

# **Health Science Statistics using R and R Commander by Robin Beaumont**

## **Chapter 23 Comparing several independent proportions with an average: Two way tables**

### **Learning Outcomes**

**\* = more advanced outcomes**

<b>Learning outcome</b>	<b>Tick box</b>
Be able to describe the purpose of the chi-squared test for a two way table and how this relates to a statistical model	q
Be able to give examples of the appropriate use of the chi-squared test for a two way table	q
Be able to select the appropriate R Commander menu option/dialog box options to run a chi-squared test for a two way table using raw data	q
Be able to select the appropriate R Commander menu option/dialog box options to run a chi-squared test for a two way table using counts	q
Be able to interpret a set of results including; observed table, "expected counts table", components of the chi-squared statistic (residuals), chi-squared statistic and p-value	q
*Be able to create R code using either the <i>chisq.test()</i> or <i>prop.test()</i> functions to carry out the chi-squared test for a two way table using counts and raw data	q
*Be able to create a simple mosaic plot using the <i>mosaic()</i> function in the <i>vcd</i> package (developed in later chapters)	q
*Be able to write up a set of results in the appropriate style	q