



LifeQI Charts Manual

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Getting Started

Registration

To start creating charts on Life QI, you should already be registered and assigned to a project on Life QI. If not, click or enter the URL below and sign up.

<https://uk.lifeqisystem.com/login/sign-up/>

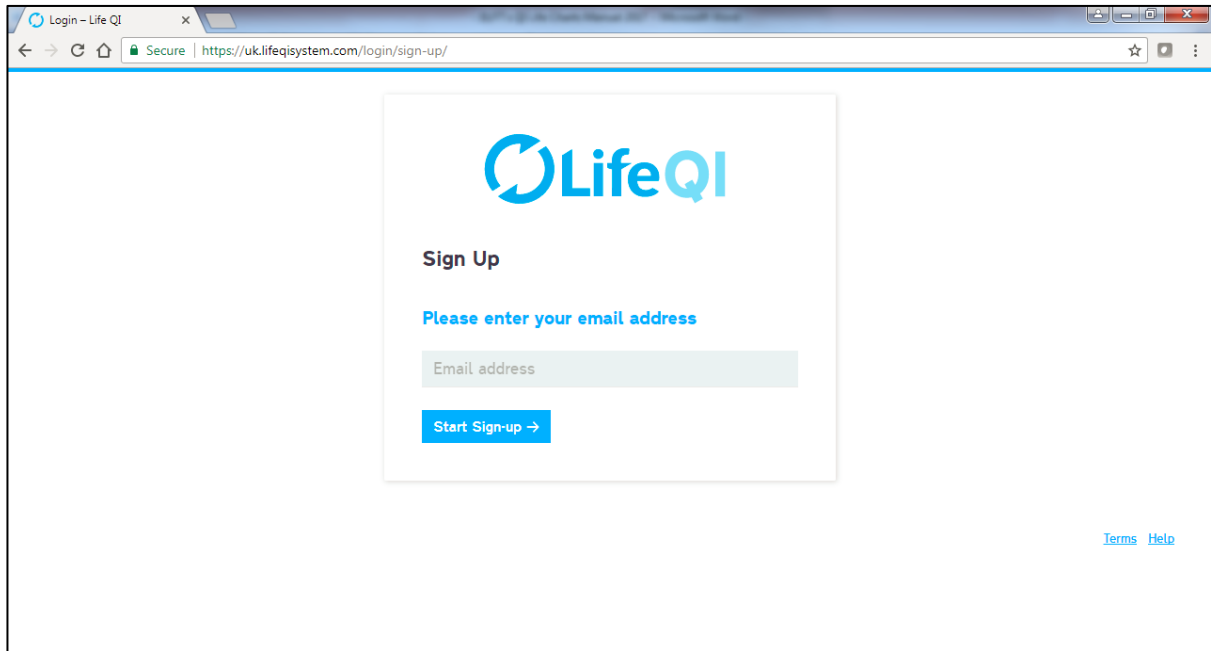


Figure 1: Sign Up

Please be aware that after signing up, it will take up to 48 hours for your account to be approved.

Measures on Life QI

Life QI Project

Once you've signed up and have been invited to a project, select your project and your screen will look something like this (Figure 2).

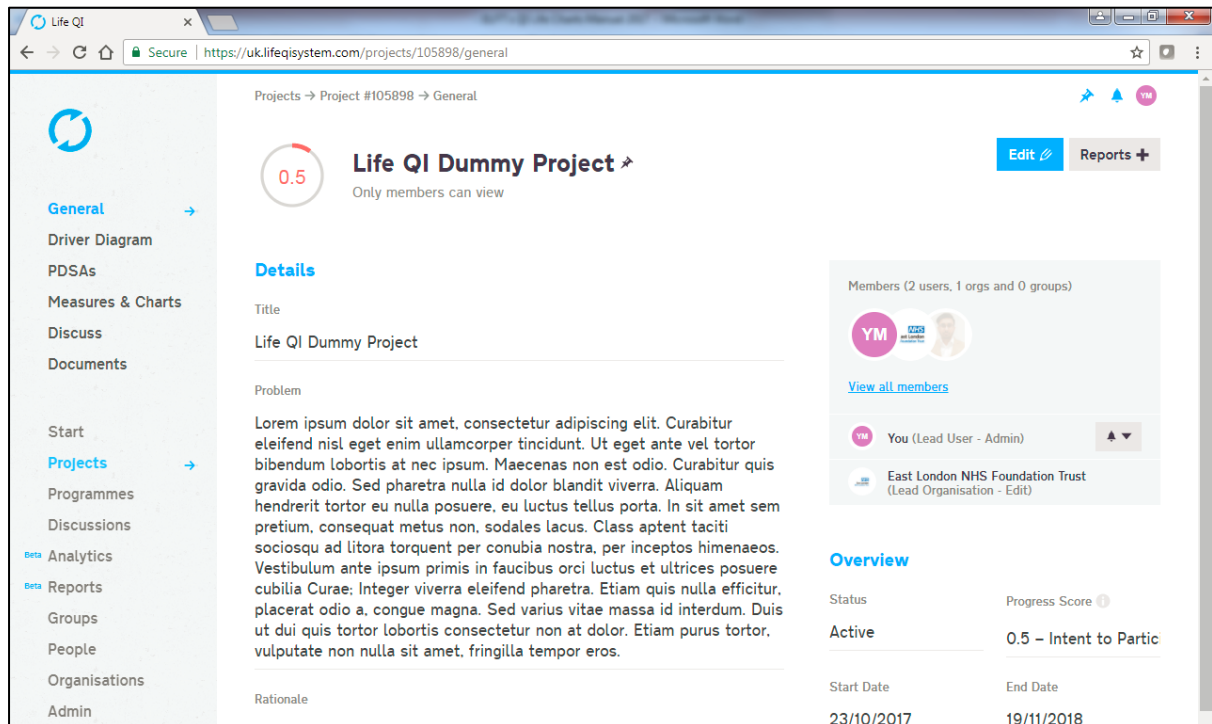


Figure 2: Life QI Project

The pane on the left allows you to navigate through different areas within your project. You can see that the “General” tab is highlighted in blue; this indicates that you’re currently in this section of your project (Figure 3).

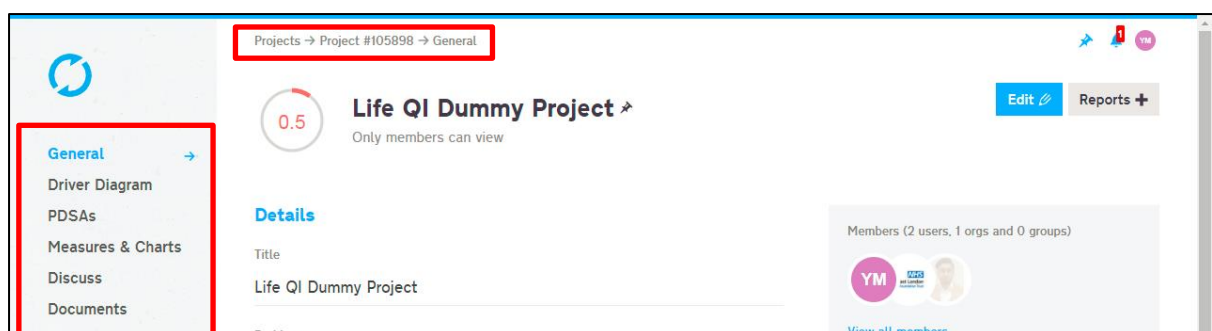


Figure 3: General Tab

Creating a Measure

To create a chart on Life QI, you must first create a measure and to do this you will need to navigate and select the “Measures & Charts” tab, which can be found here (Figure 4).

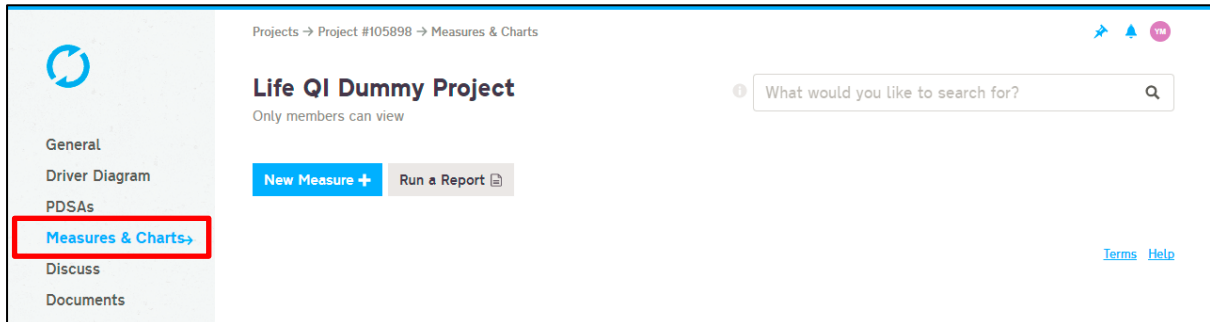


Figure 4: Measures & Charts Tab

Once you have selected the “Measures & Charts” tab, your page will look something like this (Figure 4). Click the “New Measure” button to create a new measure (Figure 5). A new window will appear asking you to give details on the type of measure you would like to create (Figure 6).

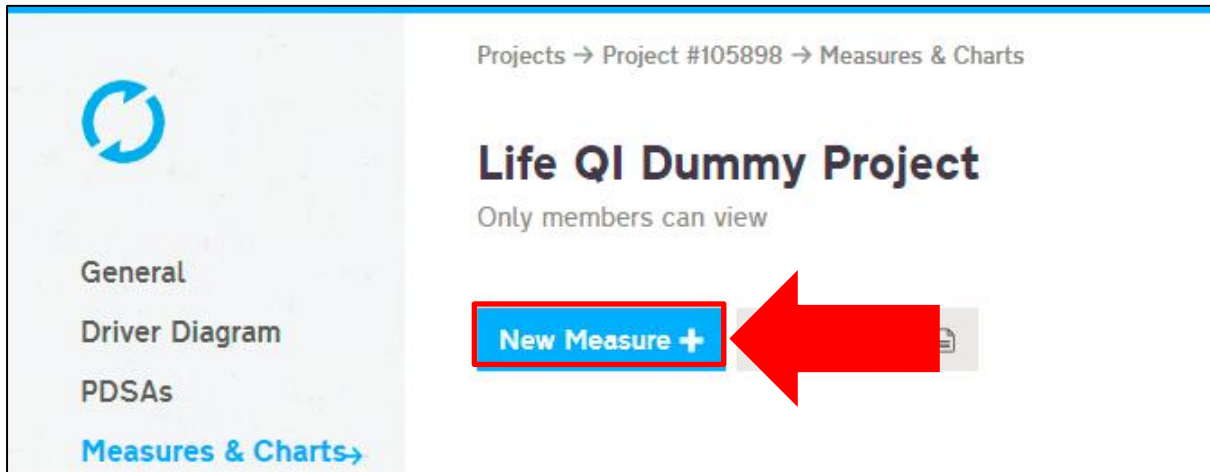


Figure 5: New Measure

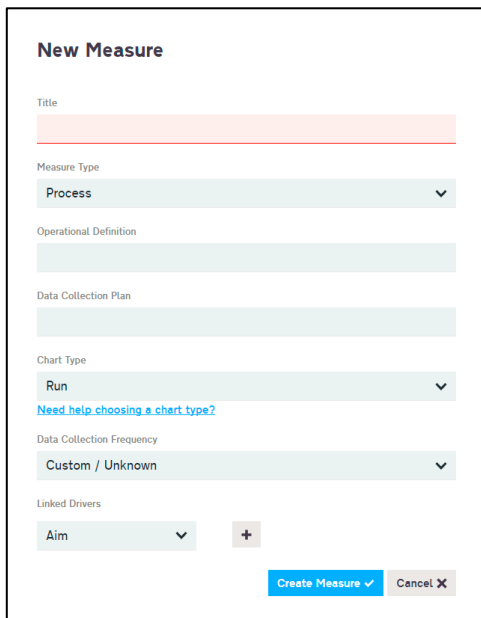
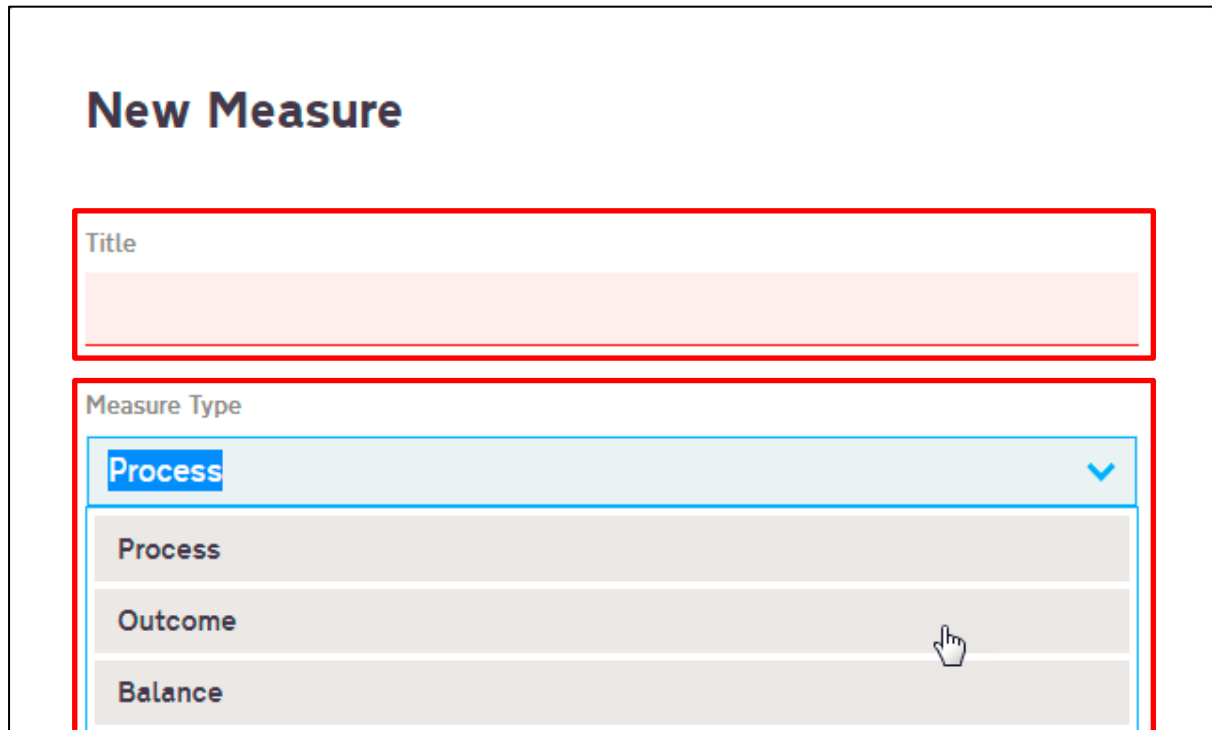
A screenshot of a 'New Measure' form. It contains several input fields and dropdown menus: 'Title' (text input), 'Measure Type' (dropdown menu with 'Process' selected), 'Operational Definition' (text input), 'Data Collection Plan' (text input), 'Chart Type' (dropdown menu with 'Run' selected, and a link 'Need help choosing a chart type?'), 'Data Collection Frequency' (dropdown menu with 'Custom / Unknown' selected), and 'Linked Drivers' (dropdown menu with 'Aim' selected, and a '+' button). At the bottom are 'Create Measure' and 'Cancel' buttons.

Figure 6: New Measure Window

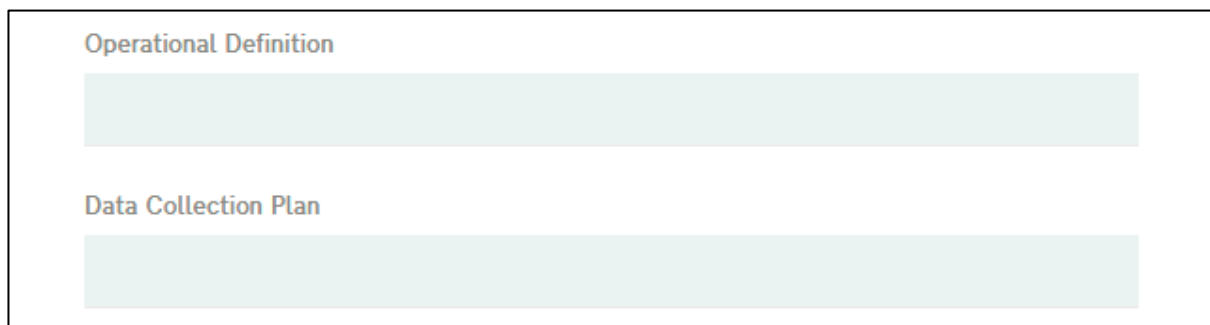
Once the new window appears, fill out the details of your measure. A title for the measure is mandatory, you can see a **red** highlight to the field signifying this (Figure 7); define the type of measure it is by selecting the drop down list (Figure 7), whether it's a Process, Outcome or Balancing measure.



