National end of life care
INTELLIGENCE NETWORK

NHS

National End of Life Care Programme
Improving end of life care

End of Life Care Profiles User Guide

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NCIN
national cancer
intelligence network

APHO
ASSOCIATION OF PUBLIC HEALTH OBSERVATORIES
10 YEARS

SOUTH WEST PUBLIC HEALTH OBSERVATORY

www.endoflifecare-intelligence.org.uk

Contents

1. Introduction

What are End of Life Care Profiles?

The End of Life Care Profiles present data on end of life by Local Authority area in England in an interactive web tool designed specifically for the purpose.

Data such as how many people die in each Local Authority, the age at which they die, how many were men and how many women are included. The Profiles can also tell us how people die (causes of death) and where they die (hospital, at home, nursing home etc.).

The aim of the tool is to make it easy to compare Local Authority areas and to help those working in health and social care effectively plan and deliver services based on the information provided about their local populations and needs.

The data are presented in map, chart and table formats.

The Profiles have been developed by the South West Public Health Observatory for the National End of Life Care Intelligence Network.

What you will see when you download a Profile

There are five End of Life Care Profiles, which display data for different themes:

- an overview profile – which presents key demographic data around age and sex;

- a cause of death profile – which presents data for the main or 'underlying' causes of death (as recorded on death certificates);

- an 'other causes of death' profile – which presents any other mentions of a cause of death on the death certificate (which may have contributed to the death or was in some way connected with the cause of death);

- a place of death profile – which presents data on where people die – e.g. hospital, hospice or at home; and

- a profile presenting the place and cause of death together so it can easily be seen how they relate to each other.

Example of an End of Life Care Profile

Data are shown at Local/Unitary Authority Level. There are differences in the types of data shown in each profile, but the principles of use are the same.

The opening screen in the display tools shows a comparison of area values in the table, map and bar chart on the left of the screen, for the first indicator in the list.

Click on an area (see example below) in the table, map or bar chart to display the profile of indicators on the right side of the screen. This profile highlights significant differences and graphically displays comparisons in a spine chart.

This guide provides instructions on how to use each component of the tool as labelled below. You can also see the quick tips section for an overview.
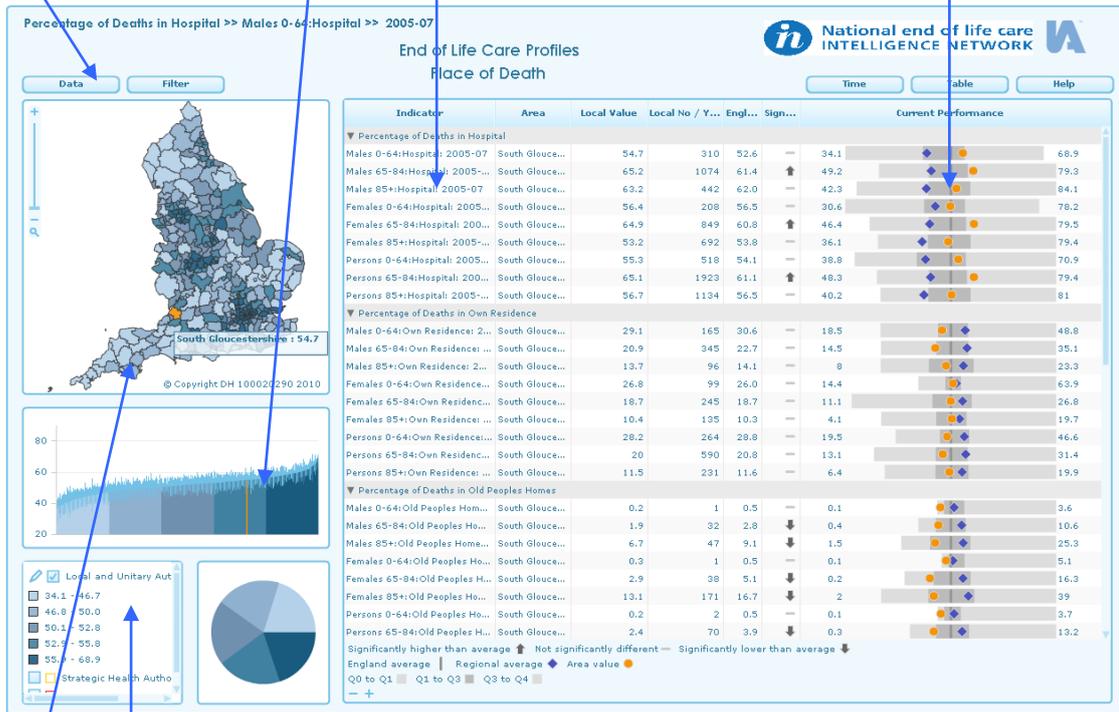
End of Life Care Profiles User Guide

