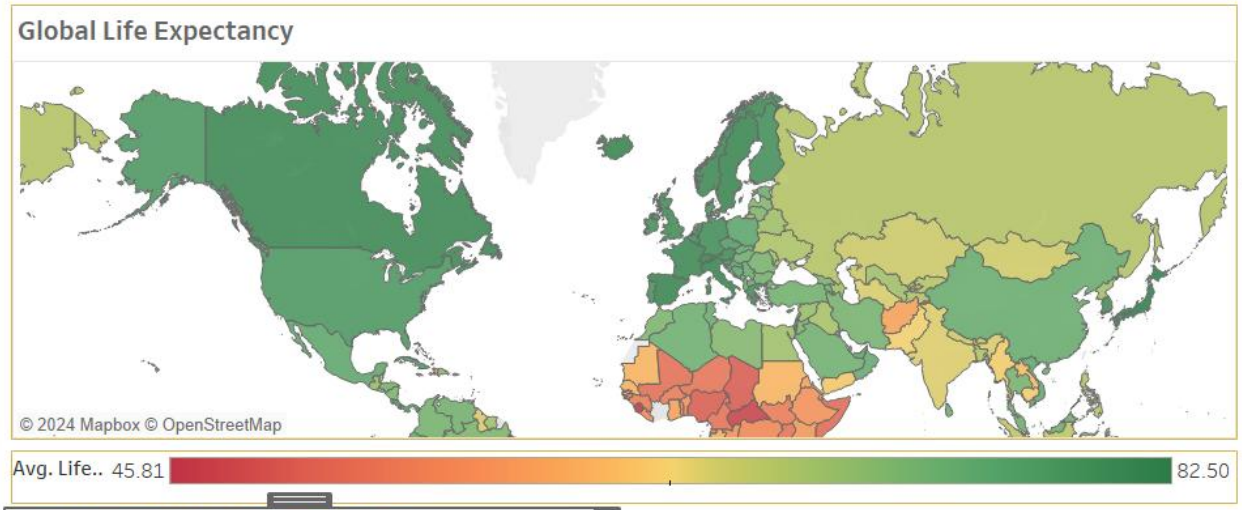
Life Expectancy



COVID-19: life expectancy mostly continued to decline in 2021

Shift in deaths from the very old to people in middle age

HOME LATEST ELECTIONS 2024 GAZA INVASION PAKISTAN OPINION

Life expectancy in Pakistan edges lower to 65 years

INTERNATIONAL MONETARY FUND

F&D FINANCE & DEVELOPMENT

AGING IS THE REAL POPULATION BOMB

DAVID E. BLOOM, LEO M. ZUCKER

CREDIT: ADOBE STOCK/ DMYTRO

JUNE 2023

BBC

100 Year Life

Menu

100 YEAR LIFE | AGEING

Do we really live longer than our ancestors?

Harvard Health Publishing
HARVARD MEDICAL SCHOOL

Menu

DISEASES & CONDITIONS

Why life expectancy in the US is falling

VID-19 and drug overdoses are the biggest contributors.

Privacy - Terms

From the previous dashboard we can see the amount of ruckus caused by life expectancy. With pandemics and clashes in society , what will be the future?

To answer this question we need to see what are the factors affecting life-expectancy.....

The Harvard Gazette

Search

Heart healthy habits that start in childhood affect lifespan, reports a study that began tracking children in the 1970s.

iStock by Getty Images

HEALTH

Longevity starts when we're young

Factors Affecting Life Expectancy

Britannica Subscribe

Animals & Nature

Actions

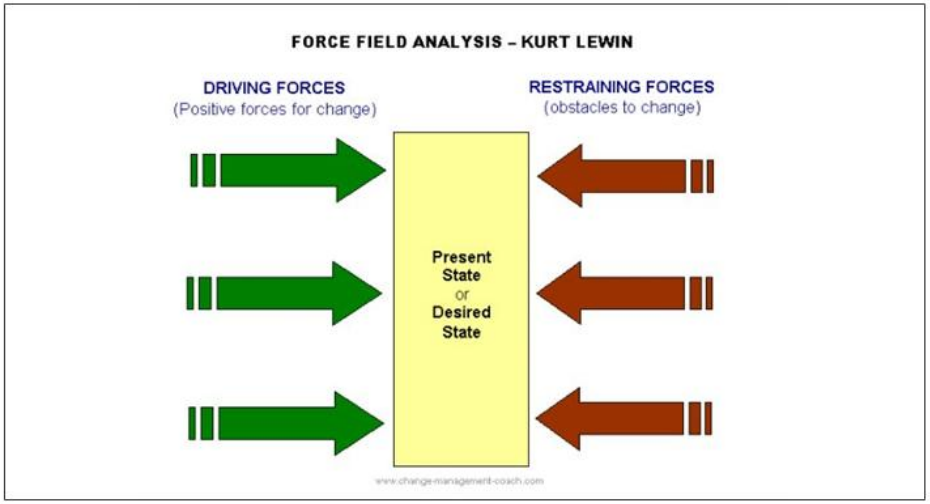
life expectancy

Written by Judith Mara Bezy

Fact-checked by The Editors of Encyclopaedia Britannica

Last Updated: Jan 28, 2024 • Article

We'll be conducting a *FFA(Force Field Analysis)* to know if life expectancy around the world is improving?



Is life expectancy improving? Answering using FFA(Force Field Analysis).

Force Field Analysis:

A force field analysis helps a team study a problem's positives and negatives, and how they impact resolving that problem. It can present *pros and cons* in an easy comparison, allowing for consensus and collective decision-making.

It can be difficult for teams to make decisions about testing new ideas especially when there are a variety of opinions. Force Field Analysis provides a structured approach to decision making which helps teams to consider the forces that are driving the change and those that resist the change.

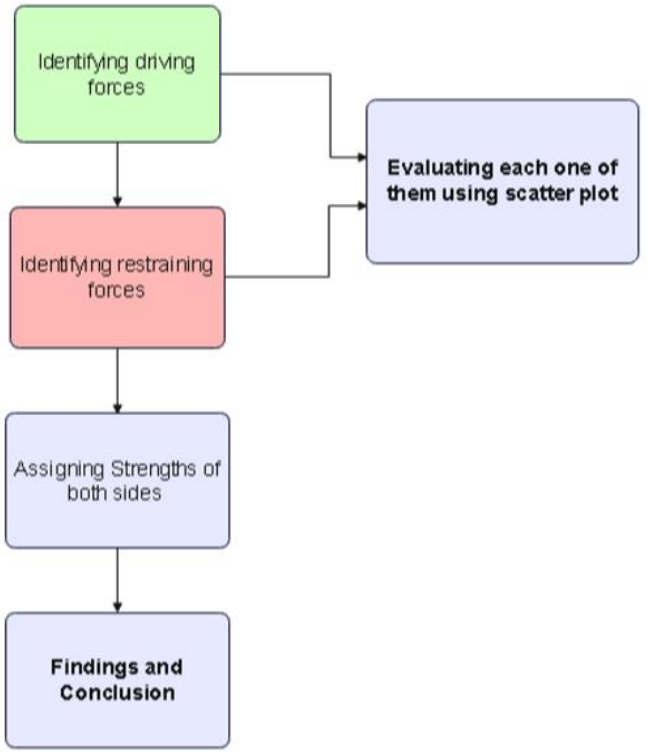
Force Field Analysis

Force Field Analysis

☆ Add to favourites

Force Field Analysis is a metho
listing , discussing, and assess
various forces for and against a
proposed change.

Flowchart to visualize the plan for this analysis



Promoting Factors of Life Expectancy:

-Trend overtime
-relationship with life expectancy using scatter plot
-validation using different sources

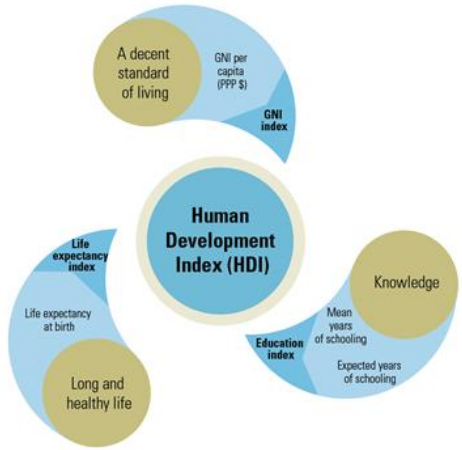
NIH News in Health

June 2016 Print this issue pdf

Can You Lengthen Your Life?

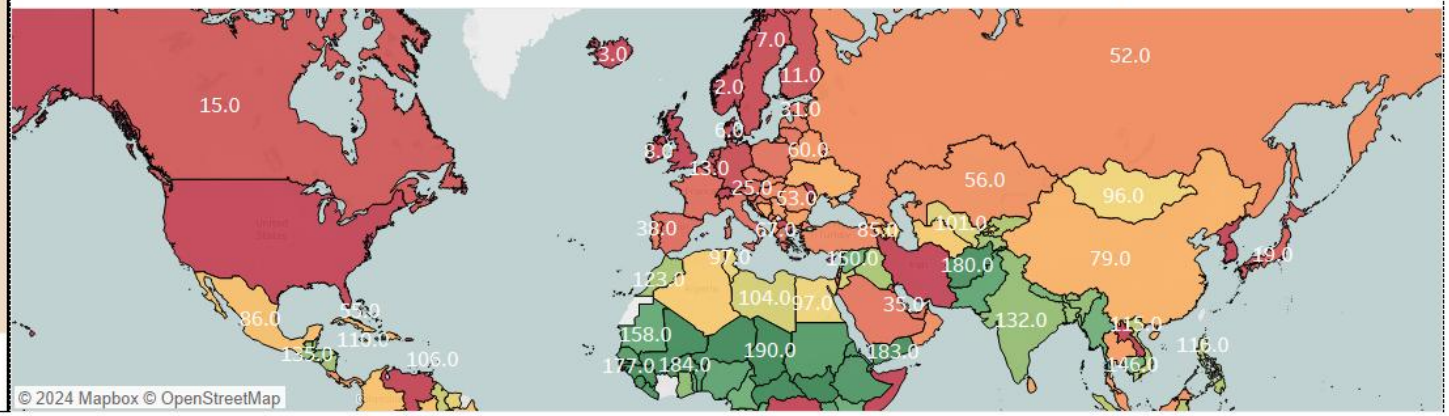
Researchers Explore How To Stay Healthy Longer