The screenshot shows a form titled "New Measure". The "Title" field is highlighted with a red border. Below it, the "Measure Type" dropdown menu is open, showing options: "Process" (selected), "Process", "Outcome", and "Balance". A mouse cursor is pointing at the "Outcome" option.

Figure 7: Title and Measure Type

The Operational Definition and Data Collection Plan fields are optional but it is good practice to fill them in as they help others understand what you are measuring and how often the data is collected (Figure 8).



The screenshot shows two optional fields: "Operational Definition" and "Data Collection Plan". Both fields are empty text input areas.

Figure 8: Optional Fields

Next, you can select the type of chart you would like to create with this measure via the drop down list (Figure 9). The default chart type is the Run Chart and for this example a Run Chart will be created. If you need guidance on the type of chart you would like to create click on the "[Need help choosing a chart type?](#)" link (Figure 10). Another window will appear explaining every available chart, when to use them and examples of data (Figure 11). You can view the details of the other charts by selecting the name of the chart (Figure 12).

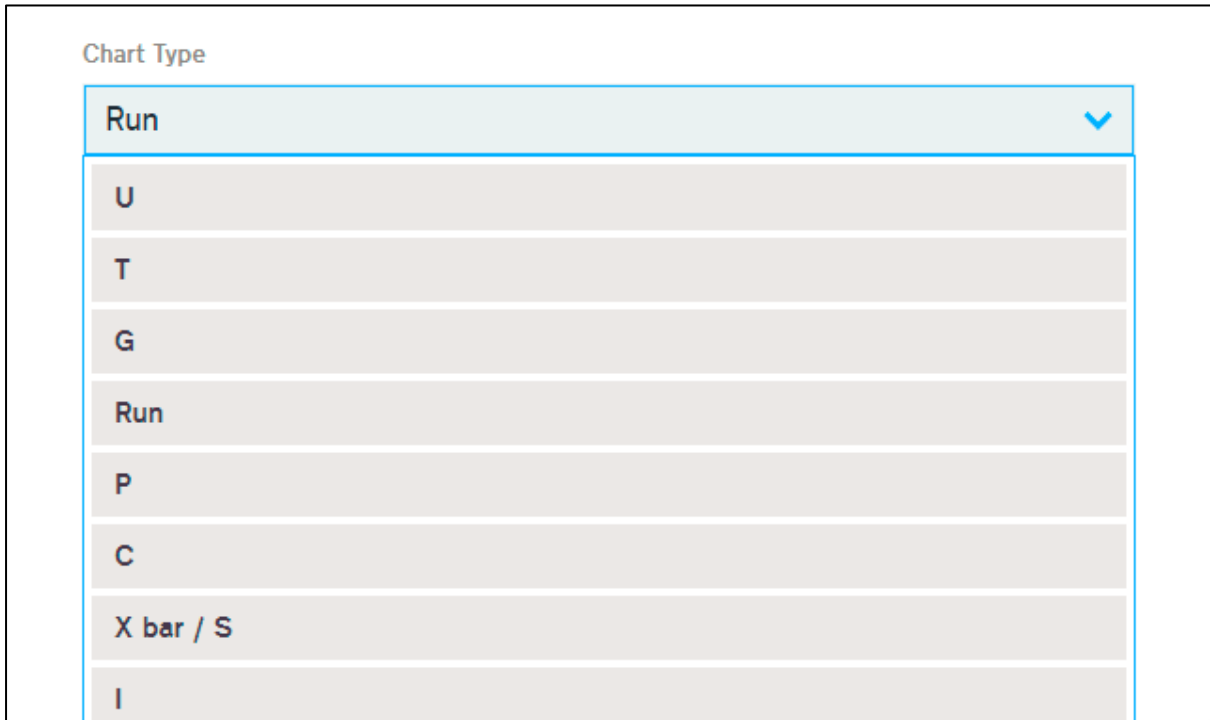


Figure 9: Chart Type



Figure 10: Chart Guidance

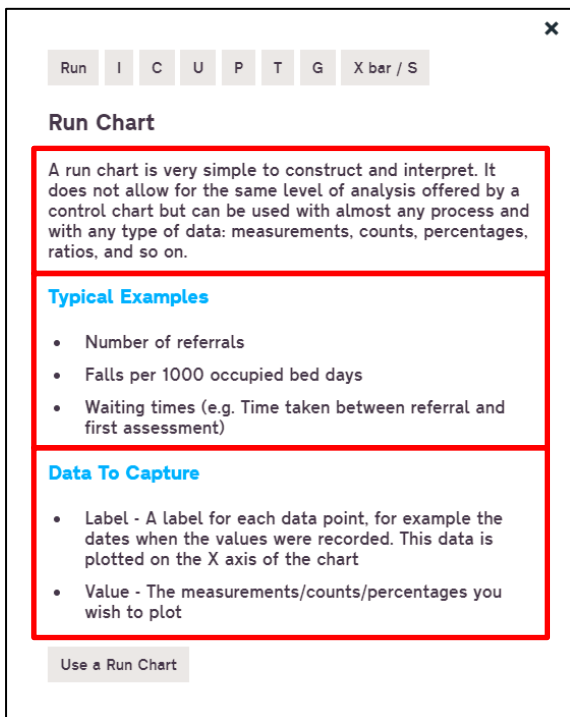


Figure 11: Run Chart Details

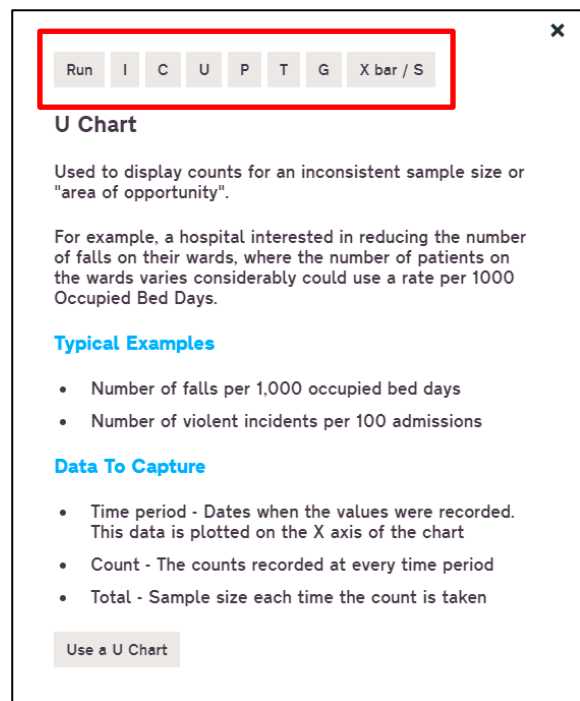


Figure 12: Chart Details

If you're happy with your chart selection, you can define the data collection frequency. This determines your **x axis** in the chart you create with this measure. The default is "Custom / Unknown". It is best to select "Custom (no date)" as this gives you the flexibility to insert whatever you need to into the **x axis**. For example, some data may not consist of dates and those figure or groups can be added in (Figure 13).

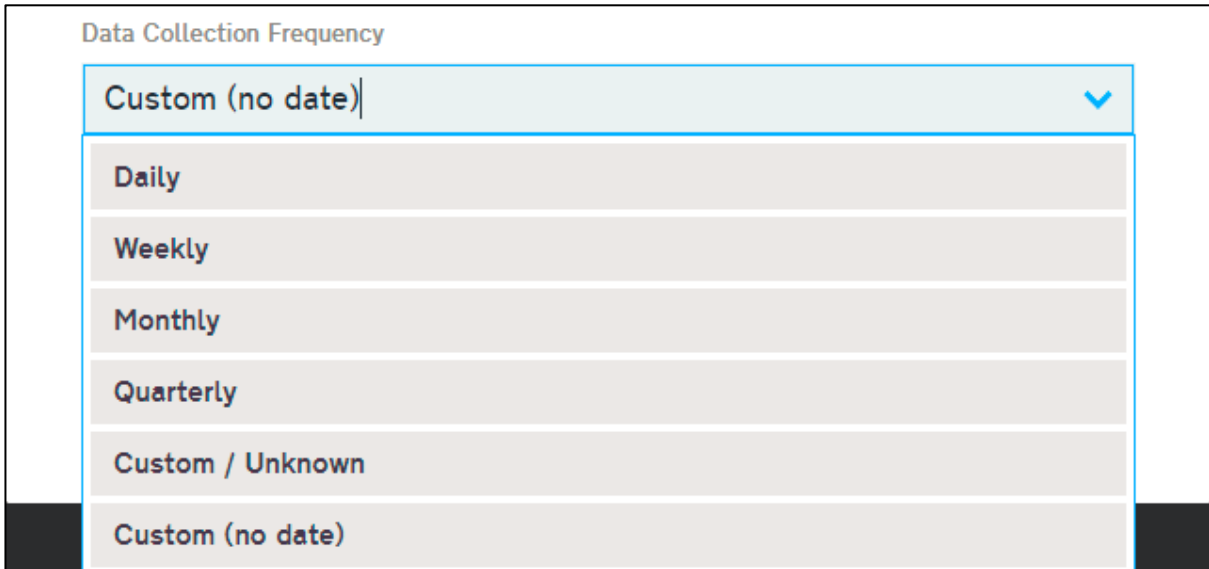


Figure 13: Data Collection Frequency

Finally, you can link the measure to your driver diagram. By selecting the drop down list you can assign the measure to your aim, primary driver or secondary driver (Figure 14). Click the "Create Measure" button when you're happy with the details of your measure (Figure 15).

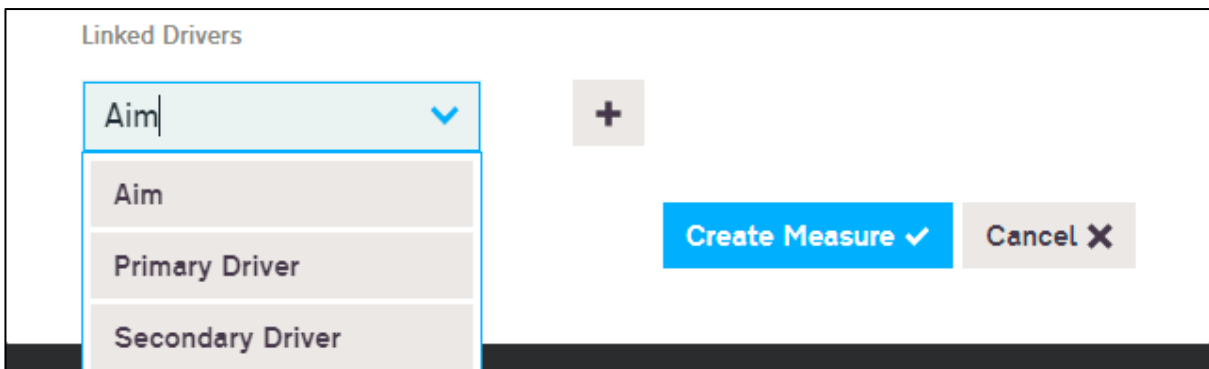


Figure 14: Linked Drivers



Figure 15: Create Measure

The measure has now been created and you will automatically be taken to your new measures page (Figure 16), where you'll be able to add a data source, edit or delete the measure. If you need to update your measures details, click the "Edit" button (Figure 17).

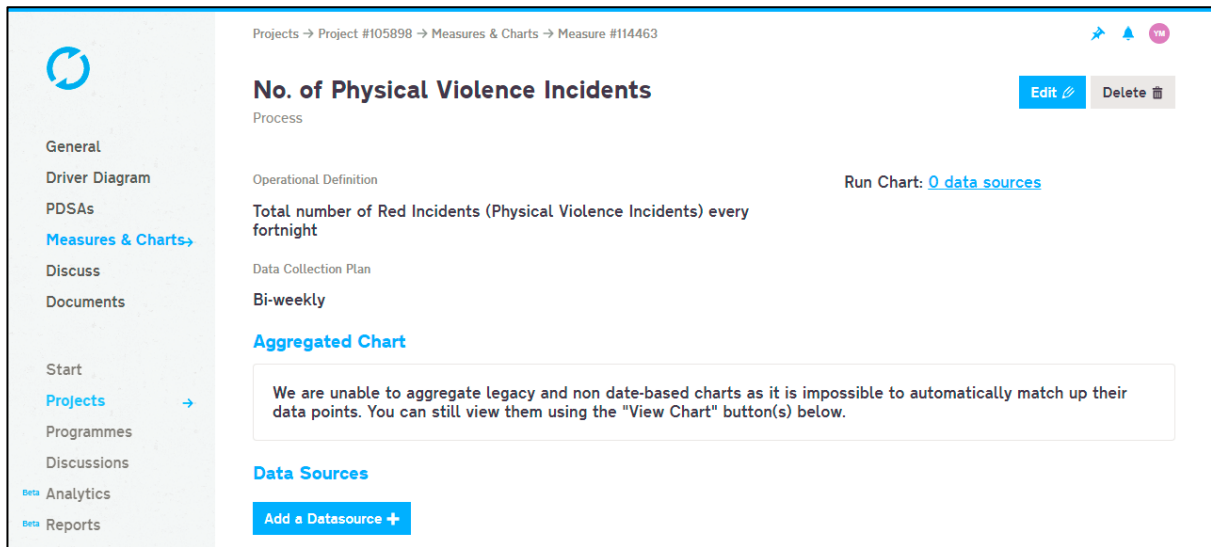


Figure 16: Measure Details

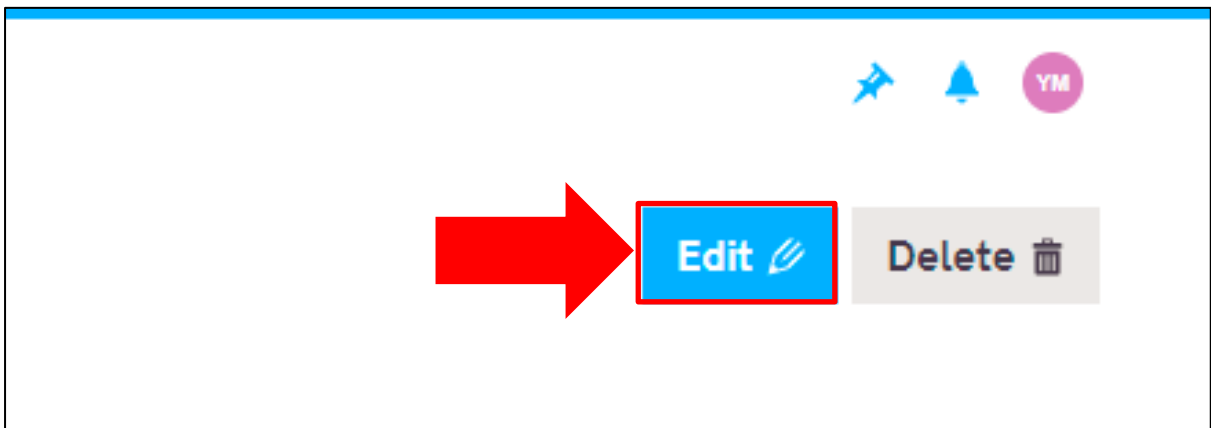


Figure 17: Edit Measure

Charting on Life QI

Creating a Run Chart

To create a chart on Life QI you must create a measure first (see pages 5-9). If you have already created a measure open your project and navigate to the “Measures & Charts” section of the project (Figure 18).

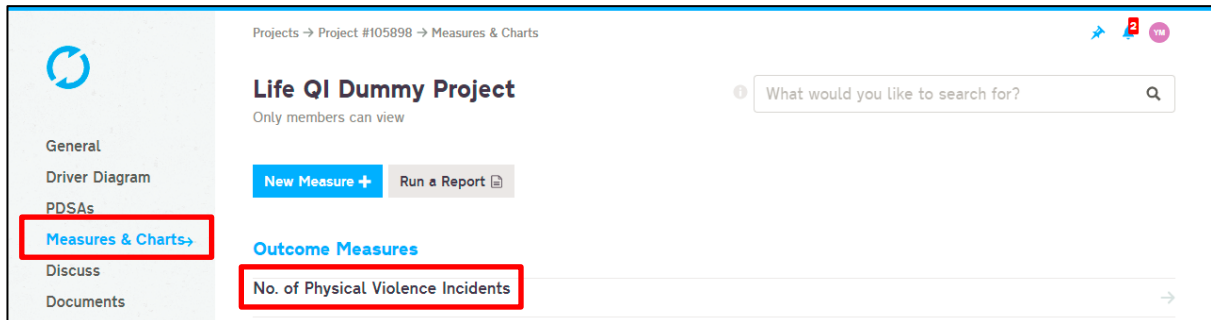


Figure 18: List of Measures

You will see a list of all your measures, select the measure you will be creating a chart for, in this case the outcome measure will be used (Figure 18). Selecting the measure will allow you create a chart (Figure 19).

