

# EXAMINATION FEEDBACK FORM

Course Code:	MPH-512
Course Name:	Applied Statistics in Epidemiology and Public Health
Credits:	10 ECTS
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## General Comments:

*Please provide comments on overall performance highlighting how students may improve overall technique to enhance results in the future.*

## Areas of Strength

The overall performance of students was very good in this exam.

Most students demonstrated a good understanding of how the types of variables determines the most appropriate statistical test to be used, including parametric and non-parametric tests. They also were able to identify appropriate and correctly interpret measures of association derived from different statistical tests, when presented with STATA outputs of statistical tests. Furthermore, most students were very well familiar with the assumptions involved in the statistical tests studied, and were able to correctly interpret assumption testing outputs to decide on the appropriateness of a particular statistical test. Lastly, students were familiar with the theory behind what makes a third variable a confounder, a mediator, or an effect modifier.

## Areas of Weakness

Several students struggled to identify how the distribution of a numeric variable affects the relationship between the mean, median and mode. Most students also did not recall the relationship between statistical power, sample size and statistical significance. In addition, even though students recalled very well some of the most commonly used STATA commands, many struggled to remember more explicit commands, such as *tabstat* and commands that are used in sequential processes of variable generation and value labelling i.e. *generate/replace*. Also, for some assumption tests, such as the Bartlett's test for equal variances, interpretation was not always correct. Furthermore, some students struggled to identify a third variable as a confounder, a mediator, or an effect modifier when presented with results from multivariate regression analyses. Another topic that proved challenging was the calculation of measures of impact given measures of association derived from STATA statistical outputs.

Lastly, as an overall comment, despite being prompted by the questions, students often did not justify their responses.

## Suggestions for Improvement

Students are encouraged to revisit the sections/material highlighted under Areas of Weakness. Re-attempting some of the activities of these sections will help students better apply the theoretical concepts to results of statistical outputs. One such important section is the section on the big picture of statistical analysis and how sample size and characteristics can impact on the inferences made. Furthermore, re-attempting activities will also help students remember the most important STATA commands. In addition, in terms of assumption testing, students are encouraged to revisit tests for assumptions and re-familiarize themselves with interpretation of these outputs. Lastly, in the future, students are encouraged to support their answer with a justification whenever asked, as this will better demonstrate their understanding of the material.

## Quantitative Information

*It may be helpful to students to provide information on the distribution of marks, either for the examination as a whole, or for individual questions. Where available, these figures may provide the student with a useful comparison of their performance in relation to their peers and overall student performance on the examination. The Examinations Office can provide guidance on how spreadsheets may be set up to record this information if Schools wish to do so.*

*Information can be presented in table form or graphically.*

**All students' performance scores:**

*(This table shows the distribution of scores of students who attempted the Examination)*

	Overall
Number of students	14
A (90%+)	5
B (80%-89%)	5
C (70%-79%)	3
D (60%-69%)	1
F (<60%)	0
Mean Mark	85.3
Standard Deviation	6.7