En español | Send us your comments

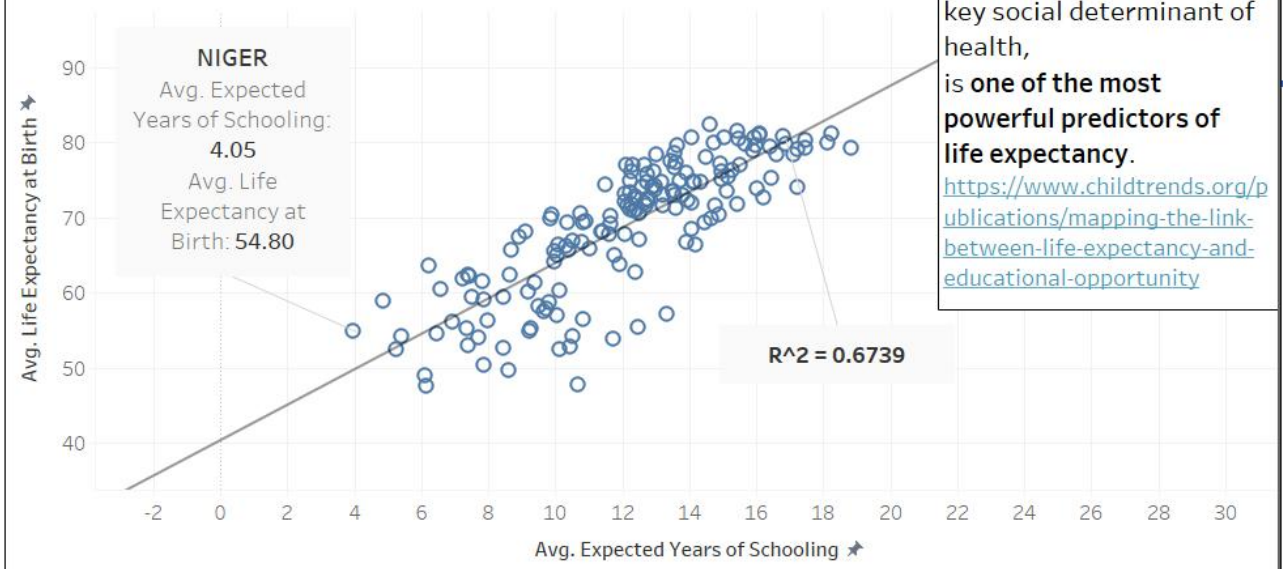


Human Developement Rank

The Human Development Index is a statistic composite index of life expectancy, education, and per capita income indicators, which is used to rank countries into four tiers of human development.



Expected Years of Schooling



Educational attainment, a key social determinant of health,
is **one of the most powerful predictors of life expectancy**.
https://www.childtrends.org/publications/mapping-the-link-between-life-expectancy-and-educational-opportunity

YaleNews

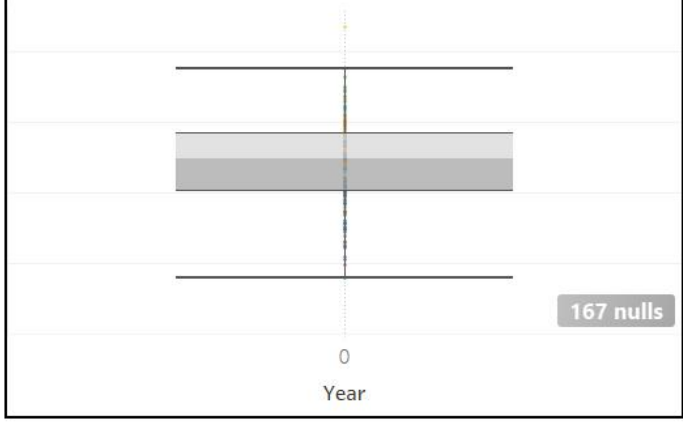
Want to live longer? Stay in school, study suggests

Level of education, and not race, is the best predictor of who will live

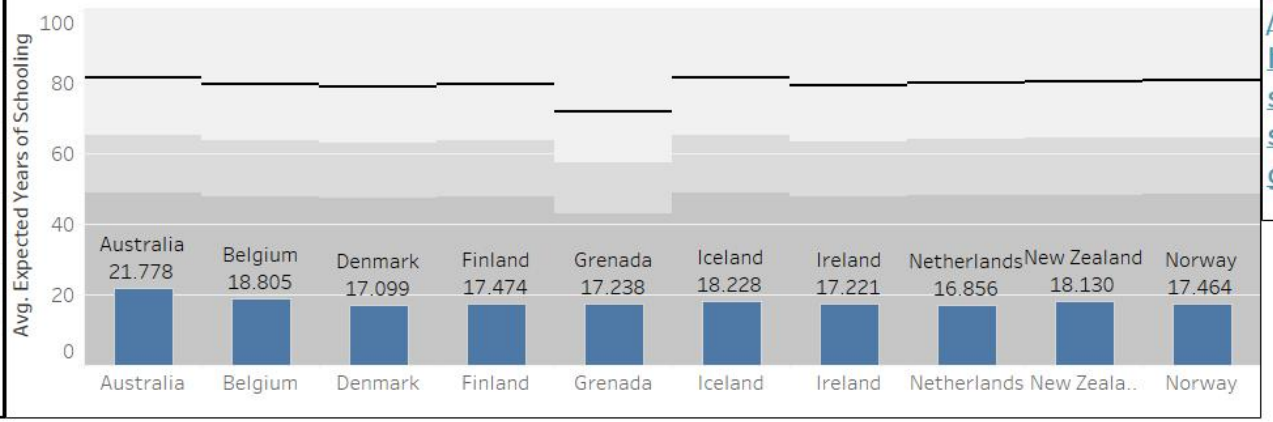
Region
(All)

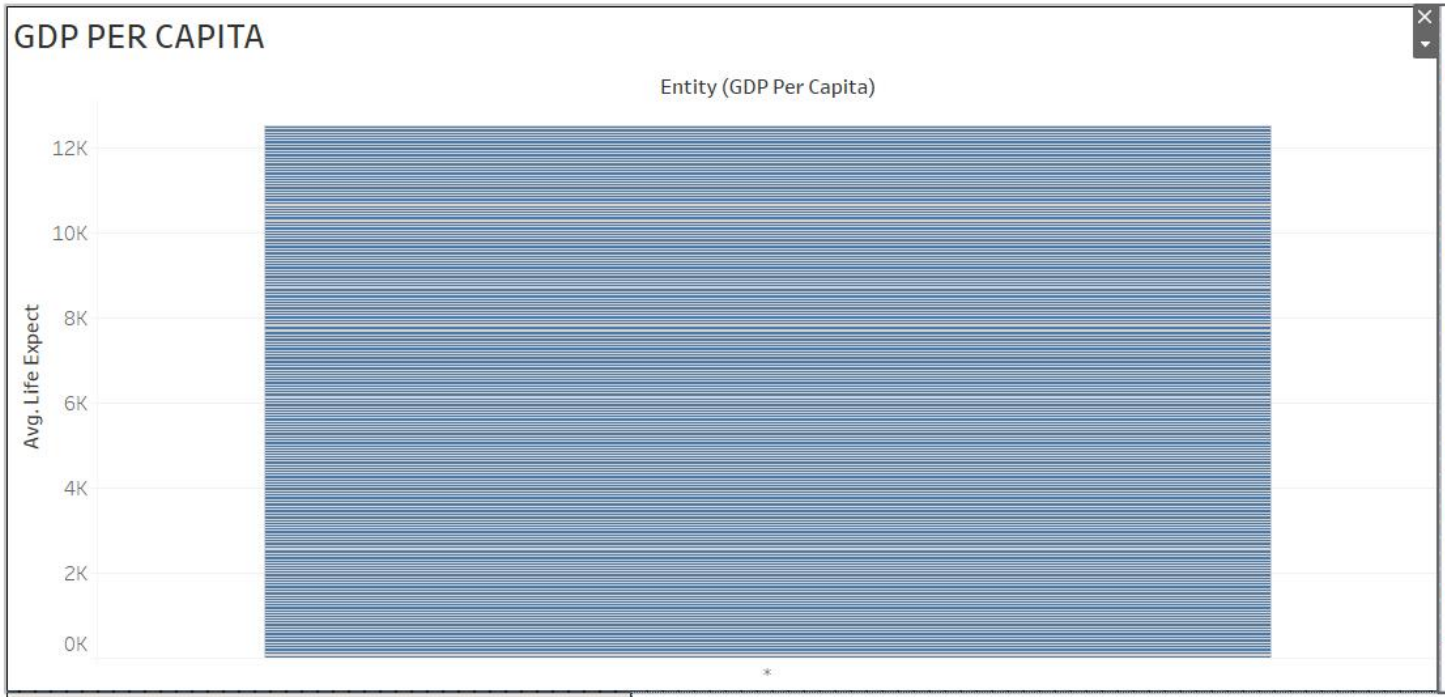
Level of education, and not race, is the best predictor of who will live the longest, researchers report in a new Yale-led study.
https://news.yale.edu/2020/02/20/want-live-longer-stay-school-study-suggests

Over the years



Bullet Graph





One, favoured in earlier works, is that human capital generated through schooling spurs economic growth and creates prosperity (see Barro 1991, Barro and Sala-i-Martin 1995, Benhabib and Spiegel 1994, De la Fuente and Domenech 2006, Hanushek and Kimko 2000);

