

## HM009 Health Statistics, Epidemiology & Critical Analysis

### Unit Description

This unit builds on HM004 and examines quantitative and qualitative methods of enquiry and the value of health data analysis and interpretation that are central to health research and evidence-based health policy and practice. Statistical and epidemiological concepts are taught side by side to promote integration of knowledge across both disciplines and critical analysis encouraged in respect of two philosophies of enquiry. Students will be introduced to common data sets, epidemiological principles, and qualitative analyses through a series of case studies and workshop activities. Skills in statistical analysis and EXCEL will be used to analyse epidemiological data. Students will also critique a number of qualitative and epidemiological studies to assess the validity, strengths and weaknesses of study findings and the methods of investigation.

<b>Credit Points</b>	8 credit points
<b>Duration</b>	12 weeks (10 teaching weeks and 2 revision and assessment weeks)

### Unit Learning Outcomes

On successful completion of this unit, students will be able to:

1. Apply basic concepts, constructs, and principles of health statistics and epidemiological research methods to analyse health data.
2. Use statistical methods to analyse data, interpret results, and present findings.
3. Evaluate common epidemiologic study designs, their strengths, and limitations.
4. Recommend approaches to mitigate the impact of sources of error and bias in epidemiologic research.
5. Describe the principles of ethics, confidentiality, and conflict of interest in the context of health and healthcare practice.