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Link to Google Doc:

<https://docs.google.com/document/d/1h7D6CmPgZyry2jdsqLYcRWaYn2gXUFf6HqWjuIGKPqc/edit?usp=sharing>

## Task 1

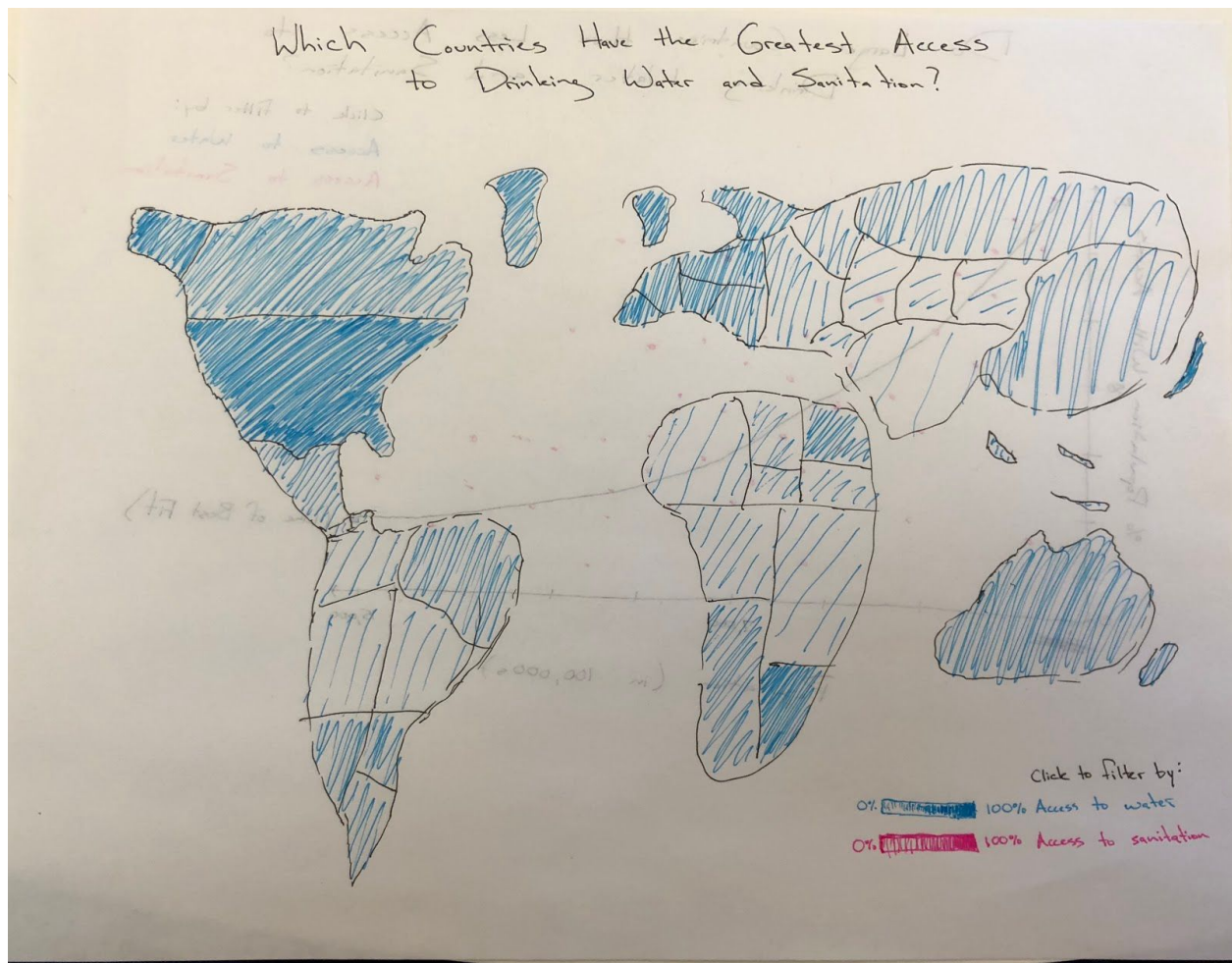
### Data Set 1:

1. Which countries/regions have the greatest and least access to sanitation facilities/drinking water?
2. Is there a relationship between the size of a population and the percentage of people within that population who have access to sanitation facilities/clean drinking water?