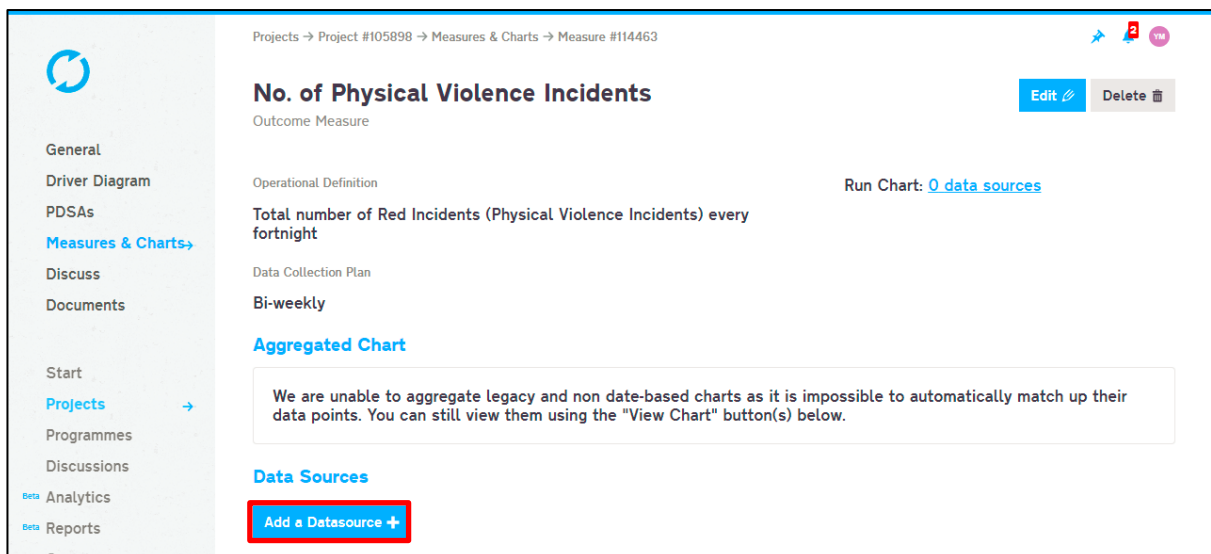


Figure 19: List of Measures

Click the “Add a Datasource” button to begin creating a chart (Figure 19 & 20).

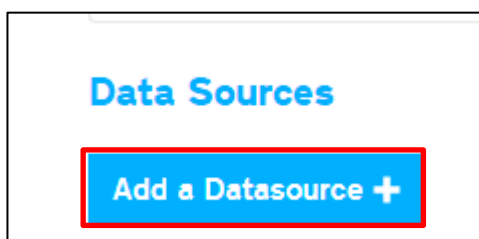


Figure 20: Add a data source

Once you have clicked the “Add a Datasource” button a window will appear (Figure 21), here you’ll be able to add data in directly from Excel or manually.

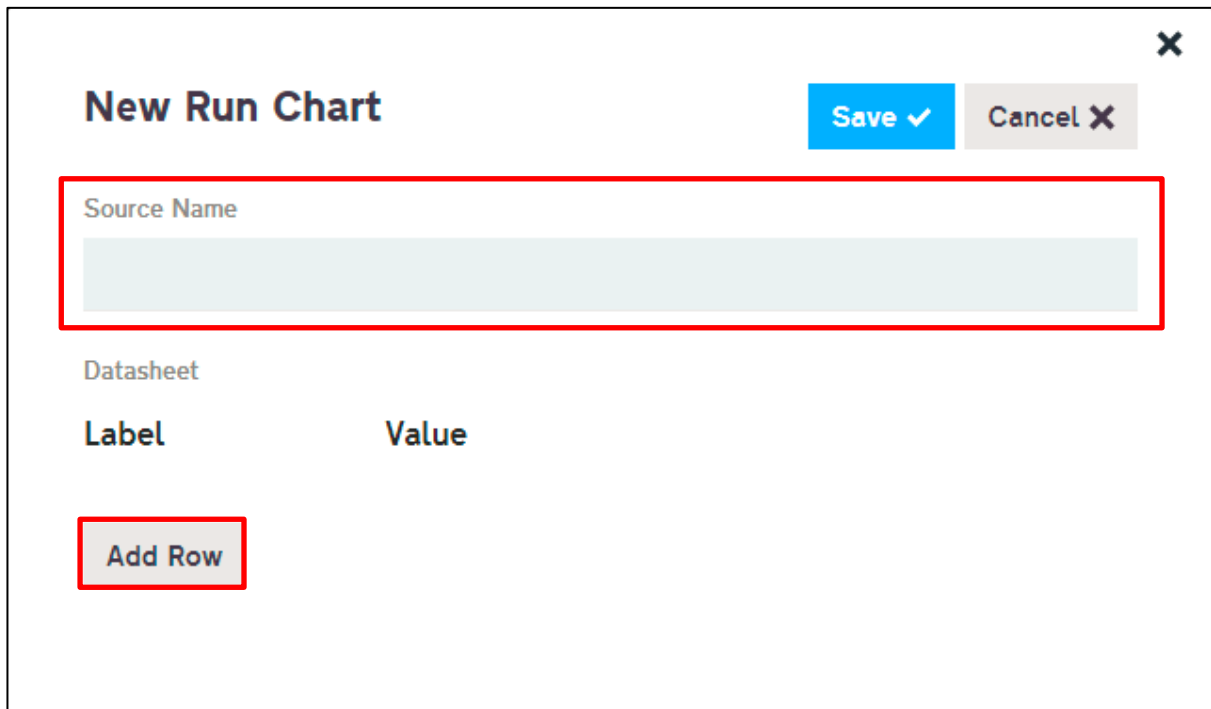


Figure 21: New Data Source

Give an appropriate name to your data source (Figure 21) . The Life QI system has the ability to allow you to create more than one data source per measure. Ideally, you should have one data source per measure, unless you are creating many charts with different intervals such as a weekly chart and a monthly chart.

To add data click the “Add Row” button (Figure 21). This will allow you to enter data row by row or you can paste data in from Excel. To enter data row by row, select the field below the “Label” and “Value” and enter your data in respectively (Figure 22).

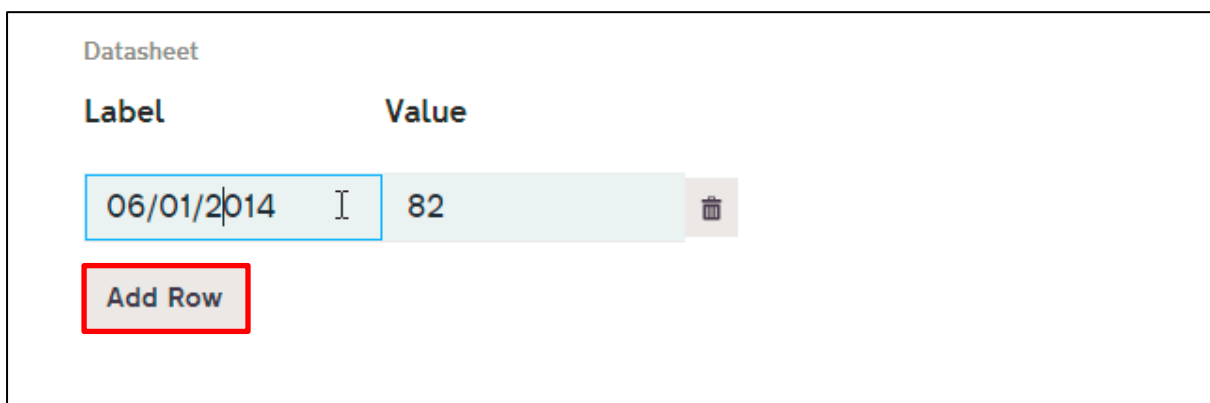


Figure 22: Add Row

To add more rows of data just click the “Add Row” button (Figure 22).

To paste data from Excel, copy two columns of **data without the column** headings (just the raw data). For example, the table of data below (Figure 23) is made up of two columns, the date column and incidents column.

	A	B	C
1	Date	Incidents	
2	06/01/2014	82	
3	20/01/2014	69	
4	03/02/2014	72	
5	17/02/2014	53	
6	03/03/2014	82	
7	17/03/2014	93	
8	31/03/2014	71	
9	14/04/2014	63	
10	28/04/2014	58	
11	12/05/2014	42	
12	26/05/2014	68	
13	09/06/2014	63	
14			

These are column headers.

Data without column headers.

Figure 23: Excel Data

Select the data in **green** (Figure 23) and either right click on the mouse and locate “copy” or press the Ctrl + C on your keyboard.

Head back to the Life QI platform if you have copied your data. Right click on the field below “Label” (Figure 24) then select the “paste” option or press the Ctrl + V on your keyboard (Figure 25).

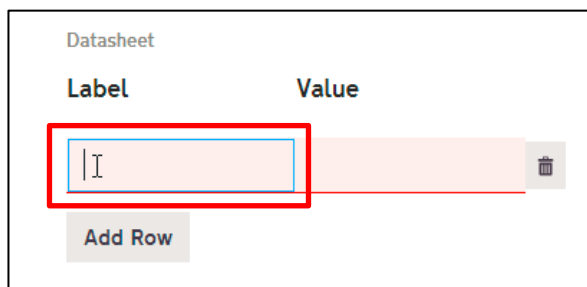


Figure 24: Label Field

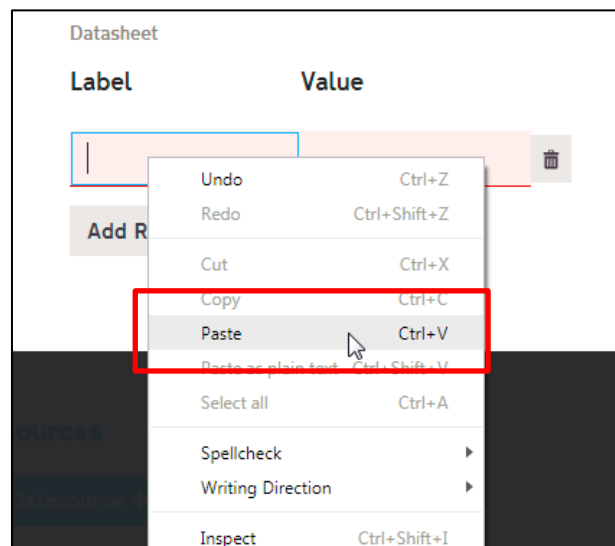


Figure 25: Pasting Data

Your data should look something like this (Figure 26). Click the "Save" button located on the top right of the window (Figure 27), this will create your chart.

Datasheet		
Label	Value	
06/01/2014	82	🗑
20/01/2014	69	🗑
03/02/2014	72	🗑
17/02/2014	53	🗑
03/03/2014	82	🗑
17/03/2014	93	🗑
31/03/2014	71	🗑
14/04/2014	63	🗑
28/04/2014	58	🗑
12/05/2014	42	🗑
26/05/2014	68	🗑
09/06/2014	63	🗑
05/01/2014	81	🗑

Add Row

Figure 26: Raw Data

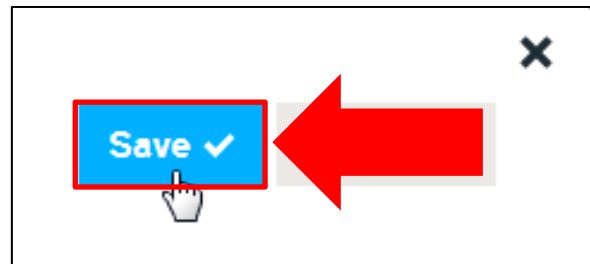


Figure 27: Save

View Run Chart and Data

Now that you've created your chart you can view the chart by clicking the "View Chart & Data" button (Figure 28).

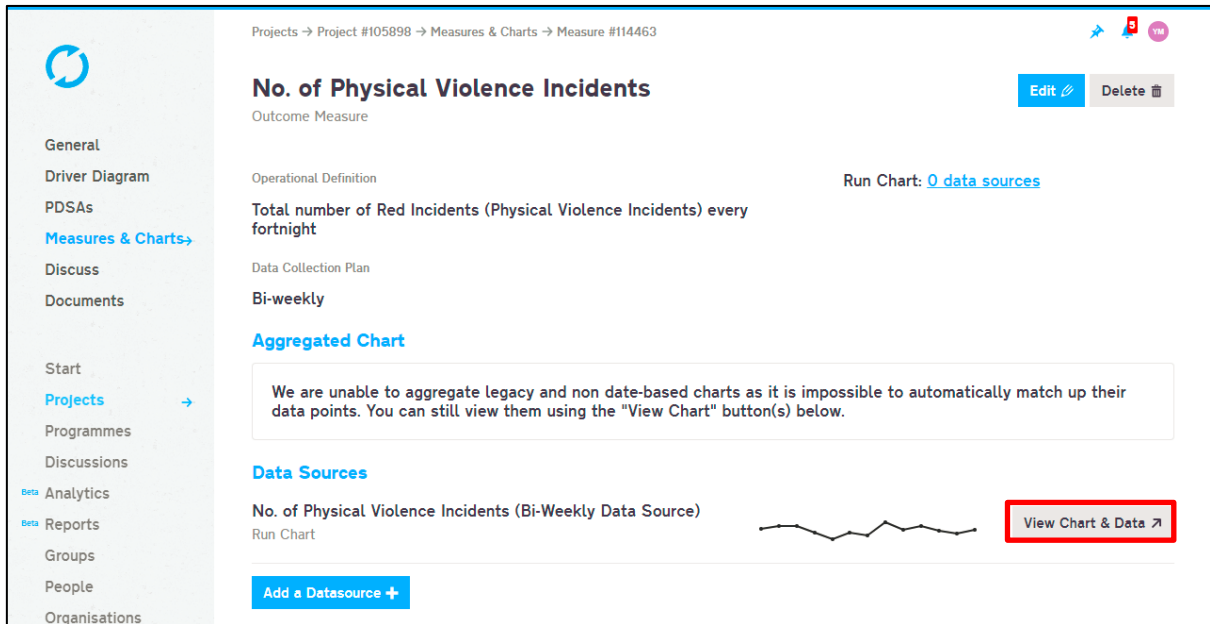


Figure 28: View Chart

Life QI has the ability to identify patterns within your data; in this case it has identified a trend in the chart below (Figure 29). You can hover over the "Trend" to highlight each of the data points (Figure 29).

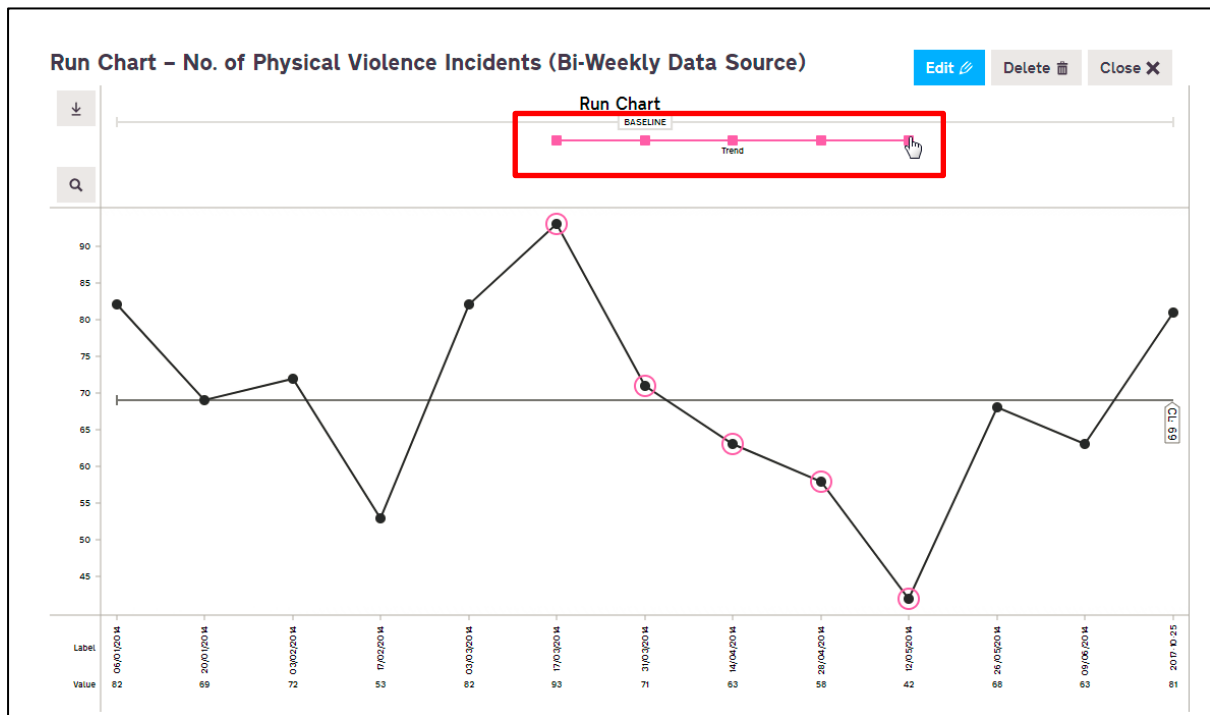


Figure 29: Chart

You can also click the pink “Trend” bar to learn about the pattern identified (Figure 30).

