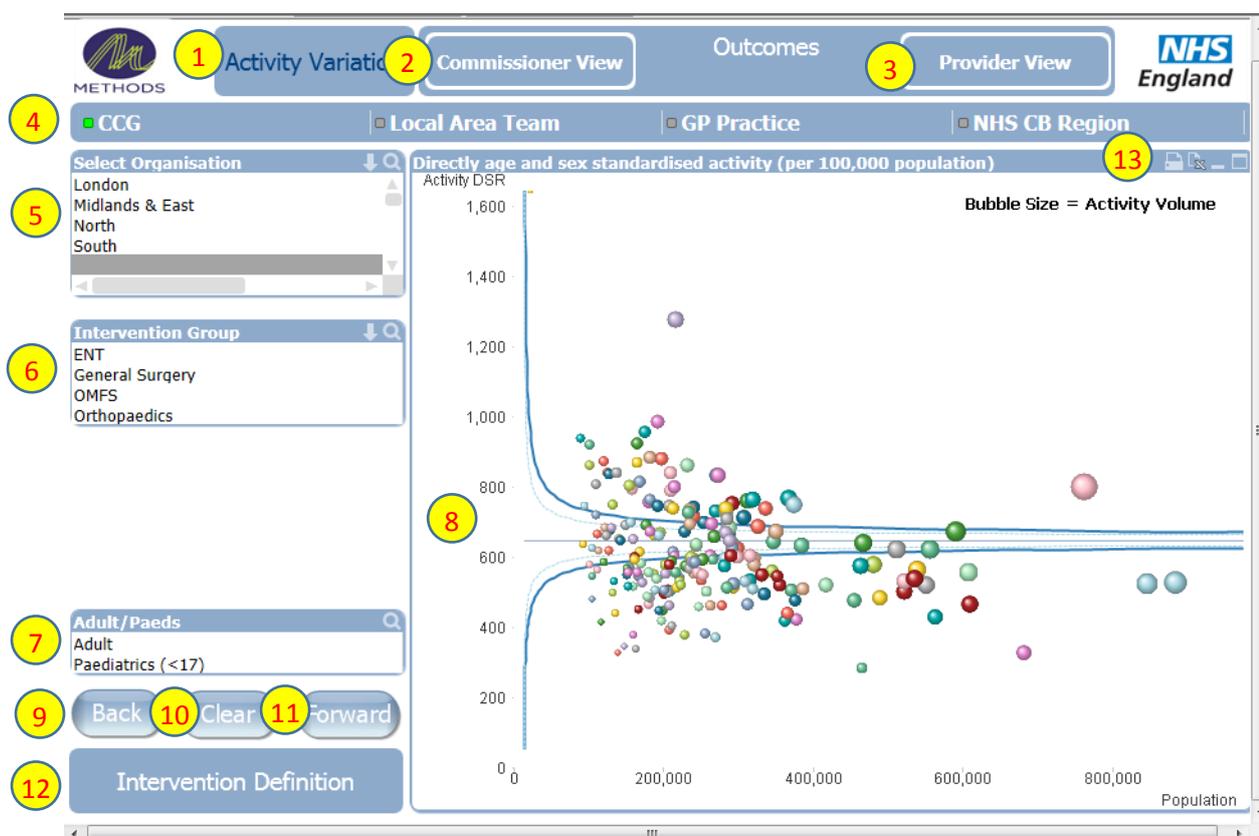


Using the Procedures Explorer Tool

The Procedures Explorer Tool is an interactive web page that allows you to view activity volumes for various procedures as well as outcomes data by provider or commissioner. The tool may look complex at first, but should become very easy to use after a short period of time.

For full definitions behind all of the measures in this tool please refer to the Technical Guidance pages.

Main Screen



1. By default the tool is set to look at the volume of activity for all interventions for all organisations selected in 4. In the screenshot above each CCG is represented on the Funnel Plot (full explanation of funnel plot will be provided later).
2. Clicking this button will take you to a set of outcome measures for commissioned activity or services which the NHS has purchased on behalf of the population in a particular area of England. This can be used to understand the quality of care that commissioners are getting for their money.
3. Clicking this button will take you to a set of outcome measures for providers. Examples of providers are NHS run hospitals, private hospitals and specialist centres. This part of the tool shows outcomes relating to activity which took place in that particular provider.

