

W11-submission

Janelle Tan

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W11 submission

A.Diary Entry

1. What is the topic that you have finalised? (Answer in 1 or 2 sentences).

I have decided on the topic of "health" for my data story, namely, Substance Abuse and its Public Health Consequences.

2. What are the data sources that you have curated so far? (Answer 1 or 2 sentences).

My data sources for now are mainly coming from the Global Health Observatory data repository.

Some data sets I'm considering are "levels of (alcohol) consumption" and "harms and consequences" ie morbidity/mortality rates.

3. What is the question that you are going to answer? (Answer: One sentence that ends with a question mark that could act like the title of your data story)

"What is the extent of substance abuse and its public health consequences in the Americas?" (Note: question is still subject to change)

4. Why is this an important question? (Answer: 3 sentences, each of which has some evidence, e.g., "According to the United Nations..." to justify why the question you have chosen is

important)

Substance abuse is a significant public health concern with severe consequences. According to the United Nations, substance abuse contributes to over 350,000 preventable deaths annually. Moreover, the World Health Organization (WHO) notes that substance abuse leads to a significant economic burden, with costs related to healthcare, law enforcement, and lost productivity. This question is important as understanding the global impact of substance abuse can inform effective public health policies and interventions.

5. Which rows and columns of the dataset will be used to answer this question? (Answer: Actual names of the variables in the dataset that you plan to use). Include the challenges and errors that you faced and how you overcame them.

Note: the below are still subject to change

Data Sets: Regional prevalence of alcohol dependence

Specific Variables for Regional prevalence of alcohol dependence:

Columns: WHO region, regional prevalence of alcohol dependence

Rows: all

Challenges and Errors:

So far, I've encountered some challenges trying to narrow down the scope of my question. It was also difficult trying to find suitable data sets for the scope of my question amidst the sea of data available.

To solve them, I narrowed down the scope of my question based on what data was available. I learnt how to quickly filter out potential data sources by looking at its size and whether or not its variables were relevant to my question.

6. List the visualizations that you are going to use in your project (Answer: What are the variables that you are going to plot? How will it answer your larger question?)

Bar graphs. Variables include WHO regions, regional prevalence of alcohol dependence (%) and liver cirrhosis (%) both in 2016.

The bar graphs show how the alcohol scene and consequences of alcohol abuse in the Americas are the one of the worst among the other regions, highlighting the extent of substance abuse there.

7. How do you plan to make it interactive? (Answer: features of ggplot2/shiny/markdown do you plan to use to make the story interactive)

```
# I'm currently experimenting with plotly and ggiraph packages to make my bar graphs interactive. I'm also contemplating using shiny apps.
```

8. What concepts incorporated in your project were taught in the course and which ones were self-learnt? (Answer: Create a table with topics in one column and Weeks in the other to indicate which concept taught in which week is being used. Leave the entry of the Week column empty for self-learnt concepts)

```
library(tibble)

# Create a tibble with columns for topics, weeks, and self-learned
course_concepts <- tibble(
  Topic = c("Visualising data using ggplot", "Making interactive graphs: plotly & ggiraph"),
  Week = c(7, NA),
)

# Print the tibble
print(course_concepts)
```

```
## # A tibble: 2 × 2
##   Topic                                Week
##   <chr>                                <dbl>
## 1 Visualising data using ggplot              7
## 2 Making interactive graphs: plotly & ggiraph    NA
```

9. Challenges and errors that you faced and how you overcame them.

```
# I had trouble making my bar graph interactive with plotly.

# I overcame them by referring to websites like stack overflow for solutions and trying out different ways to make my plots interactive, like with ggiraph and shiny apps. I am currently still experimenting with these methods and looking into other possible methods.
```