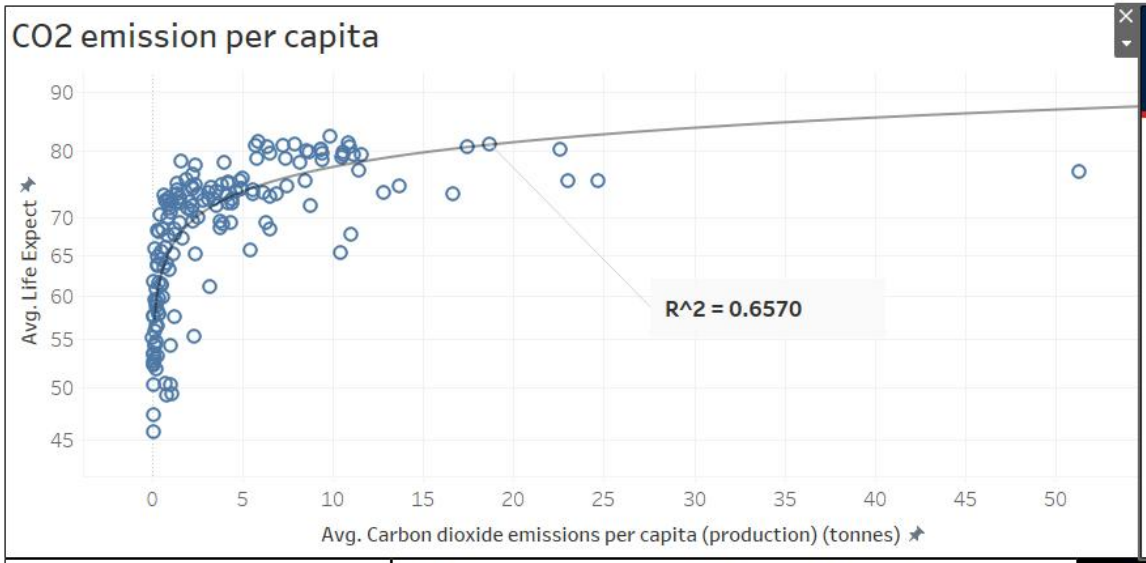
An alternative interpretation, suggested by Bils and Klenow (2000), maintains that increased schooling is mainly caused by growth in per capita income.
https://cepr.org/voxeu/columns/income-and-schooling

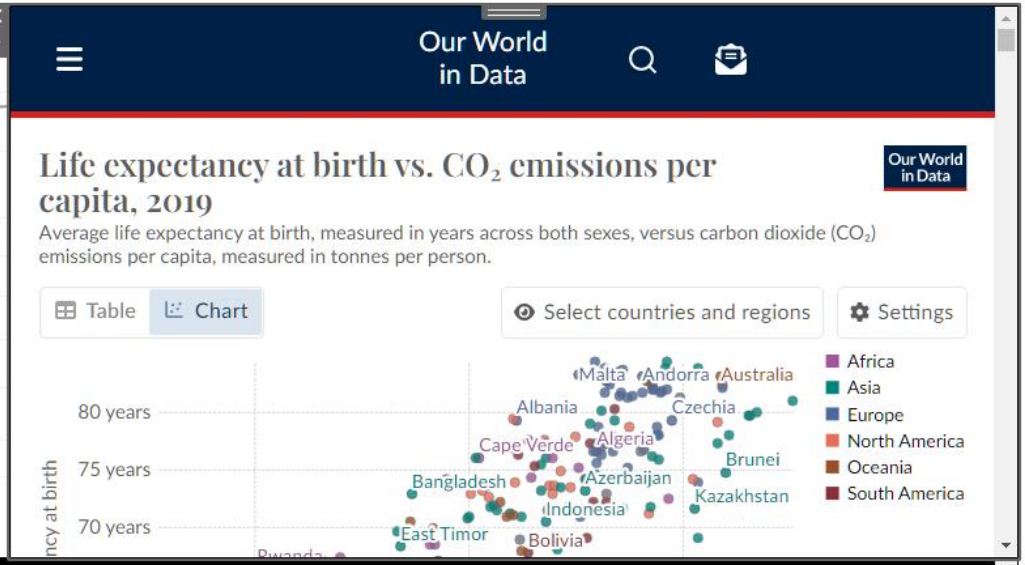
Per Capita GDP

[(ˌ)pər-ˈka-pə-tə ˈjē ˈdē ˈpē]

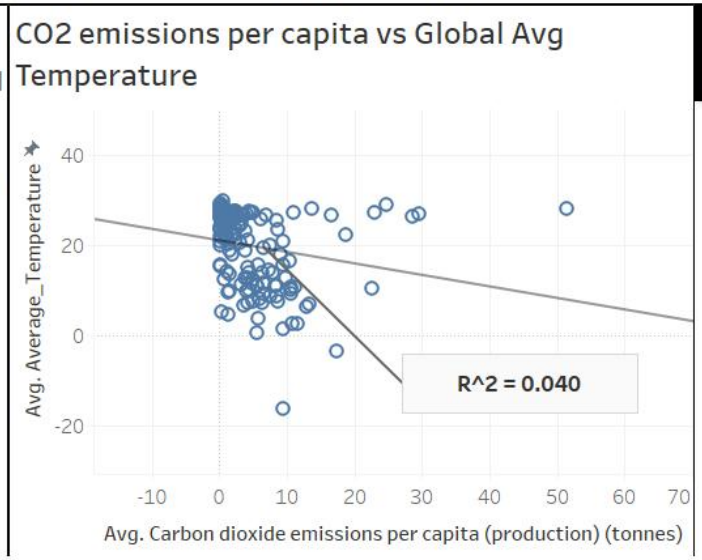
A financial metric that breaks down a country's economic output per person and is calculated by dividing the GDP of a nation by its population.

Investopedia

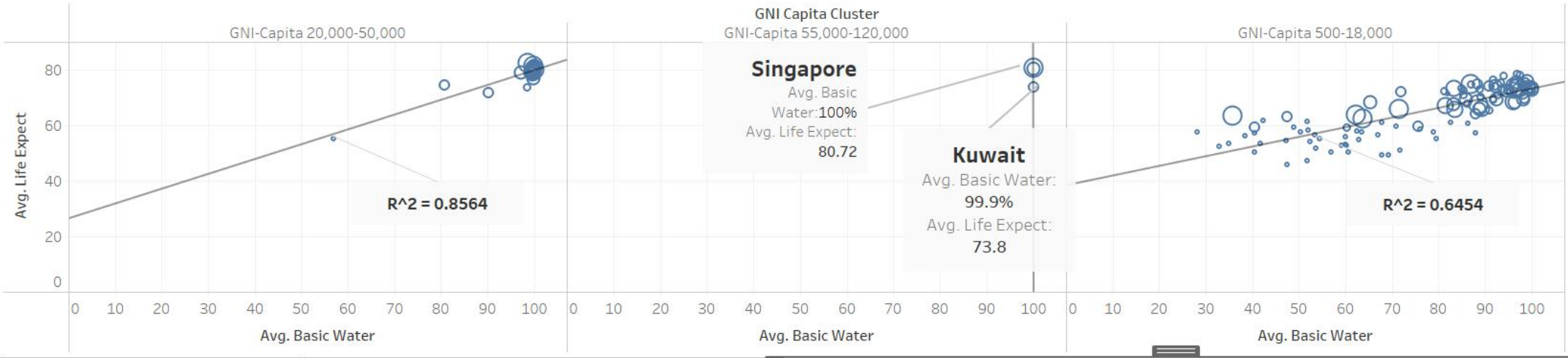




Certain study shows that CO2 emissions in the most polluted cities reduces life expectancy by 0.012%, although on an aggregrate global level higher Co2 levels seem to show positive relationship. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0262802#:~:text=Carbon%20emissions%20have%20a%20significantly,decreases%20life%20expectancy%20by%200.012%25.



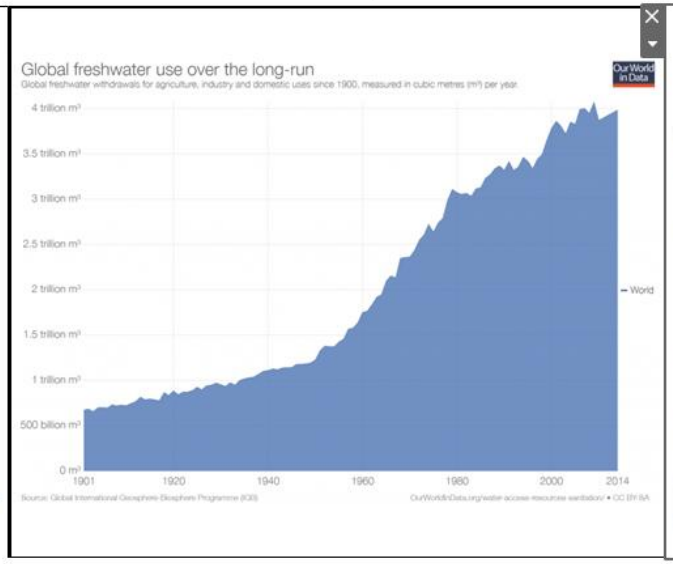
Basic Water vs Life Expectancy



Basic Water :

Percentage of population using at least basic drinking-water services

This measure shows a very strong relationship with Life-Expectancy. Study suggets that countries with sufficient amount of basic water supply tend to live longer.



