

TIP SHEET

Quantitative data analysis

This tip sheet aims to support you in collecting, interpreting and presenting quantitative data.



Quantitative data is evidence or information that can be 'counted' or 'measured' numerically. Examples of quantitative data include statistics, response rates and attendance rates. Quantitative data 'defines' information whereas qualitative data 'describes' it.

Understanding quantitative data

When collecting and interpreting quantitative data, it can be useful to consider the following questions as a partnership group:

- How can we best analyse our quantitative data?
- What stands out to us from this data?
- Why do we think that is?
- How can we verify that or test our assumptions?
- How else can we analyse the data to get a different outcome?
- Have we considered both numbers AND percentages. Each can tell a different story.
- How old the data is. Is there updated information available?
- Where has the data come from? Is it representative of the wider population?
- Is the data consistent with neighbouring areas/state/national figures? Are there substantial variations (higher/lower rates)? Consider why this could be the case.
- Are there patterns with the data that don't seem to 'make sense'? For example, a community with a low socioeconomic status who performed well on the Australian Early Development Census (AEDC).

Processing quantitative data

Once you have your quantitative data, you will need to sort through the information and decide how you will process it. Here are some tips to get you started.

Data entry and coding

- Computer programs such as Microsoft Excel, Google Sheets or Apple Numbers can be a good place to begin entering and sorting your data.

- Think about how you would like to separate your information. For example, you could use separate worksheets for different stakeholder groups or surveys. You could also separate your quantitative and qualitative data onto separate sheets.
- Decide how you want to 'code' your data. Many survey questions use a Likert scale (strongly disagree/disagree/neutral/agree/strongly agree) or a 'yes/no' response. Prior to entering your data into a program, decide how the data will be coded. For example, you could code all 'yes' responses with a 1, and all 'no' responses with a 0.
- Assign a code for missing data. Often, missing data is coded as '9'. When choosing a number to represent missing data, ensure it is not already used to code any other response. You could also code missing data as '99' or '999' or leave it blank.
- If time permits, code the paper survey prior to data entry to minimise data entry errors.
- Include a worksheet in your file that summarises the coding strategy used.

Percentages

- Once you have calculated the 'count' or 'number' of responses, presenting this information as percentages can be meaningful for reporting purposes.
- To calculate percentages, take the 'count' value, and divide by the total number of responses.

Averages

- If your data was collected using a Likert scale, it could be useful to calculate the average score or average response.
- To do this, add together the total response value for each question and divide by the number of respondents. If you do this, you will also need to code missing data so that this calculation is not artificially inflated.

Presenting quantitative data

Once you have entered and analysed your quantitative data, consider the best way to present your findings. Here are some tips for presenting quantitative data:

- Firstly, decide which data you want to present. The data you choose will depend on the focus of your report or presentation and the audience you are presenting the results to.
- Decide how to visually present your data. Data can be presented in a variety of ways - including tables, charts, graphs or infographics.
- Consider developing a 'summary results' page in your data worksheet to refer to when making graphs, tables and charts.

More information

For more information on quantitative data sources, refer to **Platforms tip sheet: Secondary data sources**.

For more Platforms information, resources and support visit: www.rch.org.au/ccch/platforms

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