.ncpes.co.uk.

For further information on the methodology and details of the statistical analysis, please contact info@quality-health.co.uk.