

Example - data

- 1) Make groups
- 2) Explore the data
- 3) Examine the dataset provided, look at the variables, values, and overall structure of the data.
- 4) Formulate hypothesis
- 5) Decide on a question or hypothesis you want to explore. What do you hope to discover or confirm using the data?
- 6) Select relevant data
- 7) Identify which variables are most relevant to your hypothesis. Choose only the data you need to focus your analysis.
- 8) Conduct data analysis
- 9) Analyze the selected data. Look for trends, patterns, or relationships between variables that might support or refute your hypothesis.
- 10) Interpret the results, based on your analysis, interpret what the data shows.
- 11) Make recommendations

Example Project

Topic: Frailty

Hypothesis: I am interested in understanding the relationship between whole-body bone density and a 6-minute walk test, which measures muscle endurance.

My hypothesis is that there may be a link between bone density and endurance in older adults.

Variable Selection: I will focus on two key variables:

- Whole-body bone density (WBTOT_BMD)
- 6-minute walk distance (6MWT)

Data Selection: From the dataset, I will select individuals aged 70–80 to keep the analysis relevant to my topic