### **WORLD HEALTH STATISTICS PROPOSAL**

### The World Health Statistics Report is the annual compilation of health and health-related indicators which has been published by the World Health Organization (WHO) since 2005. WHO’s Division of Data, Analytics and Delivery for Impact produces this report in collaboration with WHO technical departments, and regional and country offices.

### The 2023 edition reviews more than 50 health-related indicators from the Sustainable Development Goals (SDGs) and WHO’s Thirteenth General Programme of Work (GPW 13).

We could try to answer a question like::

1. How do global health outcomes and access to healthcare resources vary by region, and what progress has been made in addressing global health disparities since 2013?
2. What are the regions affected by which disease and try to answer why?
3. How does this vary say between males, children, kids
4. What is the impact of WASH programs on disease prevalence in the different regions etc…

### **Objectives:**

* Try to highlight differences in health outcomes (life expectancy, disease burden, mortality rates) across regions and income groups.
* Maybevisualize trends to see how global health has improved or declined in specific areas (e.g., infectious disease rates, child mortality, access to healthcare).
* We could try toprovide insights into which countries or regions may need more attention and resources based on the data we have received.

### **1. Proposed Database Design**

### The data provided by the World Health Organization (WHO) contains a wide range of global health statistics, so we could decompose these excel sheets into different tables like:

**Proposed Database Structure:**

* **Countries**: Contains information about countries
* **Health\_Indicators**: Contains different health metrics tracked by WHO
* **Health\_Data**: Contains the actual statistics for each country and indicator
* **Demographics**: Contains demographic data like population age distribution, gender ratios, among others
* **Diseases\_and\_Conditions**: Tracks disease prevalence, mortality rates. We can track infectious diseases mentioned, like malaria, HIV, measles…

With this we can perform querying tasks such as:

* **Health outcomes**: Life expectancy, infant mortality, maternal health, etc.
* **Global disease trends**: Prevalence of infectious diseases like malaria, tuberculosis, chronic diseases like Cardiovascular diseases, etc.

### **2. Visualisations**

* A map to show country-wise health statistics like life expectancy, infant mortality, disease prevalence, etc.We can show the distribution of life expectancy/mortality across different countries/regions.
* Visualize how maternal mortality or life expectancy has changed in different countries/regions between specific years
* Compare countries in terms of their healthcare expenditure, access to clean water, or vaccination rates.
* We can try to show proportions of certain indicators like causes of death or disease burden. For example there is a column on chronic conditions like cardiovascular diseases, and infectious diseases kama Malaria. See the breakdown of global deaths between say these two groups.
* We can try to explore relationships between two health indicators for example life expectancy na prevalence of a disease for example
* We can highlight key health metrics and give an at-a-glance overview of statistics like global average life expectancy, infant mortality rates
* Maybe visualize how health outcomes have improved over time for particular conditions.

### **3. Insights to Seek from the Data**

* Analyze how life expectancy varies by region or income level.
* Which regions have the highest maternal and infant rates for example, and try to see if they have improved over time?
* What diseases are most prevalent in certain countries or regions? How do disease rates (like malaria or tuberculosis) differ between different countries?
* Which regions have the highest levels of access, and how does it correlate with disease prevalence? There is a column on WASH programs there. This could be useful to see how such programs affect disease prevalence.
* We can investigate how health outcomes differ between men and women, particularly in areas like life expectancy, reproductive health, and disease prevalence.