Buttons   Bar chart   Table   Indicator profiles – data and spine chart

Map   Legend   Print or use image

2. Quick tips

Here are some quick tips to help you when using the End of Life Care Profiles:

- **Select an indicator** using the Indicator button OR click on an indicator in profiles on the right, to display a comparison of its area values on the left. The title of the indicator being displayed is shown at the top of the screen. An indicator is the data item you want to have displayed, for example 'Crude mortality rate per 100,000 population: Men under 65 years: 2005-07' is an indicator.

- The **Indicator button** provides individual indicator descriptions via the small icon next to each indicator name.

- Click this image — + at the bottom to **collapse/expand themes** in the button drop down lists and in the area indicator profiles. You can also collapse/expand individual themes by clicking on them.

- Click on the top right corner of any box to **maximise** its size. Click again to restore it. Click on/off using the F11 button on your keyboard for maximum screen effect.

- Click PCT ↔ Count and drag the dividing line between column headings to **increase column width**.

- The **Spine chart** shows how each area indicator 'value' (percentage, rate or score) compares to the Government Office Region average, the England average and the range of values; smallest to largest across the country.

- The **Significance column** highlights the area indicator values that are statistically significantly different from the England average. An up arrow indicates that the indicator is statistically significantly higher than the England average; a down arrow indicates that the indicator is statistically significantly lower than the England average, while a horizontal line shows that there is no significant difference. Note missing values.

- Hold down the keyboard **Ctrl button** and select a second area on the map to compare their profiles on the right. Click on this area again to clear it.

- Restrict analysis to a region using the **Filter button** options

- **Map** - Zoom in/out using the bar and icons on the map OR your mouse's scroll button. To pan across map - click mouse left button and drag the image.

- **Top left table** - Click on the headings to order by area name or value. Click on a magnifying glass next to an area to zoom to its map location.

- **Legend** - Click category boxes to see respective areas highlighted in the table, map and bar chart. Click pencil image top left to change colours and data intervals.

- **Print or use image** - Choose File – Page Setup – Print or use keyboard PrintScreen button and paste in Word or PowerPoint.

3. Buttons

Indicator button – press this to **display the available themes** and indicators available.

Click ➖ ➕ image bottom right to expand/collapse the list of options. Press the small icon next to each indicator to access details about the individual indicator (as noted below). Choose the indicator to display in the table, map and bar chart. The selected indicator will be shown at the top of the screen.

Filter button – this provides options for **restricting analysis** to particular Government Office Regions (often referred to as just 'regions'). The chosen filter will be displayed at the top of the screen as part of the indicator title. Click on remove filter to remove the restricted view.

Click on this image ➖ ➕ bottom right to **collapse/expand the list of options**. You can also collapse/expand individual themes by clicking on them

4. Table

This shows the list of areas, the value (rate, percentage or score) of the indicator being displayed and also a small button which displays the colour of the class of data values as described in the legend.

Name – hold your mouse pointer over an area to display its name clearly.

Sort by – area name or by value by pressing on the respective column headings.

Use the **vertical scroll bar** to move up and down the list.

Click on the top right hand corner of the box to maximise the table size to fill the screen and click this again to restore it.

Click on the dividing line PCT ⬌ between the column headings and drag this sideways to **increase column width**.

Move the mouse across the list of areas to **highlight** them in the map and bar chart. Left click the mouse to select an area to display its profile of indicators in the Spine chart.

Hold the **'Ctrl' button** on your keyboard to select multiple areas to highlight in the map and bar chart. If just two areas are selected then both will be displayed in the Spine chart. Click on one of the two areas again to deselect it.

To select a group of areas that are in consecutive order to highlight in the map and bar chart, click on the first area then hold the **'Shift' button** on your keyboard, then click on the last area in the list. Click on any area to deselect the group.

Click the **magnifying glass** to zoom to the area location on the map

5. Map

Shading – areas are shaded based on the values in the data table according to the legend.

Zooming – use the slider bar on the left of the map to zoom in/out. Click the magnifying glass below the slider bar to zoom out fully. Alternatively, hold the shift button on your keyboard and click and drag a box on the map. The map will zoom to the area within the box drawn. You can also use the scroll wheel on your mouse to zoom in and out of the map. To pan across the zoomed map – click the mouse left button and drag the image.