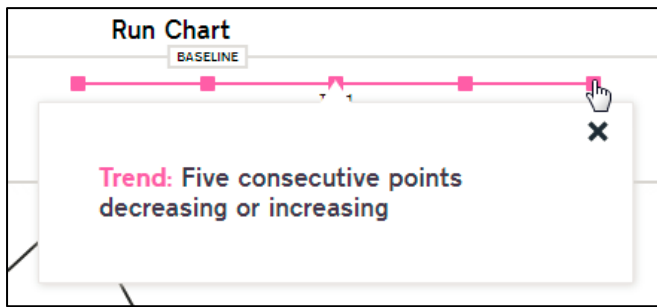


Figure 30: Trend

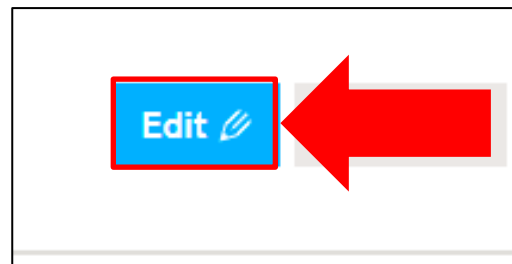


Figure 31: Edit Chart

To edit your chart and data, hit the “Edit” button located in the top right section of the chart (Figure 31). You will then be able to add and remove data as well as fix a baseline.

To remove data, select the “trash can” symbol beside the row of data you want to remove (Figure 32). Then scroll back to the chart and you will be prompted to “Re-draw Chart” (Figure 33), select that button to recreate your chart excluding the data point you removed.

Label	Value	
06/01/2014	82	🗑️
20/01/2014	69	🗑️
03/02/2014	72	🗑️
17/02/2014	53	🗑️
03/03/2014	82	🗑️
17/03/2014	93	🗑️
31/03/2014	71	🗑️
14/04/2014	63	🗑️
28/04/2014	58	🗑️
12/05/2014	42	🗑️
26/05/2014	68	🗑️
09/06/2014	63	🗑️
05/01/2014	81	🗑️

Add Row

Figure 32: Trash can

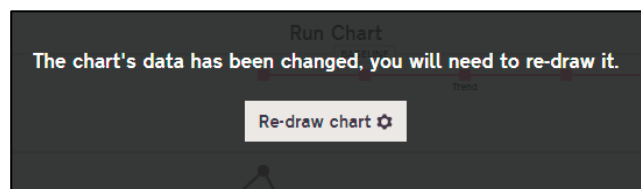


Figure 33: Re-draw Chart

17/02/2014	53	🗑️
03/03/2014	82	🗑️
31/03/2014	71	🗑️
14/04/2014	63	🗑️
28/04/2014	58	🗑️
12/05/2014	42	🗑️
26/05/2014	68	🗑️
09/06/2014	63	🗑️
05/01/2014	81	🗑️
		🗑️

Add Row

Figure 34: Adding Data

To add data, click the “Add Row” button to create a new row. New data can then be either pasted into the field or manually entered in (Figure 34). Again, the chart will ask to be redrawn as seen on Figure 33.

If you have accidentally removed the wrong data point or added in incorrect data you can select the “Cancel” button (Figure 35) to undo any changes and revert back to your original chart. On the other hand, if you’re happy with the changes select the “Save” button (Figure 36) (you cannot undo stuff once you click save).



Figure 35: Cancel



Figure 36: Save

Adjusting a Baseline

On your chart, just below the type of chart, you will see the word “BASELINE” with two lines stretching the length of the chart. This is an indication that a baseline has not been set (Figure 37).

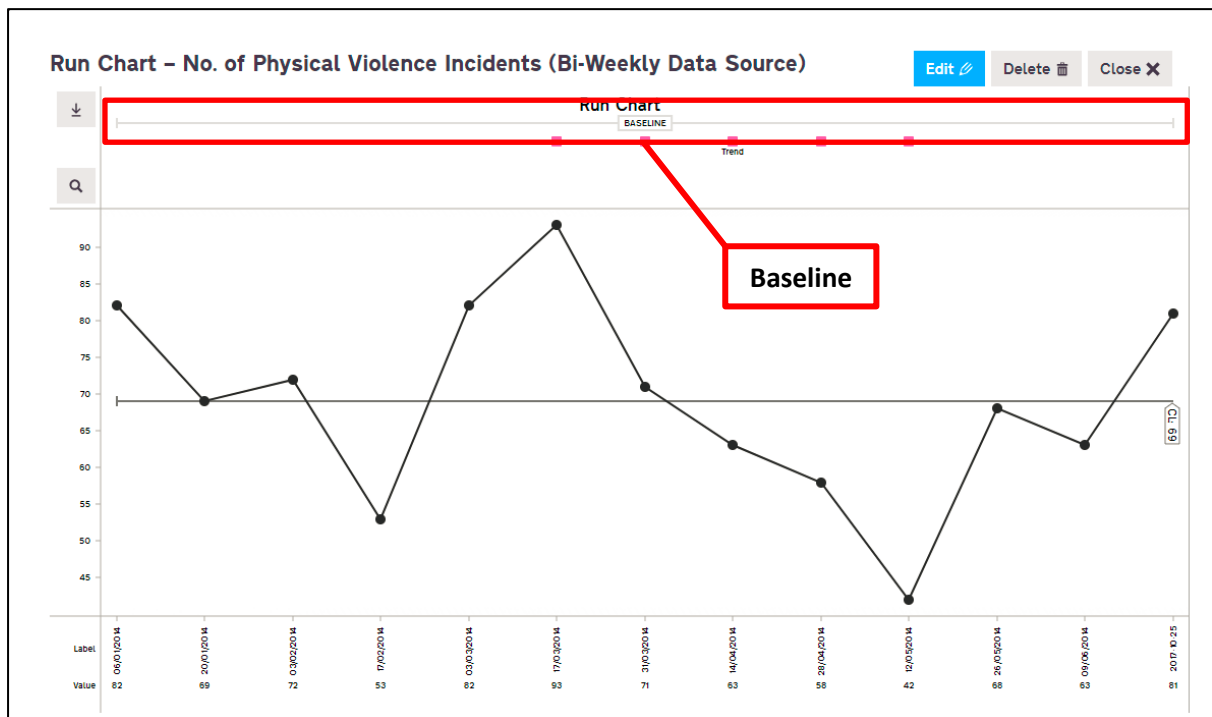


Figure 37: Baseline

To adjust the baseline, select the “Edit” button on the top right side of the chart. Next select the **first** data point in the chart where you have started testing (Figure 38).

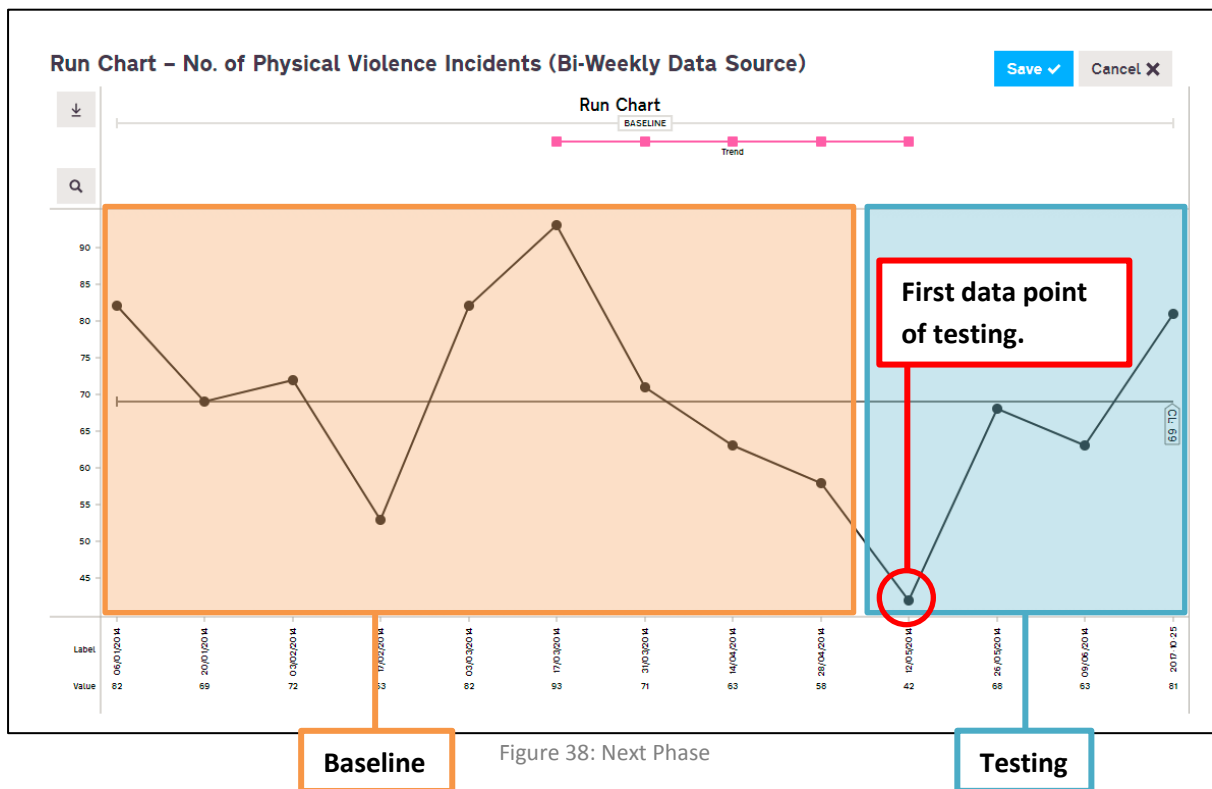


Figure 38: Next Phase

Select the first data point of testing and a mini window will appear allowing you to add notes, assign a PDSA, it also gives you details about the data point (Figure 39).

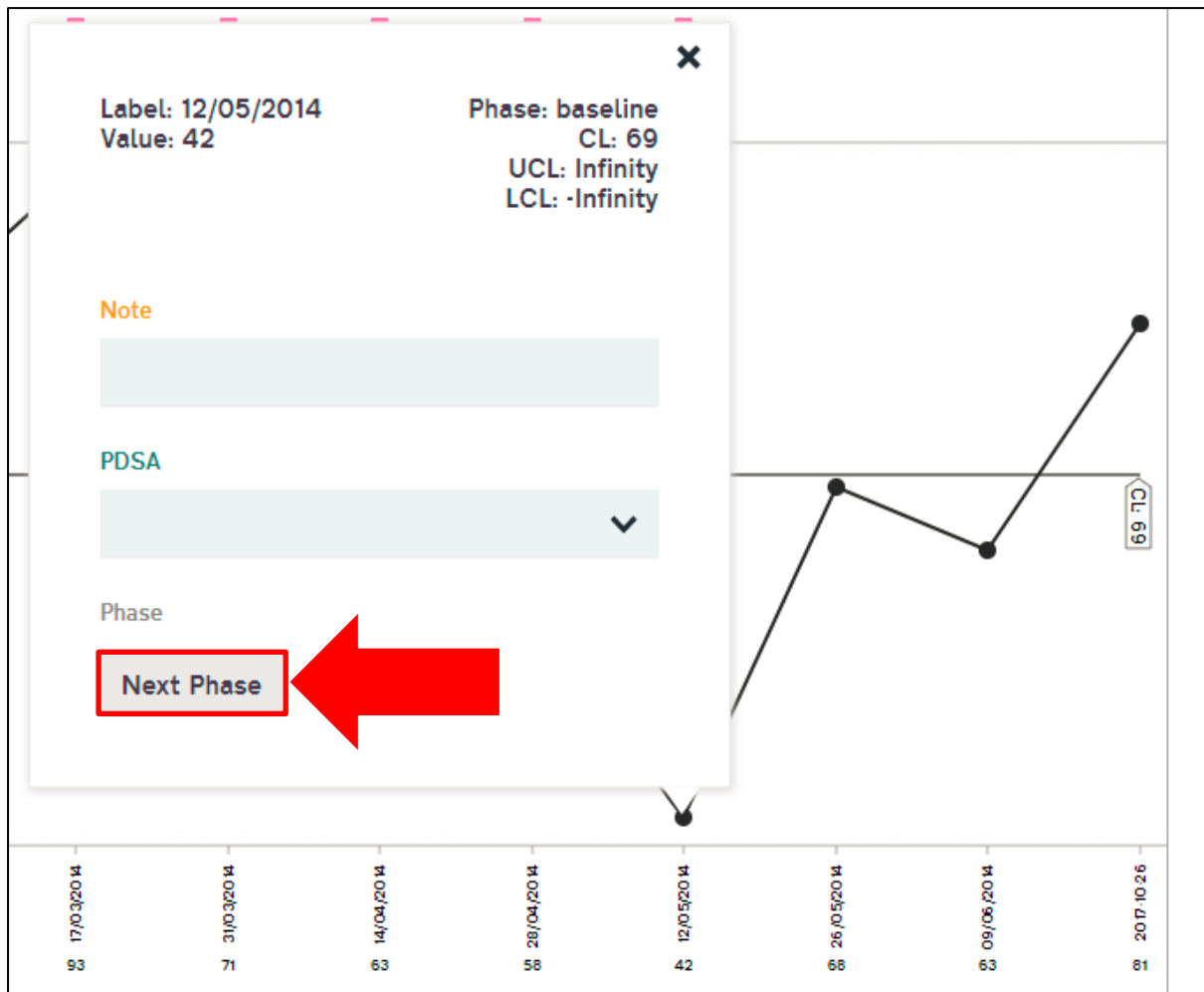


Figure 39: Data Point

Click the “Next Phase” button to adjust and recalculate the baseline (Figure 39). The current median is **69**, selecting the next phase will calculate the median for just the baseline period (orange box in Figure 38). A warning prompt will appear, select “OK” to continue (Figure 40).

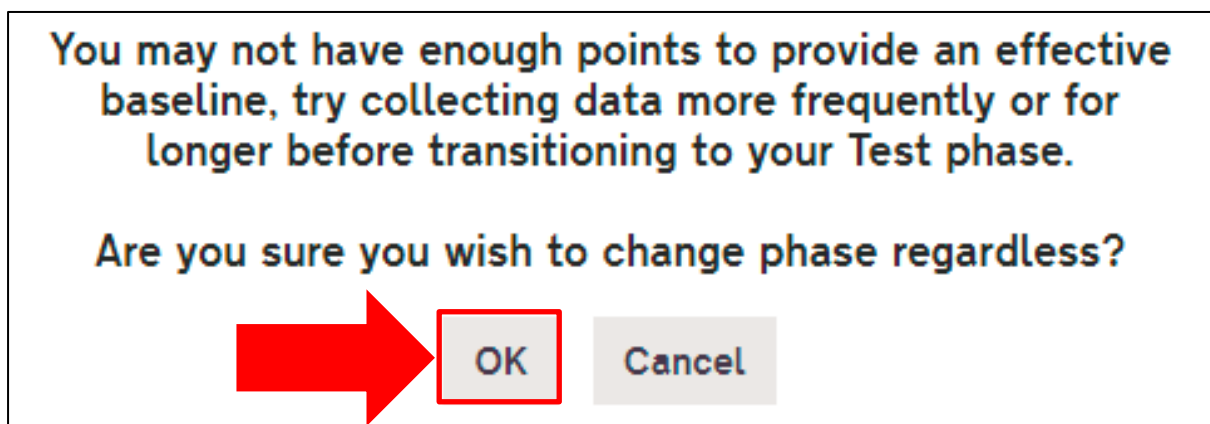


Figure 40: Prompt

You'll see that the median has changed from **69** to **71** and the "BASELINE" has also changed and a new "TEST" section has been added (Figure 41). A dashed line is also shown after the median value to emphasise the fact that the median has been extended across the testing period.