Scholarly Community Encyclopedia

Home / Entry / Topic Review / Water Quality and Life Expectancy

Water Quality and Life Expectancy

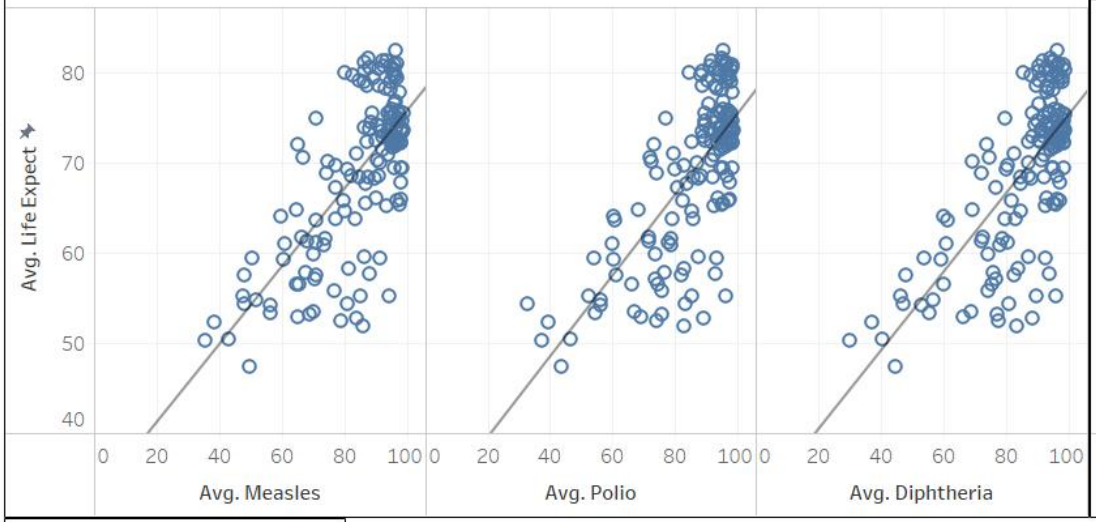
Edit

This entry is adapted from the peer-reviewed paper 10.3390/w13060752

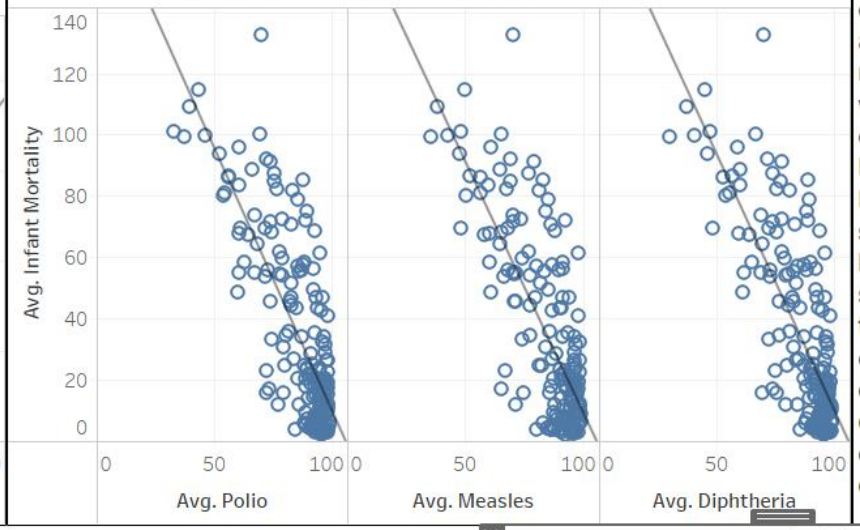
0 1 0

Since ancient times, the need for healthy water has resulted in the development of various kinds of water supply systems. From early history, civilizations have developed water purification devices and treatment methods. The necessity for

Vaccines among 1 year olds(% of population)



Vaccines Helps in reducing Infant Mortality



In majority of countries there's a positive relationship of vaccine coverages and life expectancy. However the strength may not be very significant due to these diseases can be cured easilty to prevent death as compared to other factors.

Measles

A viral infection that's serious for small children but is easily preventable by a vaccine.

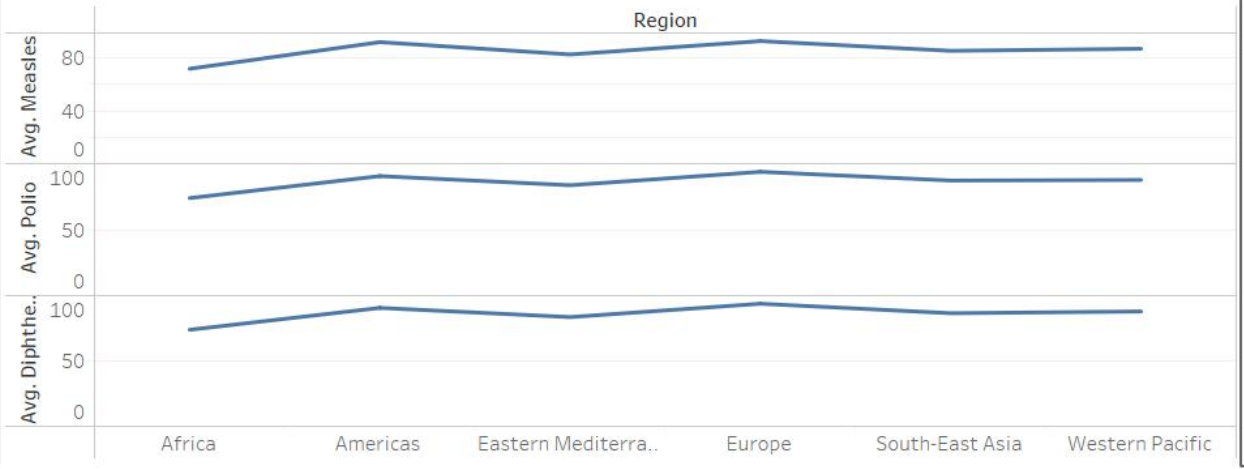
Polio

A virus that may cause paralysis and is easily preventable by the polio vaccine.

Diphtheria

A serious infection of the nose and throat that's easily preventable by a vaccine.

Immunization Coverage Trend(Region Wise)



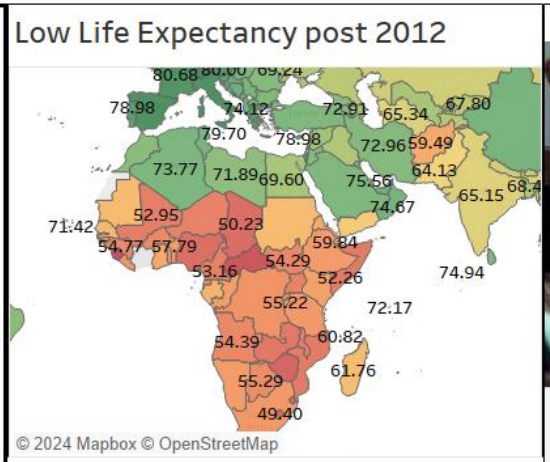
INTRODUCTION

Vaccines: Science, health, longevity, and wealth

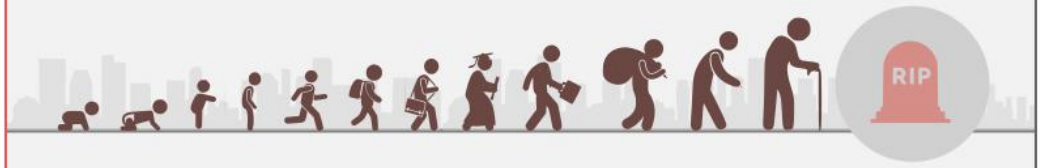
Rino Rappuoli Authors Info &

Now, as we saw there are many factors which affects Life-Expectancy positively.But at the same time in today's world many factors just swipe off many years of life out of humans.

Restraining Factors of Life Expectancy



Using scatter plots we will be looking at the factors which affects life expectancy negatively.



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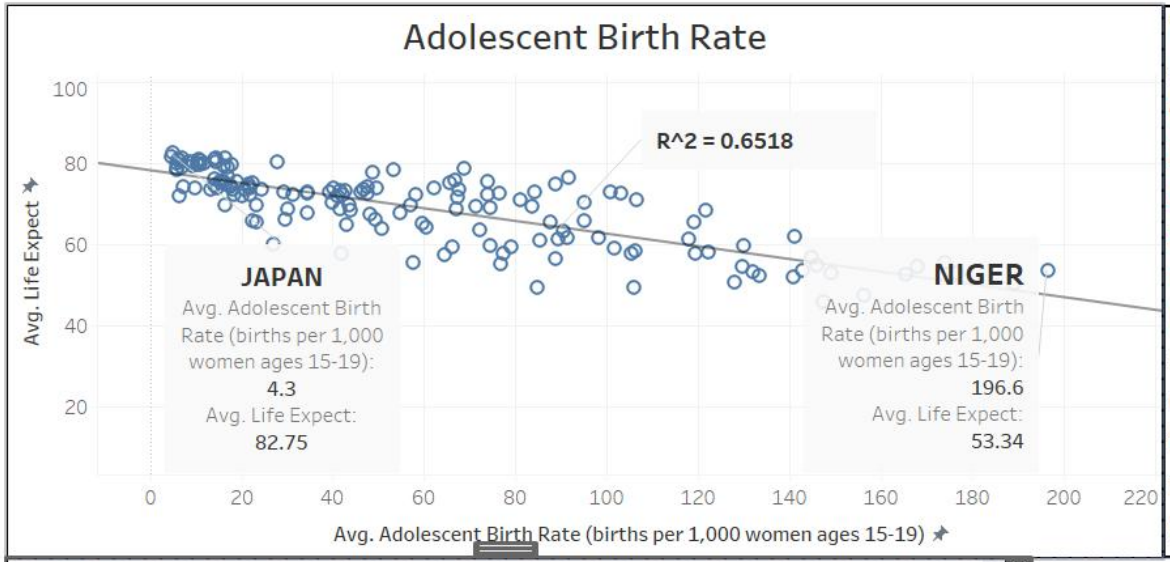
Research article | Open access | Published: 07 April 2014

Lifestyle risk factors and residual life expectancy at age 40: a German cohort study

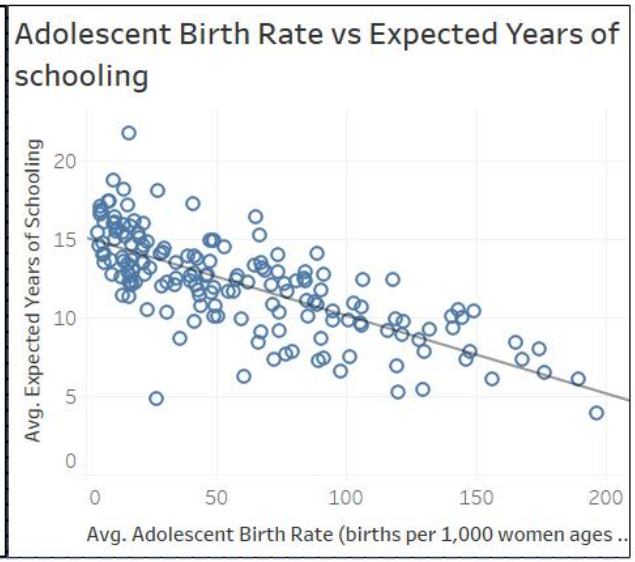
Kuanrong Li, Anika Hüsing & Rudolf Kaaks

