STORYTELLING WITH DATA

DATA STORIES

[online.hbs.edu/blog/post/data-storytelling, C. Cote]

DATA STORIES

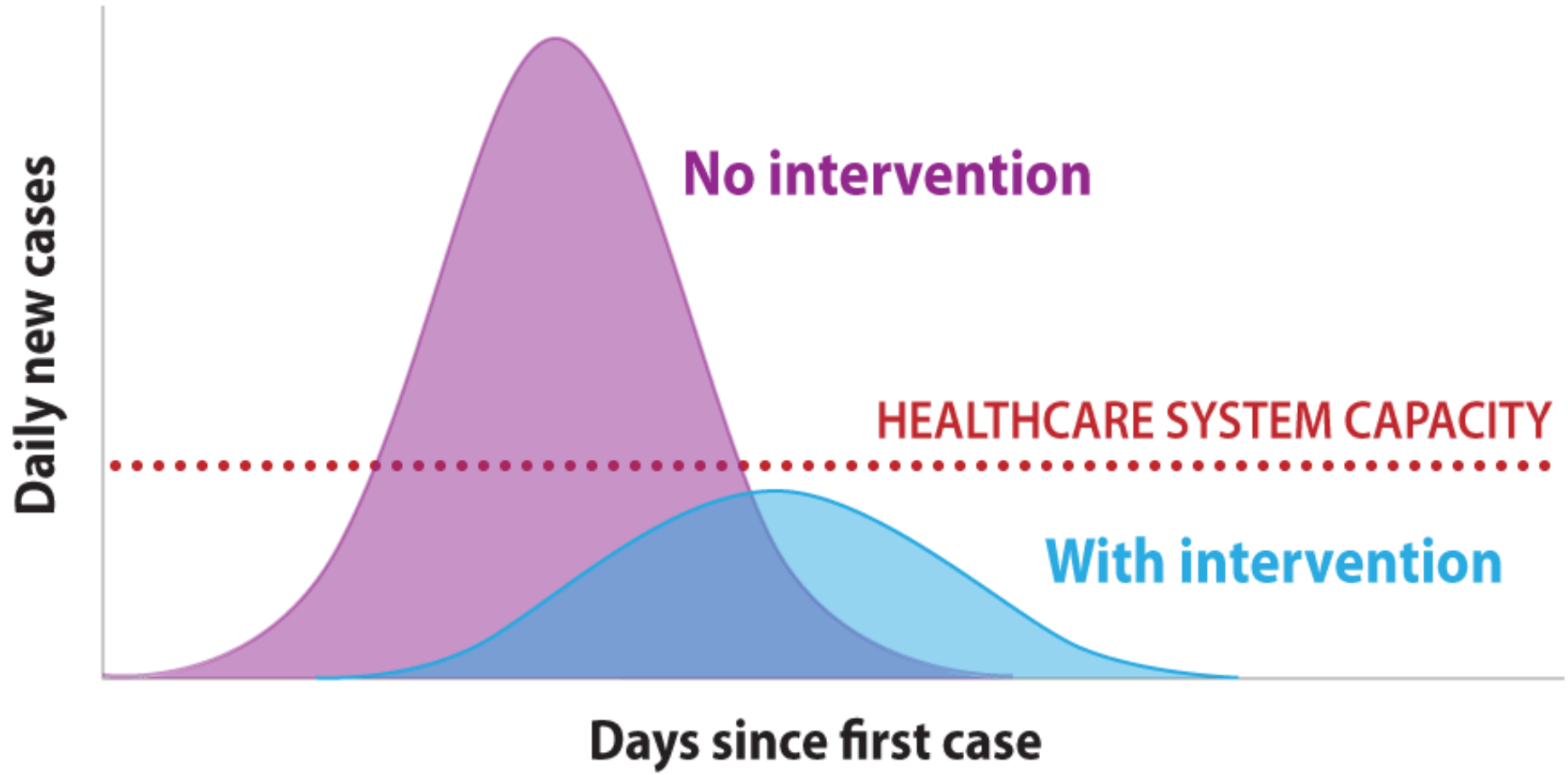
Data storytelling is the ability to effectively communicate insights from a dataset using narratives and visualizations. It can be used to put data insights into context for and inspire action from the audience.

