Naveen Goyal Project -1

Cholera Epidemic 1854, London

Objective: Analyze the deaths caused by cholera epidemic by re-plotting the Jon Snow's map originally created in 1854

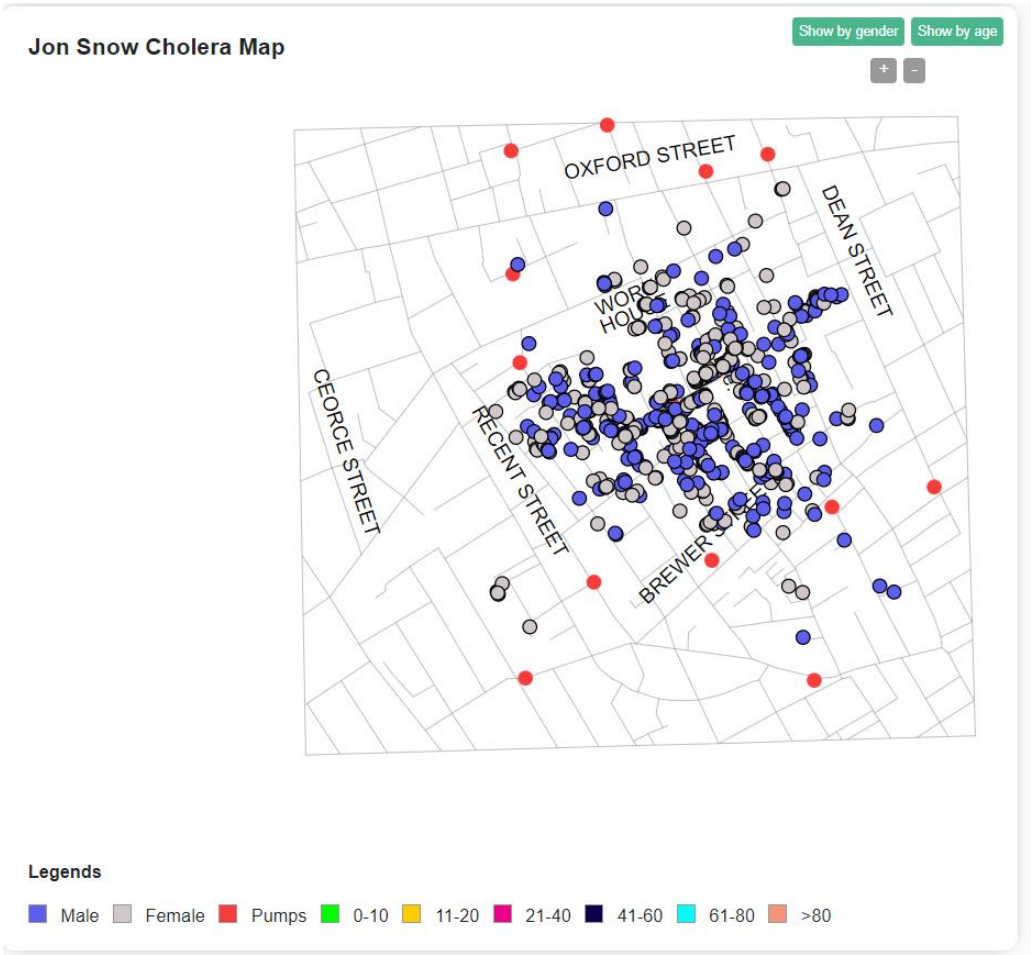
Trying to visualize:

1. Does this map and analysis help in any epidemic may happen in future?
2. How the different gender and age were impacted due to this outbreak?
3. Death's visualization in different streets which are closed to pump areas
4. Trend visualization for each day as per given timelines

