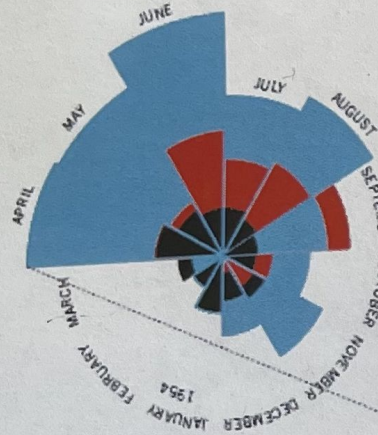
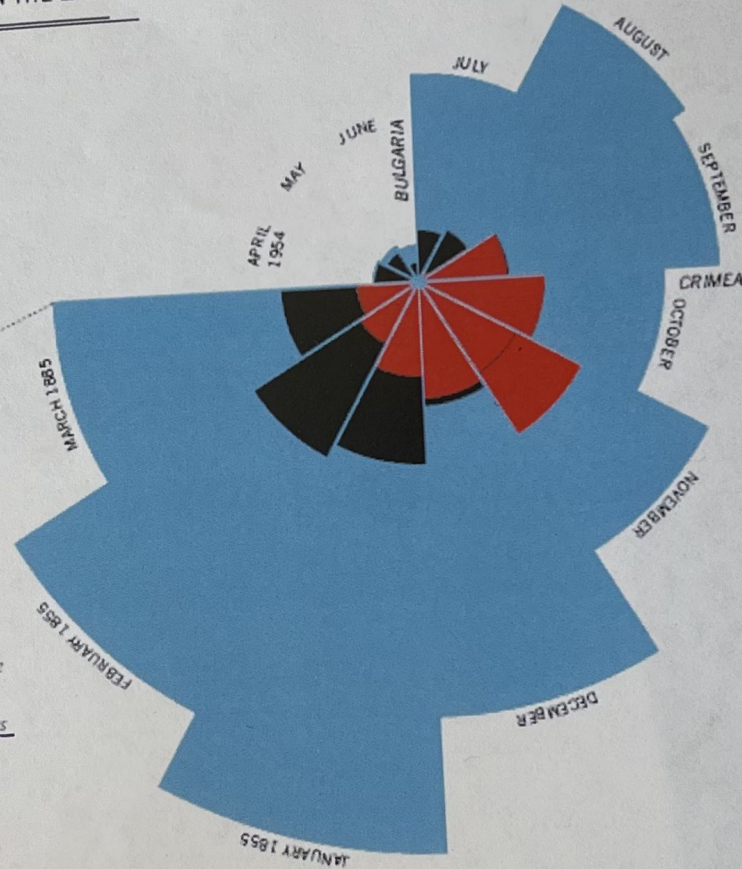


DIAGRAM OF THE CAUSES OF MORTALITY IN THE ARMY IN THE EAST

2.
APRIL 1855 to MARCH 1856



1.
APRIL 1854 to MARCH 1855



The Areas of the blue, red, & black wedges are each measured from the centre as the common vertex
The blue wedges measured from the centre of the circle represent area for area the deaths from Preventible or Mitigable Zymotic Diseases, the red wedges measured from the centre the deaths from wounds, & the black wedges measured from the centre the deaths from all other causes
The black line across the red triangle in Nov' 1854 marks the boundary of the deaths from all other causes during the month
In October 1854, & April 1855, the black area coincides with the red,
in January & February 1856, the blue coincides with the black
The entire areas may be compared by following the blue, the red & the black lines enclosing them.

