1. Write the overview and introduction for your final project. The overview consists of 2-3 sentences summarizing the project and goals. For the introduction, the first paragraph describes the problem addressed, its significance, and some background to motivate the problem. In the second paragraph, explain why your problem is interdisciplinary, what fields can contribute to its understanding, and incorporate background related to what you learned from meeting with faculty/staff.

The goal of my final project is to visually show the change in childhood vaccine medical exemption rates in California after legislation eliminating personal belief exemptions was enacted. The elimination of personal belief exemptions aimed to cut down on the number of unvaccinated children within schools, however, recent data is showing that these numbers may have solely transferred to medical exemptions. This project will visually show the impact this law had upon medical exemption rates.

In response to a number of infectious disease outbreaks, California has enacted two major vaccination policy changes in the last five years. First, in 2012, AB 2109 told schools that receive federal funding (both public and private) that they could not unconditionally admit children who were unvaccinated or did not have vaccine exemptions. Subsequently, in (2015) SB 277 was passed, eliminating personal belief exemptions (PBEs) for children entering schools. Due to this change, parents hoping to exempt their child from the standard vaccination schedule needed a signed note from a physician in order for their child to be enrolled in school. While the goal of this law was to cut down on the number of children that were un- and under-vaccinated, recent work has shown that their exemptions may have just been switched from PBEs to medical exemptions. The goal of this project is to show any changes in medical exemption and vaccination rates that came after this law was enacted in order to inform future policy decisions.

This problem is interdisciplinary as it hits upon the intersection of legal policy and infectious disease. Additionally, it is uniquely ready to be studied as California is one of the few states that makes school-level vaccination rates public. I met with John Holmes to discuss publicly available state databases to compare the California data to, and he recommended that I look at nationally collected data, as finding state level data is quite rare. I met with Alison Buttenheim, and we spoke about how seeing the change in vaccination rates is important. The law was passed with the hope that childhood vaccination rates overall would increase, but it is entirely possible that this has not happened to the extent needed for herd immunization. I am planning to meet with Sherrie to discuss the best way to map these data.