QUANTITATIVE DATA

Diagnostics

Quantitative data

Quantitative data are measures represented by a value or count expressed as a number. They differ from qualitative data, which describe the information and are not expressed as numbers.

Diagnostics

The purpose of this phase is to gain a comprehensive understanding of the current state from different perspectives. Once you know the issues you can prioritise them and establish the root causes, so you develop the right solutions.

Key points

1. Understand types of data

Quantitative data relate to quantities, values or numbers. They are usually expressed in numerical form, and may communicate factors such as length, size, amount, price and duration. Data can be displayed in tables or graphs, and it is possible to compare previous time periods to demonstrate changes in performance. In the medical field, quantitative data is usually considered more objective than qualitative data.

2. Use existing data sets

We recommend the use of standardised data sets that exist at your facility, to ease the burden of collection and allow you to compare like with like – which will strengthen the analysis. Standardised data sets generally define each data element and outline specific rules for inclusions and exclusions. These are generally consistent over long periods of time. Data sets also contain `cleaned data' to ensure they are accurate.

3. Collect data

Collecting your own data may be necessary when the information you need is not currently measured. There are data collection rules to guard against unintentionally introducing biases or errors which can reduce the reliability of your data. If you don't have expertise in this area, seek advice from a quality or redesign leader or research staff to ensure your efforts will be rewarded with the right high quality data.

4. Store data

Storing data in the right place the first time can reduce headaches when it comes to analysing it later. If you are a novice in this area, seek advice on how the most appropriate computer programs or survey tools to enter and store your data. Pay attention to accurately recording and storing data and do quality checks, as entering incorrect figures can substantially alter results.

Considerations and tips

The hardest part of data gathering is knowing when to stop and not becoming distracted by more and interesting data. Remember to collect the data that will inform your project, rather than data that are 'nice to have'.

What data are available?

This question is best answered by the people who are working in the data team at your hospital or who work in the area your project will impact. Often people submit data to a database or have access to data specific to their work.

Where can I get data?

In NSW we are lucky to have access to a large amount of NSW health specific data. The Health Information Exchange is a rich source of data on our admitted patient population. This can be accessed through your hospital, Local Health District or the Ministry of Health.

Are they independent?

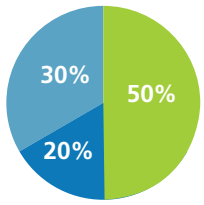
The Bureau of Health Information provide independent, unbiased reports and dashboards that are 'interactive' and can help you interrogate the data through pre-mapped tables. If your hospital submits data to the Health Roundtable you will have access to data that is benchmarked across Australia and New Zealand.

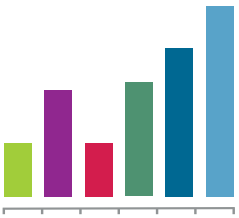
What do the data say?

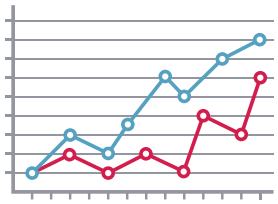
Once you have collected all of the data, you need to display your data in a format that is easily understood by the audience. There are some methods that work better than others, depending on the situation – see Presenting data factsheet for more information.

Displaying quantitative data

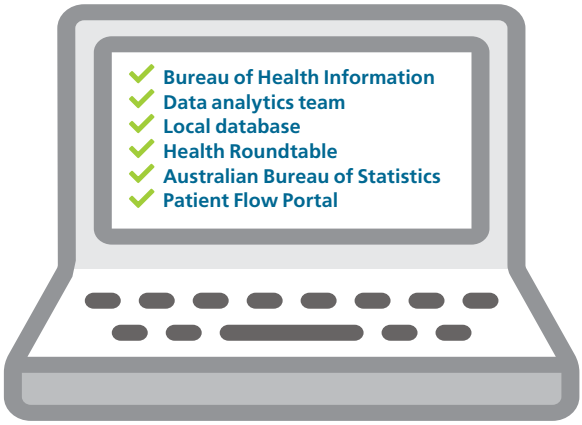
Keep charts simple and the data message clear







Data sources



Further information

My Health Learning Log in Form – Redesign Diagnostics (202464432): Data Collection

Data Governance, NSW Health – http://internal.health.nsw.gov.au/data/governance/index.html

Information on access to data, statistical publications and reports, NSW Health – http://internal.health.nsw.gov.au/data/access/index.html

Next steps

Now that you are on your way to collecting your defining quantitative data, consider which qualitative data you will need to describe and support your case.

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