There are 3 key components:

1. **data:** foundation of data story (descriptive, diagnostic, predictive, prescriptive analysis)
2. **narrative:** storyline used to communicate the insights gleaned from data and context, and recommended actions
3. **visuals:** representations of data, analysis results, and narratives, which are used to communicate stories clearly and memorably (charts, graphs, diagrams, pictures, or videos)

FLATTENING THE CURVE

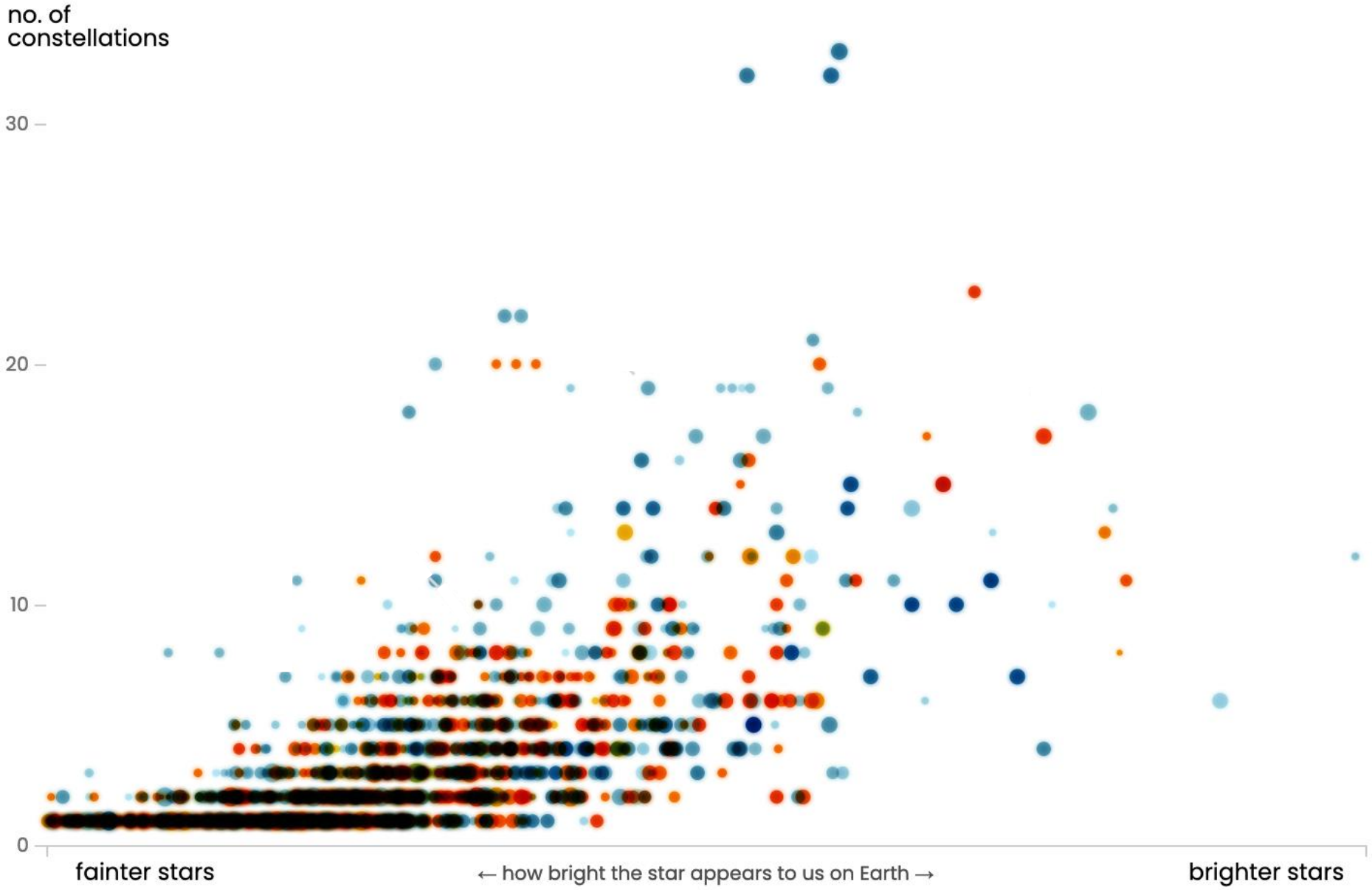
A look at the importance of slowing the spread of a virus, so that the rate of infection doesn't outpace the resources to fight against it.



