Have we flattened the curve in the US?

It is a daily tracker to track COVID-19 cases per 100k people to see the trends of the confirmed cases. The visualization is made by Johns Hopkins University.

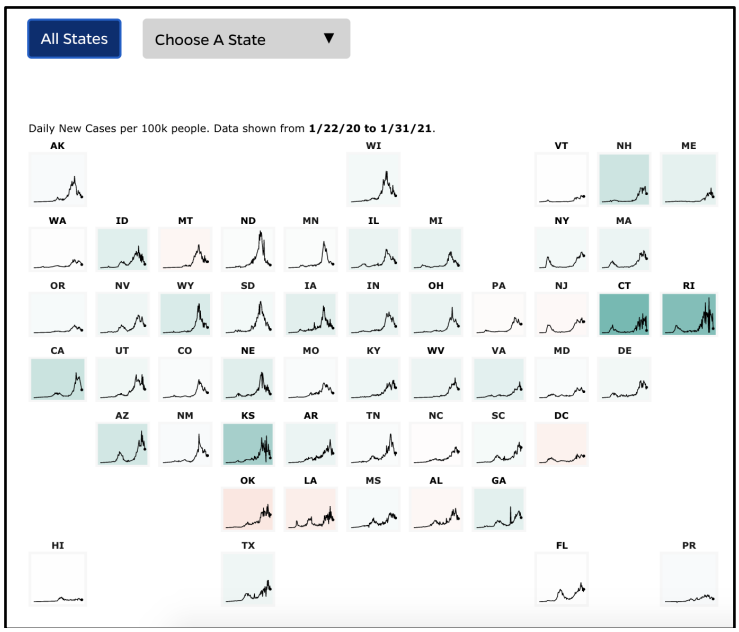


figure (1)

The data is reported in two levels of detail. The first level, shown in figure (1), displays thumbnail charts organized in a way that forms the United States map with US State Postal Abbreviations. Structuring the thumbnails in this form makes it easy to read more quickly with less eye movement. In addition, the color of the thumbnails ranges between white, green, and red. The color choice is consistent with the reader's interaction experience where green usually reflects the positive aspect of something and the red color reflects the negative one. That gives a general idea about the trends of the confirmed cases in a simple and less crowded appearance.

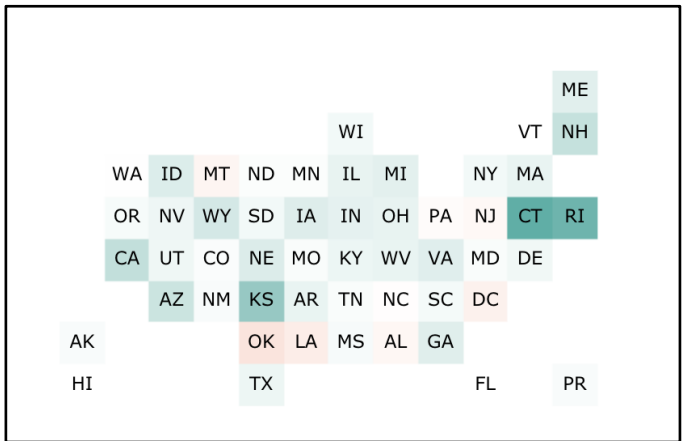
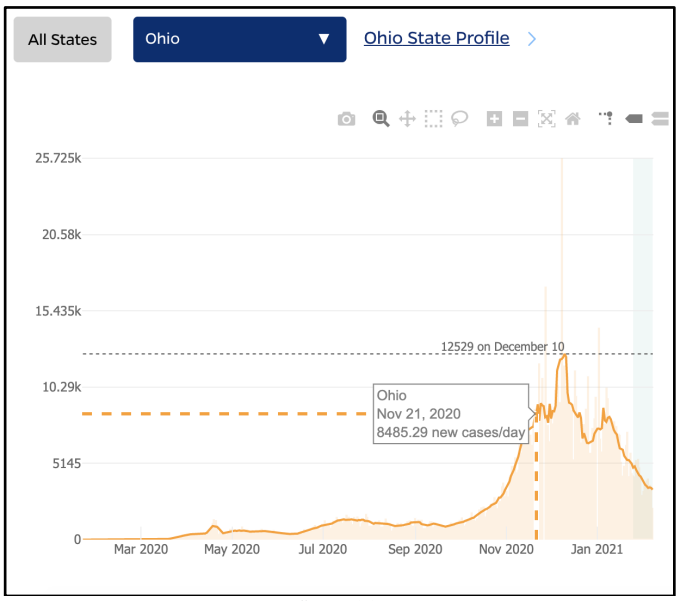


figure (2)

The map is also responsive, so when reducing the page size, the thumbnails are replaced with squares with the postal abbreviations only, as shown in figure (2). When clicking on a specific thumbnail (or a square) we move to a deeper level of information, as in figure (3).



figure(3)

The next level displays a line chart for a certain state with more details. Along with the chart, there are some tools that help in the interpretation process such as a tool to compare data on hover, to compare closets data on hover, and to zoom in/out. That reinforces controllability and flexibility. Using the tooltip on hover to display more details reduces the number of items displayed on the chart which reinforces simplicity.

In both levels, there are two buttons in the upper left corner of the charts. The first button for displaying the whole map of thumbnails and the second one to choose a specific state to display with the name of the state written. That speeds up the process of finding information about a certain state and reducing the burden of memory.

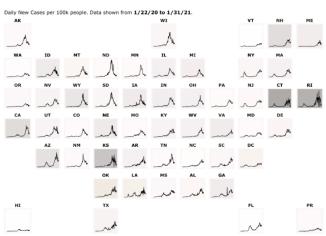
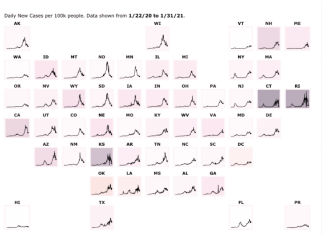
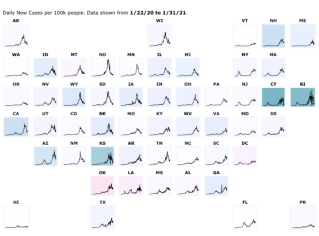
Red-blind (Protanopia)	Green-blind (Deuteranopia)	Blue-blind (Tritanopia)
		

Table (1)

In general, the chart is very easy to read and flexible with the reader's preferences. The only thing I would add is making it more color-blind friendly and adding a map legend. I have tested the graph by a color-blind simulator [2] and the result is shown in table (1).

References:

1) https://coronavirus.jhu.edu/data/new-cases-50-states/illinois
2) https://www.color-blindness.com/coblis-color-blindness-simulator/