

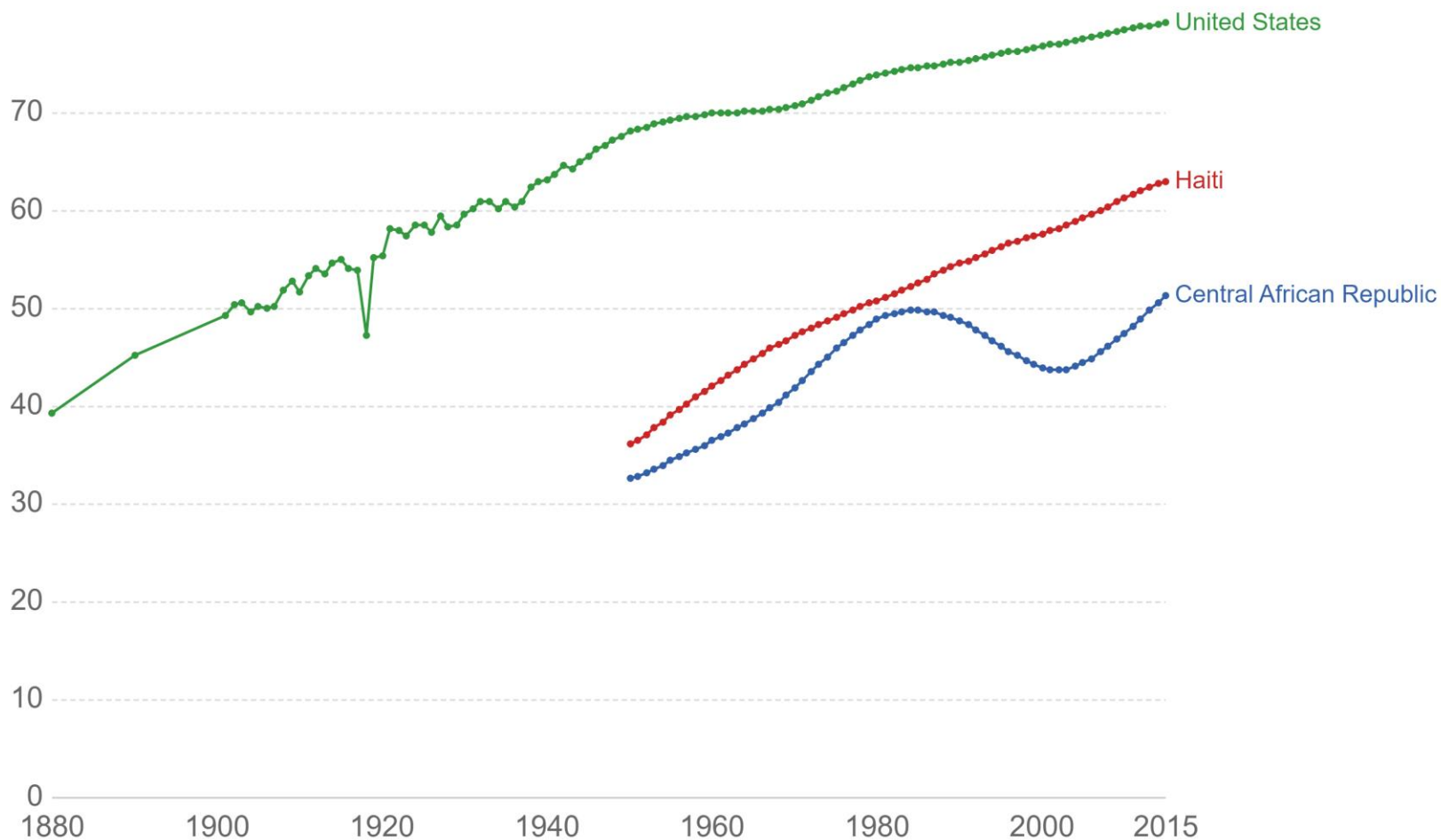


# Global Health Equity

A Case for Entrepreneurship

# Life expectancy

Shown is period life expectancy at birth. This corresponds to an estimate of the average number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life



