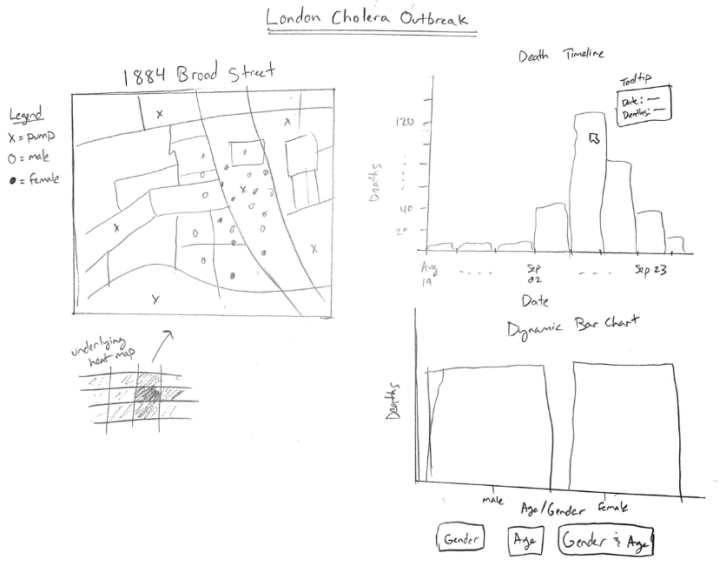
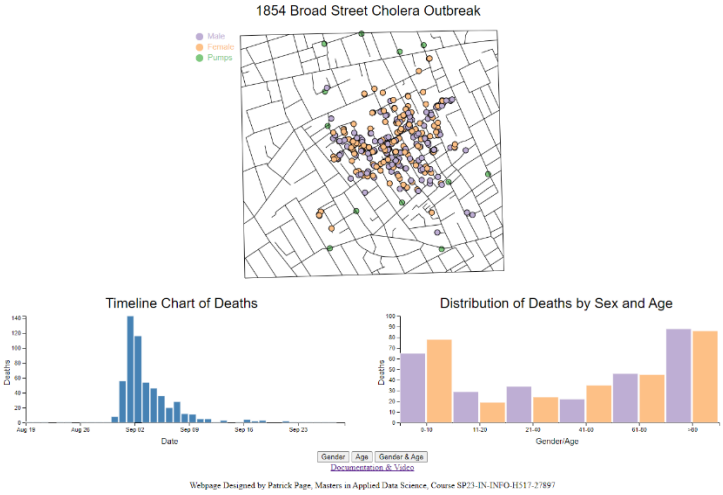
I started the design process by creating a rough sketch of all of the ideas I hoped to accomplish for this project. Most of the ideas from the sketch were able to come to fruition. Some ideas, however, had to be scrapped due to time constraints and my own personal shortcomings when it comes to programming in D3.js.

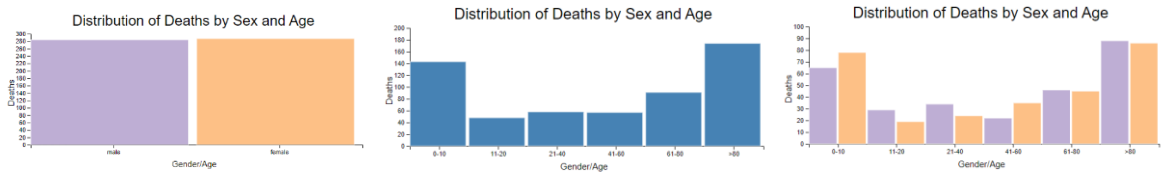


The sketch shows the map of London with a legend that describes the symbols for the pumps and deaths throughout the area. The sketch also shows two main plots: a timeline chart that can be used to visualize the deaths throughout the Cholera outbreak, and a dynamic bar chart plot that can be used to visualize deaths by gender or age groups. The timeline chart is also meant to filter the Broad Street map by only showing the deaths that occurred on the bar that is being hovered over by the mouse clicker. The one idea that had to be scratched was the heatmap that would have been overlaid the Broad Street map which would have provided a more quantitative measure of death concentrations.

