

# Health System Performance Over Time Across Countries

Steven Wang, B.A., MPH Candidate | Preceptor: Mark Votruba, Ph.D., Economics  
Case Western Reserve University

## Background

Most Americans are aware that the nation's healthcare spending is among the highest in the world, yet, paradoxically, the country often falls short in health outcomes compared to other developed nations. This raises the question: Is the situation improving?

In the United States, the balance between cutting-edge medical advancements and their associated costs presents a persistent challenge. As the country continues to invest heavily in leading medical research and top-tier medical facilities, it consumes a substantial share of the economy's resources. This investment has yet to clearly demonstrate its value when benchmarked against the healthcare efficiencies of other (Organization for Economic Co-operation and Development) OECD countries, especially in light of the tumultuous events of 2020, which have further complicated the healthcare economic landscape.

## Learning Objectives

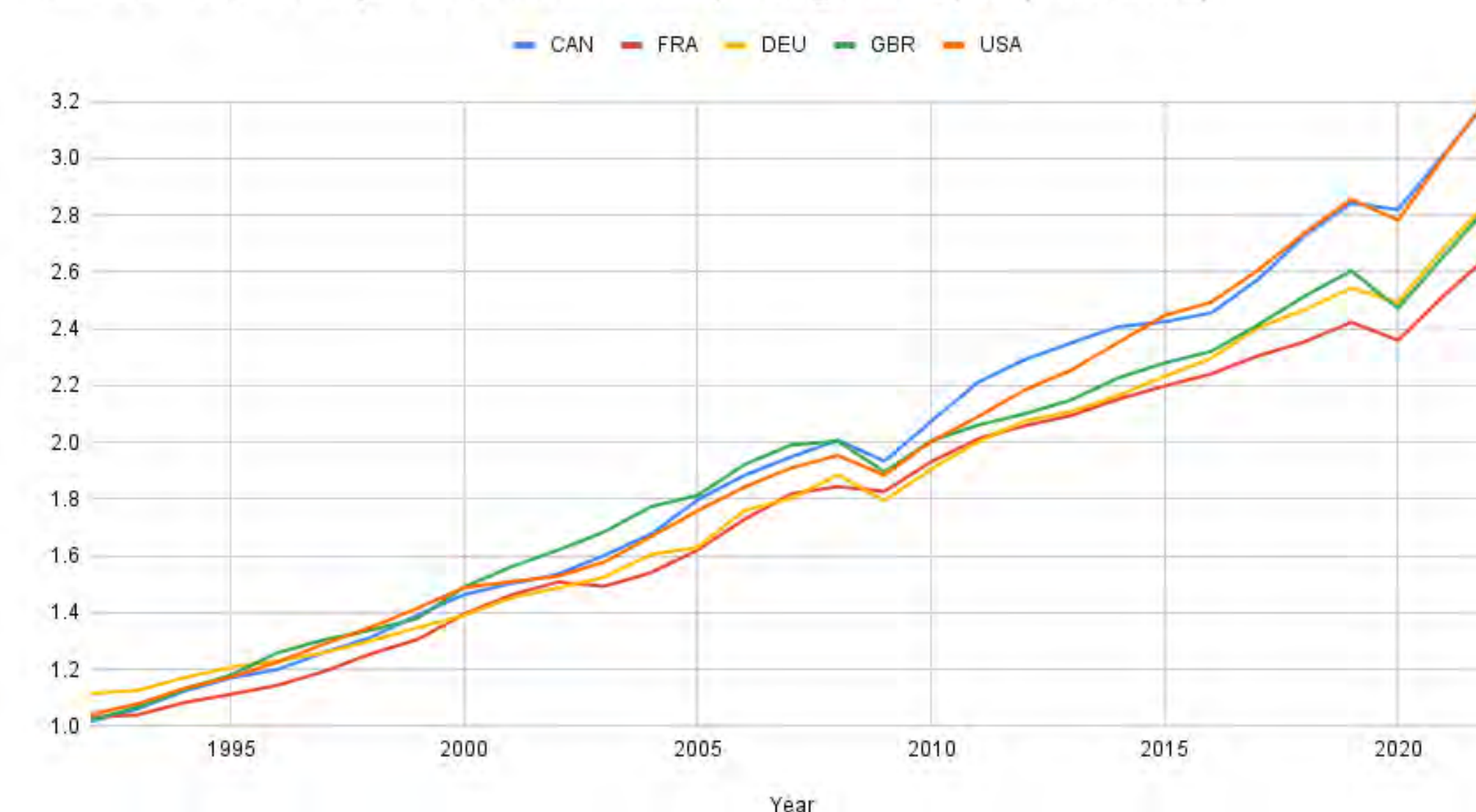
1. Building knowledge on different health systems and comparing them across different countries.
2. Synthesize empirical evidence on health system performance in different countries overtime.
3. Develop my understanding on different metrics that are used to evaluate on different aspects of the healthcare system