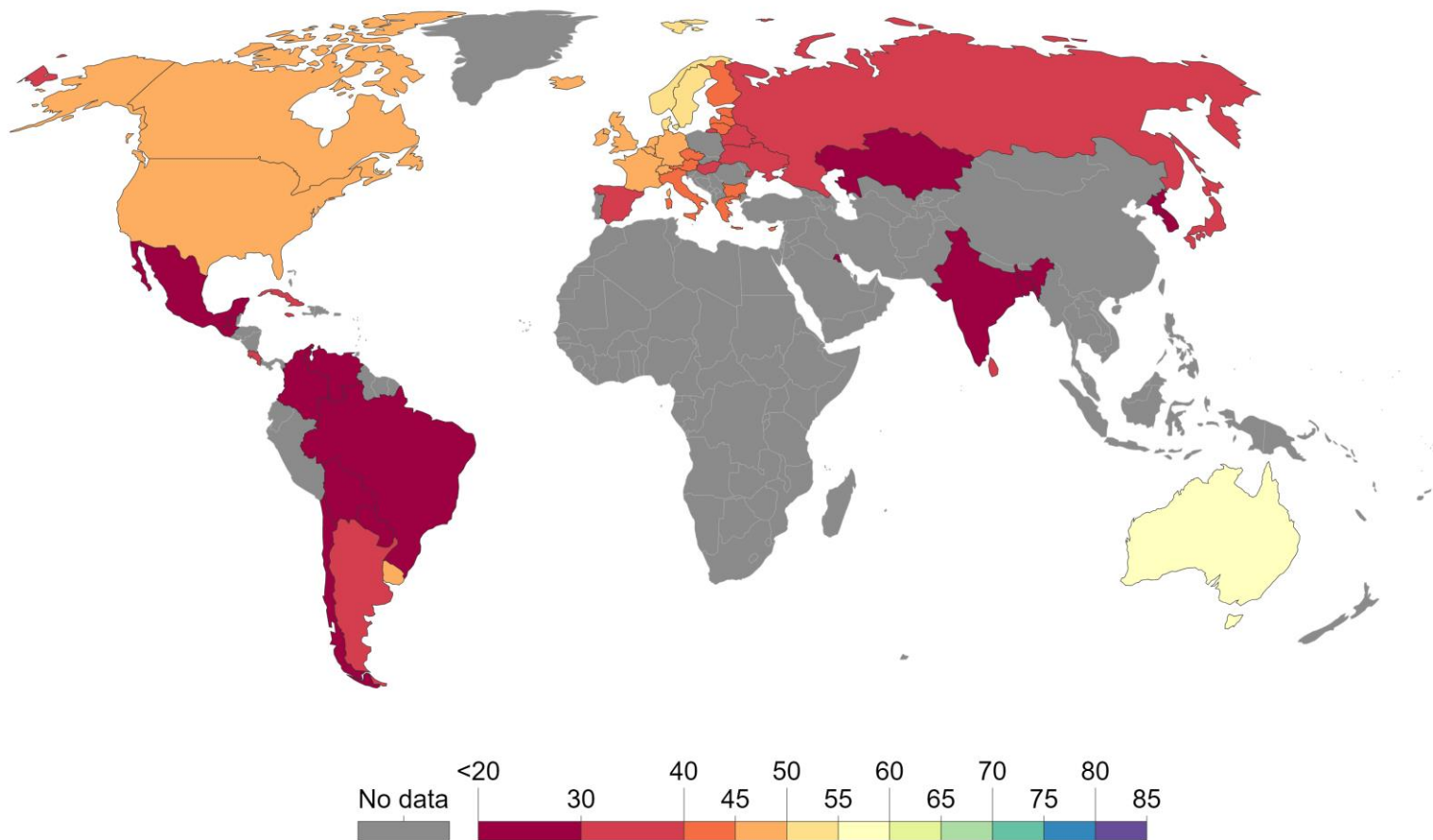
Source: Clio-Infra estimates until 1949; UN Population Division from 1950 to 2015

[OurWorldInData.org/life-expectancy-how-is-it-calculated-and-how-should-it-be-interpreted/](https://OurWorldInData.org/life-expectancy-how-is-it-calculated-and-how-should-it-be-interpreted/) • CC BY-SA