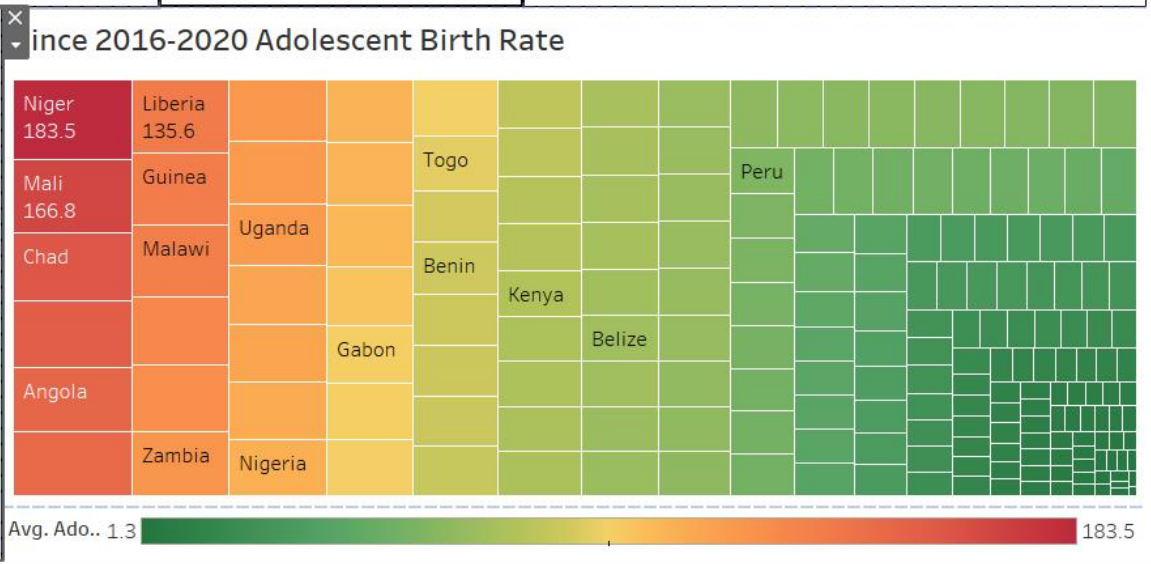
BMC Medicine **12**, Article number: 59 (2014) | Cite this article

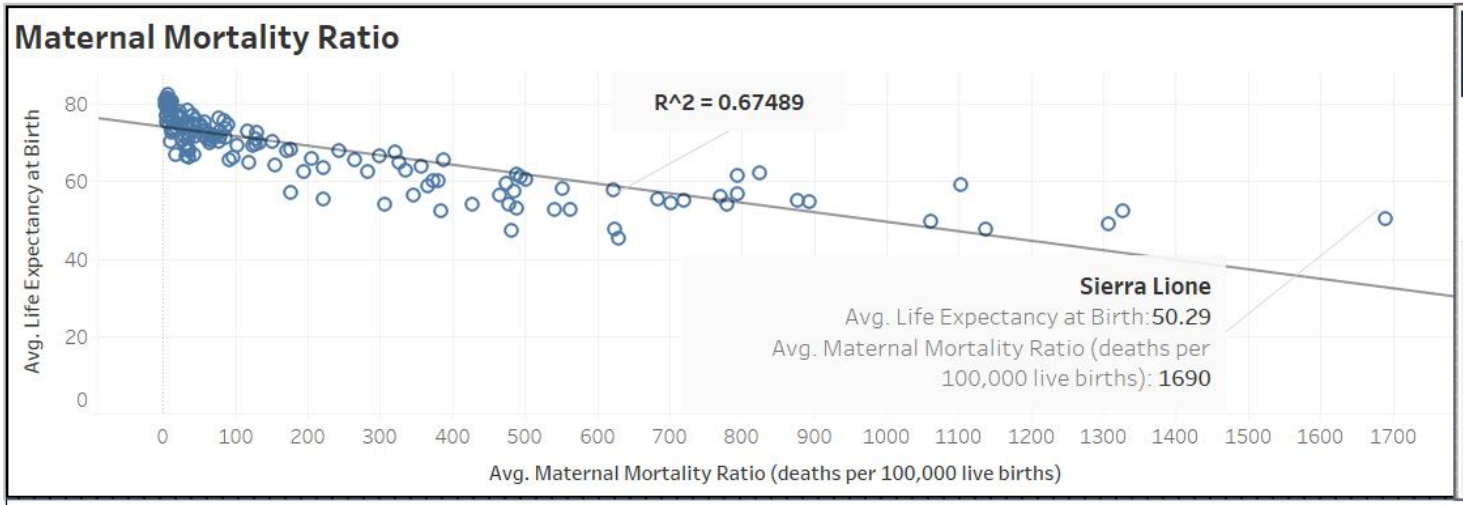
18k Accesses | **53** Citations | **247** Altmetric | Metrics



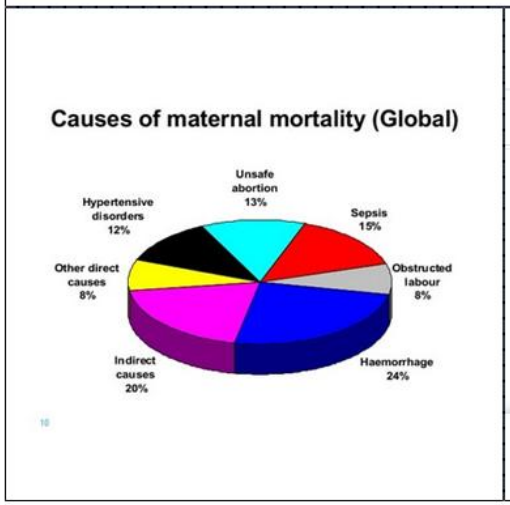
The adolescent birth rate (ABR) is defined as the annual number of births in women aged 15–19 years old per 1000 women in the same respective age group (1). The adolescent birth rate is also referred to as the age-specific fertility rate (ASFR) for women aged 15–19 years old.

