Have you ever wondered if where you're born determines how long you live?
Every year, millions of lives are shaped—not just by medicine or genetics—but by economics, education, and public health decisions.
This isn't just data; it's a story about **life, inequality, and the power of choices.**

Presented to you by Life Chart Team

Health & Wealth: How Economics Shape Global Life Expectancy Trends

Uncovering the hidden cost of living longer

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What if where you're born determines how long you live?

Every year, millions of lives are shaped—not just by medicine or genetics—but by economics, education, and public health decisions. Two babies, born on the same day—one in Japan and one in Sierra Leone—start life with radically different odds. One may live past 84, the other may not see 55. *This isn't just a statistical gap; it's a reflection of global injustice.*

In this report, we explore how life expectancy - arguably the most powerful measure of societal well-being - is influenced by money, policy, and priorities.

Life expectancy is more than just a number - it's a mirror reflecting a country's social progress, economic resilience, and healthcare system. Over the past decades, the world has seen remarkable improvements in life expectancy, yet this progress has been uneven. While some nations thrive with long, healthy lives, others still struggle with basic health needs.

In this report, we explore how economic factors such as GDP per capita and healthcare spending influence life expectancy across different regions and countries. Using WHO data, we identify key trends, disparities,

About the Dataset

The dataset utilized in this project is a comprehensive global health and development dataset published by the World Health Organization (WHO) and other reputable international bodies such as the United Nations Development Programme (UNDP) and the World Bank. It spans the period from 2000 to 2015 and captures critical indicators that influence life expectancy across more than 190 countries worldwide.

Purpose of the Dataset

This dataset is designed to help researchers and policymakers:

- Analyze health disparities between developed and developing countries.
- Identify key drivers of life expectancy and premature death.
- Evaluate the impact of economic resources and public health spending.
- Monitor the effectiveness of global health policies and vaccination programs.

Geographic and Temporal Scope

- Countries Covered: 193 countries
- Years Covered: 2000 to 2015
- Status Classification: Developed vs. Developing countries

1.Demographic & Economic Indicators	3. Healthcare System Indicators
Country, Year, Status	Total Health Expenditure (% of GDP)
GDP per capita	Government Health Spending (% of total government expenditure)
Population	**4. Behavioral & Disease-Related Indicators**
Income Composition of Resources	Alcohol Consumption (liters per capita)
(Human Development Index)	BMI (Average Body Mass Index)
Years of Schooling	Measles Cases
2. Health Outcome Indicators	Vaccination Coverage for: Hepatitis B, Polio and Diphtheria
Life Expectancy	Thinness among children (ages 5–9 and 10–19)
Adult Mortality Rate (15–60 years)	
Infant Deaths	
Under-Five Deaths	
HIV/AIDS Deaths	

This is not just raw data — it tells a global story about inequality, development, and survival. It allows us to explore:

- Why do some nations thrive while others fall behind.
- How investments in health and education translate into longer lives.
- What outliers can teach us about policy effectiveness and innovation.

This rich, integrated dataset enables a nuanced exploration of the central question behind this project: *"To what extent does where you're born determine how long you live?"*

Key Business Questions Driving the Analysis

To guide our analysis of the WHO Life Expectancy dataset, we focused on a set of strategic business questions designed to uncover global health insights, identify disparities, and highlight the key drivers influencing life expectancy. These questions include:

- Global & Regional Trends: How has life expectancy evolved over time across different regions and income groups?
- Socioeconomic Drivers: What is the relationship between life expectancy and factors like GDP per capita, education, and healthcare expenditure?
- Health Indicators: How do disease prevalence, immunization coverage, infant mortality, and lifestyle factors (e.g., alcohol use, BMI) impact life expectancy?
- Policy Impacts: What role do government health policies and public spending play in improving life expectancy outcomes?
- Future Outlook: Can we forecast life expectancy trends, and what are the most influential predictors?
- Equity Analysis: Are there notable differences in life expectancy across demographics such as rural vs. urban populations or age groups?

These questions formed the analytical foundation for identifying actionable insights and evidence-based recommendations.

A Global Glimpse into Life Expectancy.

Imagine standing at a high vantage point, looking at the world below. This page gives us that exact perspective — a wide-angle view of global life expectancy trends from 2000 to 2015. It's a story of progress, disparity, and hidden patterns.

While average life expectancy has generally improved across the globe, not all countries have shared this progress equally. By zooming in on life expectancy alongside GDP, infant mortality, and health spending, we begin to understand why.

Key Findings:

- Life Expectancy: Although the global average increased, some nations reached over 80 years, while others struggled to cross 55.
- Infant Deaths: A critical indicator that reflects healthcare access and maternal health — wide gaps exist between continents.
- GDP & Expenditure: Countries with a higher GDP often invest more in health, but it's not always a guarantee of longer life.

Visual Narratives:

- Bar Chart – Top & Bottom 5 in Life Expectancy:
  This visual immediately exposes inequality: countries at the top enjoy healthcare, education, and stability; those at the bottom often face conflict, poverty, or systemic neglect.
- Line Chart – Life Expectancy by Continent (2000–2015):
  All regions show growth, but Africa's progress is significantly slower, prompting questions around health access, disease burden, and economic instability.
- Map – GDP & Population:
  A dual story: where people live and how much wealth exists there. Large populations in lower-GDP countries hint at pressure on healthcare systems.

The Socioeconomic Drivers Behind Longevity

Why do people in some countries live longer than others? This page dives beneath the surface to explore what shapes life expectancy — from money and education to opportunity and infrastructure. Longevity isn't just a matter of medicine; it's about lifestyle, education, and environment. Economic development and education are powerful levers in determining health outcomes.

