

Messaging

The message that is being communicated through this narrative visualization is that although the USA ranks the highest in the world on healthcare costs, that cost doesn't translate to better Health outcomes like lower death rates and overall Health score when compared to other countries who spend considerably lesser on healthcare.

The cost and quality of the U.S. healthcare system is one of the most prominent issues facing everyday Americans. With the help of data from the Organization for Economic Co-operation and Development's (OECD) Health Statistics and wisevoter.com, my narrative visualization highlights that although the cost of US Healthcare far exceeds that of other developed nations, it trails behind in several health metrics when compared to other countries across the world.

Narrative Structure

I have chosen a Martini-glass type visualization structure, where the core observations, facts and sample data sets are provided to narrate and highlight various aspects in the first two pages. Free-form user exploration is allowed towards the end in the form of click interactivity.

There are three scenes in the visualization, each implemented as a separate web page. The first page, displays the cost of US Healthcare companies when compared to the world in a bar chart. The second page, displays these curated metrics in a parallel axis coordinate chart. While the third one, displays an interactive map where the user can click on a country to view the Health metrics for that country with additional details in the annotations. The pages have been built for screen resolutions greater than 1500 X 780 pixels. Please maximize the browser window to view the functionality well.

Visual Structure

All the pages follow the general design of annotated charts which are ordered and set up to navigate in the forward direction through the click of buttons; this follows a Linear, author-led ordering.

Text on the page and commentary convey the author's message to the user as they click through the labelled buttons provided, to navigate. Call-outs or pop-up annotations are available to direct the user's attention to key data-points. This helps the user understand the data being presented as they navigate and move through the narrative through the use of buttons in the case of the first two slides and user clicks on the third.

User Interactivity is on the third page alone where clicking on the country displays additional metrics for all the countries whereas previous slides only had a few countries and metrics.

Scenes

The first page or the scene sets the context through a horizontal bar chart that the US cost of Healthcare is extremely high.

The second page or scene puts the Healthcare outcomes in perspective through metrics for one country from each of the six continents, excluding Antarctica. These numbers across the various dimensions, displayed in a parallel axis chart, indicate that the overall Health score of the USA when compared to those countries is higher than only Kenya.

Finally, the last scene allows for free form exploration of these metrics across all the countries of the world.

Annotations

Enter: New elements are created on page load. *Transition:* Pages 1 & 2 have a button to transition to the next scene. *Exit:* Is on the transition button for each scene, plus close the browser window button.

The annotations are a mix of text describing the data for each scene and call-outs on some data points. Across all the slides the color scheme is consistent for providing the data and the css in the callouts.

Call-outs using d3 annotations are on the first and third page. On the first page, it highlights the fact that the cost of US Healthcare is twice the average of the five wealthiest economies not including the US. While on the third page, it highlights the population and the GDP per capita, which are triggered on click.

Parameters

The parameters are the different countries and their metric values – in terms of Healthcare costs, Overall Health Score, Life expectance rate, to name a few, as displayed across all the slides. They are used as key variables and as parameters to key functions used to set up each scene.

In the first scene, the parameters are the health care costs for OECD countries which clearly state the point and sets the context.

In the second scene, some health metrics are compared for a smaller set of countries, side-by-side to get a comparison of Health outcomes.

Where as in the third scene, the user is allowed to explore a wider range of parameters and is able to change the state of the visualization through click-based triggers.

Triggers

Although the pages 1 and 2 don't have triggers that change the state, buttons are provided to navigate from one page to the other. These buttons are highlighted, with consistent colors across the pages with appropriate labels to indicate what action the user needs to take.

For triggers, on page 3, the user is allowed to tinker with the Country parameter values in a free-form interaction by clicking on the country outline, as the Martini-glass visualization style. A callback function has been implemented to capture the country selected in the map and change the values in the table of data for that country. The text on the page indicates that 'clicking' on the country in the adjoining map, will display data in the annotation callout and the accompanying table.