## Deliverables

- Charts and Graph
  - Life Expectancy vs. Healthcare Spending
  - Projected Life Expectancy/Projected Healthcare Spending
  - Healthcare Spending vs. GDP
  - Avoidable Mortality
  - Doctor Consultations per capita

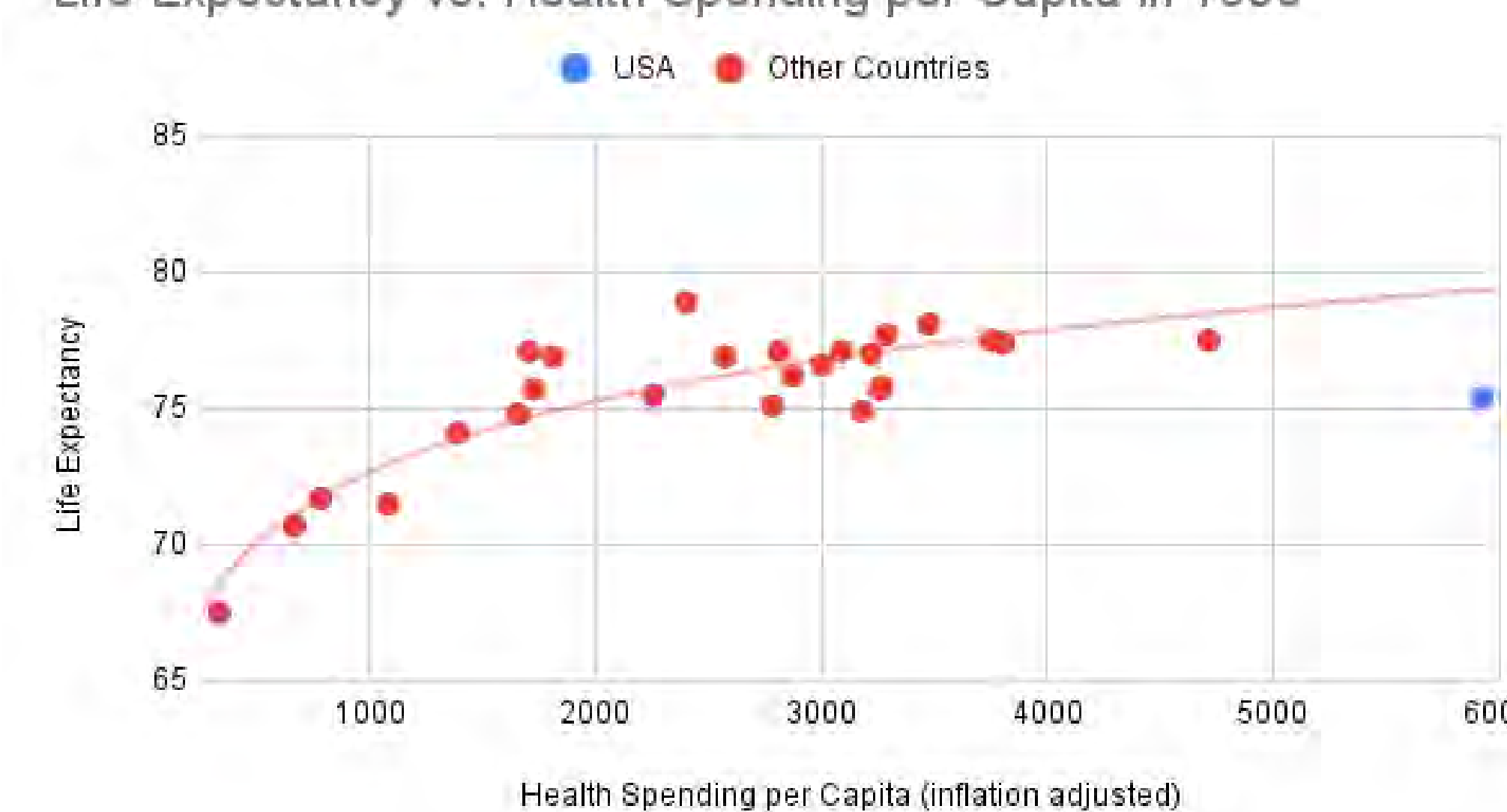
