

# Project Presentation

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PHC252D

- Background
- Specify SCM (and DAG)
- Specify counterfactuals and target causal quantity
- Introduce data and commit to a statistical model
- Discuss identifiability and estimand
- Get our hands dirty (estimation procedures)
- Results
- Interpretation

We know that sleep affects weight, but does trying to lose weight affect sleep?

- We used National Health and Nutrition Examination Survey (NHANES) data – from the National Center for Health Statistics (NCHS) – a multistage survey of U.S. population
  - Stage 1: Counties
  - Stage 2: Segments
  - Stage 3: Households
  - Stage 4: Individuals
- Survey aims to study wide range of topics such as Cardiovascular disease, Obesity, Physical fitness and physical functioning, Reproductive history and sexual behavior, etc.

# Background (Cont'd)

## Notes about NHANES data:

- Individuals were subjected to interviews as well as physical examinations.
  - categorical as well as numerical data
  - some questions had a lot of valid responses, but made positivity questionable.
  - No shortage of missing data (either “I don’t know”’s or unanswered questions).
- The sample for the survey is selected to represent the U.S. population of all ages. To produce reliable statistics, NHANES over-samples persons 60 and older, African Americans, and Hispanics.

# SCM and DAG