# Life expectancy, 1900

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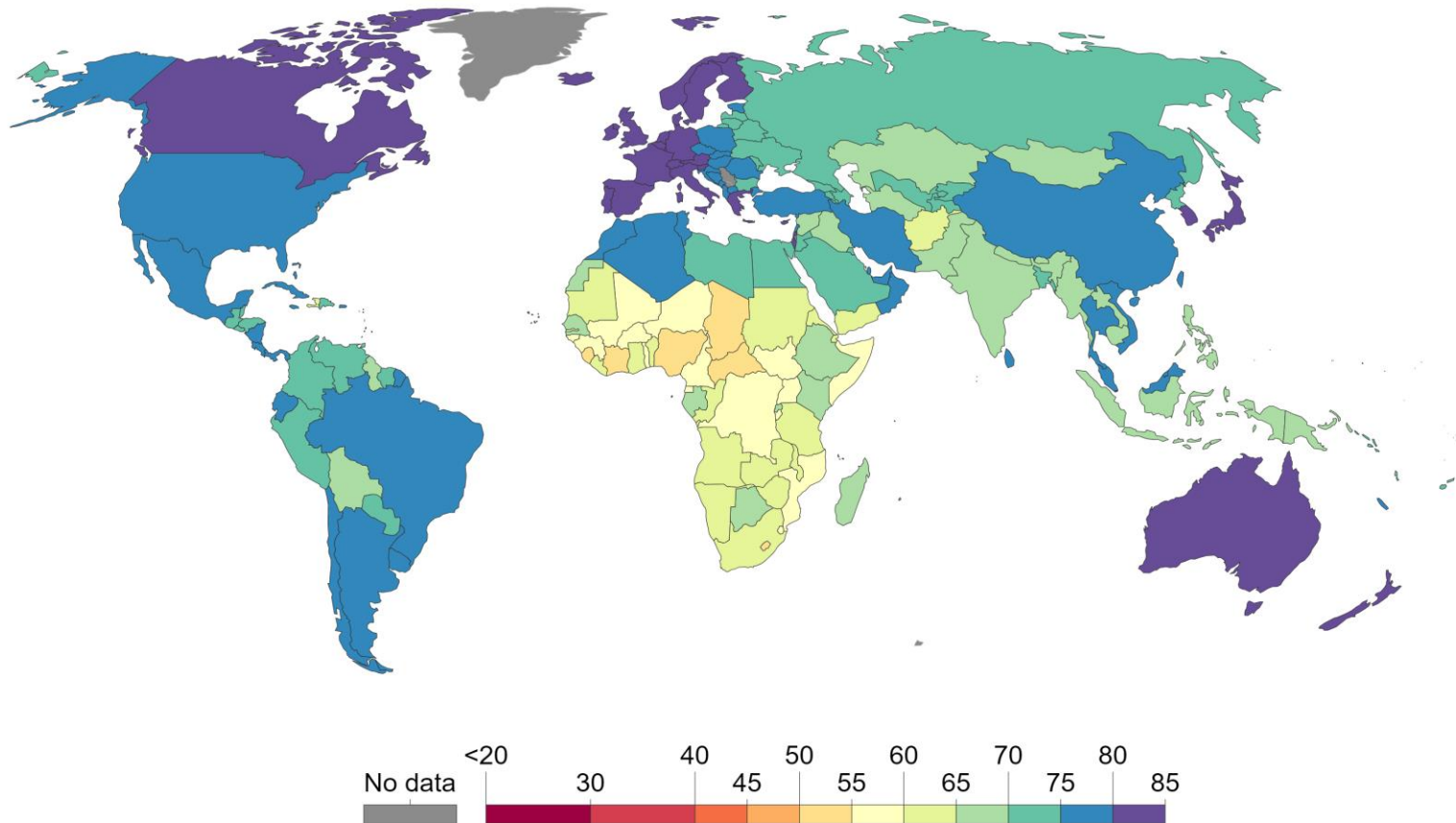


