

Access management

Research publication guidelines: Reporting low frequencies

Researchers may identify low frequencies in the NCIS data they are using and wish to report them in publications.

These guidelines provide advice on appropriate methods to present low frequencies modelled on NCIS Unit practices when preparing data results for external use.

Researchers must be aware of the conditions in their NCIS access agreement when preparing research results.

What are low frequencies?



Low frequencies refer to a **cohort of cases less than five**.

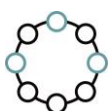
NCIS data low frequencies must be treated with caution as they can be potentially identifying depending on the nature of the cohort and the other data available within the publication.

Identifying information includes any data that may identify a deceased person. This includes information about the deceased person themselves and their family or next of kin and may include other factors such as the location of residence, fatal incident or death or specific details of the individual's life or death.

Types of low frequencies

Low frequencies should be masked or not presented in the following circumstances:

- they involve **demographic** information about the deceased. This can include: age range, sex, marital status, country of birth, and Indigenous origin
- at the **yearly level**. This means if there is an instance of three deaths in the year 2011, it should be masked or not presented
- at the **suburb, Local Government Area (LGA) or specific location level**. Low frequencies at the state or territory level should be treated with caution; if a state/territory has an instance of two deaths, this may be considered identifying depending on what is being reported on
- when they involve **intentional self-harm or assault** related deaths. These types of deaths are particularly sensitive and must be treated with caution. If there are low frequencies of other kinds of deaths these should also be treated with caution, especially when broken down across other categories such as the above.



Possible alternatives

There are appropriate alternatives that can be used to present low frequencies, including:

- presenting percentages of low frequencies

✓ **Do**

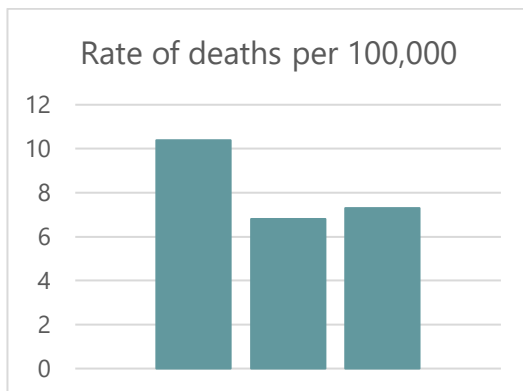
| Country of birth | Frequency of deaths | Percentage of total |
|------------------|---------------------|---------------------|
| Australia | 35 | 70.0 |
| Algeria | <5 | <10.0 |
| India | 6 | 12.0 |
| Japan | <5 | <10.0 |
| Thailand | <5 | <10.0 |
| Total | 50 | 100 |

✗ **Don't**

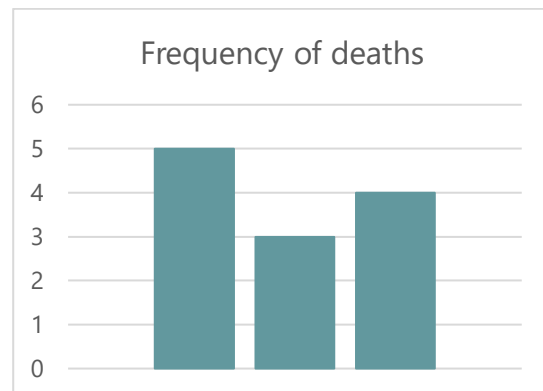
| Country of birth | Frequency of deaths | Percentage of total |
|------------------|---------------------|---------------------|
| Australia | 35 | 70.0 |
| Algeria | <5 | 6.0 |
| India | 6 | 12.0 |
| Japan | <5 | 4.0 |
| Thailand | <5 | 8.0 |
| Total | 50 | 100 |

- presenting data in rates (per 10,000 or per 100,000) instead of frequencies

✓ **Do**

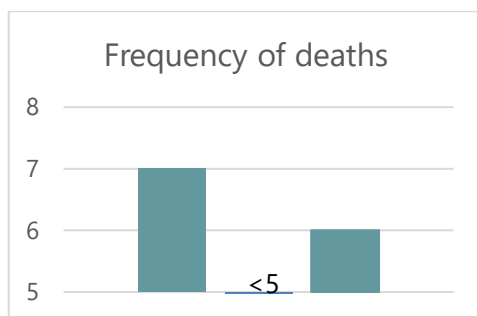


✗ **Don't**

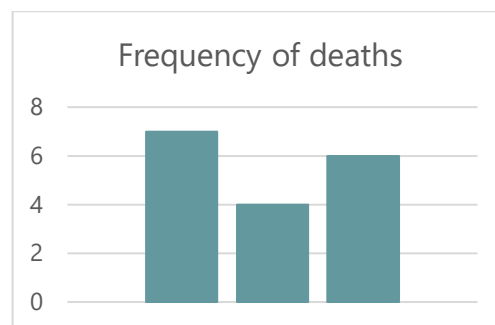


- starting bar chart axes at 5 rather than 0. This allows you to present data without showing low frequencies

✓ **Do**



✗ **Don't**



- combining categories if there are several with low frequencies. For example, aggregate up the age ranges 0-4, 5-9 and 10-14 years to a single age range of 0-14 years

✓ **Do**

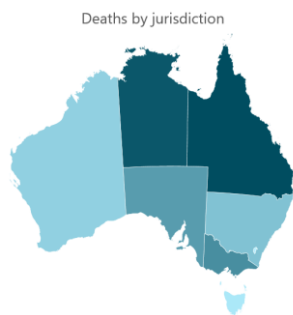
| Age range (years) | Frequency of deaths |
|-------------------|---------------------|
| 0-14 | 10 |
| 15-24 | 10 |
| 25-34 | 60 |
| 35-44 | 20 |
| Total | 100 |

✗ **Don't**

| Age range (years) | Frequency of deaths |
|-------------------|---------------------|
| 0-4 | 4 |
| 5-9 | 2 |
| 10-14 | 4 |
| 15-24 | 10 |
| 25-34 | 60 |
| 35-44 | 20 |
| Total | 100 |

- using a heat map covering broader regions instead of pinpointing exact locations when presenting geographic data

✓ **Do**



✗ **Don't**



Reminders

- If you are working with a smaller cohort, such as one with less than 100 deaths, keep in mind that any percentage or fraction breakdowns may become identifying if they relate to less than five deaths
- Percentages related to a low frequency should also be masked or not presented
- When doing analysis over a long period, such as 10+ years, consideration should still be given to whether low frequencies might be identifying.

For specific advice on how to present results for publication, contact the [NCIS Unit](#)