

Further Epidemiology and Statistics (MED5021)

Epidemiology Re-assessment 2022-2023

This coursework is worth 50% of your overall mark for this course. The deadline for submission is 26th July 2023 (11.55 p.m.). Your total word allowance for this piece of coursework is 1,500 words (the MPH has penalties for work over the word count). Quotations and references must be clearly indicated. Graphs and tables may be used but are not essential for completion of the coursework, nor do they necessarily contribute to marks.

Esteban-Cornejo et al. (2022). Handgrip strength and all-cause dementia incidence and mortality: findings from the UK Biobank prospective cohort study. <https://onlinelibrary.wiley.com/doi/full/10.1002/jcsm.12857>

		Total - 38 marks
1.	What is the research question, and how have the authors justified it in the introduction?	5
2.	That the study was a “[prospective] population-based cohort of approximately 500 000 participants (5.5% response rate) aged 37–73” Define this fundamental design, two strengths and two weaknesses, and discuss implications of the response rate.	8
3.	Elaborate what is meant by “When age-sex-specific quintiles of grip strength were fitted into the model, those in the lowest quintile had a higher risk of incident dementia (HR: 2.17 [95% CI: 1.96; 2.41]) compared to those in the highest fifth”.	5
4.	Describe and discuss the findings in Figure 1, including the caption.	4
5.	Comment on the generalisability of the study’s findings.	4
6.	Comment on the use of incident disease and covariate data in this study, and suggest one alternative type of outcome data.	5
7.	Describe how life-course approaches (or any alternative design) in epidemiology could have been used to investigate inequalities in/potential links between physical health and neurodegenerative conditions.	4
8.	Discuss how the findings of this paper could potentially influence public health practice.	3

Note: as per MPH program documentation, plagiarism includes inappropriate collaboration with others.