

Week 1 Assignment: Graphics Lies, Misleading Visuals

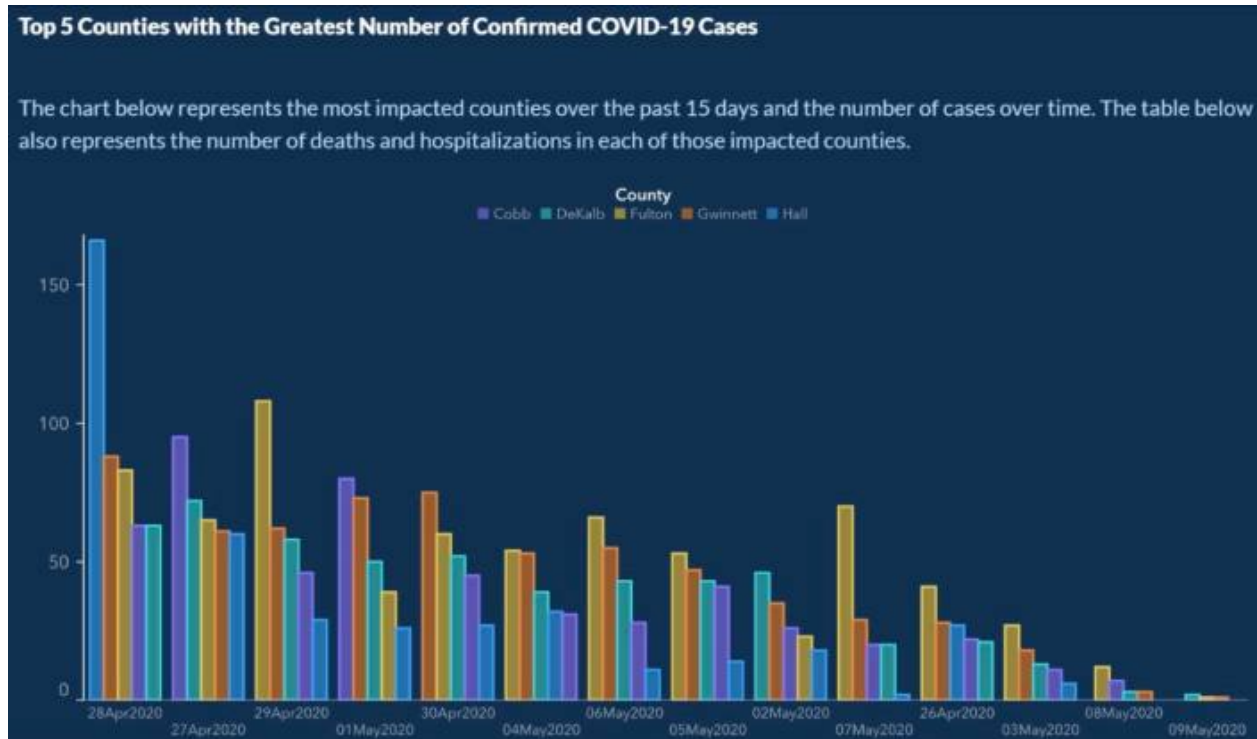
Assignment Title

Misleading Statistics in Healthcare - Covid-19 Cases

Assignment Objectives

Locate an example of a misleading visual that uses one or more of the mechanisms for misleading that Cairo outlines in his book chapter: (1) Hiding relevant data; (2) Displaying too much data and obscuring reality; (3) Distorting data through visual forms.

Chart



Source: <https://www.datapine.com/blog/misleading-statistics-and-data/>

Briefly describe the context for the visual by addressing the following questions:

1. What is the source of the visual? (e.g., URL or bibliographic citation)

Source: <https://www.datapine.com/blog/misleading-statistics-and-data/>

I Googled "misleading data" and the site was in the top 5

The visual seems to have amalgamated data from five sources (I think), namely Cobb, DeKalb, Fulton, Gwinnett, Hall.

2. Who is the intended audience (i.e., decoders)? How do you know this?

I believe the intended audience would be everyone affected directly or indirectly by the Covid-19 pandemic (which inherently means everyone in the world). The data could be part

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of a periodic update on the Covid-19 situation.