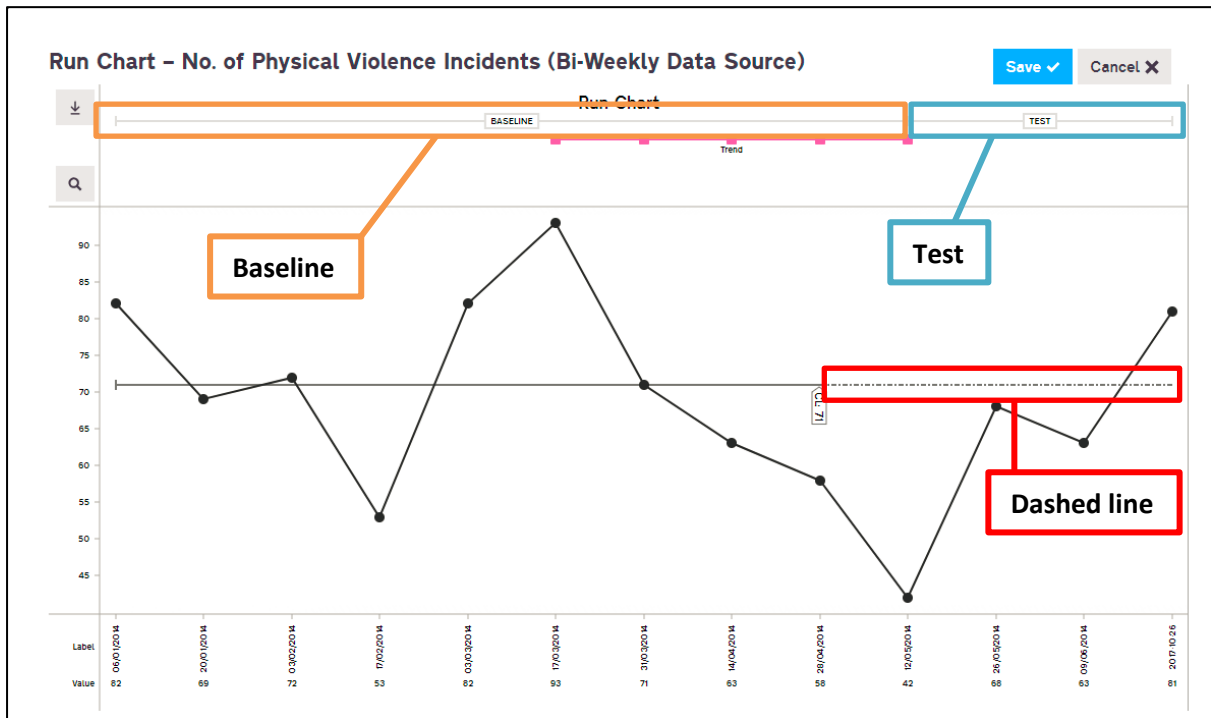


Figure 41: Chart with Baseline

Remember to save regularly in case of internet or computer problems.

Creating a Control Chart

Creating a control chart isn't much different to creating a Run Chart. Assuming you know how to create a measure now, all you have to remember to do is to select the appropriate chart type you require for your data (Figure 42).

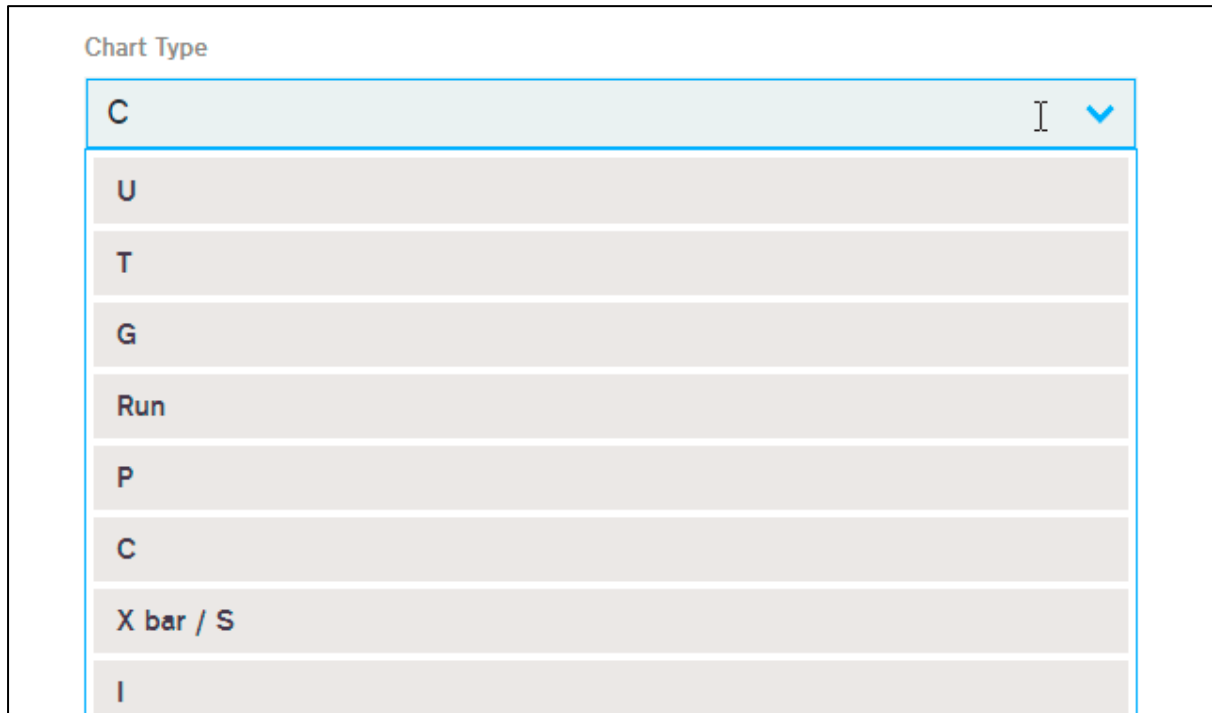


Figure 42: Chart Selection

If you are unsure about what chart to choose, select the [“Need help choosing a chart type?”](#) link (Figure 43). Click the chart names to show more details (Figure 44).

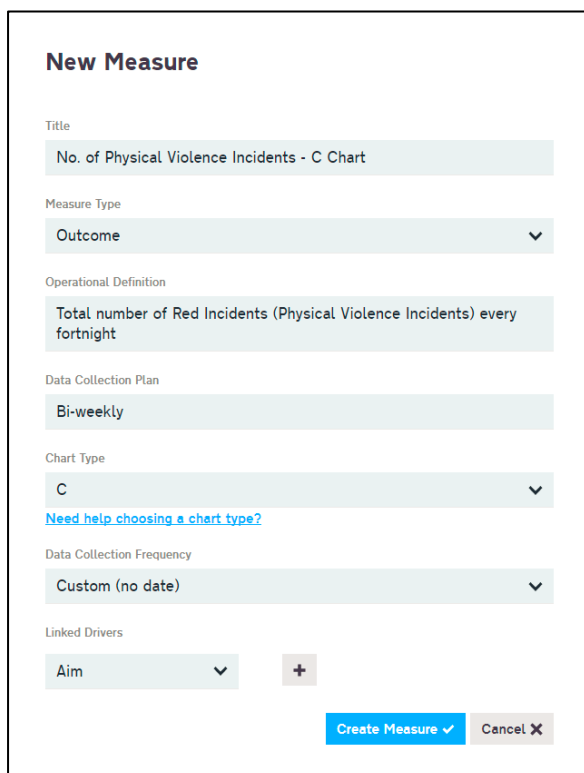


Figure 43: Charting Guidance

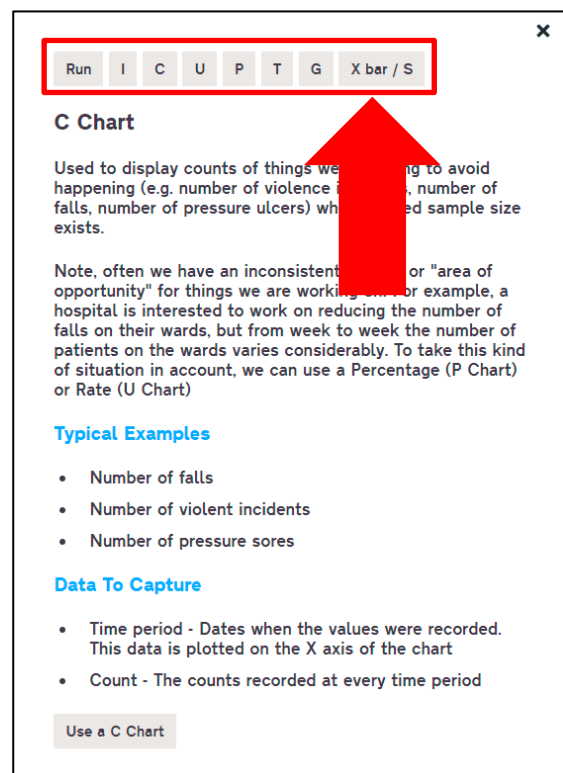


Figure 44: Chart Type Details

For this example, a C Chart will be created. Once you're happy with your chart type, create the measure and "Add a Datasource" (Figure 45).

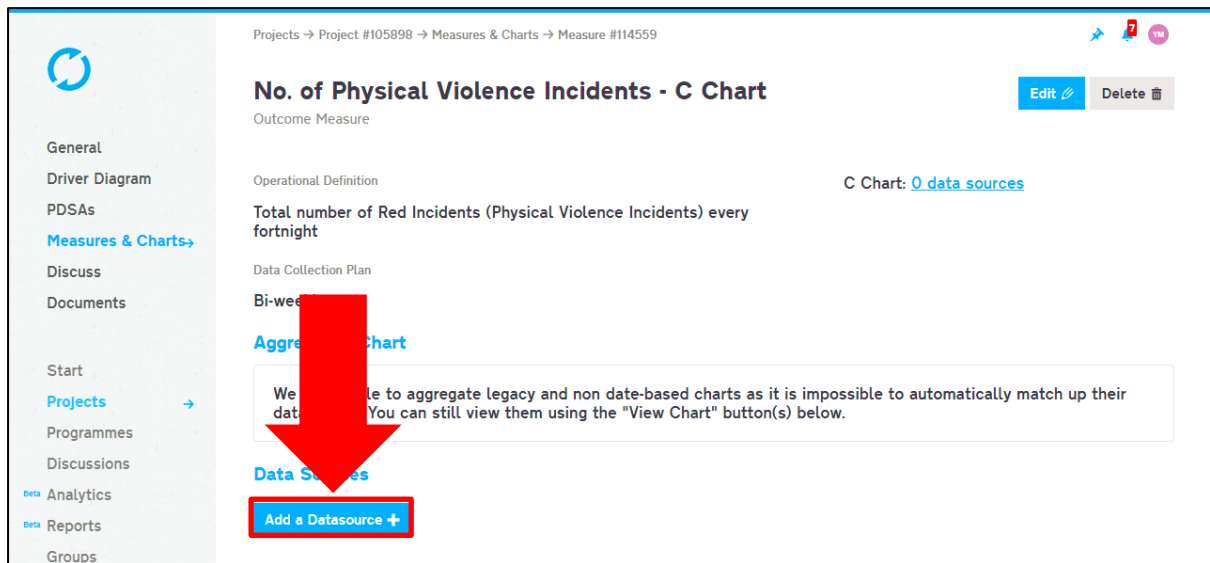


Figure 45: Add a data source

A window will appear where you can add data; click the "Add Row" button to create two empty fields (Figure 46). Next, either manually enter your data or paste it in from Excel (Figure 47).

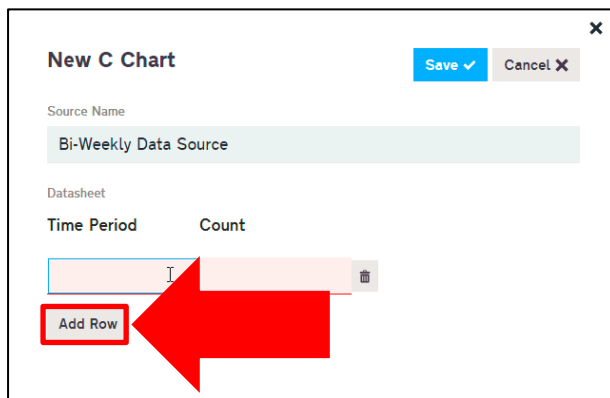


Figure 46: Add Row

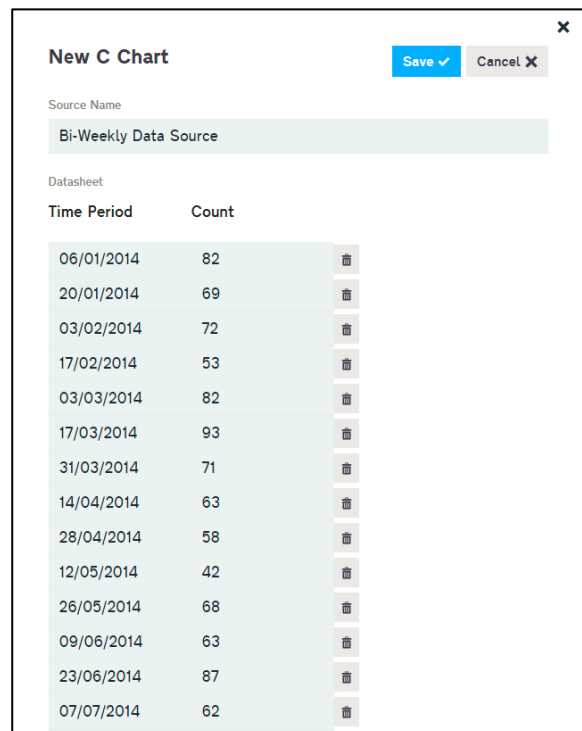


Figure 47: Raw Data

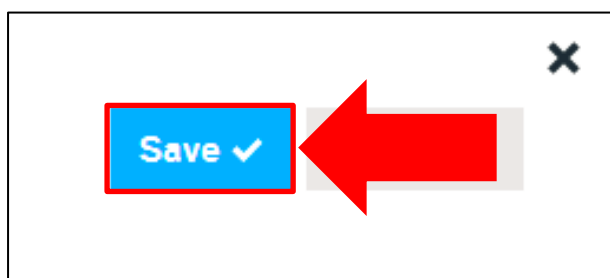


Figure 48: Add Row

If the data has been entered or pasted correctly, click the "Save" button to create the chart (Figure 48).

View Control Chart and Data

Now that you've created your chart you can view the chart by clicking the "View Chart & Data" button (Figure 49).

Figure 49: View Chart

This chart contains both baseline and test data (Figure 50), the system does not automatically define this so it is necessary to edit the chart and amend the baseline period.

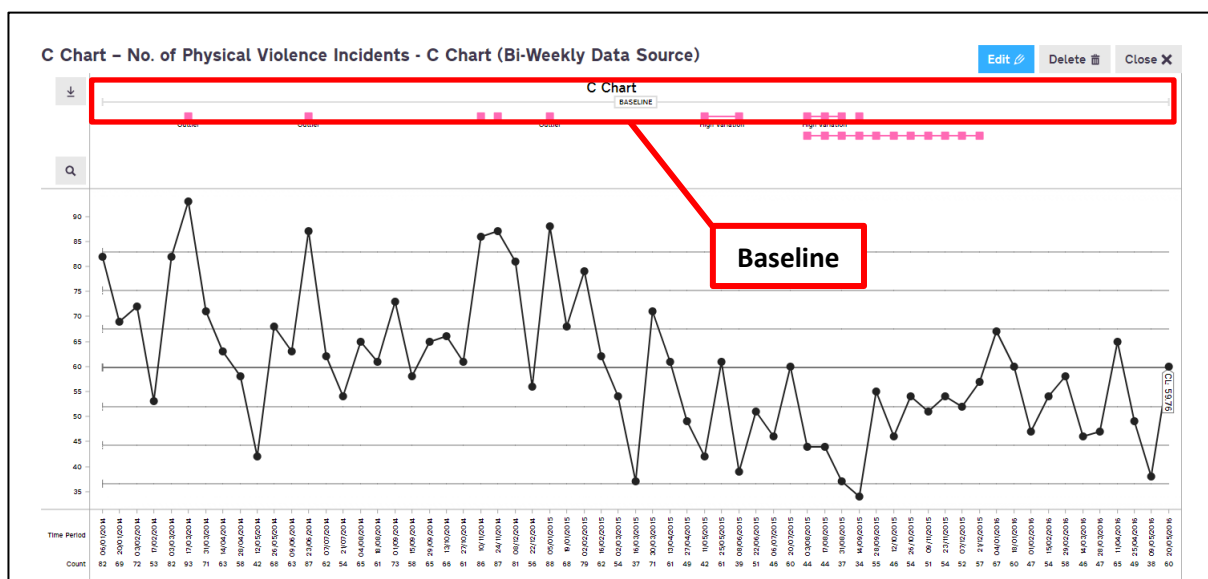


Figure 50: C Chart

Phasing on Life QI

What is Phasing?