### Data Set 2:

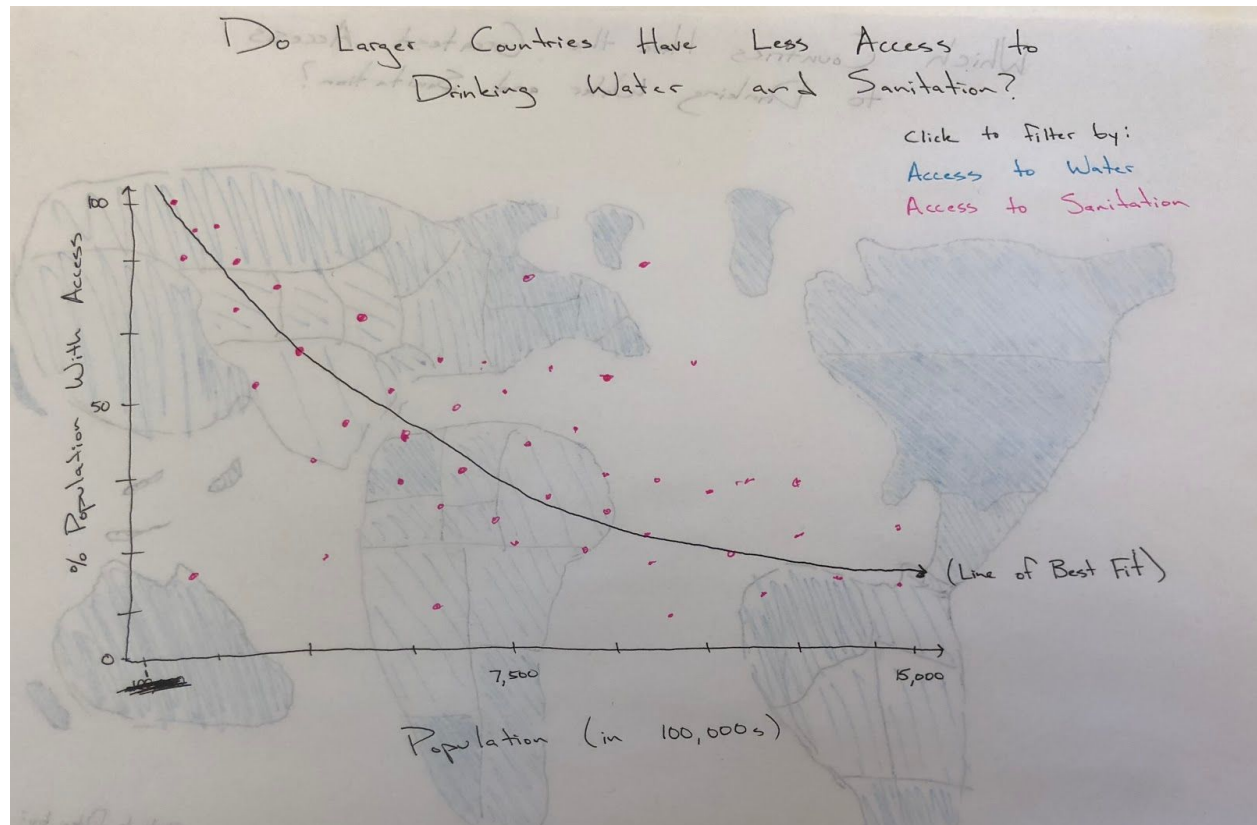
1. For each type of beneficiary (Water, Sanitation, and Hygiene) how did the proportion of development to emergency beneficiaries change from 2014 to 2015?
2. How has the number of UNICEF beneficiaries changed from 2014 to 2015?

## Task 2



In this visual, I use geographic data (country), quantitative data (percent of population with access to a certain resource), and categorical data (drinking water or sanitation facilities). I chose to omit the information about WHO region since these regions are based on the countries' locations and I felt as though including this information would've been redundant. To encode the geographic data, I chose to make my visual a map in order to show which countries (and implicitly which WHO regions) have the most access to drinking water and sanitation facilities. To encode the quantitative data, I chose to use a single color scale that varies by tint with white representing a country with very little access to the selected resource. I chose a single color spectrum in order to encapsulate countries with less color have less access

and countries with more color have more access. To encode the categorical data, I chose to use two distinct colors (pink and blue) in order to distinguish between the two distinct categories of resources (sanitation and water).



In this visual, I use quantitative data (both the percent of a population with access to a certain resource and the size of that population) and categorical data (drinking water or sanitation facilities). I chose to omit any geographic data since this information was already presented in my prior visual. I chose to encode the quantitative data using location since it most clearly and effectively shows the audience a relationship between the two quantitative values. I chose to encode the categorical data by using two distinct colors (pink and blue) in order to distinguish between the two distinct categories of resources (sanitation and water). I realize now that instead using color to encode the type of resource that is currently being filtered, I could also use color to encode the geographic region for each data point.