SOURCE: CDC

THE CANADIAN PRESS

[figuresinthesky.visualcinnamon.com]



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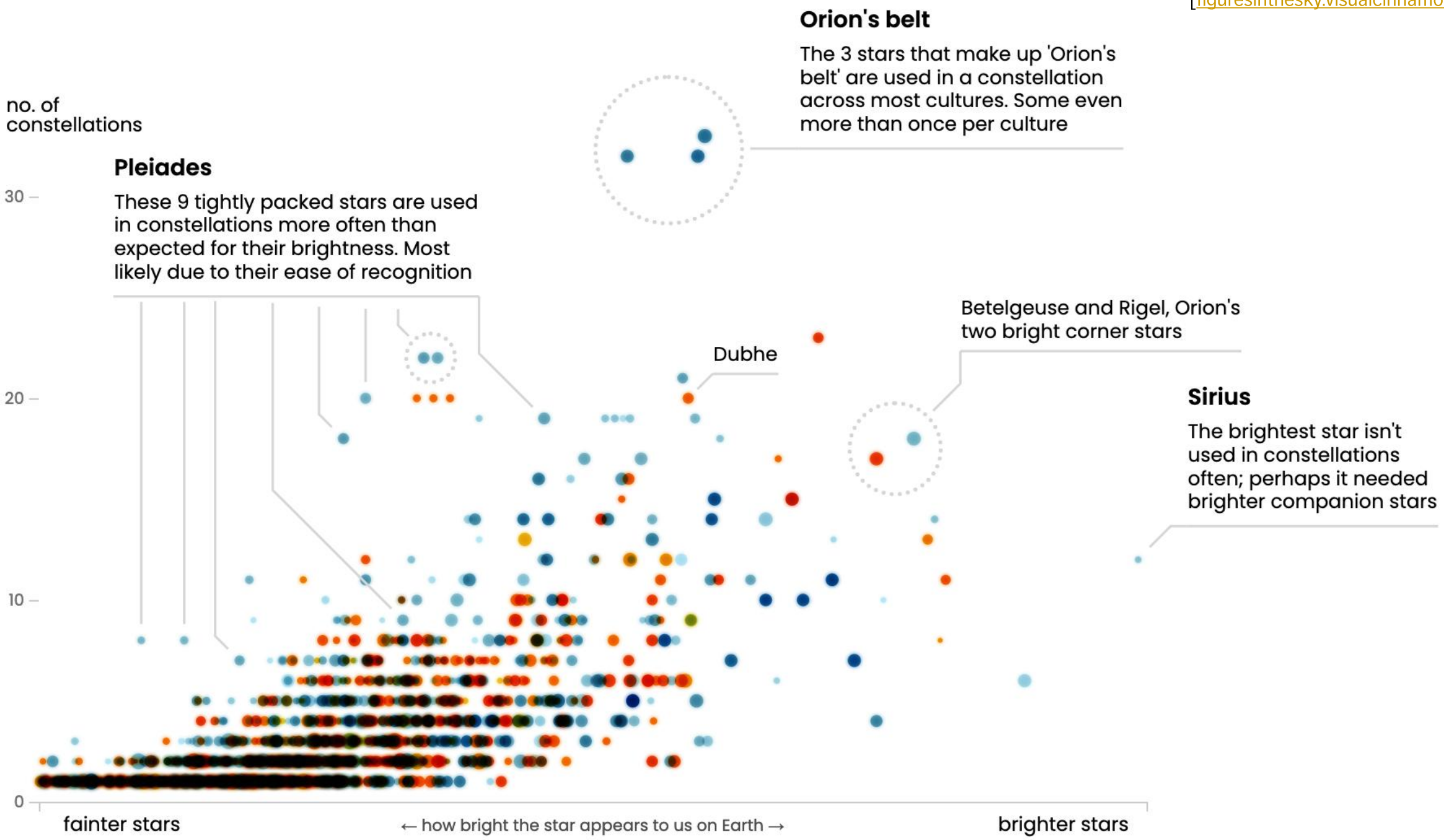


