

Health Science Statistics using R and R Commander by Robin Beaumont

Chapter 8 A quick tutorial: Analysing data shipped with R

Learning Outcomes

| Learning outcome | Tick box |
|---|-----------------|
| Be able to load a dataset installed with R from within R Commander | q |
| Be able to view a dataset from within R Commander | q |
| Be able select the appropriate R Commander menu option to produce a set of summary statistics | q |
| Be able to appropriately interpret a set of summary statistics | q |
| Be able to explain the different "Levels of measurement" (glossary entry) | q |
| Be able to explain how the level of measurement affects the summary statistic output | q |
| Be able to explain and demonstrate how to compute a new variable from within R Commander | q |
| Be able to select the appropriate menu option and complete the dialog boxes appropriately to produce Boxplots from within R Commander | q |
| Be able to appropriately interpret a Boxplot (glossary entry) | q |
| Be able to select the appropriate menu option and complete the dialog boxes appropriately to produce plots of means from within R Commander | q |
| Be able to appropriately interpret a plot of means | q |
| Be aware of the difference between a sample and a population and how this relates to a random sample | q |
| Be aware of the basic principle of a one way ANOVA | q |
| Be able to select the appropriate menu option and complete the dialog boxes appropriately to perform a one way ANOVA in R Commander | q |
| Be able to appropriately interpret the output from a one way ANOVA | q |
| Understand the purpose of pairwise comparisons and be able to appropriately interpret them | q |
| Be able to select the appropriate menu option and complete the dialog boxes appropriately to perform pairwise comparisons on a one way ANOVA in R Commander | q |
| Be aware of the 'effect size' concept and a simple way of assessing it (more sophisticated approaches presented in later chapters) | q |
| From within R Commander be able to browse the datasets in all installed packages | q |