## Sample Deliverables

Net GDP Growth Adjusted for Healthcare Spending Per Capita (1992-2022)



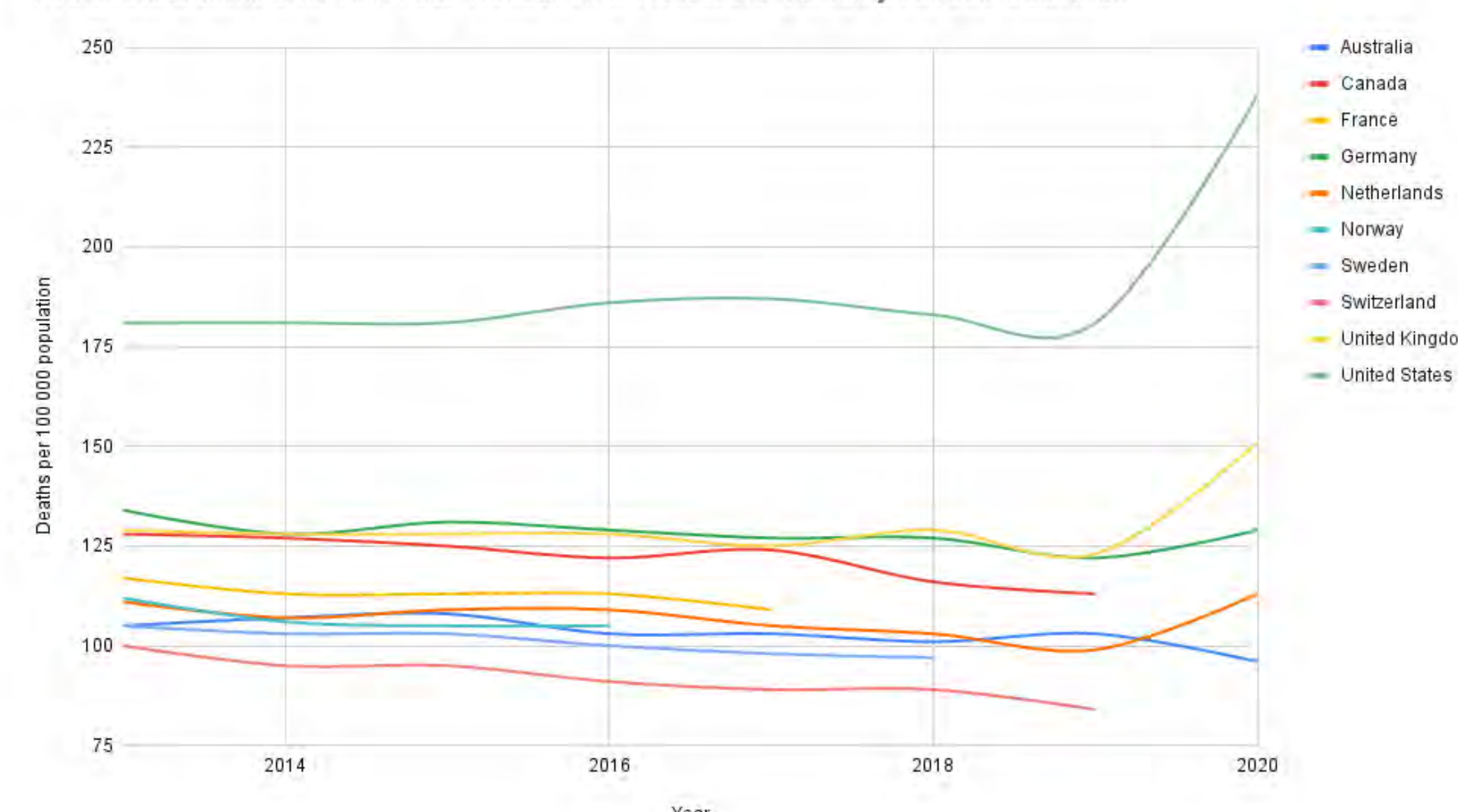
**Figure 1—Net GDP Growth:** Starting at the baseline of 1 in 1990, the graph captures the net GDP growth per capita after taking out healthcare spending per capita in the respective countries.

