Guide to reading the NABCOP Annual Report

This document is for use alongside the NABCOP Annual Report, as a guide to understanding the report content. It covers:

- Layout of sections within the annual report.
- Interpreting figures within the annual report.

Layout of sections within the annual report

The NABCOP Annual Report chapters and sections include the following elements (the figure below is annotated with guidance):

- Boxes describing the relevant clinical guidance, where applicable, and the current research evidence (as per 1a and 1b in the figure below),
- Which patients are included in the numerator and denominator for the analysis, and whether they were diagnosed in England or Wales (2),
- The period of diagnosis for patients included (2),

- Details of why we have chosen a particular area of breast cancer care to analyse (3),
- A box summarising what the NABCOP analysis found, along with relevant tables/figures (4a, 4b and 5),
- A box describing the Cancer Patient Experience Survey responses for English patients in the NABCOP cohort (6),
- The resulting recommendation(s) (7).

The primary focus of all analyses within the NABCOP Annual Report is women aged 70 years and older at diagnosis. In some sections, this is broken down further to look at women aged 70-79 years and women aged 80 years and over. This allows us to investigate age disparity further where possible.

Comparison is then made with women aged 50-69 years.

We also look at variation across NHS organisations.

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Interpreting figures within the report

The organisation-level data presented in the report's plots are published in the NHS Organisation Data Viewer; alongside the annual report.

Pyramid plots

These are used to compare observed percentages for individual NHS organisations.

The horizontal axis is split either:

(1) By (two) age groups, or
(2) By another grouping of interest (for example type of primary surgery), in which, the bars for the (two) age groups are overlaid.

Finally, the results plotted on the vertical axis are ordered by country (Wales then England) and then by the individual NHS organisation.

Funnel plots[1]

These enable the user to assess variation in the results across NHS organisations.

Funnel plots are used to highlight variation in the rate of surgery across organisations and to assess whether this variation is larger than would be expected in any age group.

