

Resources

-- For help with structure and d3 --

The sample.js and sample.html files

-- For help with line graph --

<https://bl.ocks.org/d3noob/ed0864ef6ec6af1e360917c29f4b08da>

-- For help with my key --

https://www.d3-graph-gallery.com/graph/custom_legend.html

-- For help with ticks --

<https://stackoverflow.com/questions/40199108/d3-v4-scaleband-ticks>

Explanation and Justification

The graph I chose to create is a line graph with two lines, with the line in blue representing deaths from preventable or mitigable Zymotic disease (zNum) and the line in red representing deaths from wounds combined with deaths from all other causes (wNum + oNum). My layout represented both months and amount of people as a 2d plane, with going forward on the x-axis representing the passing forward of time and going upwards on the y-axis representing more people falling due to disease, wounds, or other causes. My encoding saw the two lines marking the intersection of these two variables – the blue one showing how many people died from Zymotic disease at each month, and the red one doing the same but for combined deaths from wounds and other causes.

I would say that my graph is able to effectively show patterns in the data similarly to Nightengale's graph, as it (just like Nightengale's) denotes a clear ordinal relationship between deaths from Zymotic disease and deaths from all other factors: namely, that there is almost always significantly more of the former than the latter. Additionally, both mine and hers show a ratio relationship between the two: the gaps between her pie wedges in the same location, and the gaps between the y-values of my line points with the same x-value, both show that different categories of death can sometimes rise in tandem. However, I would say that my visualization is a little simpler than Nightengale's. This is because it uses less variables (as it combines deaths from wounds and deaths from all other causes into one variable) to more clearly show that Zymotic disease is the vastly most dangerous factor, is a style of chart with more straightforward visuals, and combines data from both war campaigns into one chart, instead of keeping them separate (I still denoted the change in campaign through the use of an extra-large tick and surrounding blank space for April 1855, the start of the second campaign). Despite this, I believe my graph could be just as effective of a tool of advocacy for Nightengale's cause, as her crucial data finding – that significantly more soldiers die from preventable disease when compared to deaths from wounds and all other causes – is just as evident.