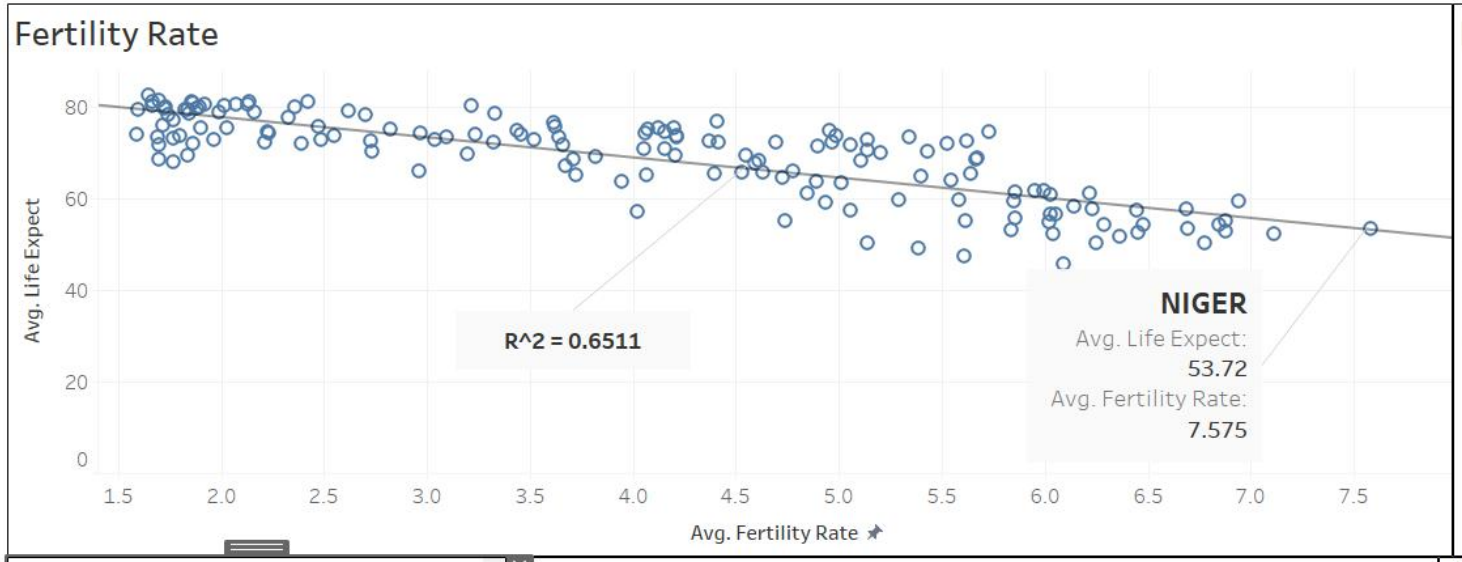


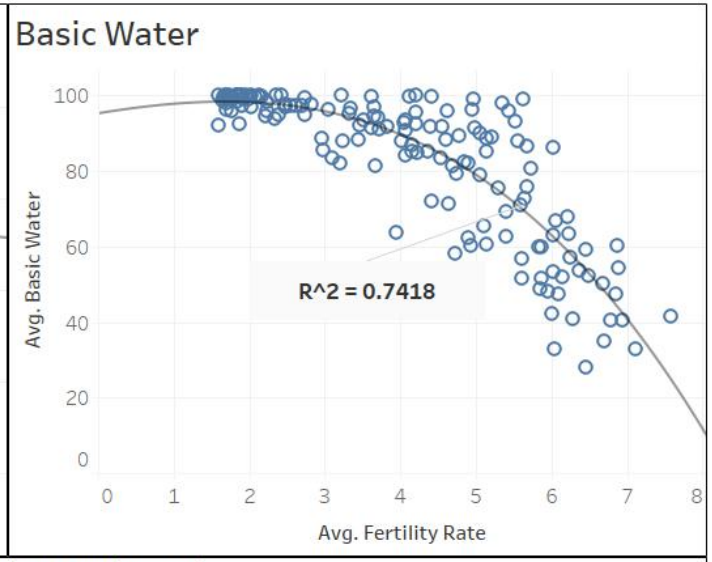




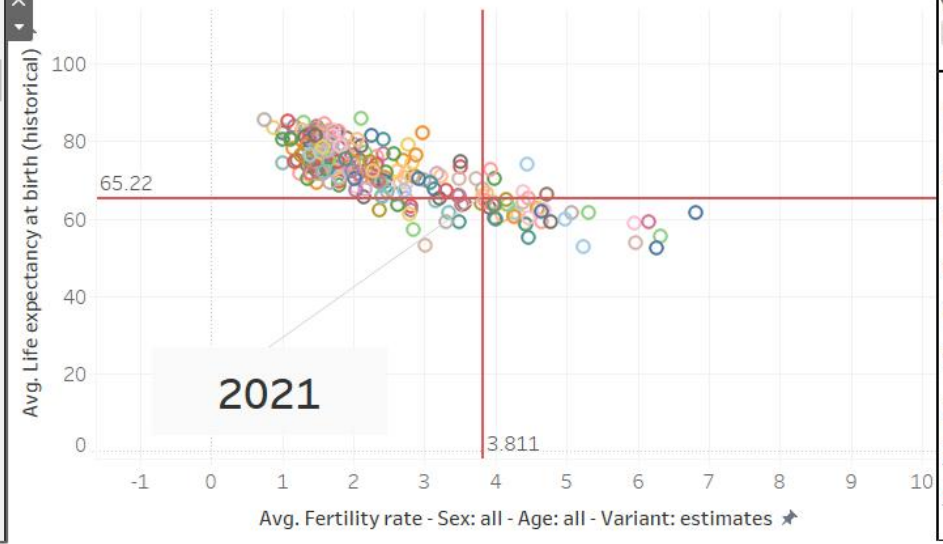
The maternal mortality ratio is a key performance indicator for efforts to improve the health and safety of mothers before, during, and after childbirth per country worldwide.







Publication: Determinants and Consequences of High Fertility: A Synopsis of the Evidence

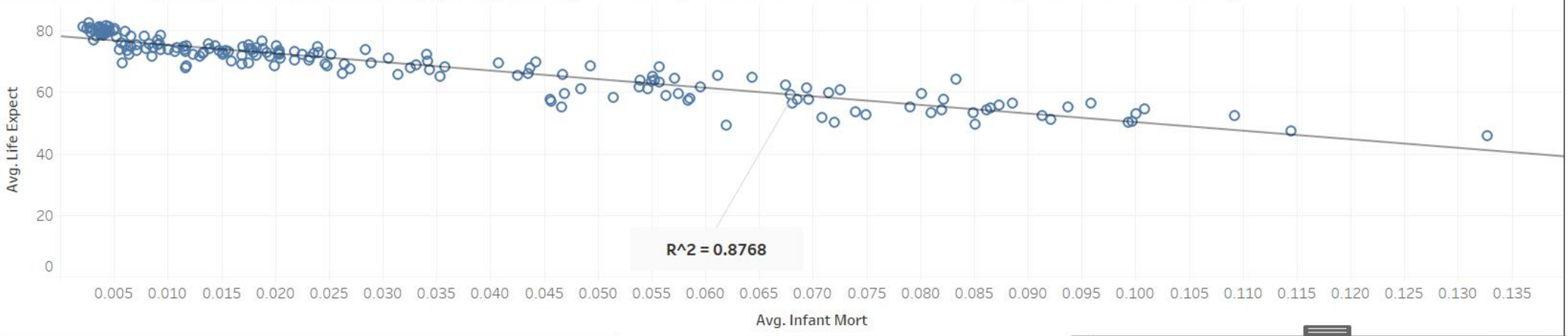


Writing in the journal Science, an anthropology professor draws a clear correlation between increased life expectancy and lower fertility in cities. One of the benefits of postindustrial life is that it is largely free of the fear of early mortality.

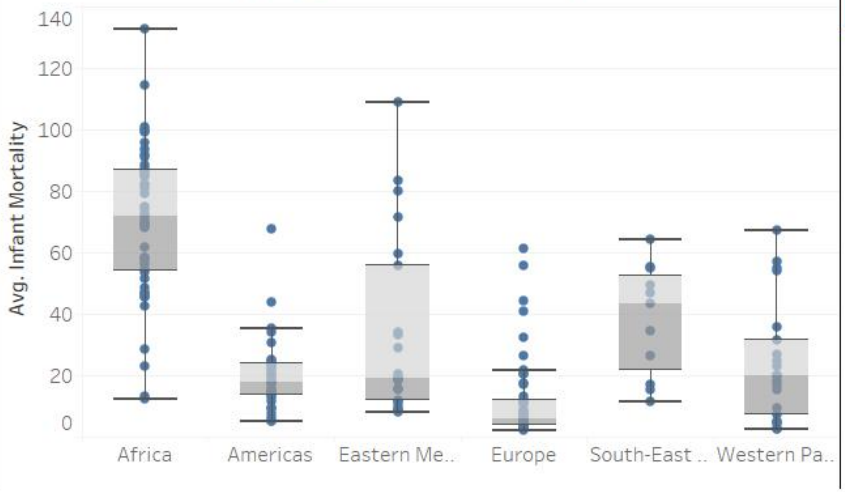
https://www.sciencedaily.com/releases/2008/02/080215210722.htm

Infant Deaths

Infant mortality is the death of an infant before his or her first birthday. The infant mortality rate is the number of infant deaths for every 1,000 live births.



Infant Mortality (Region Distribution)



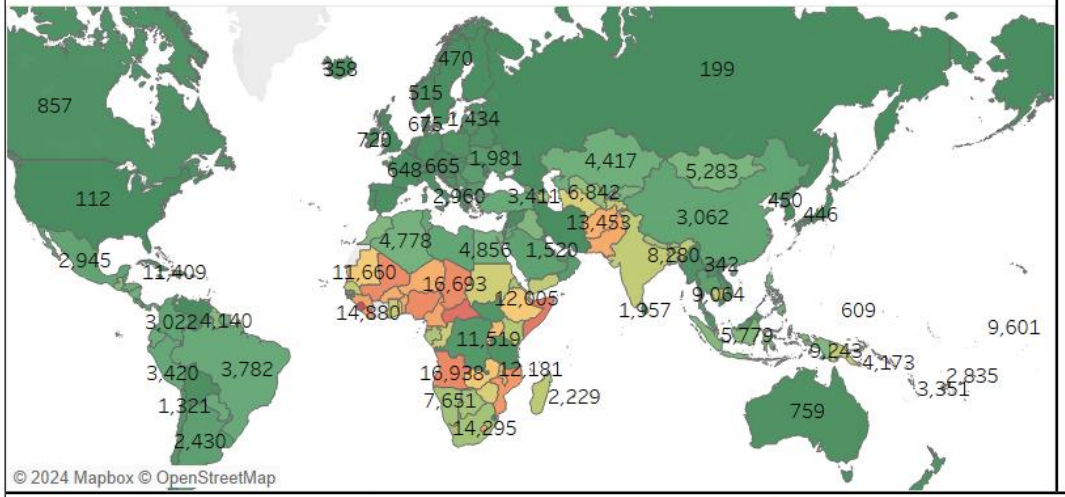
WorldAtlas

Leading Causes Of Death In Haiti

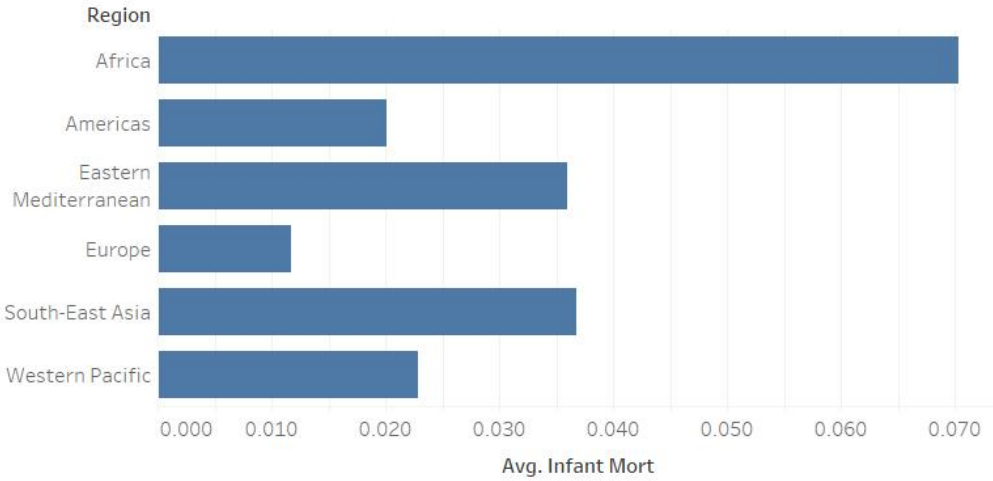
Reproductive Health

Infant mortality is the death of an infant before his or her first birthday. The infant mortality rate is the number of infant deaths for every 1,000 live births. In addition to giving us key information about maternal and infant health, the infant mortality rate is an important marker of the overall health of a society. In 2021, the infant mortality rate in the United States was 5.4 deaths per 1,000

