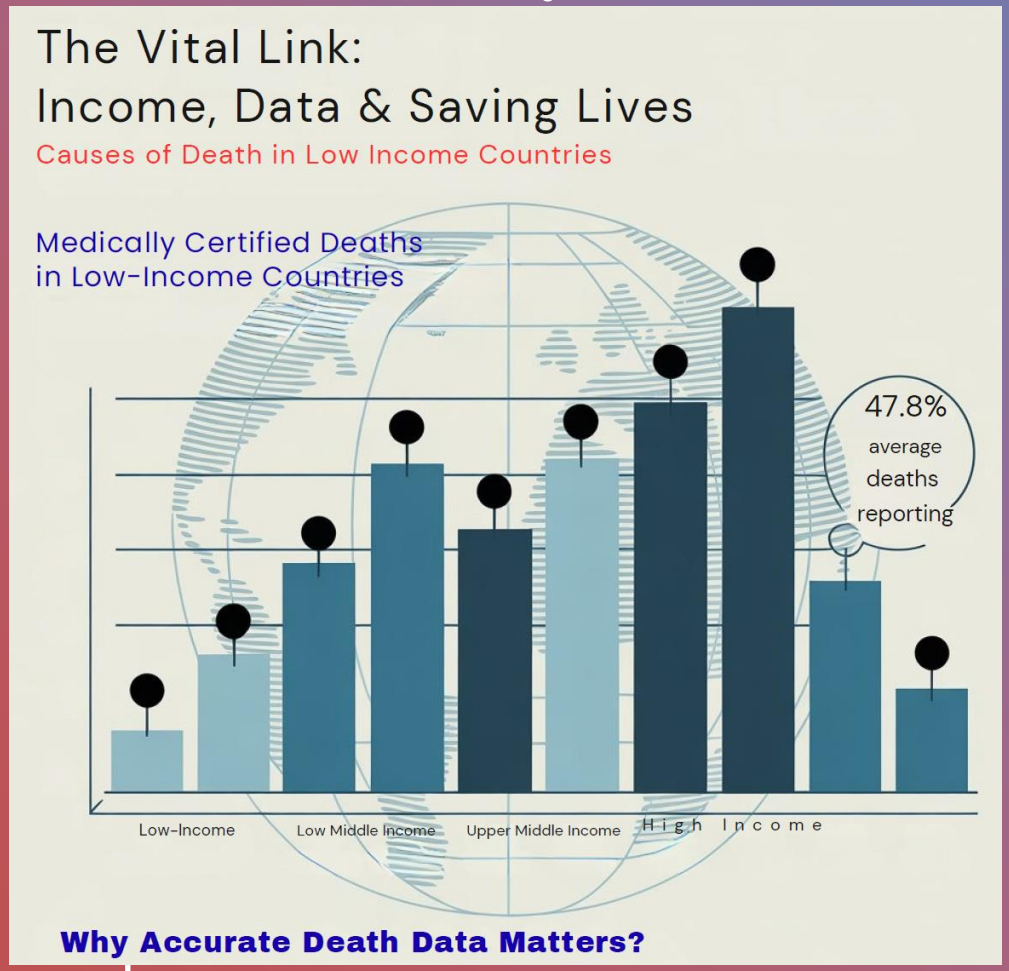


Poster
Calling for Actions for Improving Mortality Reporting

Chu Hong Anh

Why Medically Certified Causes of Death Matter

- Governments can't prioritize health interventions.
- Public health risks are underestimated or missed entirely.

