

Project Plan

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Topic

Our group has chosen to visualize mortality rates and prevalence of Malaria around the world. The data we have located includes 2017 as the most current year. In this project, we will be visualizing the changes in mortality rates and prevalence since 2000 in the following categories:

- Malaria deaths by country
- Malaria deaths by age by country
- Malaria prevalence vs. GDP per capita

Datasets

We will be utilizing data from <https://ourworldindata.org/malaria>. Below is a sample of our data:

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1 Entity,Code,Year,Under-5s (deaths),70+ years old (deaths),5-14 years old (deaths),15-49 years old (deaths),50-69 years old (deaths)
2 Afghanistan,AFG,1990,117.78782913477035,27.04327684238797,22.153216100342284,263.67760416753936,32.9504965038894
3 Afghanistan,AFG,1991,123.2191404520004,27.71838829337846,22.24005876566887,280.71616233767514,33.297864617367665
4 Afghanistan,AFG,1992,125.66350425755685,27.62841196015157,22.662288644891323,310.783497884391,34.976512893861745
5 Afghanistan,AFG,1993,155.20329476115705,28.200327871946634,25.96290857545908,420.91551090821383,45.37565371287038
6 Afghanistan,AFG,1994,198.95185425073038,30.05127362660381,28.826643621899606,475.15038414605795,49.46518356400824
```

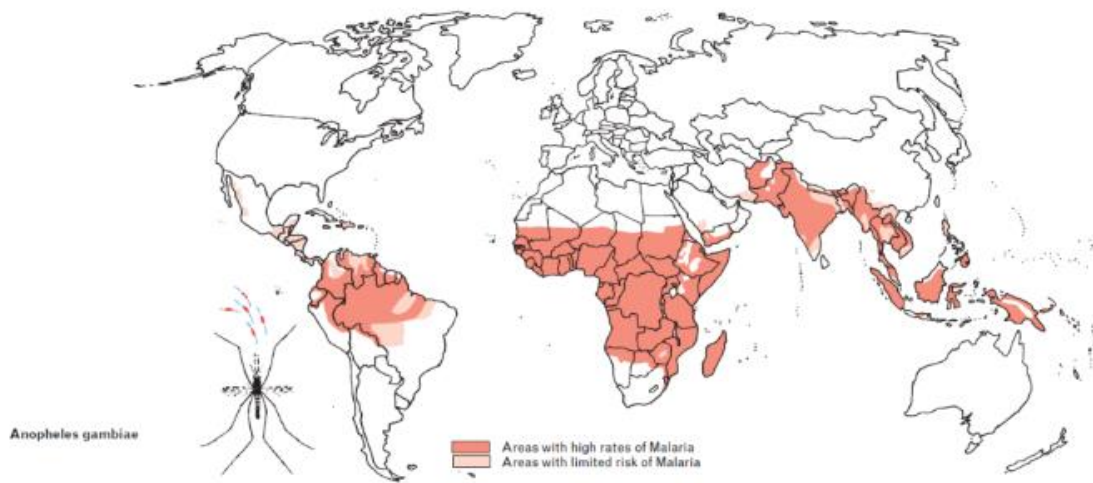
Inspiration

We first started discussing this idea based on the recent viewing of the Netflix series “Inside Bill’s Brain: Decoding Bill Gates.”



This conversation sparked our interest in researching a story we could tell utilizing the mapping visualization power of Leaflet. We began researching various mosquito-borne diseases and landed on narrowing it down to Malaria.

Below is a simplified example of our visualization idea:



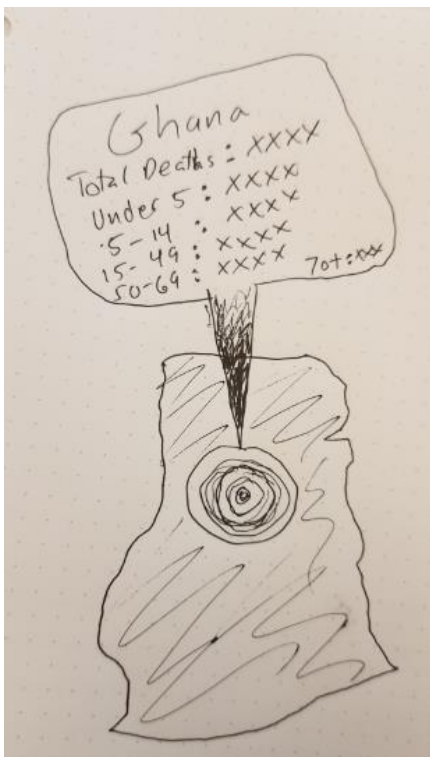
Final Design

Our goal is to create an interactive map that will have the following functions:

- A base layer that gives a color-coded visualization of GDP per capita.
- A circle or other size-based marker that visualizes the total number of Malaria-caused deaths in each country.
- A mouse-over function that shows the name of each country when the user hovers over it.
- A pop-up that displays total deaths and deaths by age groups.

Each of the above bullet points will be loaded in on a per year basis for the years 2000, 2008, and 2017. We have chosen to analyze 2000-2017, so we chose 2008 as a middle point to help us visualize the changes over time.

Below is a rough sketch of our idea:



GitHub

A link to our GitHub repository is below:

<https://github.com/jschwan1282/Project-3>