

Day 2, Session 1: Graphs

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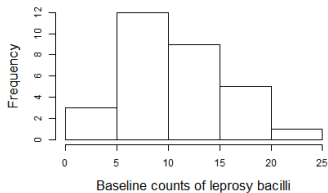
Graphs

- Why do we use graphs?
 - Describe relationships in the data
 - Visualize functions
-

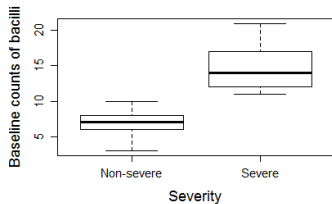
Example data analysis

- Data on 30 patients with leprosy
- Counts of leprosy bacilli measured at baseline and at a further time point
- Three treatments and an indicator of severity of the leprosy

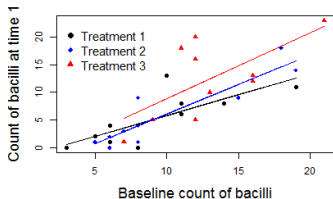
Common types of graphs in data analysis



(a) Histogram



(b) Boxplot



(c) Scatterplot

What do graphs tell us?

Linear trends

Slope-intercept form

Slope-intercept form: determining a line

Point-slope form

Exercise: slopes and intercepts

Solution: slopes and intercepts

Creating a graph using an equation

Reading an equation from a graph

Quadratics

Exercise: quadratics

Solution: quadratics

Shifting graphs

Exercise: shifting graphs

Solution: shifting graphs