4. When Activity is selected you can choose to view information in a number of ways. You can view by General Practitioner to see how much activity was purchased for patients belonging to different GP practices across England. You may choose to view data by Clinical Commissioning Group (CCG) which shows all activity for groups of GP practices (i.e. several GP practices will merge together to form a CCG). You can view activity by Commissioning Board region; the four regions in the tool represent the different areas of England. Finally, you can view the data by Local Area Teams (LATs) which are sub-divisions of the four commissioning board regions and have some responsibility for the commissioning of services as well as helping to develop and assure CCGs.



TIP - If you see an organisation on any chart that you are interested in; Click on it! This works throughout the tool and can lead to some interesting different views of the data, especially when you start to look at outcomes.

5. This box will list the organisations that belong to your selection in step 4. You can click on any of these names to update any charts to show just that organisation.



You can click on the small downarrow in the upper right corner of the box to go back to your previous selection.



If there are lots of organisations listed you can also use the magnifying glass to search by typing a name.

6. This box allows you to choose an intervention or pathway. If you select 'ENT' for example the tool will only show counts and outcomes for Ear, Nose and Throat. This box allows you to 'drill down' into individual procedures under each specialty. For example you could choose ENT, then Nose and finally look at an individual intervention such as Rhinosinusitis.



TIP – Not all pathways and interventions have published guidance so are not included in the tool. Any interventions that are 'live' will be in white. Any interventions that do not yet have data will be greyed out until Methods develop more information with the Royal College of Surgeons.

7. This box simply allows you to choose to view counts and outcomes for adults only or for <17 year olds only.
8. The Funnel Plot chart is used to display activity. Each 'blob' on the chart represents an organisation and the bigger the blob, the larger the amount of activity took place. What is displayed depends upon your selections, but each unit of activity included in our calculations represents one operation/intervention performed by a surgeon within an NHS or private provider.



It is important to realise at this point that the activity is shown as a directly standardised rate. Due to the huge variation to the age and sex of a population in each area of England it is important to make adjustments so it is fair to compare activity. For example, if the population of one area is particularly elderly you would expect there to be more activity as their healthcare needs are greater than an area with a very young population. By adjusting for age and sex variation it makes it fair to compare different populations even though they are very different.

The funnel plot shows each point plotted over a set of 'control limits'. Although the statistics behind these control limits are quite complex, the chart is very easy to interpret. Any point appearing between the inner light blue lines can be considered to be within expected levels of variation, or in other words the activity levels are as expected for the age and sex of the population.

The dotted blue lines on the chart represents a statistical confidence of 95% or two standard deviations. Or in simpler terms, you would expect 95% of organisations to have activity levels within the lines. Any blobs outside of the lines have activity levels that are different enough to the rest of England to pay attention to and you may want to look into why they are different.

The two solid blue lines represent 99.8% or three standard deviations. Therefore, almost all activity should fall within these two lines. If a blob is outside of the solid lines it means the population is significantly different to normal and it may be worth looking into reasons why.

It should be noted at this point that it is rare that any real-life system is distributed completely normally. Therefore for some views you may see that almost all organisations are outside of the limits! This is fine and just means that data is 'over dispersed' and doesn't fit the statistical model. It still allows you to see how different activity is for different populations but makes it hard to spot real outliers.

9. The back button takes you back to your previous selection(s) and is similar to an undo button.
10. The clear button removes all previous selections from the tool.
11. The forward button takes you back to the previous selection
12. The Indicator definitions button takes you to a page that shows you which diagnosis (ICD-10) and procedure codes (OPCS) have been used in the construction of a particular indicator.
13. On every screen there are a selection of buttons to print and export.