Infant deaths in 2016 per 1000 Live Births

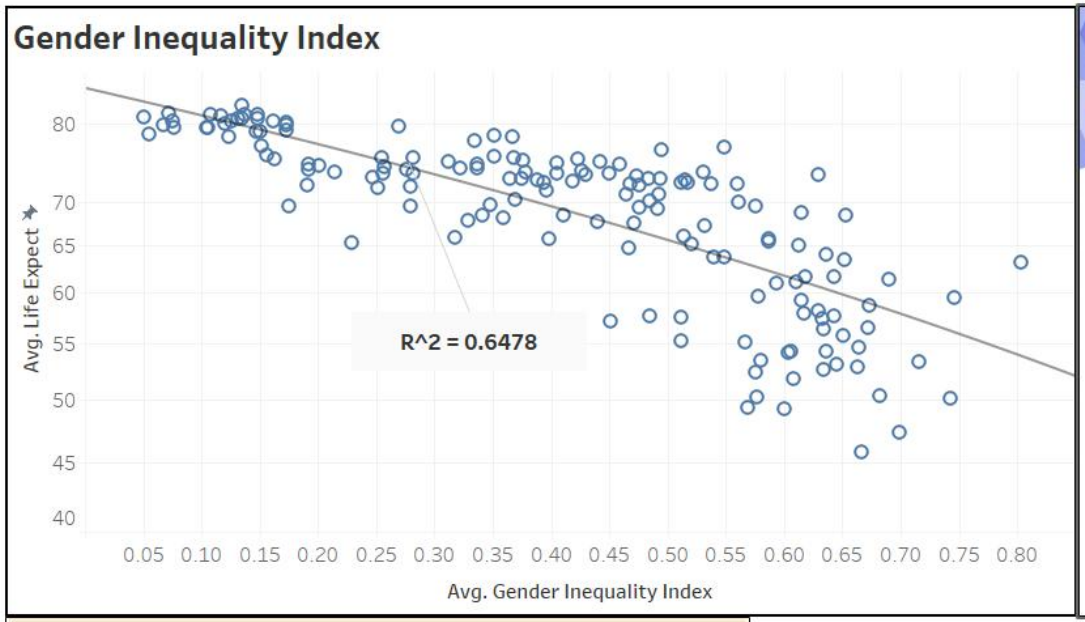


Region wise Trend



Globally 2.4 million children died in the first month of life in 2020. There are approximately 6700 newborn deaths every day, amounting to 47% of all child deaths under the age of 5 years, up from 40% in 1990.
The world has made substantial progress in child survival since 1990. Globally, the number of neonatal deaths declined from 5 million in 1990 to 2.4 million in 2020. However, the decline in neonatal mortality from 1990 to 2020 has been slower than that of post-neonatal under-5 mortality.
https://www.who.int/news-room/fact-sheets/detail/levels-and-trends-in-child-mortality-report-2021#:~:text=There%20are%20approxi..

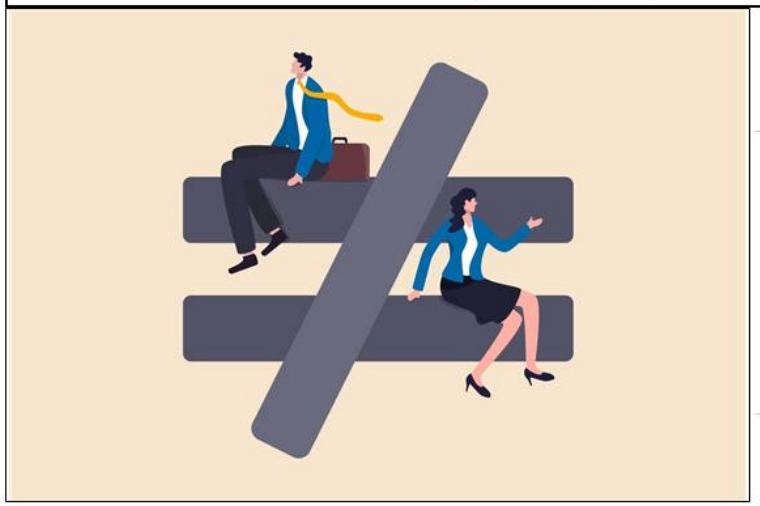
The rate at which babies die is an important marker of the overall health of a society. High infant mortality rates are generally indicative of **unmet human health needs in sanitation, health care, nutrition and education**. Infant mortality rates can also indicate a lack of social justice within a country.
https://www.worldvision.ca/stories/health/infant-mortality-rate

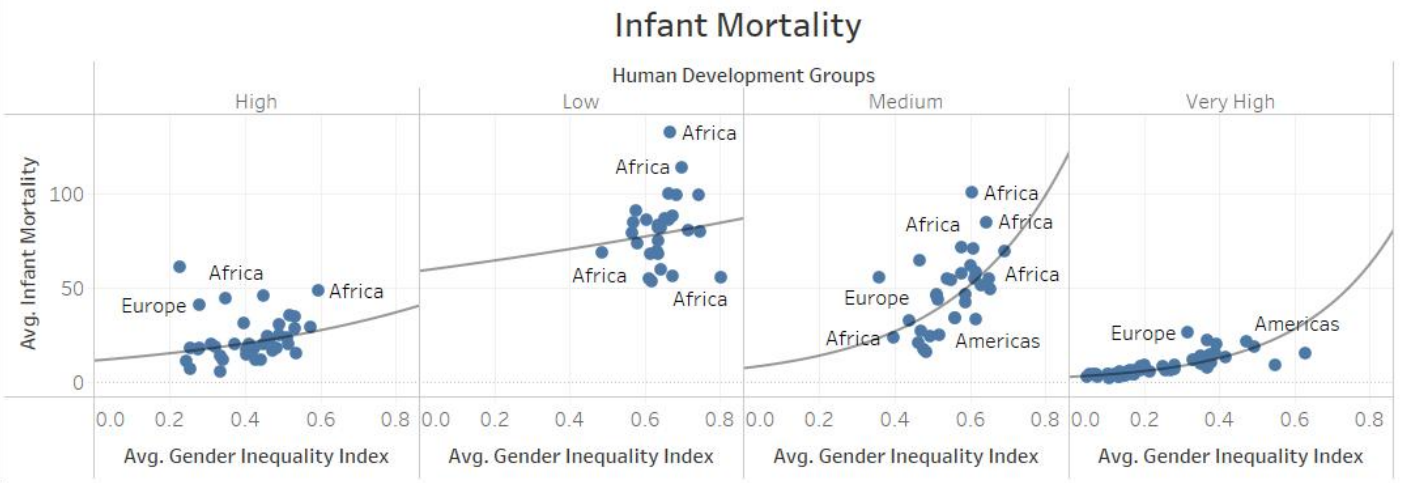


Gender impacts our health and wellbeing outcomes:

- 2 to 3 times more women than men experience mental health problems like depression and anxiety. Harmful stereotypes about sexuality and body image play a part in this.
- The gender pay gap and Inequality at work puts women at higher risk of physical and mental illness.

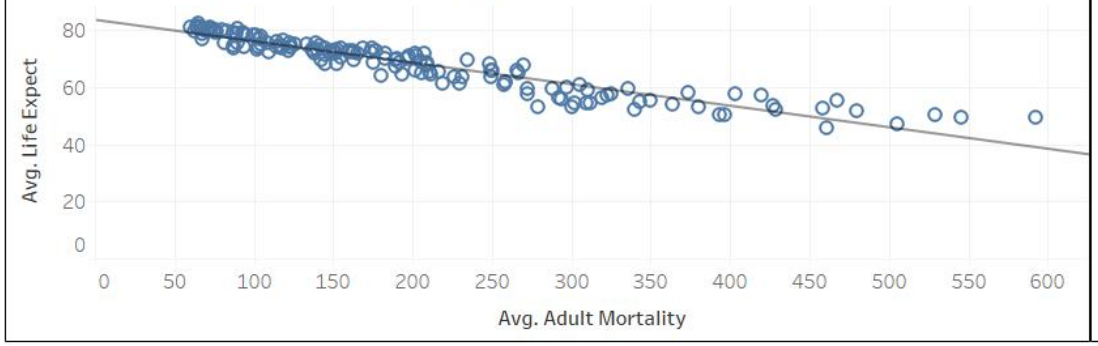
More girls die under age five in countries with high gender inequality
https://theconversation.com/more-girls-die-under-age-five-in-countries-with-high-gender-inequality-105911