2020:

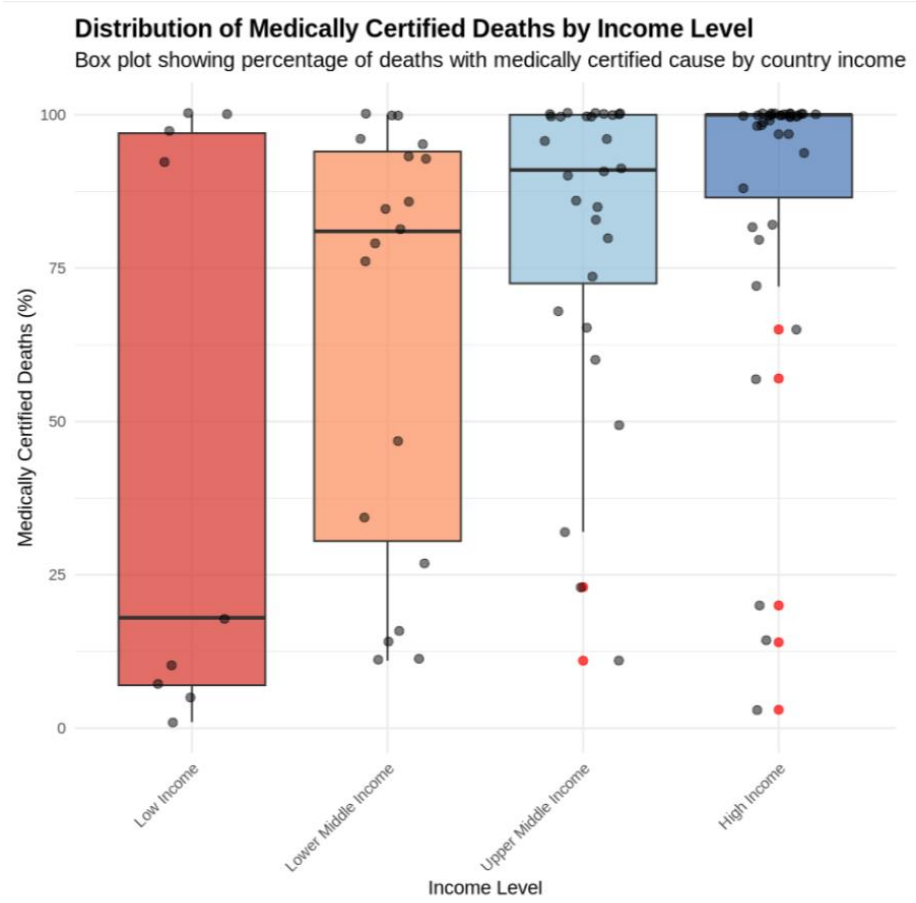
Only 1 in 3 deaths globally has a medically certified cause.

- Much lower rates in low-income countries (8%)

2024:

78% deaths with Medical CoD registered

STILL 8% in low-income countries



Source: WHO SCORE assessment 2020; 2024(draft)