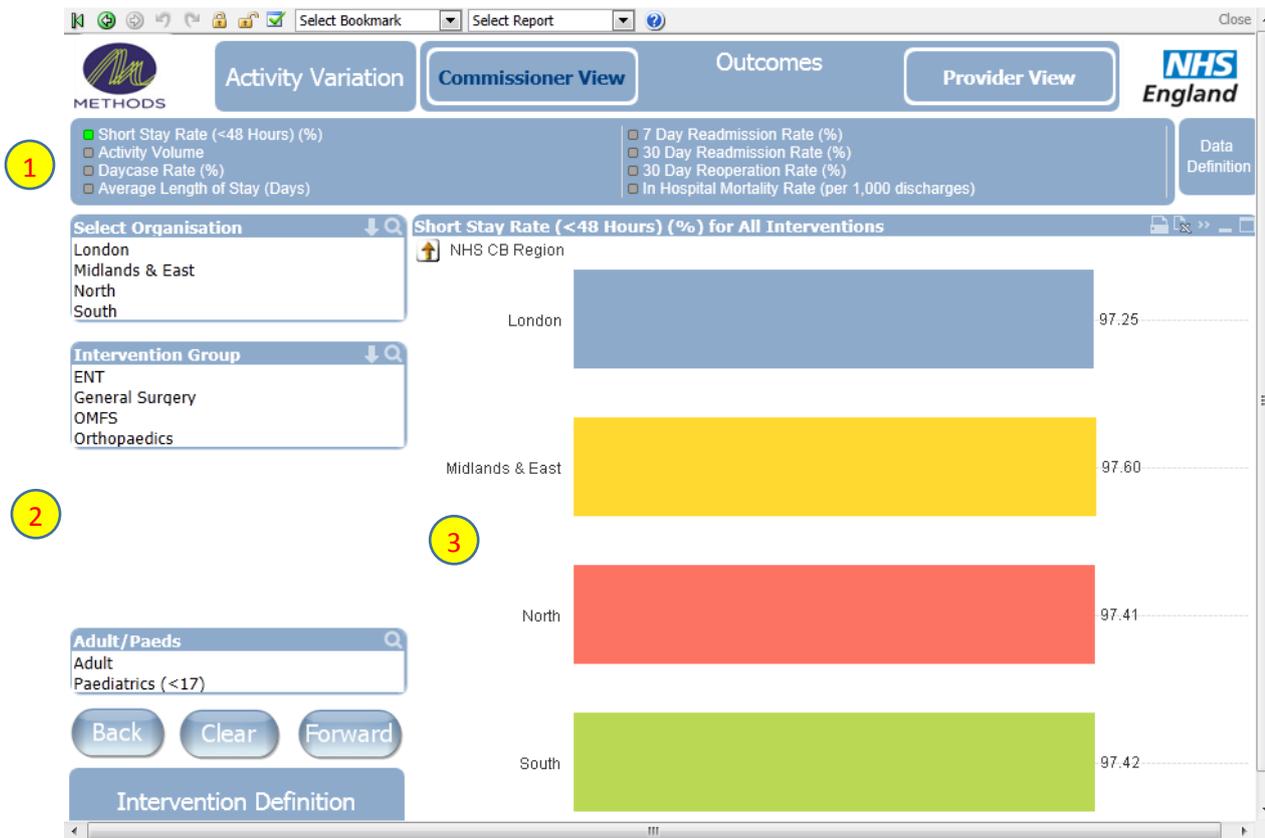


This button will print the current view



This button will send the data from the current view into Excel.

Commissioner View



- For the commissioner view there are several 'outcome measures' that can be explored for your selected procedure or population. A brief explanation for each is below and full details can be found in the Technical Guidance.
 - Short Stay Rate – this indicator shows the percentage of patients that were admitted to hospital and discharged within a 48 hour period when going for surgery or treatment.
 - Activity Volume – this indicator is a count of how many surgical procedures or interventions took place.
 - Daycase Rate – this indicator shows the percentage of patients that were admitted to hospital and discharged in less than 24 hours.
 - Average Length of Stay – this indicator shows the average (mean) length of stay for a group of patients. Please note that a shorter length of stay is not always desirable for the best patient outcomes and this indicator needs to be considered alongside the other information.

