***Module overview***

“Bias can be defined as the result of a systematic error in the design or conduct of a study. This systematic error results from flaws either in the method of selection of study participants or in the procedures for gathering relevant exposure and/or disease information; as a consequence, the observed study results will tend to be different from the true results. This tendency toward erroneous results is called bias.”

* Szklo, Moyses, Nieto, F. Javier. Epidemiology (pg. 127).

***Module topics / Key Concepts***

* Be able to describe and identify selection bias.
* Be able to describe and identify information bias.
* Be able to describe and identify detection bias.
* Be able to describe and identify incidence-prevalence bias.

***Required videos***

Please view the following presentations **before** our next in-class lab session:

* [Causal Diagrams: Draw Your Assumptions Before Your Conclusions](https://courses.edx.org/courses/course-v1:HarvardX+PH559x+3T2017/course/) (Hernán, 2017)
  + Lesson 3: Selection Bias
  + Lesson 4: Measurement Bias
  + Only videos are required. You are welcome to complete questions if you would like.
  + This is a free video series you can access online at a website called [edX](https://www.edx.org/). The videos feature [Miguel Hernán](https://www.hsph.harvard.edu/miguel-hernan/), who is at Harvard and one of the leading causal inference researchers in the field.
  + You will have to create a login and password with the edX website in order to view the materials. There is no cost.

***Required Readings***

Please read the following textbook chapters and articles **before** our next in-class lab session:

* Szklo, M., & Nieto, F. J. (2019). *Epidemiology: Beyond the Basics*. Burlington: Jones & Bartlett Learning.
  + Chapter 4

***Optional supplemental material***

* [Link to the PowerPoint I used in lab today](https://www.dropbox.com/s/d9hab18oom9e30o/intro_to_bias.pptx?dl=0).

***Assignments***

1. Check on learning quiz
2. Lab
3. Module quiz