Life Expectancy vs. Health Spending per Capita in 1990



**Figure 3—Life Expectancy vs. Health Spending:** Comparative snapshot of two indicator in health across different countries; health spending and life expectancy.

Avoidable Deaths and Ten-Year Reduction in Avoidable Mortality Across Countries



**Figure 2—Avoidable Mortality:** Avoidable mortality rates, measured per 100,000 people, across various developed nations from 2013 to 2020.

Life Expectancy vs. Health Spending per Capita in 2019



**Figure 4—Life Expectancy vs. Health Spending:** Most recent model that compares the relationship between health spending and life expectancy before Covid-19.

**Table 1 — Projected Life Expectancy and Spending:** Comparative analysis of the United States' healthcare spending against projected spending based on a logarithmic model linking spending to life expectancy gathered by the different countries

Year	Life Expectancy (Years)	Projected Life Expectancy (Based on Spending)	LE Difference (Years)	Spending (USD)	Projected Spending (Based on Life Expectancy)	Spending Difference (USD)
1990	75.4	79.36	3.96	5925.26	2065.19	3860.067
2000	76.8	80.9	4.1	7555.95	2155.64	5400.31
2010	78.7	83.68	4.98	10223.21	2371.46	7851.75
2019	78.8	85.19	6.39	12124.99	1821.51	10303.49
2020	77	84.07	7.07	11859.18	677.37	11181.81

## Lessons Learned

- Underperformance of the US Healthcare System:
  - Despite the substantial financial resources allocated to healthcare, the United States continues to underperform in various health metrics when compared to other developed nations
- The Gap is Not Closing:
  - Healthcare spending per capita has been increasing and has not translated into commensurate improvements in health outcomes.
  - Persistent inefficiency in the healthcare system highlights the need for reassessment of how healthcare resources are allocated and managed.
- There are numerous number of ways that healthcare systems in each countries can be compared
  - Direct comparisons of service costs is not beneficial
- More health spending does not always mean higher life expectancy

## Public Health Implications

- **Resource Allocation Efficiency:**
  - The trend of the United States consuming more healthcare spending per capita without proportional gains suggests inefficiencies in resource allocation. Public Health Policies should aim to minimize wasteful spending and reallocate resources to high-impact areas.
- **Cross-Country Learning:**
  - Sharing best practices and lessons learned from different countries can inform policy reforms and innovation in healthcare delivery
- **Focus on Value-Based Care:**
  - Higher investment in healthcare does not translate to economic benefits. Aim to maximize the return on investment in the health sector.
- **Health System Performance Comparison:**
  - It difficult to compare different healthcare systems directly and this has been made more different with the lack of data collection. Improvement to data collect is essential when analyzing health system performance.

## References and acknowledgements

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