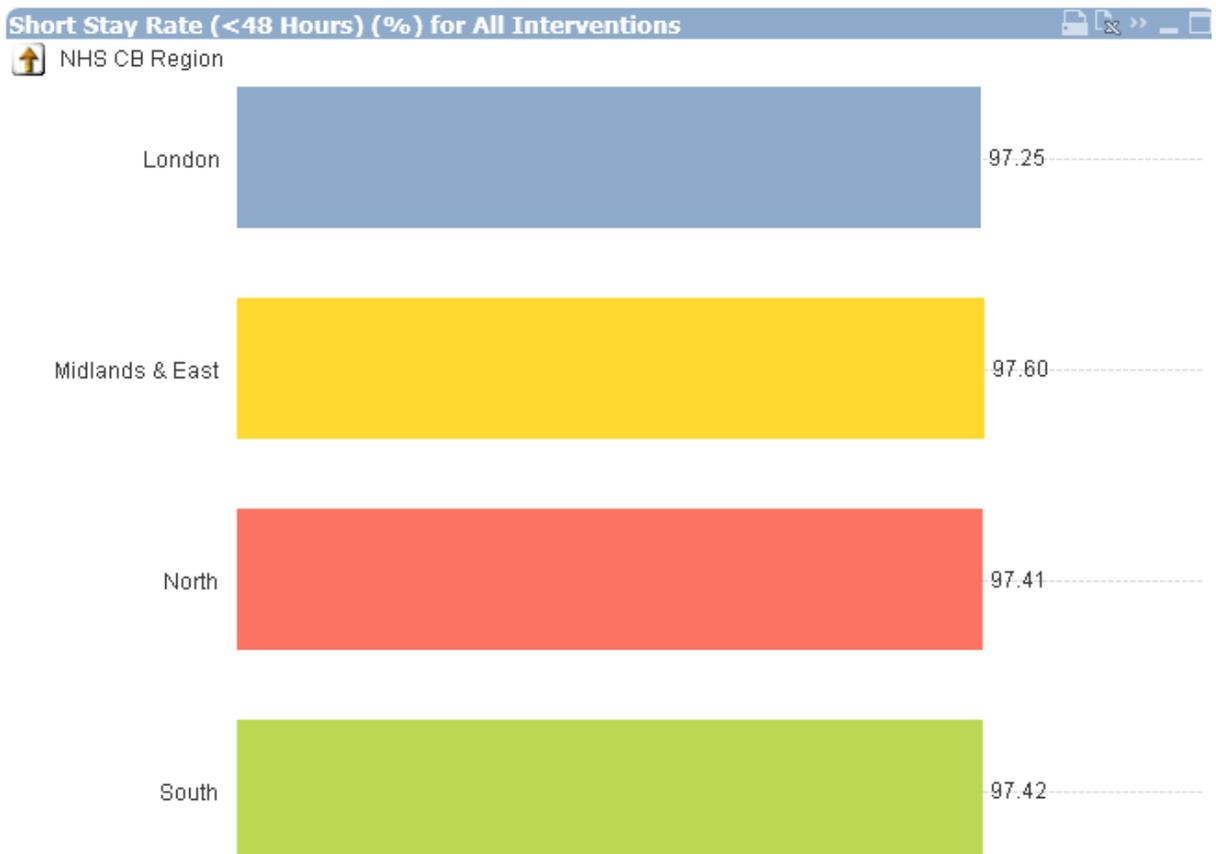
- 7 day Re-admission Rate – this indicator looks at the percentage of patients that had to return to hospital following a surgical procedure within 7 days of being discharged. This can be a good indicator of how the procedure went and the ideal outcome for the patient would be no readmission.
- 30 Day readmission rate – this indicator looks at the percentage of patients that had to return to hospital following a surgical procedure within 30 days of being discharged. A readmission within 30 days is not desirable for high quality patient outcomes.
- 30 Day reoperation rate – this indicator looks at the percentage of patients that had to return to hospital following a surgical procedure within 30 days of being discharged for the same operation they were originally admitted for. This is a highly undesirable outcome for the patients.

Whichever outcome measure you select, the bar charts below will show information about that indicator.

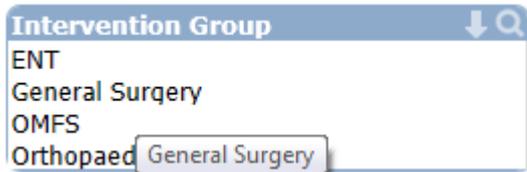
2. Controls on this part of the screen remain the same throughout the tool.
3. The bar charts on the main section of the screen show values for each organisation you have selected. All of your selections from the menu on the left act as filters for the information shown on the bar charts. Feel free to click around the charts to find the information you are looking for, it is fully interactive!

Below is a walkthrough example of how you might use the Procedures Explorer Tool.

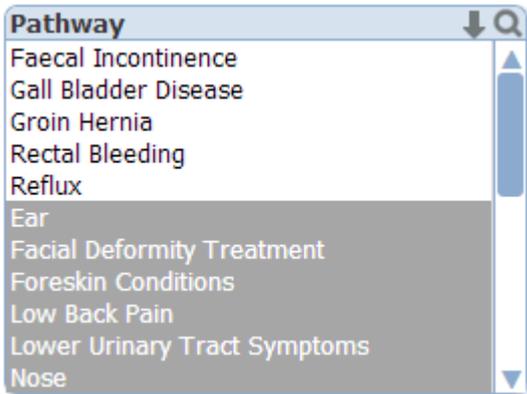
After selecting Commissioner view you are presented with the screen above. Next simply click on any of the outcome measures, we'll use Short Stay Rate for this example.