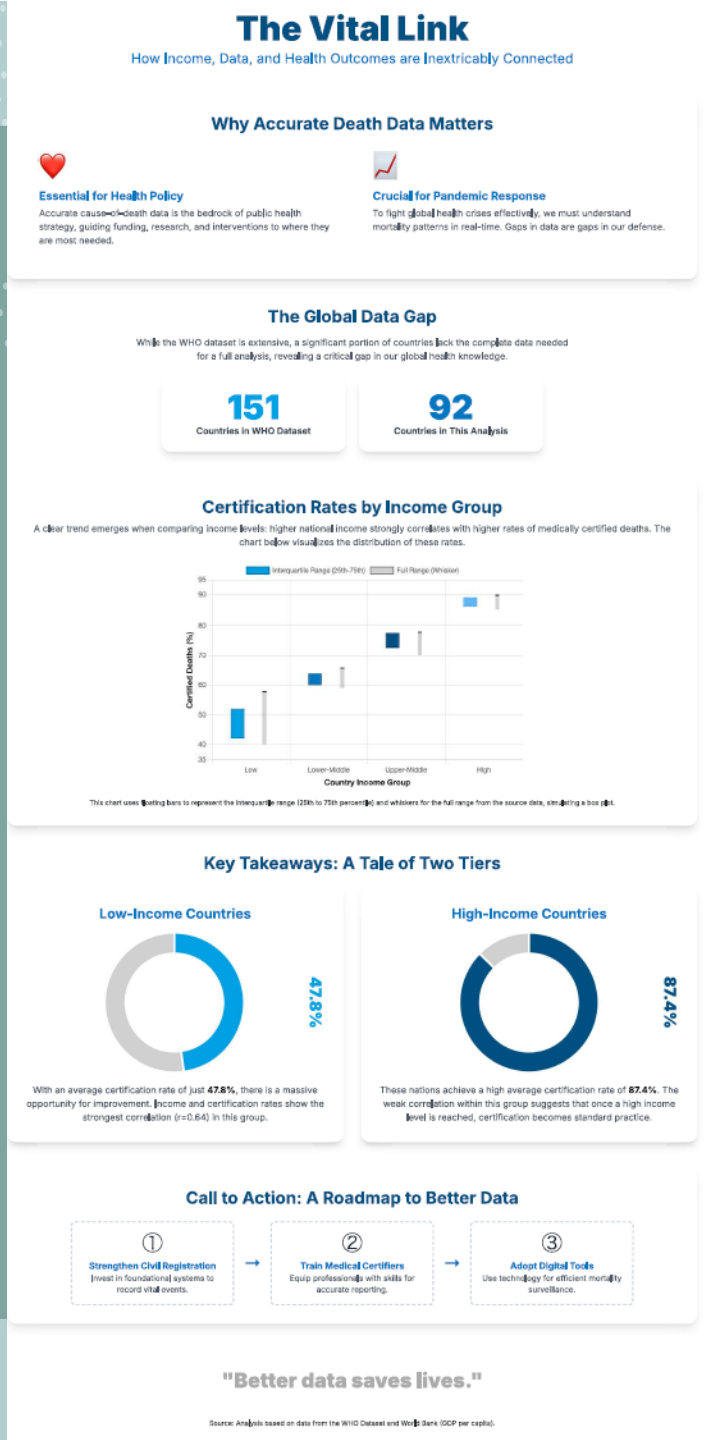
Poster: Call for Action to Improve Reporting Mortality/COD

Source:

- WHO. Global excess deaths associated with COVID-19, January 2020 - December 2021. https://www.who.int/data/stories/global-excess-deaths-associated-with-covid-19-january-2020-december-2021
- WHO. Global report on health data systems capacity, 2020. https://iris.who.int/bitstream/handle/10665/339125/9789240018709-eng.pdf

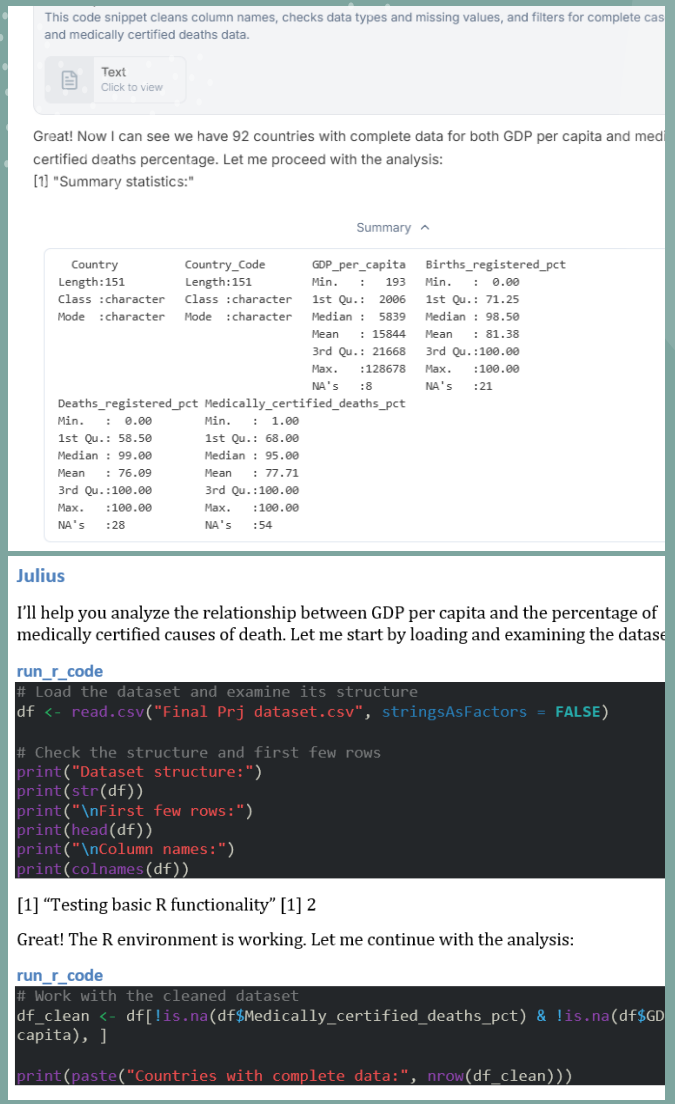
Tool: chartGPT, Gemini for build the html codes.