When creating **Shewhart** control charts a new centre line (mean line) and new control limits (**upper control limit** and **lower control limit**) should be calculated when it has been determined that the underlying process has changed (i.e. a special cause can be seen), often as a result of a planned improvement.

When should I Phase?

Before carrying out any phasing, it is important to identify the **baseline** data within your chart. **Baseline** data refers to data that has been collected prior to any QI work being undertaken. It helps you visually see if your interventions have had any impact on the system or not.

	Date	Y-axis		Date	Y-axis		Date	Y-axis
BASELINE DATA	06/01/2014	82	TEST DATA	27/10/2014	61	TEST DATA	17/08/2015	44
	20/01/2014	69		10/11/2014	86		31/08/2015	37
	03/02/2014	72		24/11/2014	87		14/09/2015	34
	17/02/2014	53		08/12/2014	81		28/09/2015	55
	03/03/2014	82		22/12/2014	56		12/10/2015	46
	17/03/2014	93		05/01/2015	88		26/10/2015	54
	31/03/2014	71		19/01/2015	68		09/11/2015	51
	14/04/2014	63		02/02/2015	79		23/11/2015	54
	28/04/2014	58		16/02/2015	62		07/12/2015	52
	12/05/2014	42		02/03/2015	54		21/12/2015	57
	26/05/2014	68		16/03/2015	37		04/01/2016	67
	09/06/2014	63		30/03/2015	71		18/01/2016	60
	23/06/2014	87		13/04/2015	61		01/02/2016	47
	07/07/2014	62		27/04/2015	49		15/02/2016	54
	21/07/2014	54		11/05/2015	42		29/02/2016	58
	04/08/2014	65		25/05/2015	61		14/03/2016	46
	18/08/2014	61		08/06/2015	39		28/03/2016	47
	01/09/2014	73		22/06/2015	51		11/04/2016	65
	15/09/2014	58		06/07/2015	46		25/04/2016	49
	29/09/2014	65		20/07/2015	60		09/05/2016	38
13/10/2014	66	03/08/2015	44	23/05/2016	60			

Figure 51: Example data for C Chart

The table above provides a set of count data. You will notice that **baseline** data was collected from 06/01/2014 to 24/11/2014. It is important than when we create our C chart, we fix our **baseline** from 06/01/2014 to 24/11/2014. This means the **centre line (mean)** will be calculated using data values from within this data range. Any points after this data range will not affect the **centre line**, the **centre line** and limits from the **baseline** will simply be projected across the remainder of the chart. This will allow us to clearly distinguish between common cause variation and special cause variation.

Adjusting the Baseline

To adjust the baseline on your chart, click the “Edit” button located in the top right section of your chart (Figure 52).



Figure 52: Edit Chart

Next, select the first data point of testing, from the example data (Figure 51). It is clear to see that the first data point of testing is the 08/12/2014, which has an incident count of 81. In the image below the first data point of testing is highlighted (Figure 53).

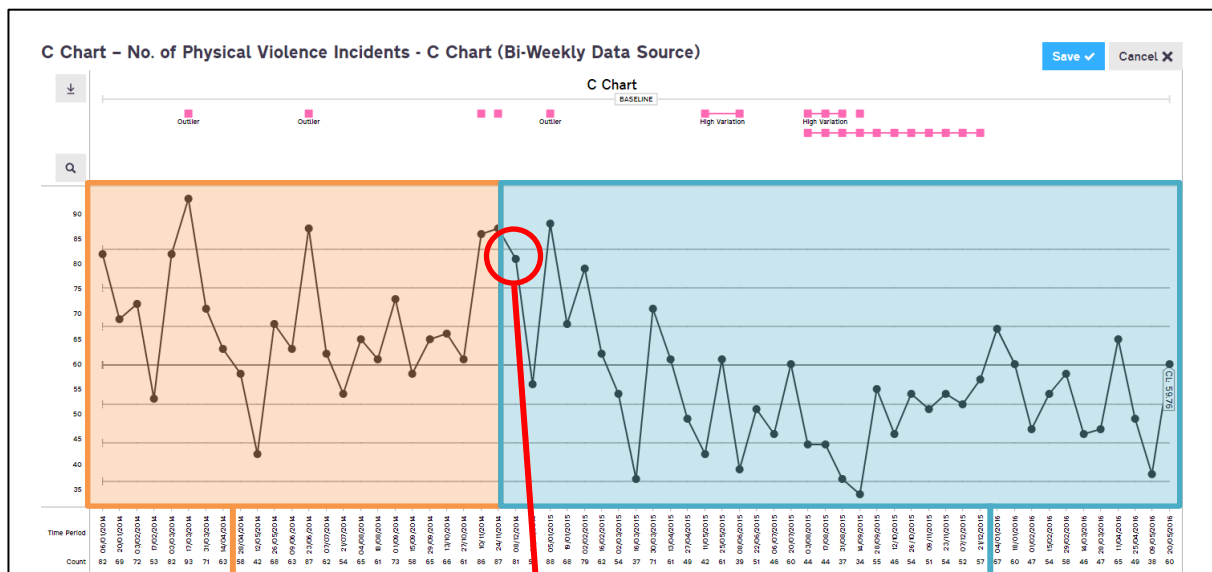


Figure 53: Baseline

Baseline

First data point of testing.

Testing

Once the data point has been selected, a mini window will appear. Click the “Next Phase” button to readjust the baseline (Figure 54).

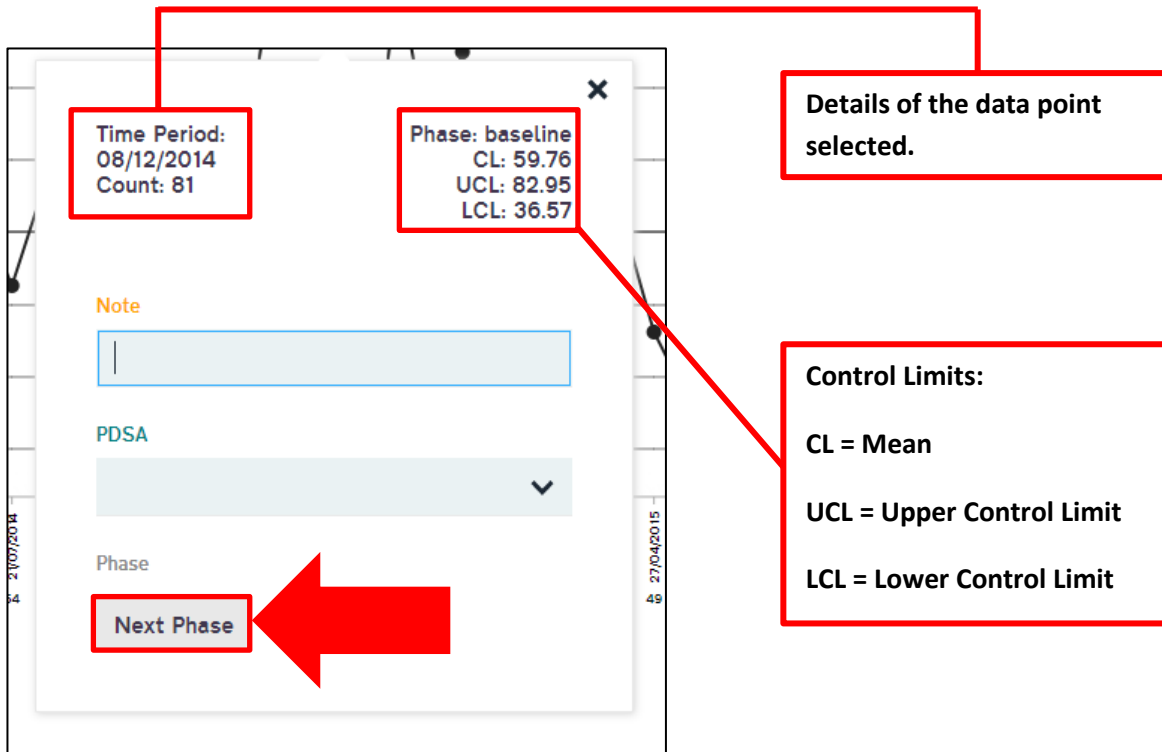


Figure 54: Next Phase

You'll see that the top bar (Figure 55) is split into two sections, baseline and test. The baseline has successfully been adjusted. A dashed mean line has been stretched across the test period indicating that any future changes are being tested against the baseline data.

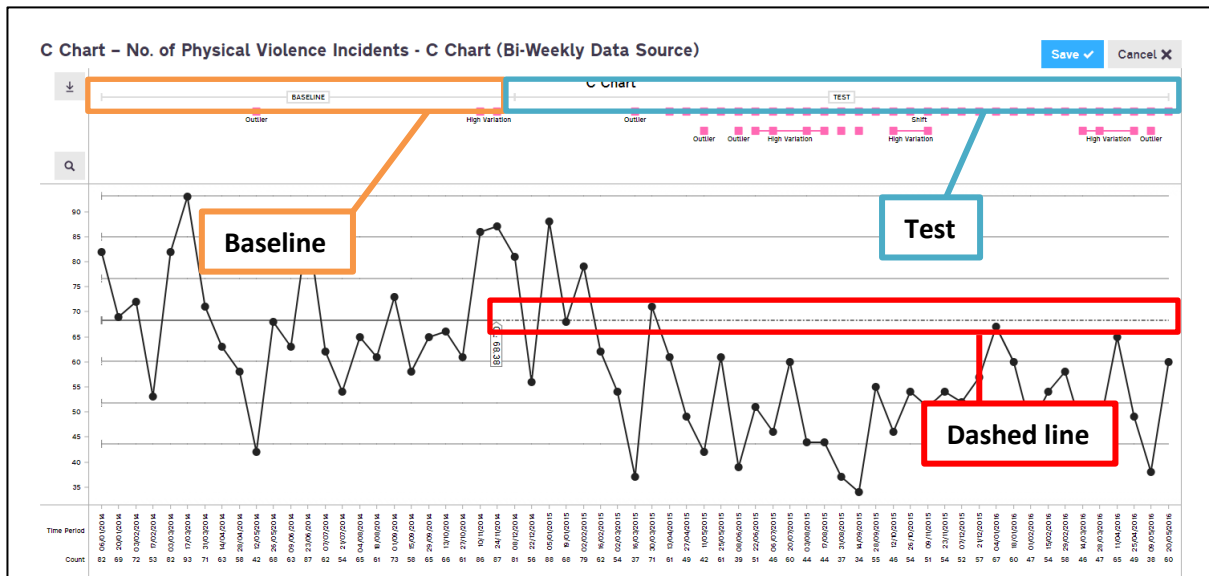


Figure 55: Chart with Baseline

Remember to save regularly in case of internet or computer problems.

Phasing

To phase on Life QI, go to your chart and select the “Edit” button located in the top right section of your chart.



Figure 56: Edit Chart

Depending on your data, your chart will consist of pink bars above the data. This indicates there is something unusual with your data. You can click the pink bar to find out what the Life QI system has identified within your data (Figure 57).

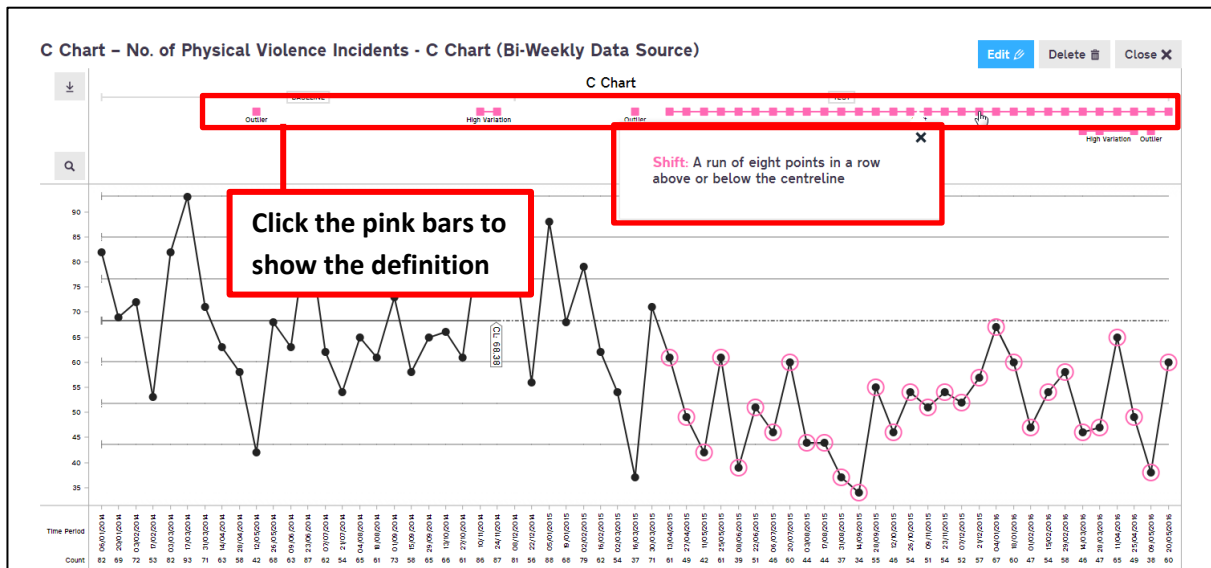


Figure 56: Edit Chart

You can see from the data that there is a clear difference in the left side of the chart to the right side of the chart. The Life QI system is able to tell you when a specific rule has been triggered. Since this is a control chart, one of the most common rules **ELFT** follows is a **Shift**. This is where “A run of 8 or more consecutive point are above or below the centreline” (Figure 57). Please note, the system will automatically pick up special cause variation regardless of baseline or test data. When phasing, you should never include data points seen in the baseline phase. Only take into account special cause variation seen in the test phase.

To phase the chart, select the first data point where the **Shift** begins (Figure 57). Next, select the “Recalculate Limits” button (Figure 58). This will automatically recalculate the upper control limit (UCL), lower control limit (LCL) and the centre line (mean) (Figure 59).

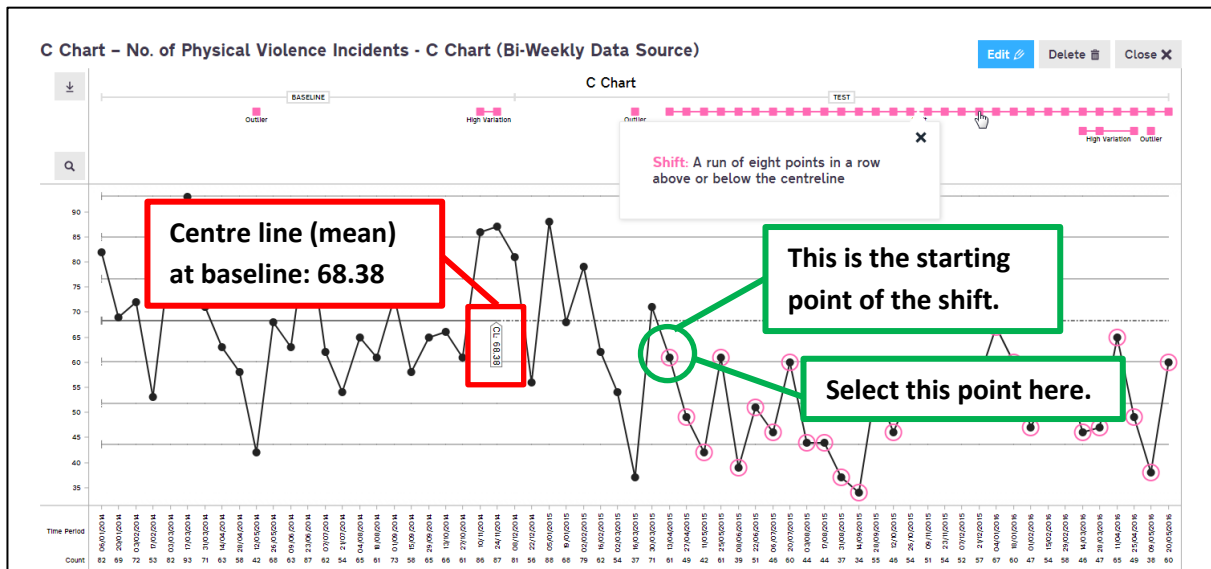


Figure 57: First Point

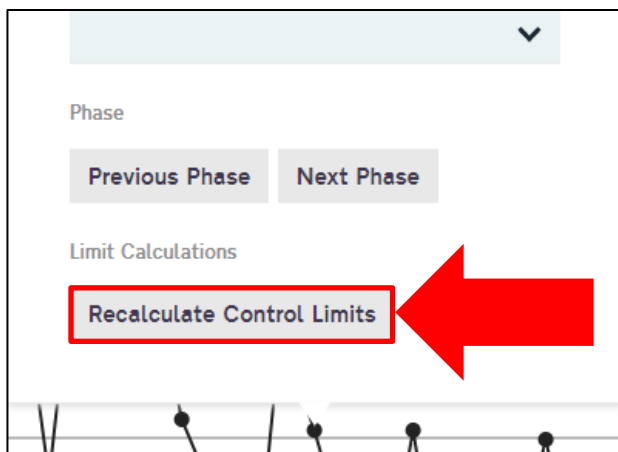


Figure 58: Recalculate Limits

Your chart will look something like this (Figure 59). You can see that there are two Centre line (mean) values. One for the baseline and the other beginning at the first point of the **Shift** until the end of the data (last data point).