You will now see 4 bar charts, one for each organisation at the level you have selected. The default view is at Commissioning Board region. At this level of aggregation there is little variation between each region for short length of stay. Let's focus in on one intervention before proceeding.

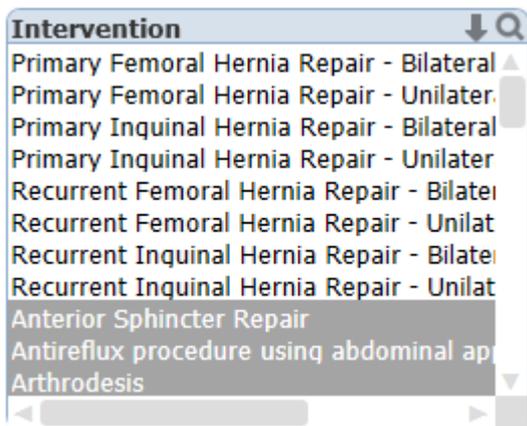


Click on the General Surgery text in the Intervention Group box.

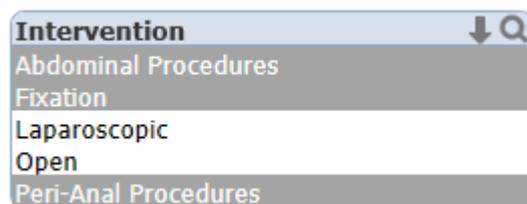


You are then presented with the pathways under General Surgery. There are only 5 pathways live in the tool at the moment in white; Faecal Incontinence, Gall Bladder Disease, Groin Hernia, Rectal Bleeding and Reflux.

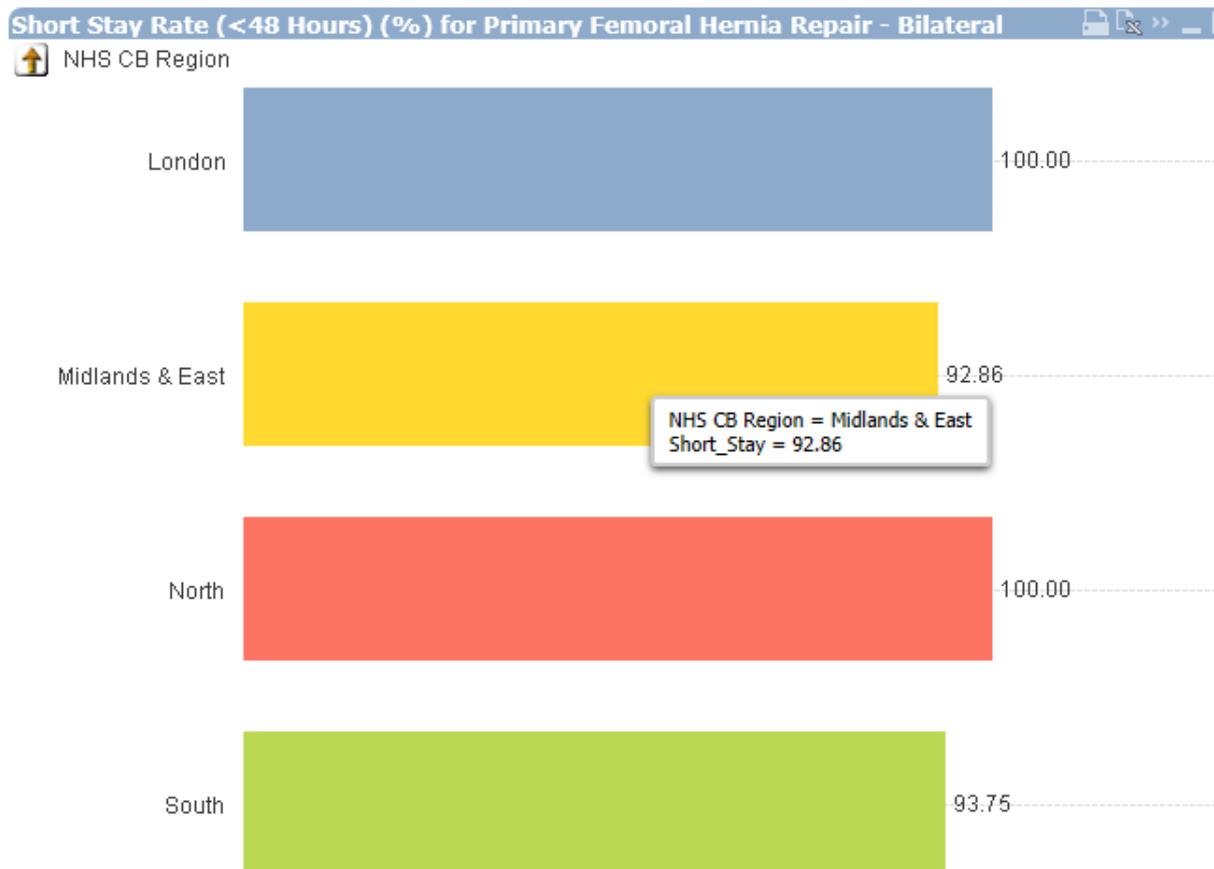
Did you notice the bar charts on the right change? This is because the data is now representing the ENT interventions only. Next, let's choose to look at Groin Hernia.