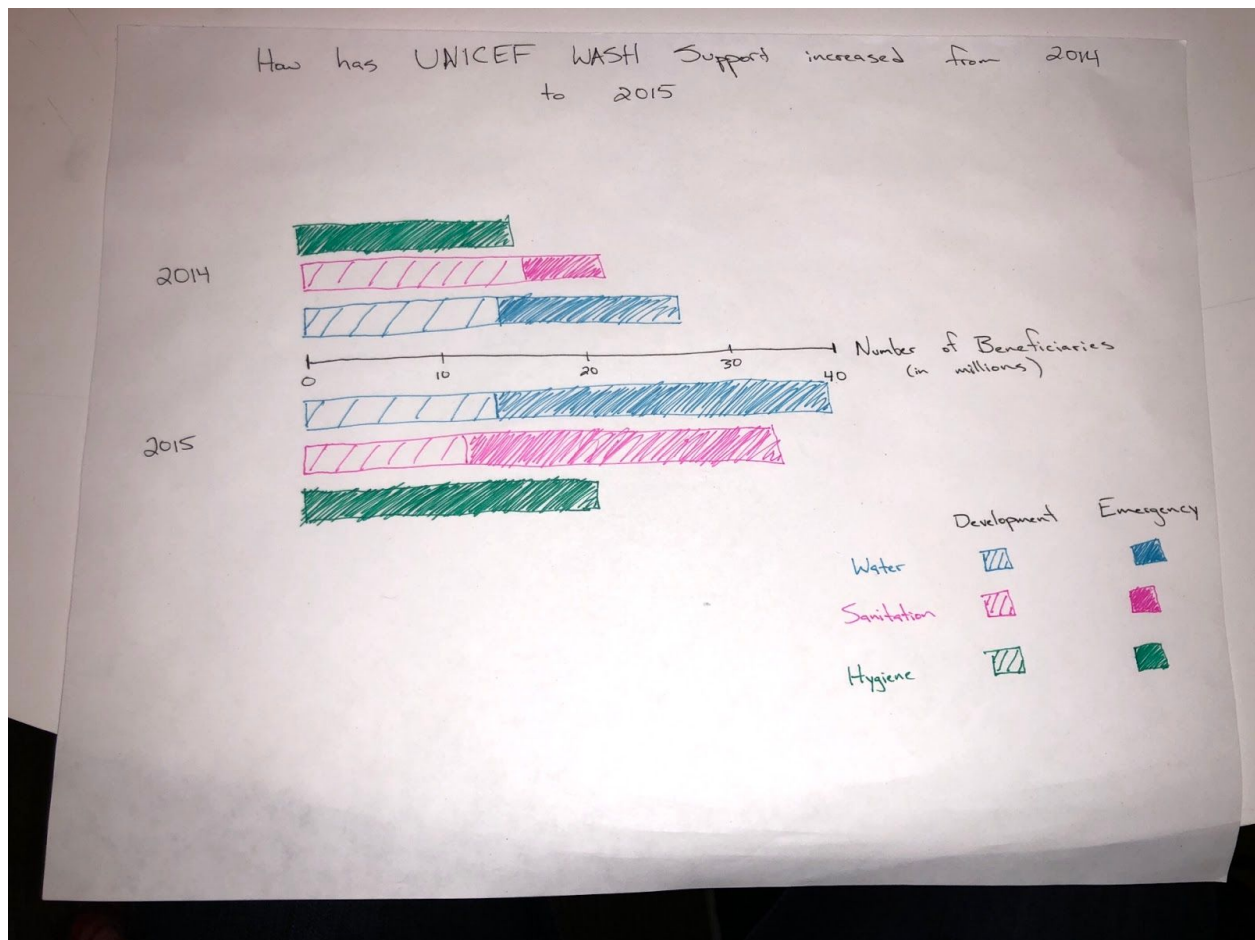
In both of my visuals I use distinct colors (pink and blue) to encode distinct categories of resources (sanitation and water). In my first visual, I also encode

quantitative information (percent of population with access to a certain resource) by taking these distinct color and using them to create a single color, continuous, sequential color scale. Here is a more clear depiction of my scale:



The left end of the spectrum denotes countries with less access to water and the right end of the spectrum denotes countries with more access to water.

### Task 3



- I encoded the categories of aid (water, sanitation, and hygiene) with distinctive colors, and within those categories I encoded the subcategories (development and emergency) with a darker and lighter shade of their respective categories' colors. I also encoded the number of beneficiaries using the width of each bar, and I encoded within each bar the proportion of development beneficiaries to emergency

beneficiaries using the proportion of the area of the bar that each subcategory takes up.

- b. Instead, I could have encode this information using a more traditional scatter plot and used location to indicate my values. I believe my channels are more effective since they allow for easier side by side comparison between categories.
- c. I believe that the color and width of each bar pops out the most and allows for clear comparisons between categories.
- d. Instead of having two distinct sections for 2014 and 2015, I could use motion to show how to size of the bars and their proportions change between 2014 and 2015.

#### Task 4



Title: Sanitation and Drinking  
Water ~~and~~ Efforts

Map Visualization

H2: Causes

im: Region  
w/o sanitation  
or water

P: Factors that  
contribute

Larger Countries  
Visualization