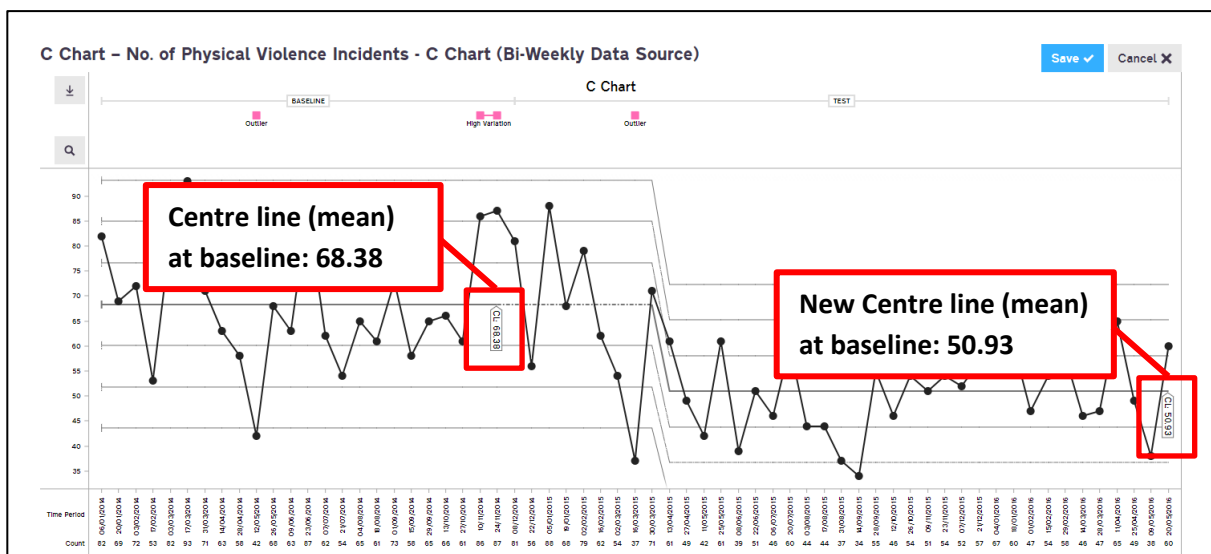


Figure 59: Phase

The new limits have been calculated and you can now see that the chart has been phased. You're not done yet. Once there is a **Shift** it is not necessary to "End Limit Recalculation" (Figure 60), you can allow the centre line to adjust automatically as you add data points. However, **ELFT** uses a standard of **8** points including the phase point to fix the **centre line** once there is a shift. This new **centre line** becomes the new mean and you can compare future data points against it.

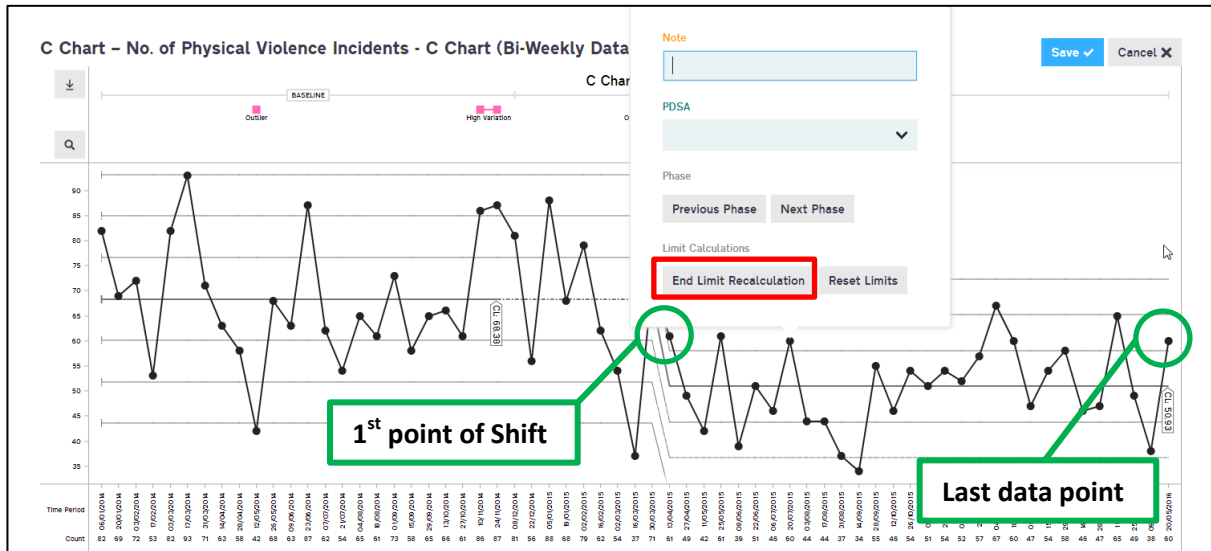


Figure 60: End Limit Recalculation

The latest centre line (mean) **50.93** is calculated from the **1st** point of the shift till the last data point (Figure 60). To fix the centre line (mean) to the first **8** points, select the **8th** point of the **Shift** (Figure 61) and click the "End Limit Recalculation" button (Figure 60 & 61).

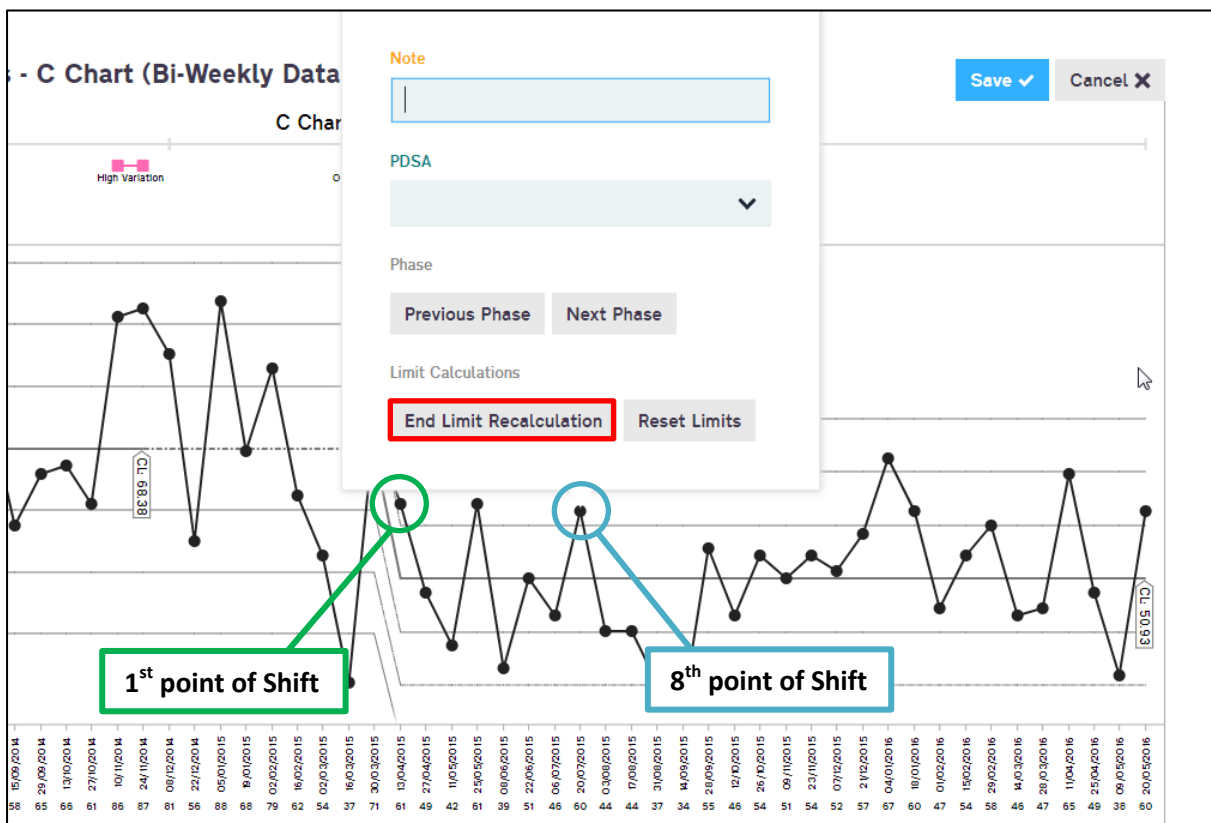


Figure 60: Shift

A warning prompt will appear, click "OK" to proceed (Figure 61).

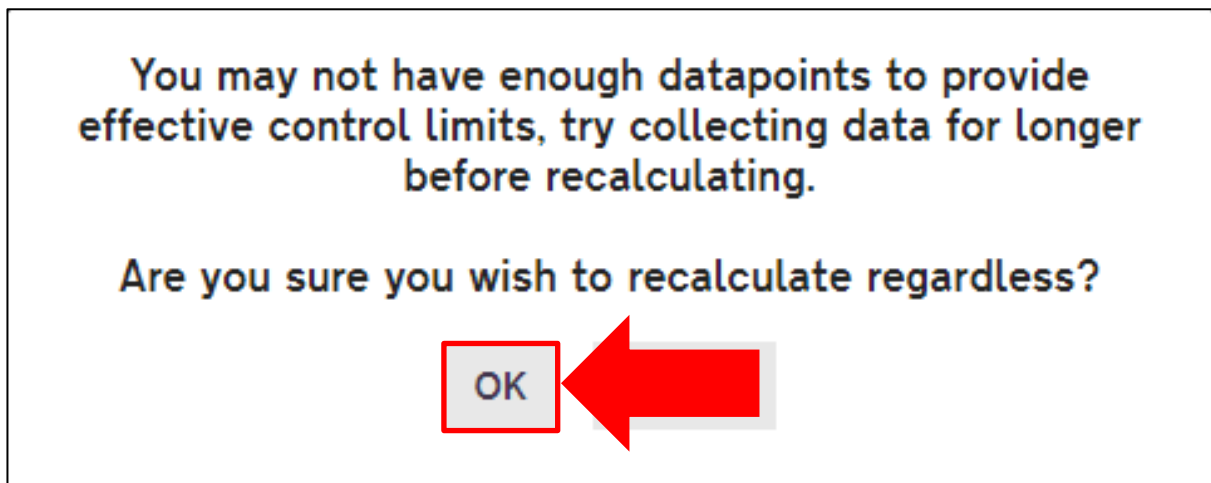


Figure 61: Warning Prompt

The centre line (mean) value will be fixed to the first 8 points of the **Shift** (Figure 62). The centre line (mean) value before ending limit recalculations was **50.93** (Figure 59), the new centre line (mean) based on the first 8 points is **51.13** (Figure 62).

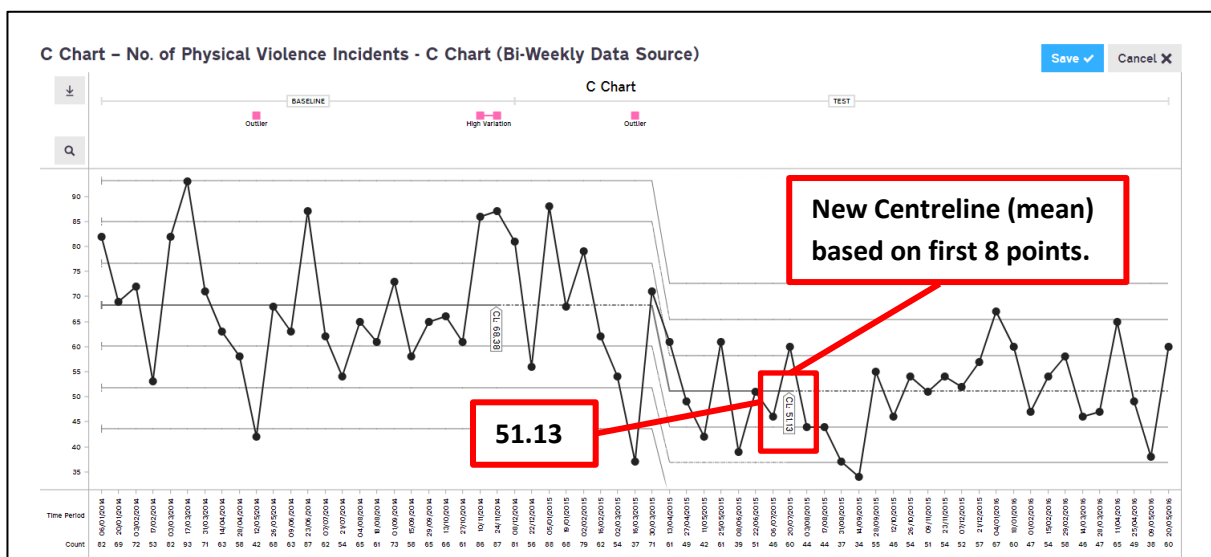


Figure 62: Phased C Chart

Remember to save regularly in case of internet or computer problems.

Additional Chart Features

Adding Notes

To add a note to a data point, click the “Edit” button located in the top right section of your chart (Figure 63).



Figure 63: Edit

Next, select the data point you wish to add a note to (Figure 64).

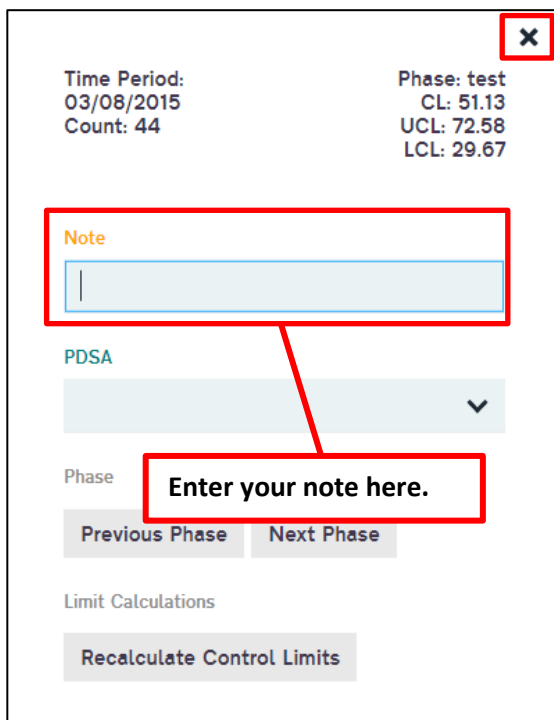


Figure 64: Note

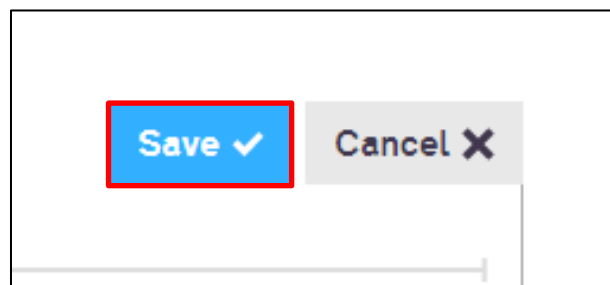


Figure 65: Save

Once you’ve entered your note click away from the window or click the “X” icon located in the top right of the window (Figure 64). Click the “Save” button located in the top right section of the chart (Figure 65).

If you have added your note correctly, you will see an orange bar above the data point you originally selected. This orange bar indicates a note (Figure 66). Clicking the orange bar will allow you to view the note.