Names – hold your mouse pointer over an area to display the area name and value.

Select an area – click on an area to select that area to display its profile of indicators in the Spine chart. A selected area will be shaded orange. Hold the Ctrl button on your keyboard to select multiple areas to highlight in the table and bar chart. If just two areas are selected then both will be displayed in the spine chart. Click on one of the two areas again to deselect it.

Area selection - Press Ctrl and click and drag a box on the map. The map features within the box drawn will become selected.

Click on the top right hand corner of the box to maximise the size to fill the screen and click this again to restore it.

Tip: If you first select the legend settings option to change data class intervals and then maximise the map, the legend options will be displayed alongside the map to help explore the effect of data class changes.

6. Bar chart

Bars – there is a bar representing each area listed in the data table. The height of bars is proportional to indicator values. Bars are displayed in ascending order and shading is linked to the legend.

Hold your mouse pointer over a bar to display the area name, value and upper and lower confidence limits of the error bars.

Error bars – the bar chart will usually display error bars representing the lower (LL) and upper (UL) '95% confidence limits' associated with the indicator values. These give an indication of whether the differences between indicator values are statistically significant. If the error bars for two areas do not overlap, their values can be said to be statistically significantly different.

Select an area – click a bar to select the corresponding area – this will then be shaded orange in the bar chart, map and the top left table.

Hold the **'Ctrl' button** on your keyboard to select multiple areas to highlight in the map and table. If just two areas are selected then both will be displayed in the spine chart. Click on one of the two areas again to deselect it.

To select a group of bars that are in consecutive order to highlight in the map and top left table, click on the first bar then hold the '**Shift' button** on your keyboard then click on the last bar in the group. Click on any bar to deselect the group.

Click on the top right hand corner of the box to maximise the bar chart size to fill the screen and click this again to restore it.

Tip: If you first select the legend setting option to change data class intervals and then maximise the bar chart – the legend options will be displayed alongside the bar chart to help explore the effect of data class changes.

7. Data and spine chart

This shows the range of indicator values for the selected area(s) grouped into themes and graphically presented. A legend at the bottom picks out key features.

If two areas are selected by clicking on the table, map or bar chart and holding down the keyboard 'Ctrl' button, their values will be shown consecutively for each indicator.

Click on the dividing line [PCT] between the column headings and drag this sideways to increase column width.

Indicator – hold the mouse over an indicator to display the full name. Click on an indicator to display the values in the table, map and bar chart. The full title of the indicator chosen will be displayed at the top of the screen.

You can collapse an indicator theme by clicking on its heading. This can be useful when comparing particular indicators across themes. Click − + image at the bottom to collapse/expand all the themes.

Count – this shows the number of events underlying the indicator percentage or rate value.

Missing counts will be indicated by either **'no data' or 'incomplete data'**. This can occur either where i) no data or clearly incomplete data was provided for the area or ii) the count underlying the indicator value is not readily available.

Value – the indicator measure. This will be a percentage, rate or score as shown in the indicator title. Some may be missing as indicated by **'no data'** as described above.
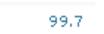
England value – the England average percentage, rate or score.

Significance column:

- ⬆ A grey up arrow in the significance column represents an area value that is statistically significantly higher than the England average.

- ⬇ A grey down arrow in the significance column represents an area value that is statistically significantly lower than the England average

- − A horizontal line represents no statistically significant difference.

If there is no symbol in the significance column this will be due to significance not being able to be calculated.

Spine chart – this shows how each indicator value compares to the Strategic Health Authority average, the England average and the range of values across the country. The lowest and highest area value is shown to the left and right of the chart respectively.
E.g. 65.7 ●◆ 99.7 .

As indicated in the legend at the bottom of the screen:

The grey vertical line (spine) in the centre represents the England average;

The blue diamond represents the Government Office Region average;

The orange filled circle represents the area value;

The horizontal grey bar represents the distribution of values around the England average.

The 'inter-quartile' ranges are picked out using varied shading. Quartile 1 is the light grey section to the far left of the bar and shows the value range for the quarter of areas with the lowest values in England. Quartile 4 is the light grey section to the far right of the bar and shows the quarter of areas with the highest values in England.

Hold the mouse over a feature to reveal the value.

NOTE: The regional value is taken as the value for the Government Office Region in which the area lies.

8. Legend

This shows the numerical ranges for the areas on the map and bar chart.

Highlighting and selecting – hold your mouse over a class in the legend to highlight the areas in the table, map and bar chart that fall into that class. Click a class to select the areas.