https://gemini.google.com/share/9c676beb8650



Use of AI Tools

- ChatGPT: summarises contexts from various global reports and database
- Julius.ai: analyses data from the WB, WHO SCORE dB: income classification; correlation between income groups and % of causes of death reported.
- Ideogram.ai, canvas.com: ideas and infographic design of the poster
- ChatGPT/Gemini: transfer to html and for PDF;
- Common steps via GitHub for link to the website



This code snippet cleans column names, checks data types and missing values, and filters for complete cas
and medically certified deaths data.

Text
Click to view

Great! Now I can see we have 92 countries with complete data for both GDP per capita and medi
certified deaths percentage. Let me proceed with the analysis:
[1] "Summary statistics:"

Summary

```
   Country          Country_Code       GDP_per_capita   Births_registered_pct
 Length:151         Length:151         Min.   :   193   Min.   :  0.00
 Class :character   Class :character   1st Qu.:  2006   1st Qu.: 71.25
 Mode  :character   Mode  :character   Median :  5839   Median : 98.50
                                       Mean   : 15844   Mean   : 81.38
                                       3rd Qu.: 21668   3rd Qu.:100.00
                                       Max.   :128678   Max.   :100.00
                                       NA's   :8        NA's   :21
 Deaths_registered_pct Medically_certified_deaths_pct
 Min.   :  0.00        Min.   :  1.00
 1st Qu.: 58.50        1st Qu.: 68.00
 Median : 99.00        Median : 95.00
 Mean   : 76.09        Mean   : 77.71
 3rd Qu.:100.00        3rd Qu.:100.00
 Max.   :100.00        Max.   :100.00
 NA's   :28            NA's   :54
```

Julius

I'll help you analyze the relationship between GDP per capita and the percentage of medically certified causes of death. Let me start by loading and examining the datase

run_r_code

```r
# Load the dataset and examine its structure
df <- read.csv("Final Prj dataset.csv", stringsAsFactors = FALSE)

# Check the structure and first few rows
print("Dataset structure:")
print(str(df))
print("\nFirst few rows:")
print(head(df))
print("\nColumn names:")
print(colnames(df))
```