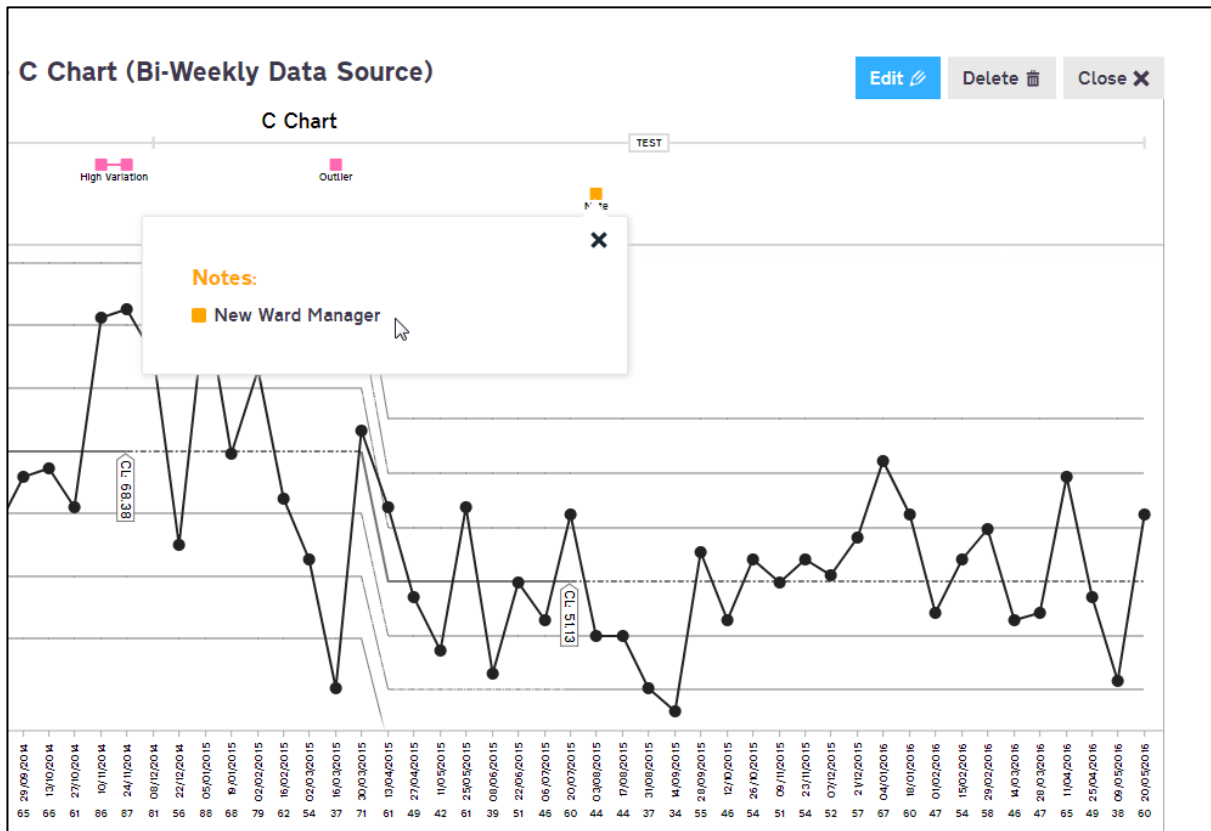


Figure 66: Orange Bar

Assigning a PDSA

To assign a PDSA to a data point, click the “Edit” button located in the top right section of your chart (Figure 66).



Figure 66: Edit

Next, select the data point you wish to assign a PDSA to (Figure 67).

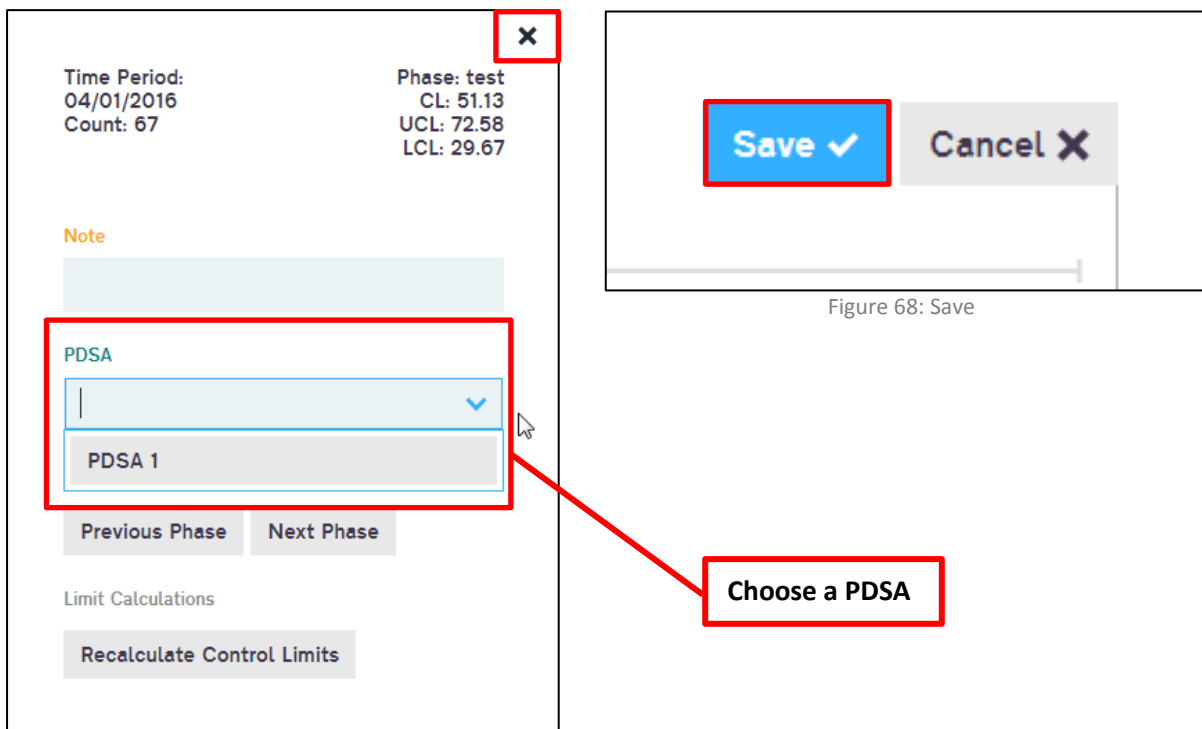


Figure 67: Choosing a PDSA

Select the drop down arrow and choose a PDSA. If you do not have a PDSA nothing will appear on the drop down (Figure 67). Select your PDSA, then either click away from the window or click the “X” icon located in the top right of the window (Figure 67). Finally, click the “Save” button (Figure 68).

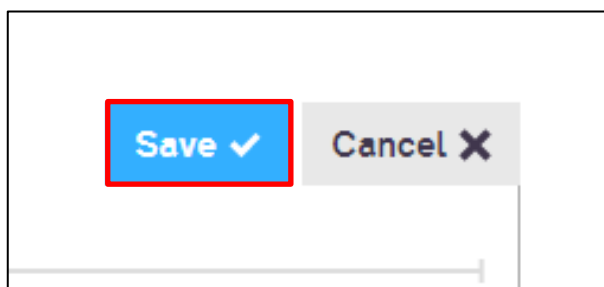


Figure 68: Save

If you have assigned your PDSA correctly, you will see a dark blue bar above the data point you originally selected. This dark blue bar indicates a PDSA (Figure 69). Clicking the dark blue bar will allow you to view the PDSA you have assigned.

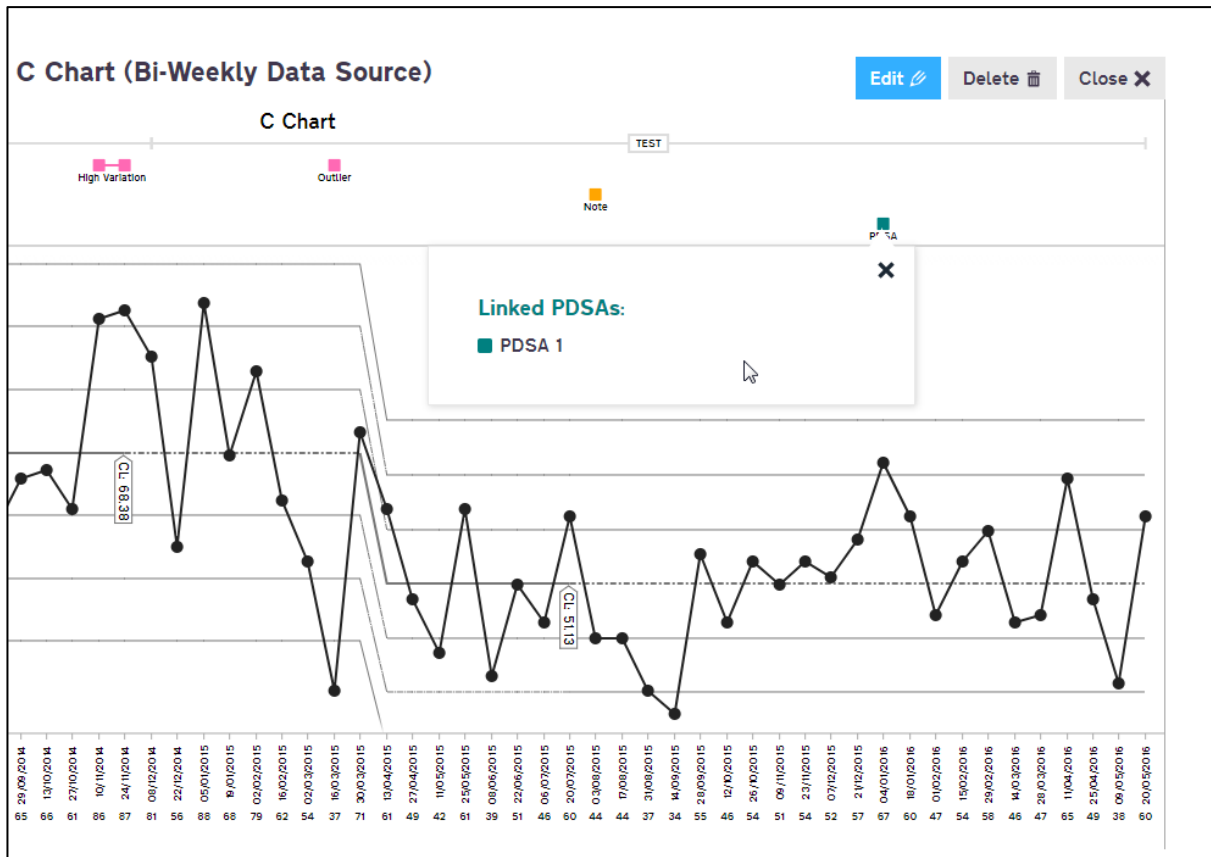


Figure 69: PDSA

Exporting a Chart

To export a chart as an image, click the download icon located in the top left section of the chart (Figure 70 & 71).

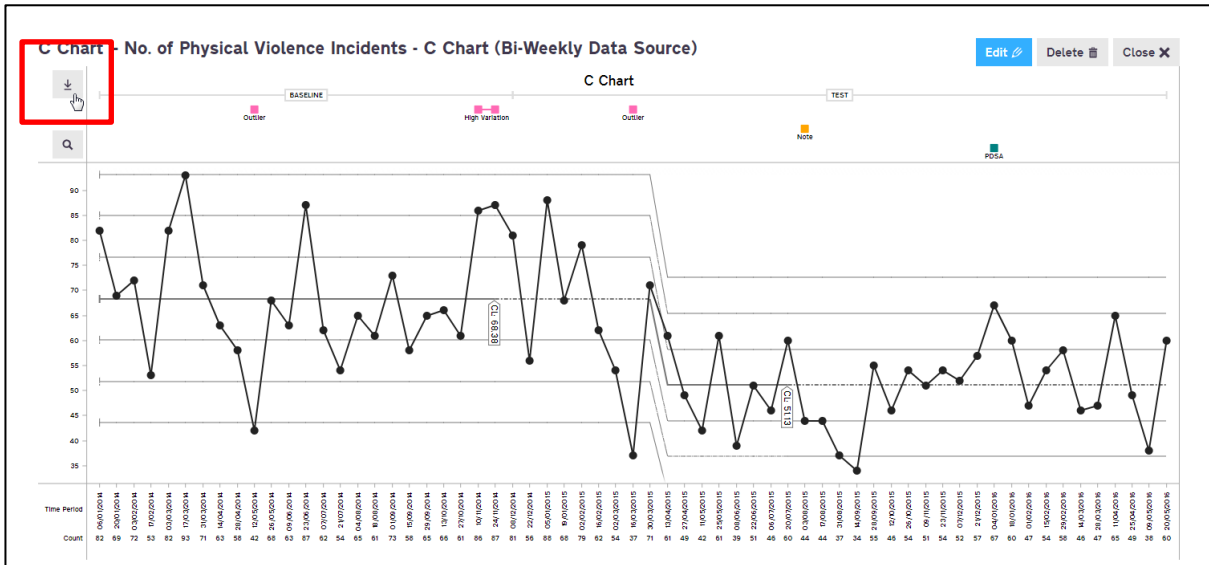


Figure 70: Download Icon

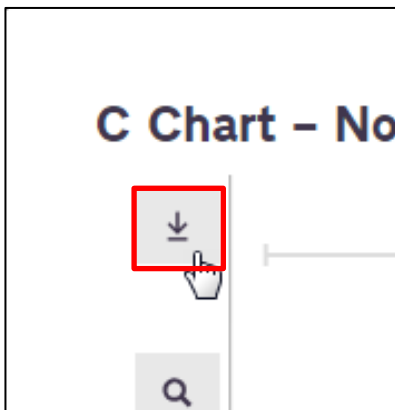


Figure 71: Download Icon

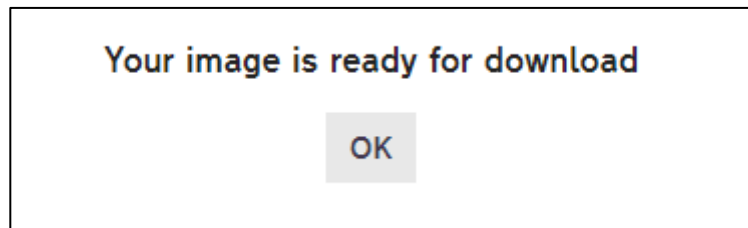


Figure 72: Prompt

A few seconds later a prompt will appear (Figure 72) letting you know that your chart is ready for download. Click "OK" and your chart will begin to download (Figure 73).



Figure 73: PNG Image

Click on the downloaded file to view the image (Figure 74).

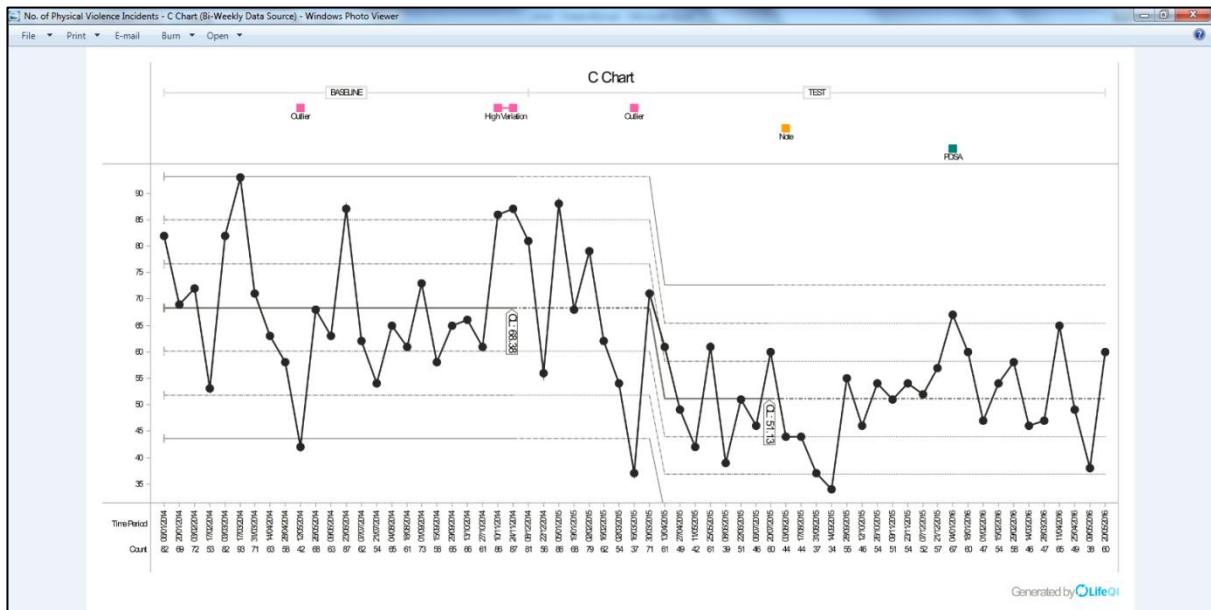


Figure 74: Exported Image

You can now use the exported image in your reports and manual dashboards.