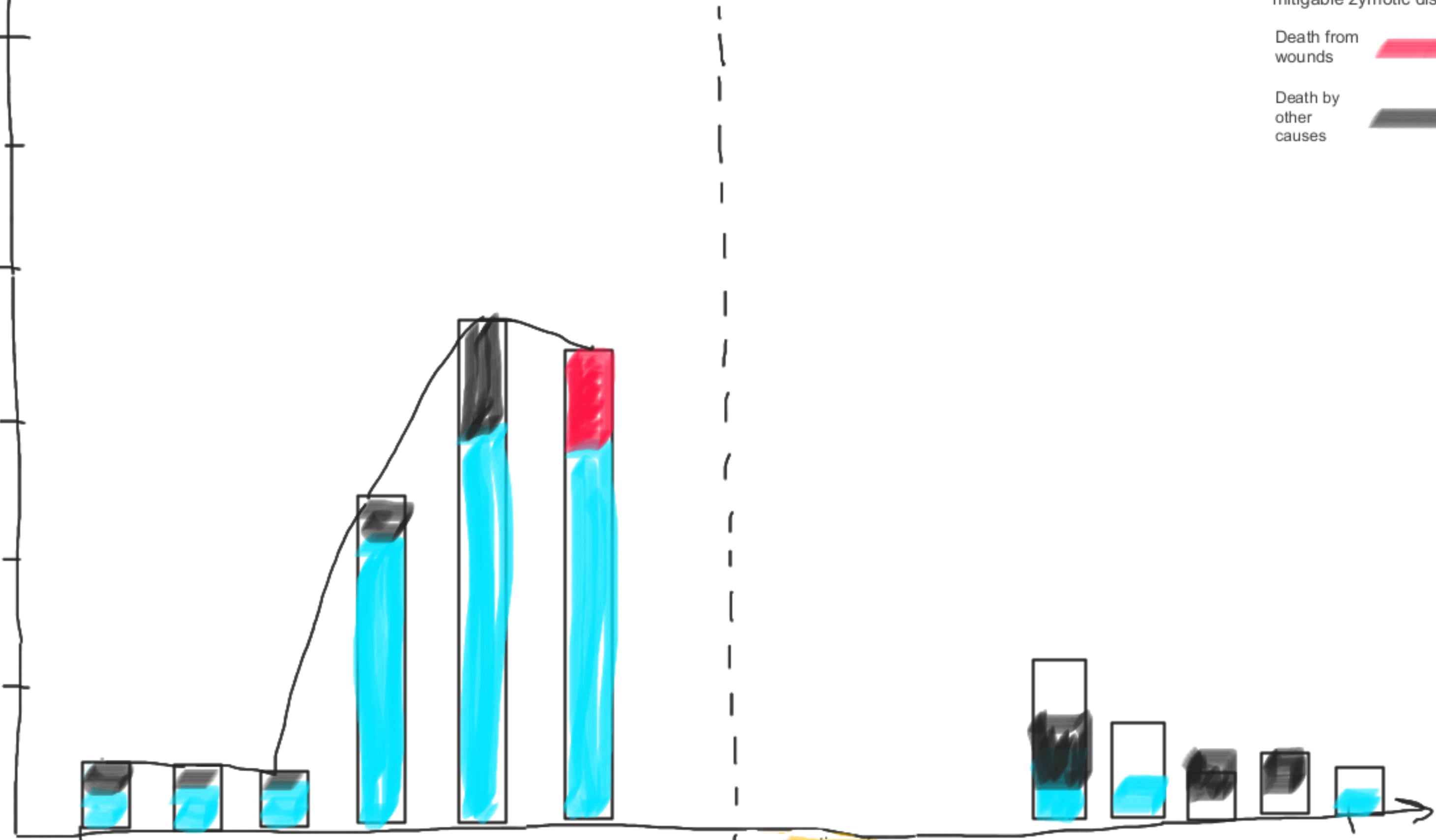
Figure 4: Florence Nightingale (1820-1910) is famous not only for her push for more sanitary conditions in hospitals and homes, but also for her work in statistics. She created this now famous "coxcomb" graph to visualize seasonal sources of patient mortality in a British field hospital during the Crimean War. A Sanitary Commission was created in March of 1855, which is the reason for the split in the two graphs after that month.

Causes of Mortality during Crimean War, Before and After Establishment of a Sanitary Commission

Number of deaths



units?



creation of Sanitary Commission

Months

Lab 3: Drab to Fab!

September 7, 2021

About this lab

You will be divided into groups during class based on one of the four visualizations listed below (two groups will be assigned to each visualization).

1. Trends in Instructional Staff Employment Status (American Association of University Professors)
2. Electric Skateboards (Electric Skateboard HQ)
3. Fishing Industry by Country (Wikipedia)
- ✓ 4. Causes of Mortality during the Crimean War (Florence Nightingale)

Part I: Critique and create (15 minutes)

1. What story does the figure tell?

The graphs indicate death numbers from different causes by representing the areas of wedges for different timelines. It uses different colours to separate the causes of death. The two timelines are: April 1854 to March 1855 AND April 1855 to March 1856. Both of these timelines are related by an event of creation/establishment of Sanitary Commission in the March 1855. This lead to a significant decrease in deaths by all causes. The blue represents deaths from Zymotic diseases. The red represents death from wounds.

2. Identify the variables included in the figure, and identify how they're represented (e.g. visual cue).

- months (x-axis)
- colors representing causes of mortality (on bars)
- deaths (y-axis)
-

- ✓ 3. Brainstorm another method of displaying the information in this graph. Once your group has an idea for the basic form (visual cues, coordinates, etc.), identify one person in your group to start and share a Google Jamboard (jamboard.google.com), then work together to sketch out your graph on the board. Don't worry about creating an accurate visualization (you only have a few minutes!), but do label your axes, mark axis ranges, and identify which visual cues you'd use.

Part II: Combine and improve (10 minutes)

Join with the other group who worked on improving the same visualization you did. Once together, share your ideas and sketches with each other.

Work on **one** of your shared Jamboard to incorporate ideas from *both* teams as you see fit.

Answer the following questions:

1. What were some key problems with the original figure?

- Difficulty of comparison
- Big legend.
- Positioning of timelines

2. In what way(s) is your plot an improvement on the original "drab" visualization?

- more brief legend
- easier to compare changes using length (Reducing to 1D)
- better positioning of timelines

3. In what way(s), if any, is the main message still unclear/hidden?

Part III: Share out! (10 minutes)

✓ Share the final Jamboard with me (bebailey@amherst.edu). Identify a group member to share your responses and final sketch with the class. Each group will have <2 minutes to share. Be concise!