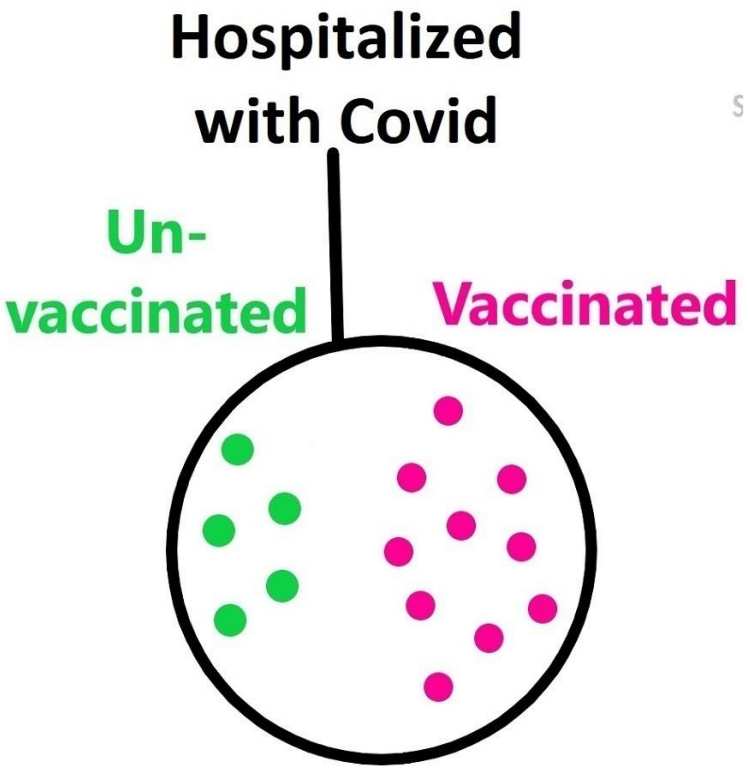
STORYTELLING RISKS

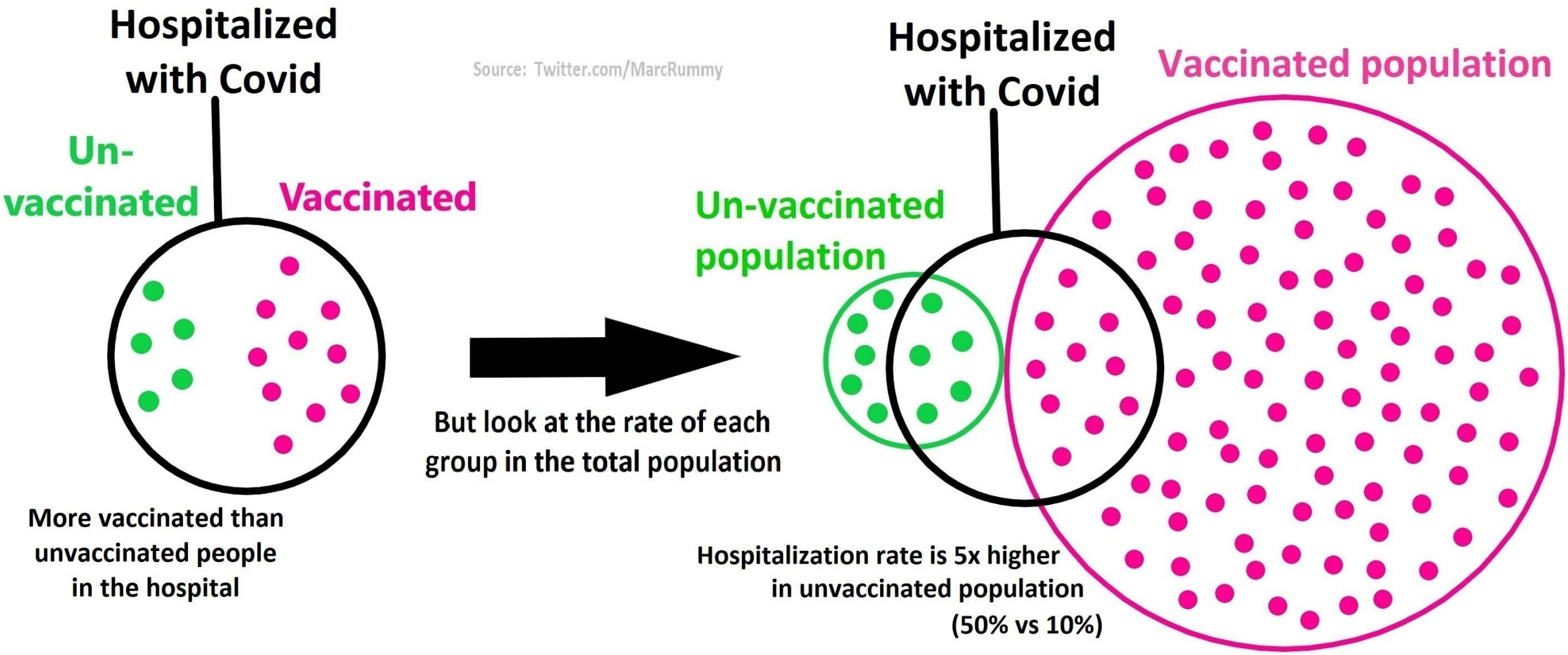
A good story can help shed insights on a situation, but storytelling requires **choices**; the outcome is affected by what is **included** and what is **omitted**.