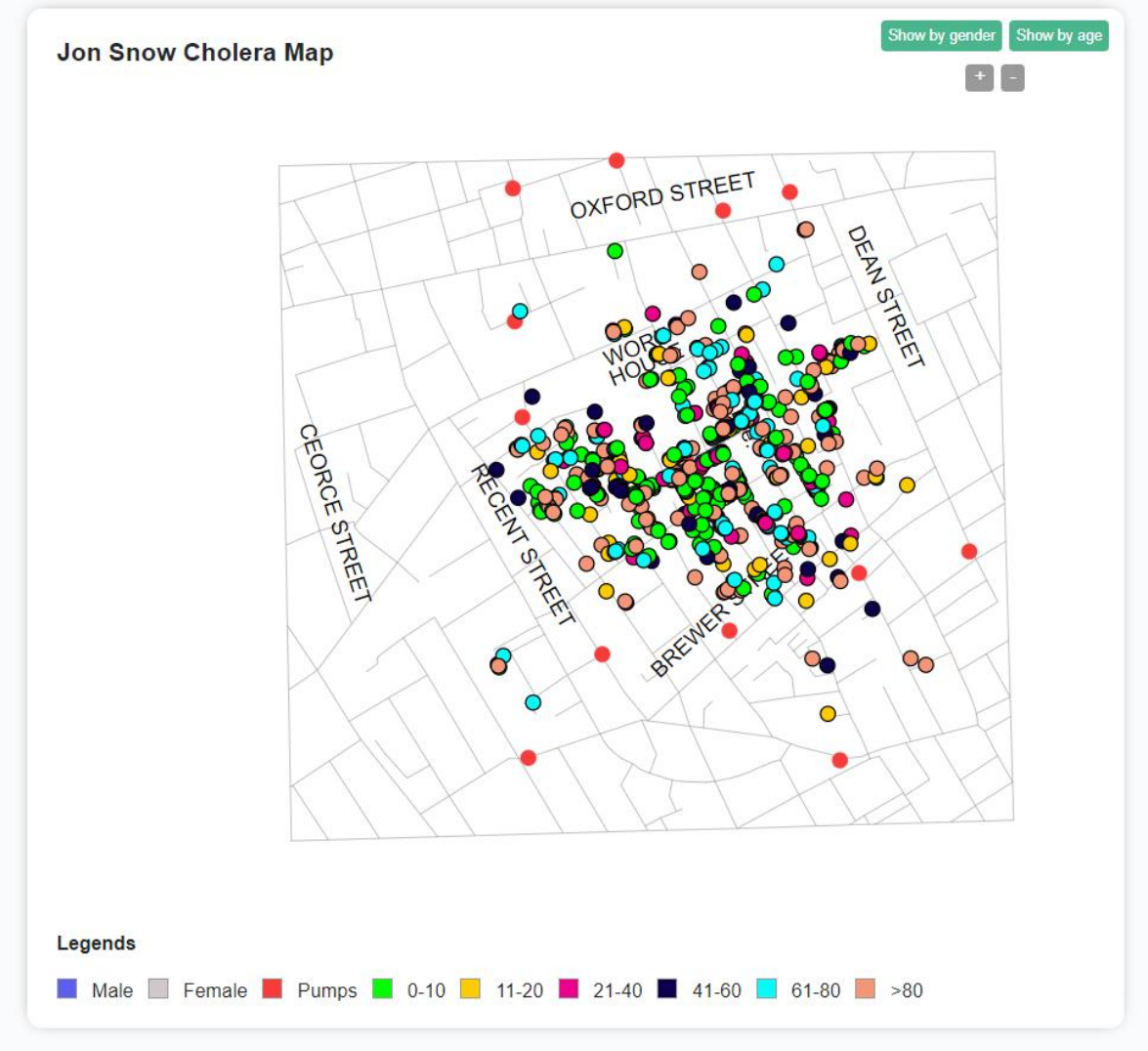
Design Strategy: I started working by creating and visualizing the street map. Then, at first the pumps were hiding out below other layers and disappearing from the map if I clicked on other interactive graph. However, I put it as first layer and it got fixed. ss

Street Map: The map was comprised of few important landmarks, pumps in the street and deaths data. The data points on the map can be switched out in two views 1. Show by Gender 2. Show by Age. Different color was select to make it convenient for the users to differentiate easily between various age groups.

1. **With Gender**:

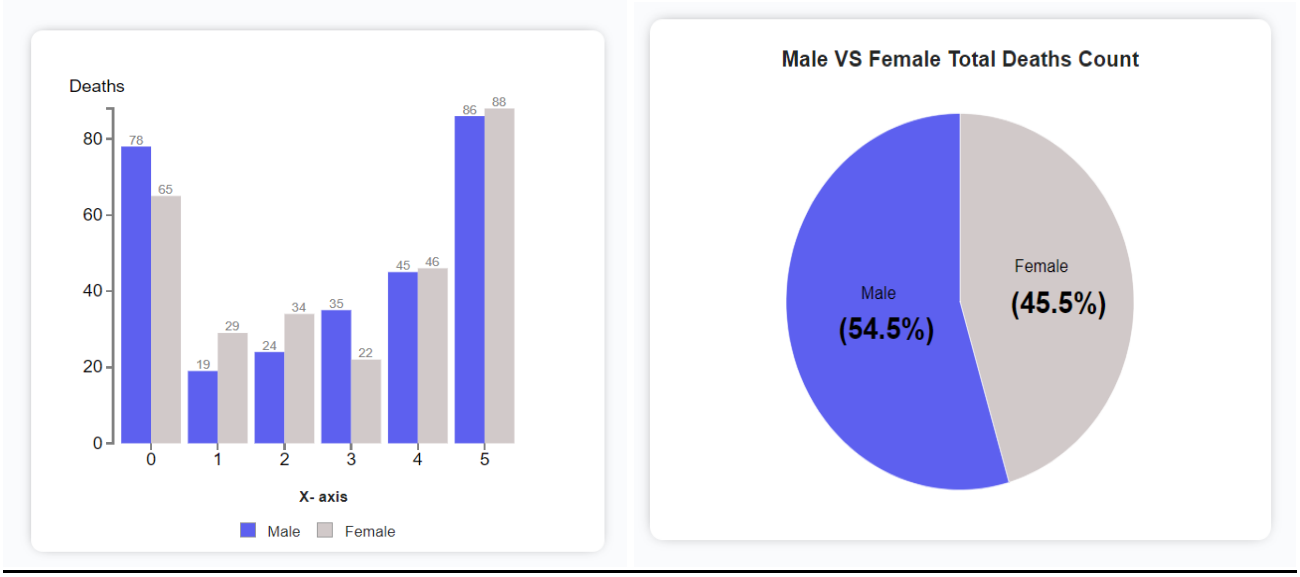


2. **With Age Groups**:

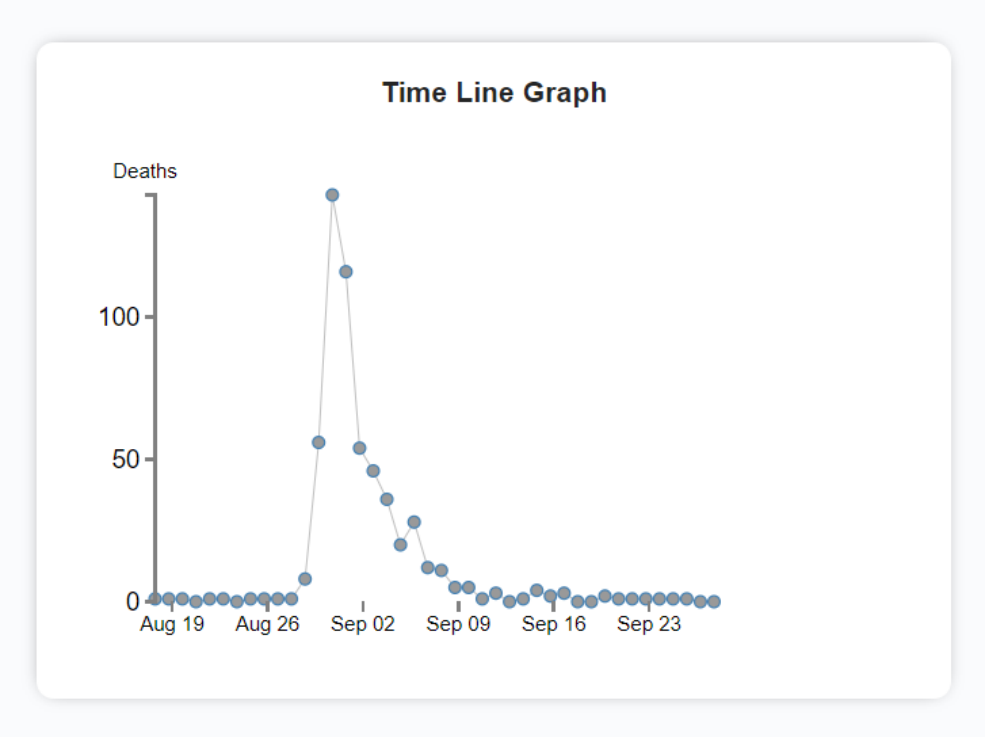


There were few revisions back and forth before the final one was decided. I was finally able to draw the street map using D3.js, though I did use some references from d3 website.

Bar and Pie Charts: Created bar chart graphs with the interaction embedded with Pie chart and street map to show appropriate data for easy visualization.



Timeline Graph: This graph was created to visualize the deaths based on time. This shows the total deaths until that day with the deaths happened on that day itself too. This helps in analyzing number of the deaths and shows that what was death intensity on a particular day.



Video Link for the Presentation: https://iu.mediaspace.kaltura.com/media/t/1_2sxid69i

References:

https://www.appsloveworld.com/d3js/100/12/d3js-use-view-port-center-for-zooming-focal-point

https://github.com/dagrejs/dagre-d3/issues/244

https://stackoverflow.com/questions/36667194/dagre-d3-js-zoom-fit-to-all-contents

https://davideandreazzini.co.uk/dags-visualization-using-dagre-3d/

https://gist.github.com/DoctorBud/23aca14dcfde5f680870d77f39569e73

https://gist.github.com/adg29/fd53a826b4b83ebc5c1e

https://d3js.org/