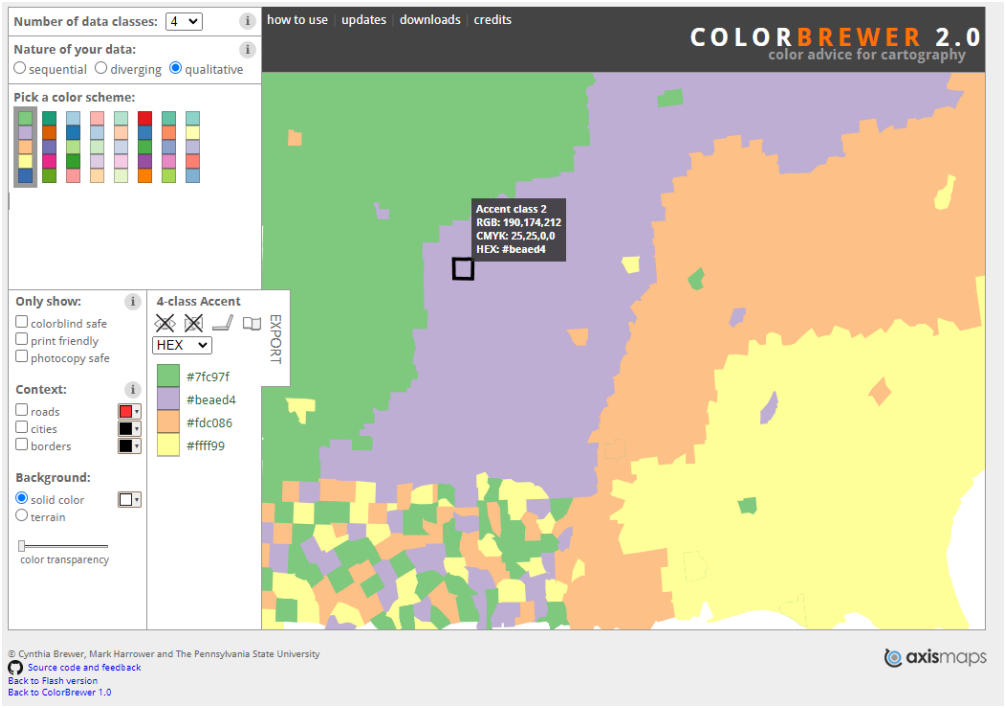


Above is the final design for the cholera data visualization webpage. As you can see, the design changed in some minor ways, but overall, the key ideas were implemented. I decided to make the map front and center, since I believe the map is the most telling visual that shows the relationship between the Broad

Street pump and the largest concentration of deaths. Beneath the map, I decided to place the timeline chart and the dynamic bar chart side-by-side. The inspiration to do this came from the first homework assignment of the course that focused on “breadth” and “depth” questions and how to answer those questions with appropriate visualizations. I wanted the focus to first be on the map that describes “how” these people are dying, and then the focus to shift below to the two visuals that could provide more detail about “when” these people are dying and “who” are the people that are dying.



The dynamic bar charts tell an insightful story about who was at most risk during the cholera outbreak. There did not seem to be a significant difference between the total deaths of men and women, but young children, and the elderly were at much higher risks of getting severely sick and dying compared to teens and adults. This seems typical of diseases as children and elderly usually have weaker immune systems.



The color palette was chosen by using a qualitative color scheme provided by COLOR BREWER 2.0. I maily wanted to use color to show the difference between men and women and to distinguish pumps from deaths on the Broad Street map, so a qualitative palette made the most sense. I would have liked to use the colorblind friendly palette, but unfortunately you could only select a max of 3 colors and I needed 4 colors in total.