Again, did you notice the bar charts change? This is because they are now showing data for Groin Hernia Interventions only. As you can see, there are 8 different interventions you could start to look at now. For this example, let's choose Primary Femoral Hernia Repair – Bilateral.



We are getting into the detail now yet still have more options! You can choose to further split the data into Laparoscopic or Open. We're going to stick with both for this example but feel free to explore the data in any way you see fit.

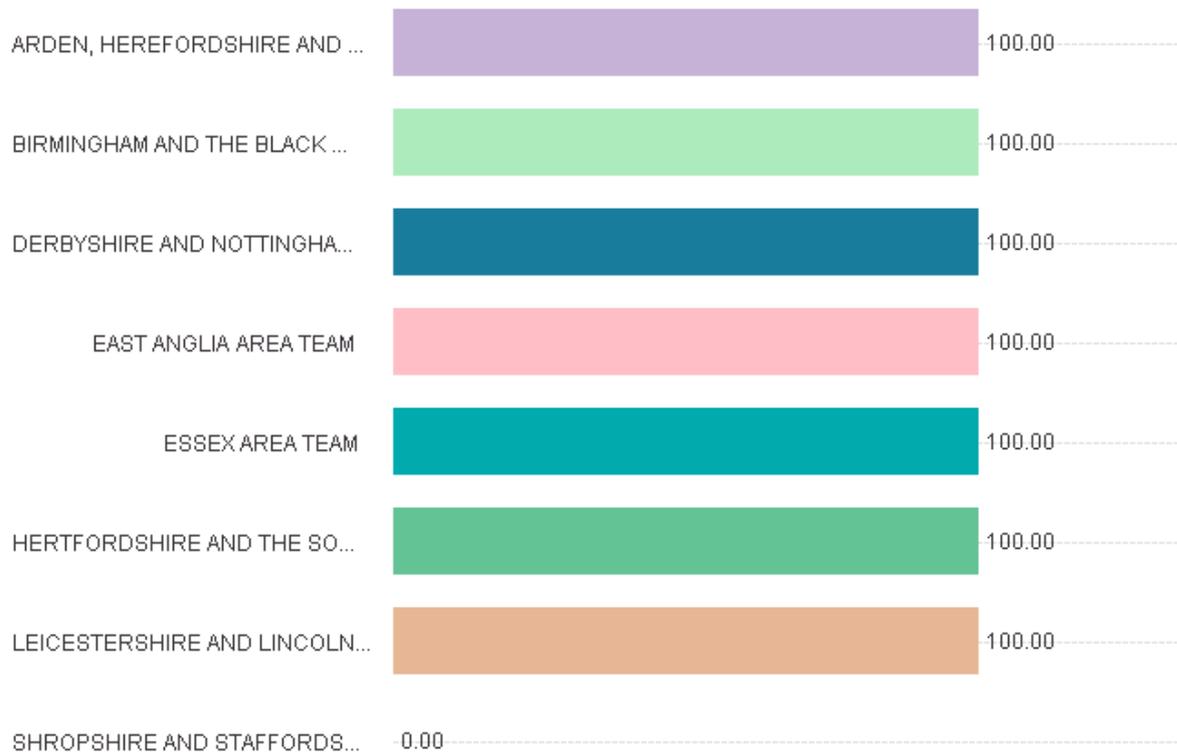


The short stay % in the Midlands and East region is 92.86. Let's take a look into the variation in that region. Simply click on the bar!

Short Stay Rate (<48 Hours) (%) for Primary Femoral Hernia Repair - Bilateral



Local Area Team



You can now see that all CCG's that belong to the Midlands apart from one have managed to get a 100% short stay rate for this operation. If they were to increase their short stay it would mean the whole of the Midlands would be performing this operation within the expected time.