Key Findings:

- Years of Schooling: Education empowers people to make healthier choices and navigate life better — it's strongly tied to lower child mortality.
- GDP per Capita: Wealthier nations generally have longer life spans, but diminishing returns occur after a certain income threshold.
- Income Composition: A measure of how diverse and sustainable income sources are — a higher index often correlates with better living conditions.

Visual Narratives:

- Scatter Plot – Schooling vs. Infant Mortality (Latest Year):
  A powerful negative correlation. Countries with longer average schooling years experience drastically lower rates of infant deaths — education literally saves lives.
- Scatter Plot – GDP vs. Life Expectancy:
  There's a steep early gain: low-income countries benefit greatly from economic growth. But beyond a point, the relationship flattens — wealth alone can't buy longer life.
- Bar Chart – Health Expenditure by Continent:
  Shows clear differences in investment. North America and Europe spend the most on health, but the efficiency of spending also matters — some developing countries achieve strong results with less.

Understanding Disease Burden, Behavior & Body Trends

What are people dying from? What habits are harming or helping us? This page explores the deeper dynamics of health behaviors, disease spread, and physical well-being — not just how long people live, but how healthy they are.
As countries develop, they often shift from infectious to non-communicable diseases. But many low-income nations still suffer under the dual burden — with infectious diseases and lifestyle-related illnesses both taking a toll.

Key Findings:

- HIV/AIDS & Measles: Still heavily impact Africa and parts of Asia, but progress has been made through vaccination and awareness.
- Alcohol Consumption: Surprisingly, higher in developed nations — a sign of lifestyle risks despite better healthcare.
- BMI: Rising globally, especially in wealthier regions — reflecting shifts toward sedentary lifestyles and processed foods.

Visual Narratives:

- Line Chart – Measles Trends by Continent:
  The drop in cases tells a success story of global immunization, though some regions show troubling spikes due to vaccine hesitancy or system failures.
- Bar Chart – Alcohol Consumption by Development Status:
  A counterintuitive insight: developed nations, despite longer life expectancy, face internal health challenges related to consumption habits.
- Bar Chart – HIV/AIDS and Measles by Continent:
  A stark reminder that some regions still carry the brunt of preventable diseases — demanding international attention and support.

Mortality & Vaccination – The Fight to Save Lives

Behind every data point here is a life lost too soon — or a life saved through early intervention. This page focuses on the most direct indicators of public health: mortality rates and vaccine coverage.
Mortality tells us what systems are failing. Vaccination, on the other hand, tells us what's working. Together, they create a powerful picture of hope — and of the work still needed.

Key Findings:

- Infant and Under-Five Mortality: A major health indicator. The gap between developed and developing nations remains wide, though overall improvements are visible.
- Adult Mortality: Often tied to chronic diseases, lifestyle, and healthcare accessibility.
- Vaccination Coverage: One of the clearest success stories in global health — but disparities still exist.

Visual Narratives:

- Line Chart – Infant Mortality by Development Status:
  Encouraging downward trends in both groups, but the difference between them is still too large. Stronger maternal care and health education could bridge this.
- Bar Chart – Vaccination Coverage by Continent (Latest Year):
  Vaccination saves millions of lives annually. This chart shows which continents are leading — and which still need targeted campaigns.

The Big Picture: Life Expectancy Around the World

Globally, life expectancy ranges from below 55 to over 85 years. Developed countries like Japan, Switzerland, and Norway enjoy long lifespans, while many developing nations in Sub-Saharan Africa and parts of South Asia struggle with early mortality.

But there's a twist…

When we dig deeper, we find that life expectancy doesn't always follow the money. Some lower-middle-income countries, like Vietnam and Rwanda, outperform much wealthier nations.

This opens up the central question of our story:

Is wealth enough to guarantee a long life?
Or is it about how nations invest that wealth?

When Wealth Doesn't Equal Health

Take the United States: the world's top spender on healthcare—over $11,000 per capita annually—yet with a life expectancy lower than Costa Rica, which spends a fraction of that amount.

The data reveals:

- GDP alone isn't destiny.
- What matters more is how effectively countries use their resources.
- Countries that prioritize preventive care, universal access, and early intervention often achieve better outcomes at lower costs.

Red Flags: Where Health Systems Are Failing

Some nations with decent economic indicators are underperforming in life expectancy due to:

- Low immunization rates (e.g., Diphtheria, Polio, Hepatitis B)
- High child mortality and under-5 deaths
- Weak public health investment
- Lack of access to education and clean water

In some regions, schooling years and income composition of resources (HDI sub-index) correlate more strongly with life expectancy than GDP.

Deep Dive into Key Indicators

Our analysis focused on several dimensions:

- Health spending efficiency: Where money delivers real impact
- Immunization coverage: Strong link to lower child mortality
- BMI & Alcohol: How lifestyle affects mortality
- HIV/AIDS & Measles rates: Impact of infectious disease
- Schooling & HDI Index: Education as a foundation for longevity

For instance, countries with average schooling > 12 years tend to have life expectancy over 75, regardless of income level

Conclusions

Life expectancy is the product of money, management, and mission.
It reflects how seriously nations take the well-being of their people, and how much they're willing to invest in prevention over cure.

- Economic wealth enables, but doesn't guarantee good health.
- The most successful countries combine smart policy, inclusive healthcare, and strong education systems.
- In global health, efficiency > expenditure.

Recommendations

Based on the findings, we propose:

1. Invest in preventive care—especially in child immunization and nutrition.
2. Empower communities with health education and accessible primary care.
3. Improve policy transparency and focus on health equity in spending.
4. Leverage data dashboards to identify outliers and drive evidence-based decisions.