'Caterpillar' plots

These are used to compare the risk-adjusted percentages for individual NHS organisations.
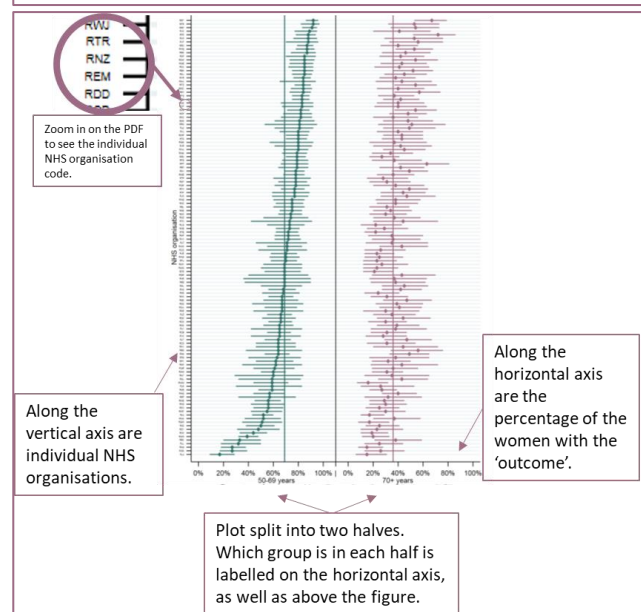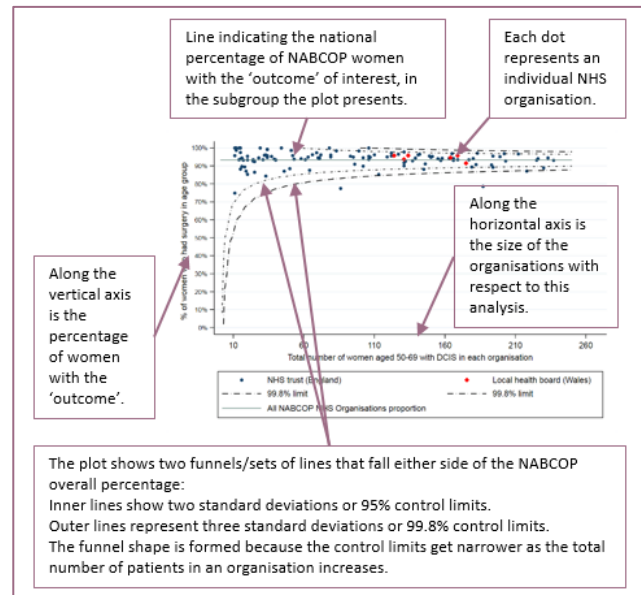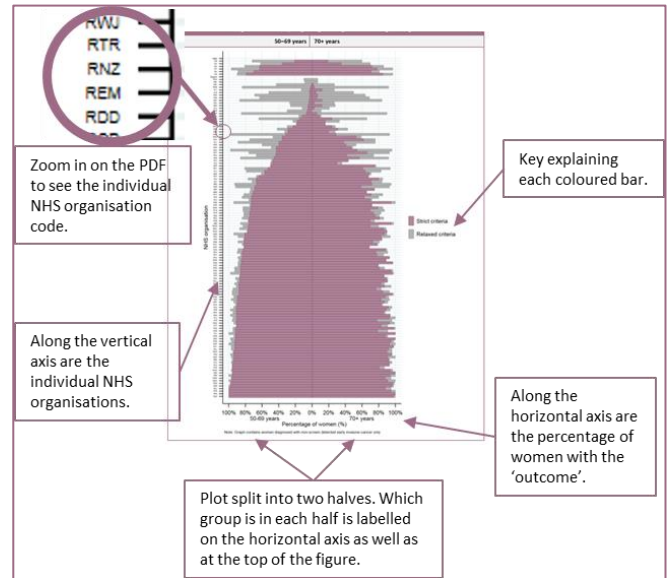
They show the percentage (plotted as a dot) in each organisation, as well as the 95% confidence interval (plotted as a line through the dot). This enables the reader to have some understanding of the number of patients in the group.

The horizontal axis is split either:

(1) By (two) age groups, or
(2) By another grouping of interest (for example ER status).
(3) By both age groups and other grouping of interest.

The results plotted on the vertical axis are ordered by country (Wales then England) and by the individual NHS organisation.

The examples below are annotated with guidance on interpreting these figures.

Zoom in on the PDF to see the individual NHS organisation code.

Key explaining each coloured bar.

Along the vertical axis are the individual NHS organisations.

Along the horizontal axis are the percentage of women with the 'outcome'.

Plot split into two halves. Which group is in each half is labelled on the horizontal axis as well as at the top of the figure.

Line indicating the national percentage of NABCOP women with the 'outcome' of interest, in the subgroup the plot presents.

Each dot represents an individual NHS organisation.

Along the vertical axis is the percentage of women with the 'outcome'.

Along the horizontal axis is the size of the organisations with respect to this analysis.

The plot shows two funnels/sets of lines that fall either side of the NABCOP overall percentage:
Inner lines show two standard deviations or 95% control limits.
Outer lines represent three standard deviations or 99.8% control limits.
The funnel shape is formed because the control limits get narrower as the total number of patients in an organisation increases.

Zoom in on the PDF to see the individual NHS organisation code.

Along the vertical axis are individual NHS organisations.

Along the horizontal axis are the percentage of the women with the 'outcome'.

Plot split into two halves. Which group is in each half is labelled on the horizontal axis, as well as above the figure.

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[1] Funnel Plot Source: David Spiegelhalter, Medical Research Council Biostatistics Unit - http://www.erpho.org.uk/Download/Public/6990/1/INPHO%204%20Quantifying%20performance.pdf- https://www.ncbi.nlm.nih.gov/pubmed/15568194