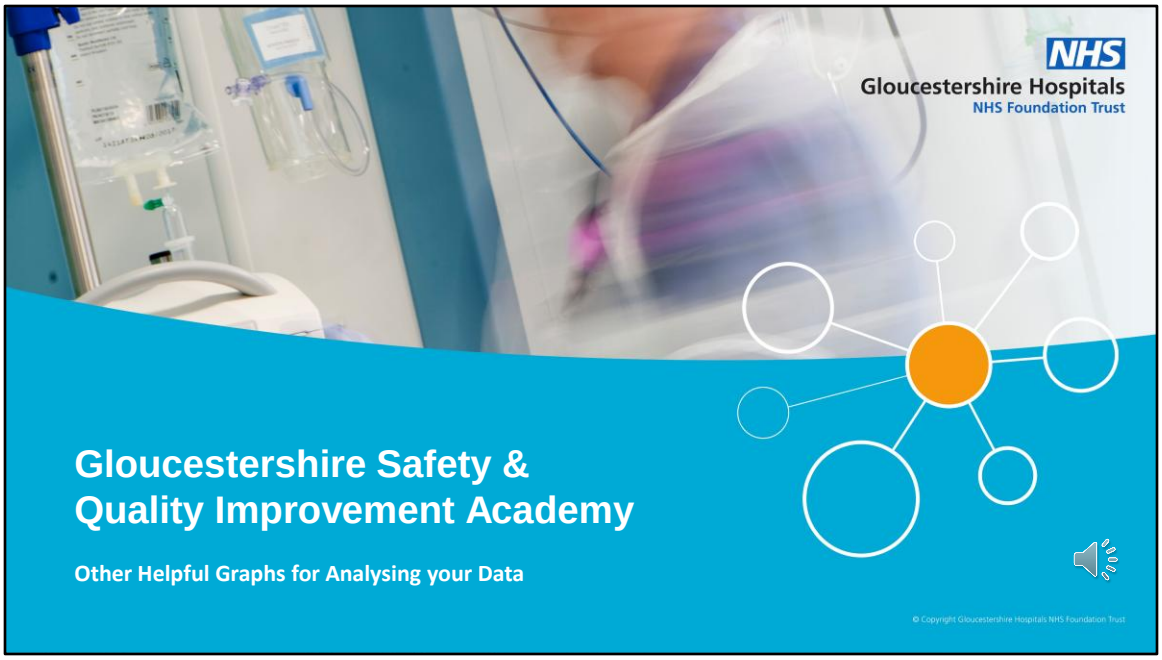


Welcome to this session of other helpful types of graph for analysis, part of the GSQIA measurement module

NHS
Gloucestershire Hospitals
NHS Foundation Trust

Session Contents

Diagnostics phase
- Understanding the system - Histogram
- Understanding the problem and prioritising changes - Pareto

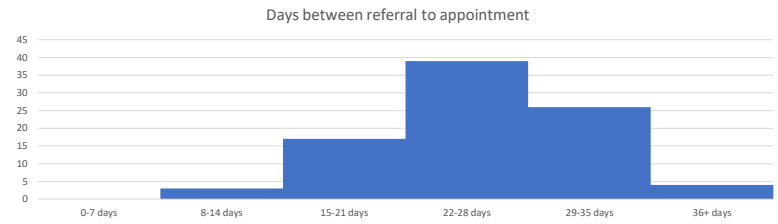
Displaying data when frequency of occurrence is low – time between graph

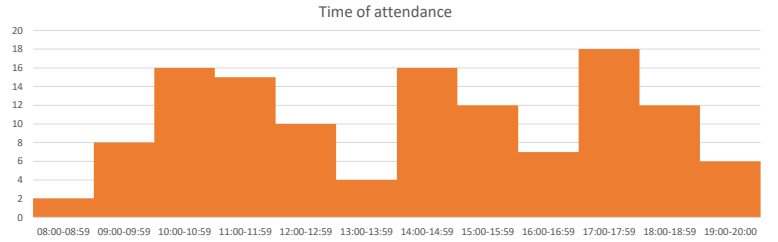
© Copyright Gloucestershire Hospitals NHS Foundation Trust

During this session we will look at ways of analysing data using different types of graph, to provide a fuller picture of what is happening within a system and helping to prioritise changes.