[1] "Testing basic R functionality" [1] 2

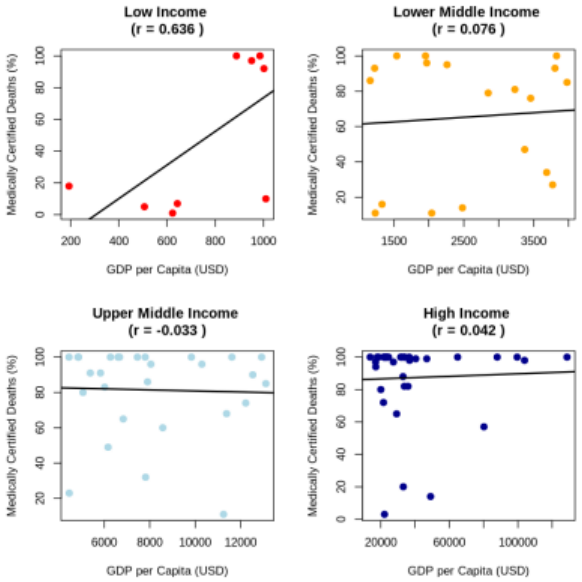
Great! The R environment is working. Let me continue with the analysis:

run_r_code

```r
# Work with the cleaned dataset
df_clean <- df[!is.na(df$Medically_certified_deaths_pct) & !is.na(df$GD
capita), ]

print(paste("Countries with complete data:", nrow(df_clean)))
```

Analysis Outputs:



Generated Code

Possibly the 'sf' package is not installed on your system.

R

Rerun code | Edit code

```r
# Get world map data
system("mamba install r-rnaturalearth r-rnaturalearthdata -y")
library(rnaturalearth)
library(rnaturalearthdata)

# Get world map
world <- ne_countries(scale = "medium", returnclass = "sf")

print("World map data loaded successfully")
```

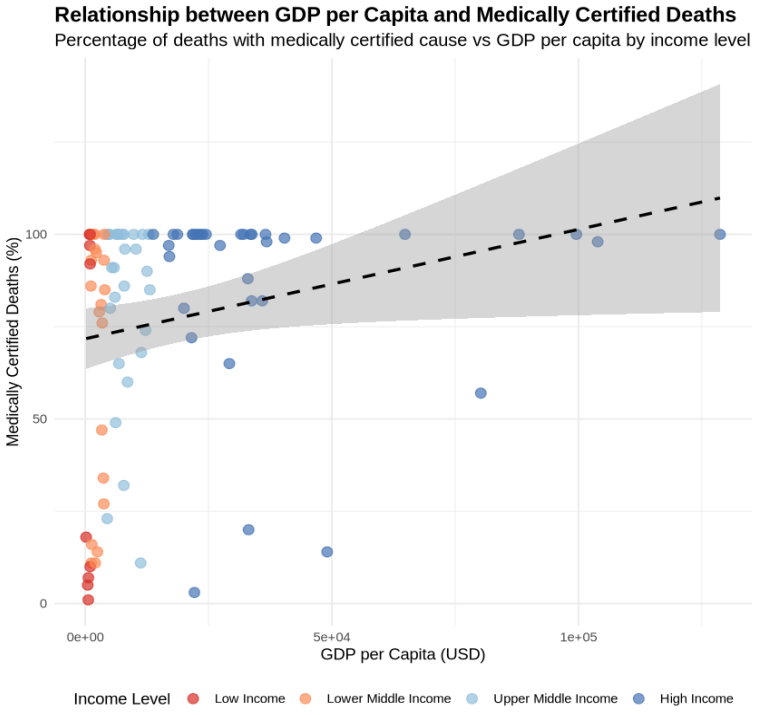
Code Explanation

This code snippet installs necessary packages and retrieves world map data using the rnaturalearth package.

```
Error in library(sf): there is no package called sf
Traceback:

1. library(sf)
```

Also, evaluate what went wrong and consider options for how to fix it. Break the execution up into cell blocks.



Observations

What works: Julius is very helpful for inexperienced analyst

Challenges

To learn more about LLM for researching text/ products

ChatGPT, Gemini, GitHub and webpage, Chatbot

Experimenting and trying/testing with different prompts and tools are essential

Can be expensive & time-consuming (esp. for beginners)!

NEED PRACTICE – LOTS OF IT!

Managing Expectation: Need to know well what to look for and expect

THANK YOU!

I’VE REALLY ENJOYED THE COURSE AND WILL CONTINUE THE EXPERIMENTS!