## Mechanisms of social influences on health - Practical

2<sup>nd</sup> May 2024

 First, decide what outcome you would like to consider and set up the diagram with socioeconomic position (SEP) on one side and the outcome (e.g. mental health, diabetes, cognitive decline, adult physical activity) on the other with an arrow representing time (or equivalently age).

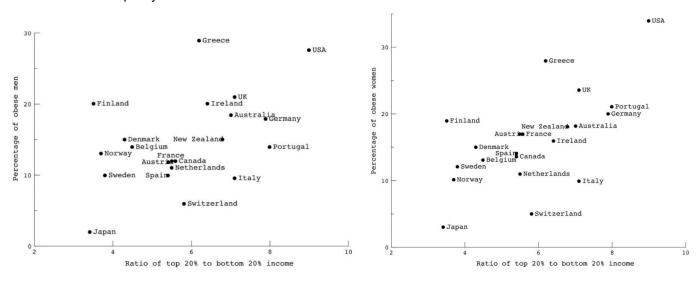
Socioeconomic position

Health outcome

Draw pathways between SEP and your selected outcome. Examples of diagrams were included in the lecture. These are just examples, and your diagram does not need to look the same as these.

- Highlight at least one key biological pathway and one key social or behavioural pathway.
- Remember to think about:
  - o The time ordering of each life course factor.
  - o The different periods of life (e.g. childhood, adolescence, older age)

2. The graphs below show the correlation between the prevalence of obesity and income inequality in men and women.



a) What type of study do the graphs represent?

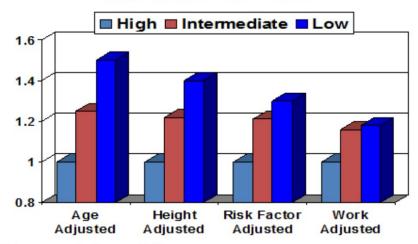
b) What do these graphs suggest about the relationship between obesity and income inequality?

c) What mechanisms could explain this relationship?

d) The relationship has been partially explained after adjustments for average daily calorie intake. What could it mean?

3. The graph below represents the results from the Whitehall II study. CHD = coronary heart disease, work = work-related stress.

## Odds ratio for new CHD in Whitehall II by Employment Grade - Men



Marmot et al, Lancet 1997

- a) Describe the relationship between employment grade and risk of ischemic heart disease.
- b) Describe the changes in odds ratios between diverse models.
- c) How would you interpret these models?