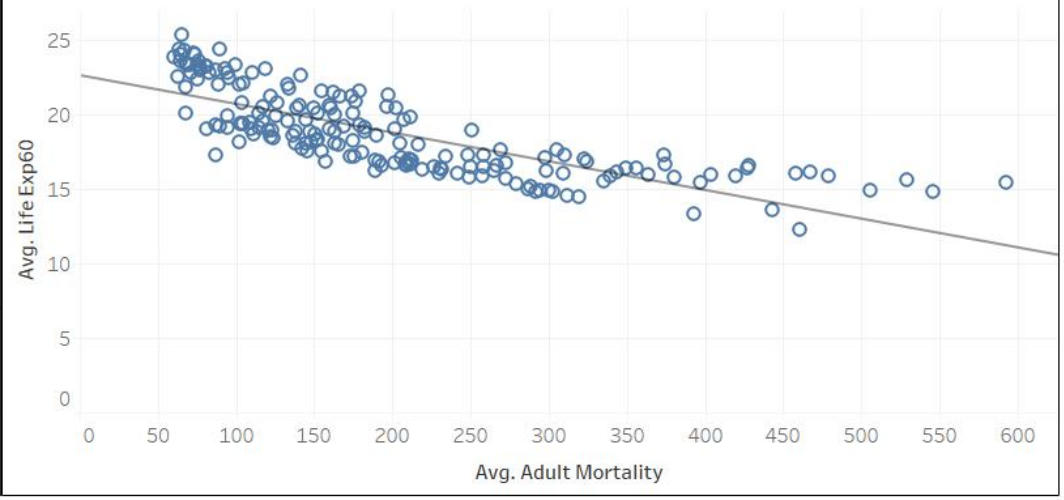


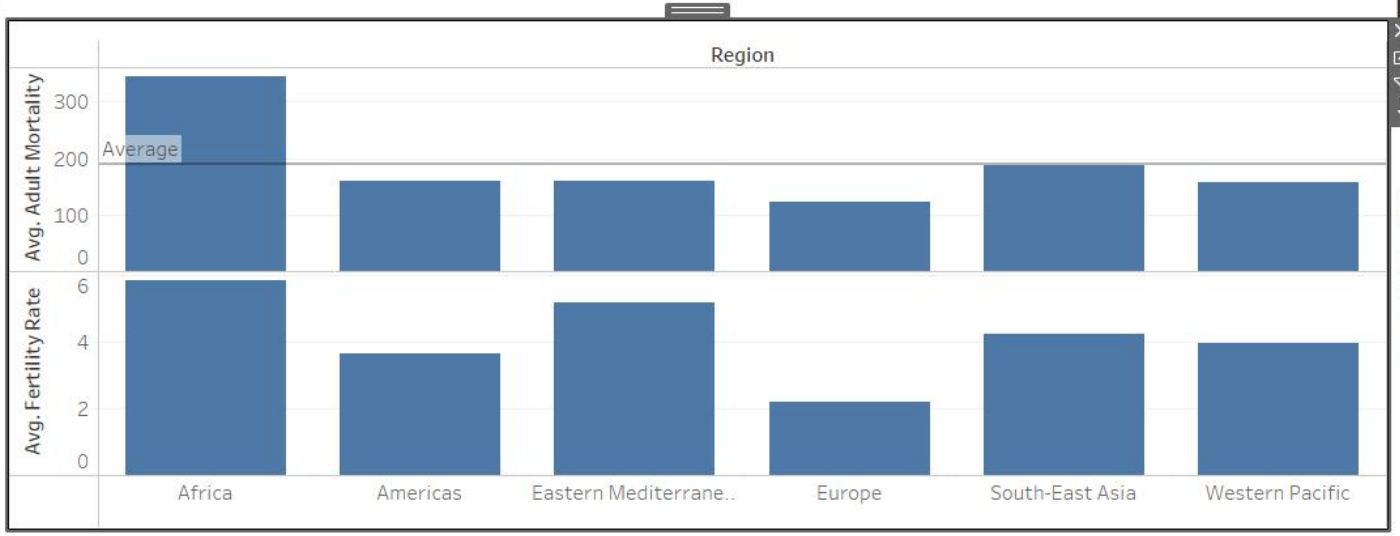
Adult Mortality

Probability that a 15 year old person will die before reaching his/her 60th birthday. The probability of dying between the ages of 15 and 60 years (per 1 000 population) per year among a hypothetical cohort of 100 000 people that would experience the age-specific mortality rate of the reporting year.

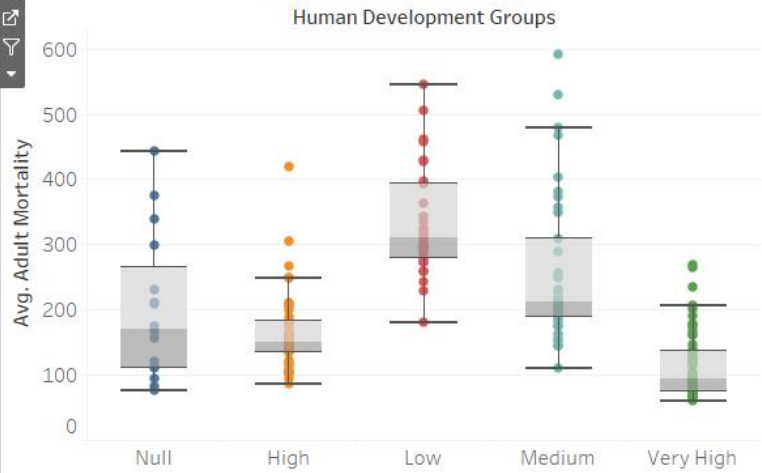


Also affects Life Expectancy at 60





In Human Developement Groups



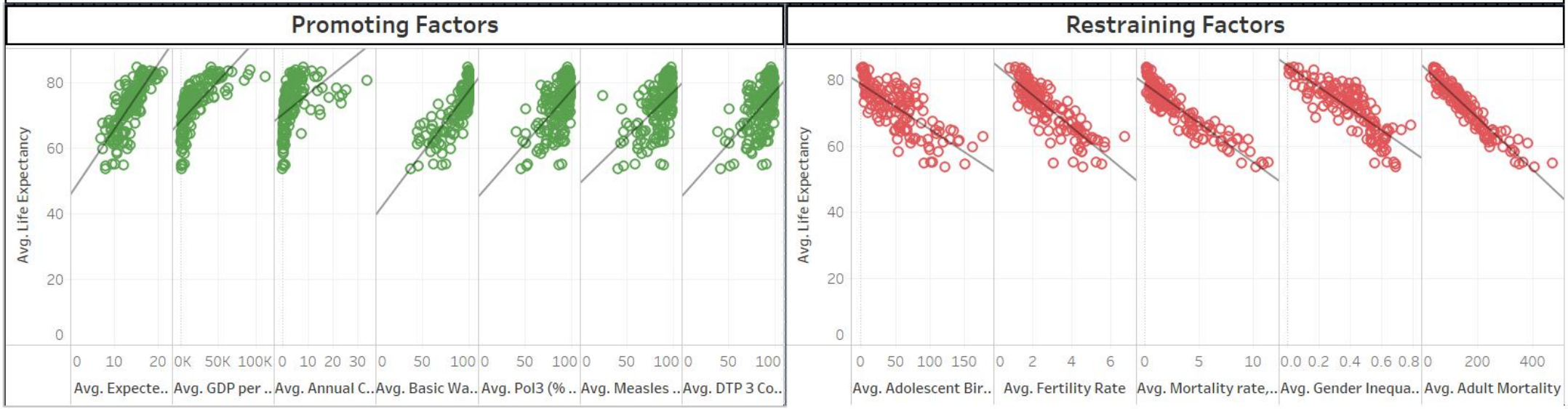
From the previous dashboards we have identified the promoting and restraining factors of Life Expectancy.
Now to answer the question if Life Expectancy has really improved we have to first assign strength to each factor.

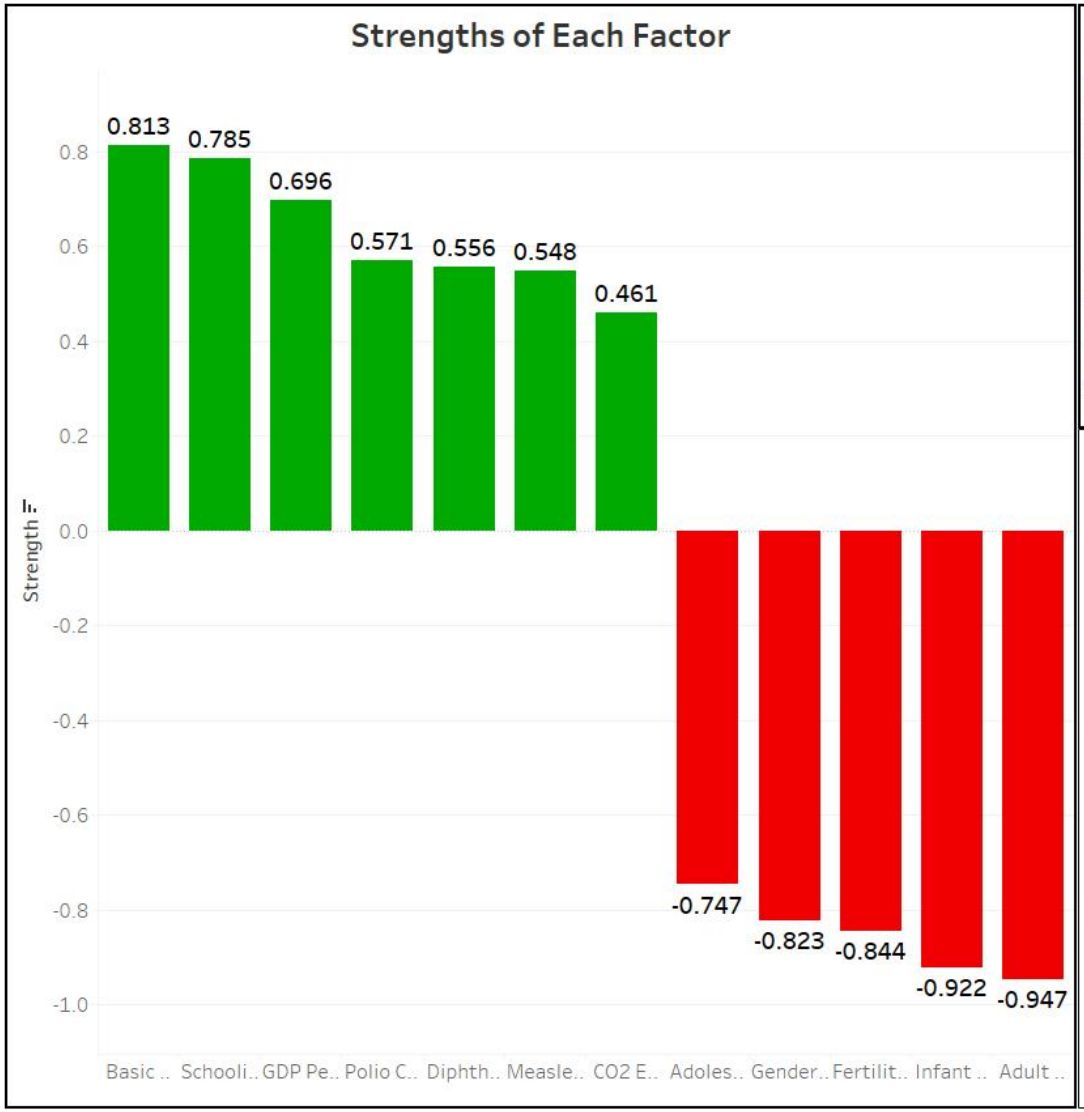
To assign strength we need to Look at the slope in each scatterplot as it will show the **amount of impact/magnitude** each factor will have on Life Expectancy.

BUT...
We can not directly assign the value of SLOPE as strength because absolute comparison will lead to confusing result.
To overcome this issue we **normalize slopes** of each factor using this formula and assign that value as the **strength** of each FACTOR.

FORMULA: Strength = Slope of line * (Std of X / Std of Y)

We apply this conversion of slope and assign strength based on the most recent data available (of 2020) to answer the question.





Here are the strengths of each factor on Life Expectancy.
Now if we just add them up we get, 0.147.
It looks like there is a dominance of promoting factors but to really know if life expectancy has improved we take 200-300 samples of Normally Distributed values and make a range,

Excel formula:

= norm.inv(rand(),average(all strength values),stdev.s(all strength values))

and create the histogram of those values.