Legend Settings – click on the pencil icon at the top left of the legend box to open options for changing the colours of boundaries and ranges and also the number and type of data ranges. If this doesn't work immediately, try selecting an area on the map first.

Tip: If you first select the legend settings option and then maximise the map or bar chart, the legend options will be displayed alongside the images to help explore the effect of data class changes.

Border colour – the colour of the border around each area on the map.

Transparency – by sliding the bar, the transparency of the shaded areas in the map can be altered.

Palette – you can change the colour palette used to shade areas in the map by clicking on a new palette.

Reverse palette – by checking this box you can reverse the colour palette used to shade areas in the map.

No. classes – you can increase or decrease the number of classes by clicking the increase or decrease buttons (labelled with black arrows).

Classifiers – select a classifier from the drop-down. This will decide how the ranges are calculated.

Quantile – each class in the legend contains an approximately equal number of areas. This is the default option and generally the best grouping to use. However, a disadvantage is that it does not consider how the data are distributed. If the data distribution is highly skewed, data observations will be forced into the same class (either the lowest or highest) where this may not be appropriate. As a result, the quantile classification may give a false impression that there is a relatively normal data distribution.

NB: the [spine chart](#), based on four classes (quartiles), provides an alternative means of viewing the distribution of values around the England average.

Equal interval - The areas are split into groups with equal ranges of values. The advantage of the equal interval classification is that many map users will find it simple to understand. However, a disadvantage is that only the minimum and maximum data values are used when determining class breaks for the intervals (rather than the way the data is spread).

Natural breaks - This classification method is also known as 'Optimal Breaks and Jenks' Method'. Data are assigned to classes based upon their position along the data distribution relative to all other data values. An iterative algorithm is used to assign values to classes such that the variances within all classes are minimized, whereas the variances among classes are maximised. The advantage of this classification is that the data distribution is explicitly considered for determining class breaks. However, the disadvantage is that map users may not understand the classification method used and that class breaks may not be immediately intuitive.

Continuous - Each area is a different shade using a continuous scale. This legend type is useful for identifying extremely high or low values. Where an indicator has only a small number of unique data values (say five or less) this may be the most appropriate legend type to apply.

Standard deviation - Class breaks reflect the number of standard deviations from the data average (or mean). Areas are classified according to how many standard deviations above or below the average their indicator value falls. Areas in the same class are given the same shade. You cannot change the number of classes for this legend type.

9. Print or use image elsewhere

You may want to use a map or chart, for example, in a document or presentation you are producing or to print them. Instructions on how to do this can be found in this section.

Select component – if you are interested in just one of the components (e.g. the map) – click on the top right corner of the box to maximise its size (click again to restore).

To print:

1. Click on 'File' at the top left of your screen

2. Click on 'Page Setup' to change orientation to landscape. You can also change the header and footer text and margin sizes.

3. Click on 'File' again, then 'Print'.

To use image in another document:

1. Click on the keyboard F11 button to maximise the image (click this again to restore). Click PCT ⬌ Count and drag the dividing line between column headings to increase column widths if required.

2. Click on the keyboard print screen (Prnt Scrn or Prtsc Sysrq) button, which is usually a few keys to the right of the F11 button.

3. Open another application, such as Word or PowerPoint and paste the image (by holding down Ctrl+V on your keyboard).

4. You can then edit the image (crop, resize, sharpen, etc) as required. For example in Word, click on the image and a Format menu option will appear. Click on this to reveal the options.

Note: it is possible to add shapes and text to the image within the tool and print it by clicking the mouse right button and selecting options. However, this option is restrictive and not user-friendly. The printout is also not as expected and we will discuss this with the software supplier.

Adapted from the Instant Atlas help document provided by GeoWise Ltd 2009

Further information

This guide is available online at:
www.endoflifecare-intelligence.org.uk

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About the National End of Life Care Intelligence Network

The Department of Health's National End of Life Care Strategy, published in 2008, pledged to commission a National End of Life Care Intelligence Network (NEoLCIN). The Network was launched in May 2010. It is tasked with collating existing data and information on end of life care for adults in England. This is with the aim of helping the NHS and its partners commission and deliver high quality end of life care, in a way that makes the most efficient use of resources and responds to the wishes of dying people and their families.

Key partners include the National Cancer Intelligence Network (NCIN), which will work closely with the Network to improve end of life care intelligence; and the South West Public Health Observatory, lead public health observatory for end of life care, which hosts the NEoLCIN website.The SWPHO has been commissioned to produce key outputs and analyses for the Network, including the national End of Life Care Profiles.

See www.endoflifecare-intelligence.org.uk for more information about the Network and its partners.

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