

## Using InstantAtlas™ Interactive Profiles

### Introduction

There are three urological cancer profiles, which display data for different geographies. Data is shown at Cancer Network, Primary Care Trust and Local/Unitary Authority Level. There are differences in the extent of the data shown with different geographies, but the principles of using the profiles are the same in all cases.

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 urological cancer indicator in the list.

If greater than half of the areas have missing or suppressed data, the indicator is not shown at all. This is because the incomplete data makes it difficult to draw conclusions.

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 each component of the tool as labelled below. See [Quick Tips](#) for an overview.

### [Buttons](#)   [Table](#)   [Bar Chart](#)   [PCT indicator profiles - data and Spine Chart](#)



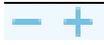
[Map](#)   [Legend](#)

[Print or use image](#)

## Quick Tips

- **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.
- 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 the keyboard F11 button for max screen effect.
- Click  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. A red diamond indicates 'worse than', a green filled circle='better than', a horizontal line= 'not significantly different'. Note missing or 'suppressed' 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 PCT again to clear it.
- Restrict analysis to a region or type of area using the **Filter Button** options
- **Map**: zoom in/out using the bar and icons on the map OR your mouse roller. 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**: File – Page Setup – Print or use keyboard PrintScreen button and Paste in Word or PowerPoint.

## 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.

Details Button: This takes you to the Indicator Guide which provides information about all the available indicators such as 'what is being measured?', 'why is it being measured?', 'how is it defined?' along with details about data quality, caveats in use, interpretation and how the indicator was constructed.

Filter Button: This provides options for restricting analysis to particular groups of areas. The chosen filter will be displayed at the top of the screen as part of the indicator title. The options are:

- *Region*: Government Office Regions (often referred to as just 'regions').

- *ONS Classification*: to select the type of area, for example 'Centres with Industry' or 'London Centre' as outlined in Annex 8A 'Methods Used in the 2001 ONS Area Classification of Primary Care Organisations' and Annex 8B in the Compendium of Clinical and Health Indicators User Guide available at [www.nchod.nhs.uk](http://www.nchod.nhs.uk)
- *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

Help: to access this help document

## Table

This shows the list of areas, the value (rate, percentage or score) of the indicator being displayed and also a small button showing 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 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 (button with upward facing arrow next to the Ctrl 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

## 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 and out. Click the magnifying glass below the slider bar to zoom back to full extent. Alternatively, hold the '*Shift*' button (button with upward facing arrow next to the '*Ctrl*' 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:* '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.

## **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.

## **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 between the column headings and drag this sideways to increase a 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 *e.g. Prostate Cancer* 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.

Small counts, under 5, will be '**suppressed**' to preserve confidentiality. However, where a small count could be calculated by subtracting from the total for a larger area, then the next smallest count will also be suppressed.

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. In the former case the indicator value will also be missing.

*Value:* The indicator measure – this will be a percentage, rate or score as shown in the indicator title. Some values may be '**suppressed**' to prevent disclosing a small count and some may be missing as indicated by '**no data**' or '**incomplete data**' as described above.

*England value:* The England average percentage, rate or score.

*Significance column:*

- A green filled circle in the significance column represents an area value that is statistically better than the England average.
- ◆ A red diamond represents an area value that is statistically worse 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.

NOTE : A green symbol should not be interpreted as meaning that public health action is not needed or that this indicates that an area has met a specific standard or target. In addition, variations may occur because of different population characteristics (e.g. deprivation).

*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.



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 (except for survival where it is the Strategic Health Authority value);

-  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 no example here either 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. Cancer Networks often straddle two regions, so the regional value is determined by the region in which the population of the network predominantly lies.

## 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. Note that the [Spine Chart](#), based on 4 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 maximized. 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 5 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.

## **Print or use image elsewhere**

*Select component.* If 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 elsewhere:*

1. Click on the keyboard F11 button to maximise the image (click this again to restore). Click  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 (e.g. 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. We will discuss this with the software supplier.

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