3. Identify the specific component(s) of the visual that is/are misleading

(a) The horizontal axis is not arranged chronologically, and it seems that the intention was to show the audience a (false) decreasing trend in the data.

(b) The arrangement of data from the five sources are not arranged in a consistent fashion, which means the authors were intentionally creating an image of a decreasing trend to mislead the readers.

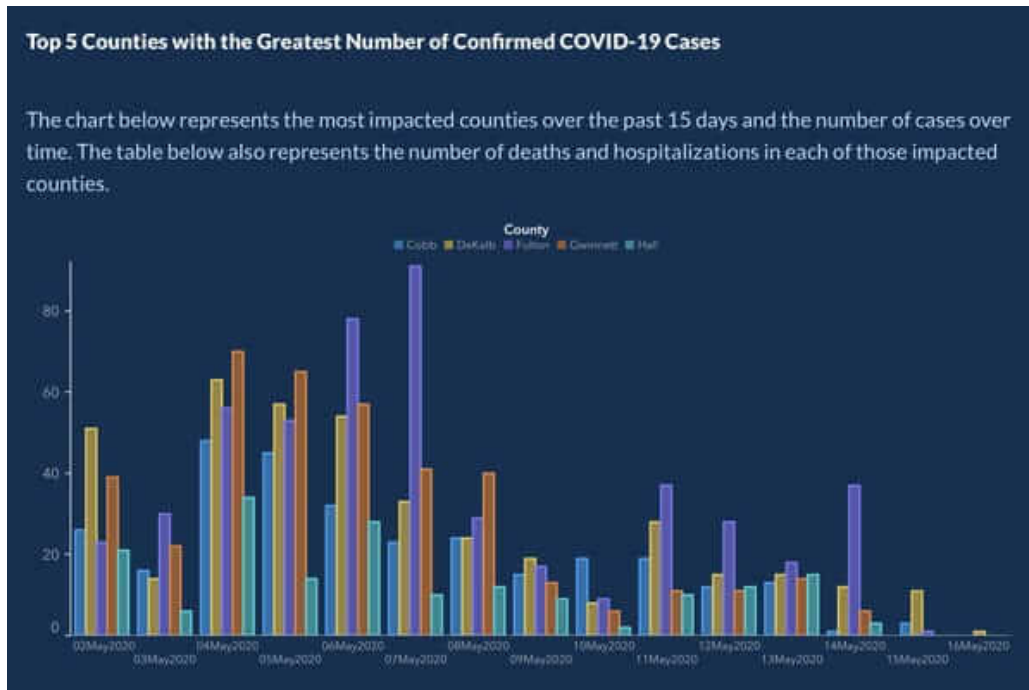
(c) The vertical axis is not labeled accurately. Is it in thousands, millions? It is unclear. And yet this is the least concerning detail in our analysis, because at least they started from zero.

4. For each part(s) of the visualization that is/are misleading, identify the mechanism that is used: hiding relevant data to highlight what benefits us; displaying too much data to obscure reality; using graphic forms in inappropriate ways (distorting the data)

In this case, the primary mechanism for misleading the audience was using graphic forms in inappropriate ways (data distortion). More specifically in the inappropriate distortion of data through inconsistent ordering and improper (in this case, a lack of) labeling of the axes, primarily the horizontal axis. The article also published the actual chart if the misleading mechanisms were to be removed, showing a sparse distribution without any clear trend, with a peak in May. (Source: <https://www.datapine.com/blog/misleading-statistics-and-data/>) I presume that the reason for publishing the original misleading graph was for click-bait, to

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lure readers who are optimistic regarding the decline of Covid-19.



5. Explain how the mechanisms are used to mislead

The mechanisms mislead the decoders into believing falsely that the Covid-19 cases are declining over time, leading to optimism to their detriment.

Optional: Describe any additional issues you found with visual that did not fall under Cairo's three misleading mechanisms.

Insufficient data. I feel that there should be a longer timeframe for the data representation.