We will also look at how data can be displayed when small sequential data collection is not possible due to a relatively infrequent occurrence of the problem that is being tackled.

Histogram





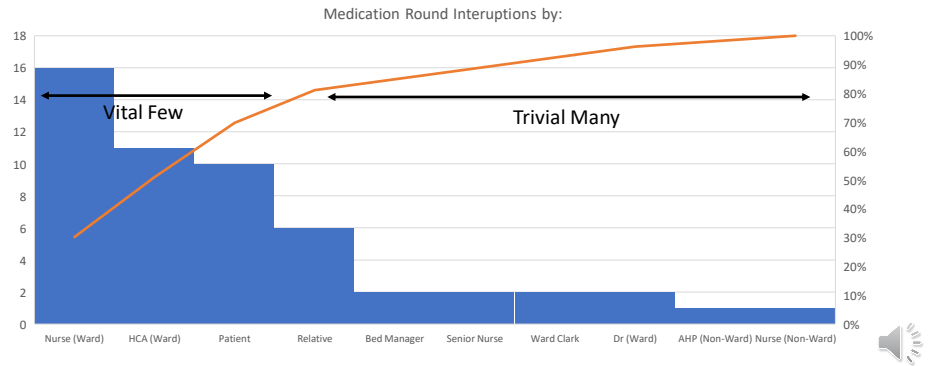
© Copyright Gloucestershire Hospitals NHS Foundation Trust

A histogram is useful to provide a better understanding of frequency of occurrence within specified groups or categories. This can be frequency of the problem, or frequency surrounding some of the system and processes associated with why the problem occurs.

For example, it can be used to understand where the largest proportion of length of delays occur, or where the highest frequency of attendance is experienced.

Pareto

- The Pareto Principle – 80/20 rule
- The frequency of causes of a problem are collected



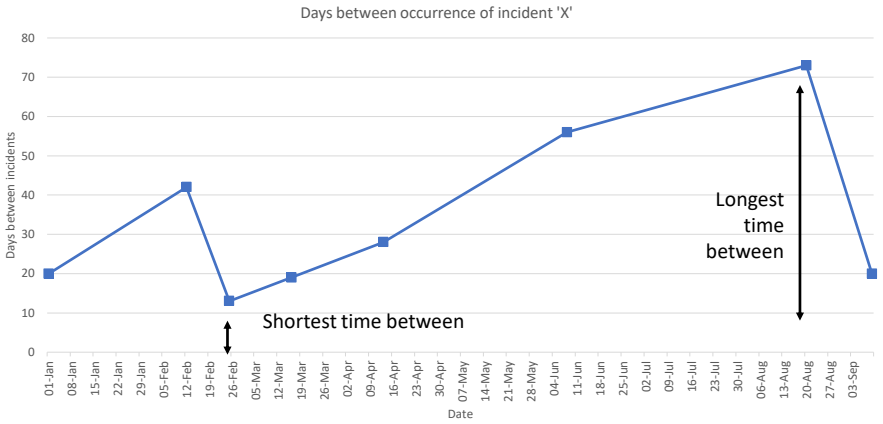
© Copyright Gloucestershire Hospitals NHS Foundation Trust

A Pareto chart is a graphical representation of the Pareto principle. The Pareto principle indicates that 80% of consequences come from 20% of causes, therefore we are able to identify the areas that will create the greatest improvement and prioritise changes accordingly.

This is particularly helpful in conjunction with a fishbone diagram

The frequency of causes of a problem are collected and a pareto chart visualises the 'vital few' which are the factors that warrant the most attention.

Time between incidents



© Copyright Gloucestershire Hospitals NHS Foundation Trust

When a problem is infrequent, but the consequences are significant enough to warrant an improvement project then a run chart or SPC aren't helpful because small sequential data sets cannot be collected.

Instead data can be plotted to show the time between occurrences of the problem and the improvement is evidenced by the increasing time between these

Your facilitator / Gold coach and GSQIA are here to support – please get in touch ghn-tr.gsqia@nhs.net

Additional resources that are available around data and measurement:

- Run charts
- A one page guide to the rules
- SPC session and templates
- Measures session: Outcome / Process / Balancing

© Copyright Gloucestershire Hospitals NHS Foundation Trust