It is easy to mislead by **accident**; it is also easy to mislead by **design**.

With data stories, there is an additional complication: we usually only have access to the **available data**. The data that was not collected is, by definition, not available. Some of the data that was collected may also be unavailable for a variety of reasons.

This implicit bias can lead to compelling (yet **flawed**) data stories.


Hospitalized with Covid
Un-vaccinated
Vaccinated
More vaccinated than unvaccinated people in the hospital



Note: The ratios presented are made to illustrate the concept of the base rate fallacy when the vaccination rate is high

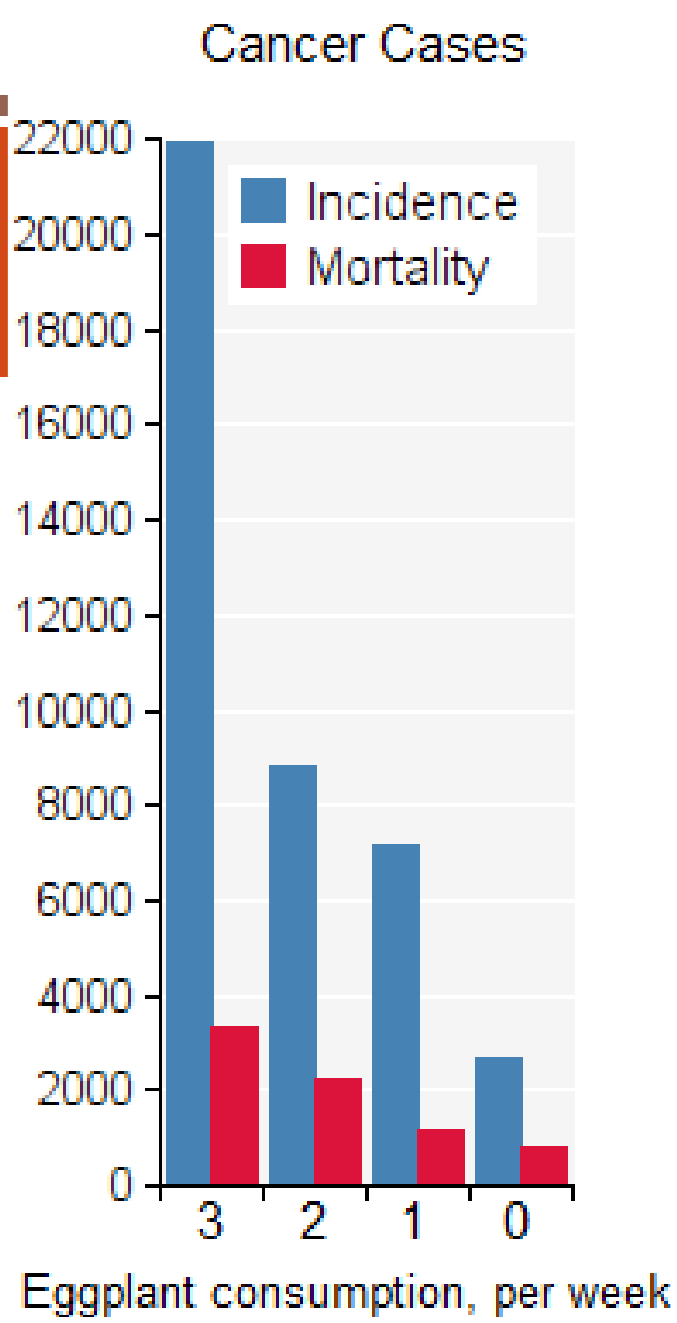
DATA STORY UNIVERSALITY

Ambiguity can also occur in data stories.

What is the **take-away** here?

Is increased eggplant consumption linked to:

- increased cancer incidence, or
- diminishing mortality rates?



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