Setting: Imagine you are a health researcher and have a research question in mind that relates to gender. You must develop a scientific research proposal to submit to a potential funder or to other researchers with applicable data.

Overview: You will design an empirical study examining an exposure and an outcome that relates to gender and health. You may choose any exposure and any outcome you find interesting. The goal is to apply the research concepts learned in class in order to address a scientific question related to gender and health. The design and topic do not have to be completely novel but try to be creative and address a gap in the scientific literature rather than focusing on an area that already has a scientific consensus. For example, as we'll discuss in week 2, we already know that the age of cardiovascular disease diagnosis differs between men and women, but you might instead investigate what social factors are driving this difference. You might ask: Might healthcare providers be underdiagnosing women because the presenting symptoms are not what providers have been trained to think of as “classic” symptoms?” or What are other ways that gender impacts the diagnosis of cardiovascular disease?

Process: You should review the existing scientific literature on your topic and then outline: 1) the topic’s importance, 2) gaps in the literature that your study will fill, 3) your specific aims/hypotheses, and 4) your methodology for how you would conduct this study. Your paper must include references to primary sources or scientific review articles whenever you mention information that is not considered “common knowledge.”

When reporting epidemiologic data, such as prevalence or incidence data, cite primary scientific sources, not secondary sources (for instance, do not cite fact sheets from advocacy organizations). This will help you understand the literature in more depth, ensure the citation is correct, and best prepare for writing subsequent papers.

Before beginning the write-up, you will submit a proposal in the form of a paragraph-long description of your topic. I will give you feedback on this paragraph to ensure you are on the right track. The final project will include a write-up and an in-class oral presentation. The write-up page limit is 2.5 pages (single-spaced), not counting references. We will discuss the presentation format in class.

The questions below can be used as a writing and presentation guide:
1. What is the question to be answered? What is the current state of knowledge on this question? What is the public health or clinical significance of this question?
2. What is the hypothesis to be tested in this study to address this question?
3. What type of research strategies will you use to test this hypothesis?
4. How do you define the exposure? How do you get the information? How do you validate the information?
5. How do you define the outcome? How do you get that information? How do you validate the information?
6. What other variables do you need to collect? (Think about biases for which you’ll need to analytically account such as age).
7. Where do you get the study participants? How do you identify them? How do you recruit or include them?
8. What types of potential biases or limitations could affect the study? How could these be avoided, minimized, or assessed?
9. What are some strengths and limitations of your study (e.g., cost, time, establishing a temporal relationship between the exposure and outcome)?
10. What types of conclusions would you draw from the study? To whom might the findings be generalizable? Would the message most likely be for researchers, health care providers, or policy makers?