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# Life expectancy, 2015

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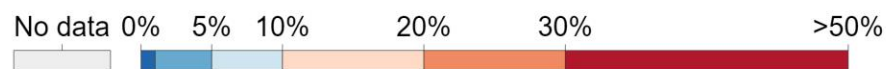
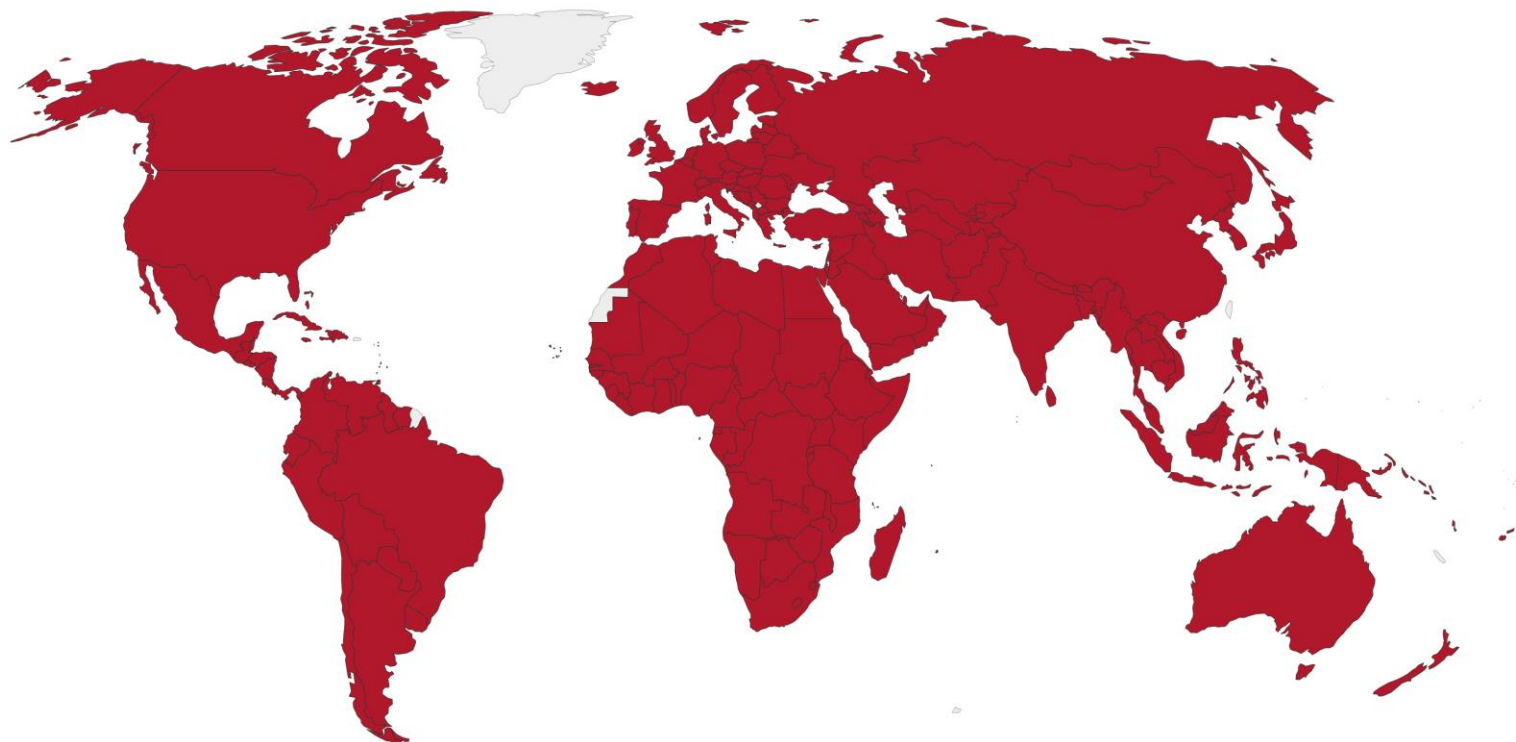


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# Child mortality rate, 1800

Shown is the share of children (born alive) who die before they are five years old.

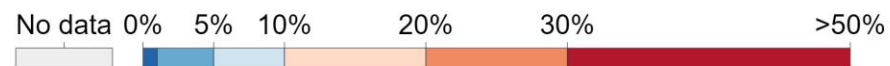
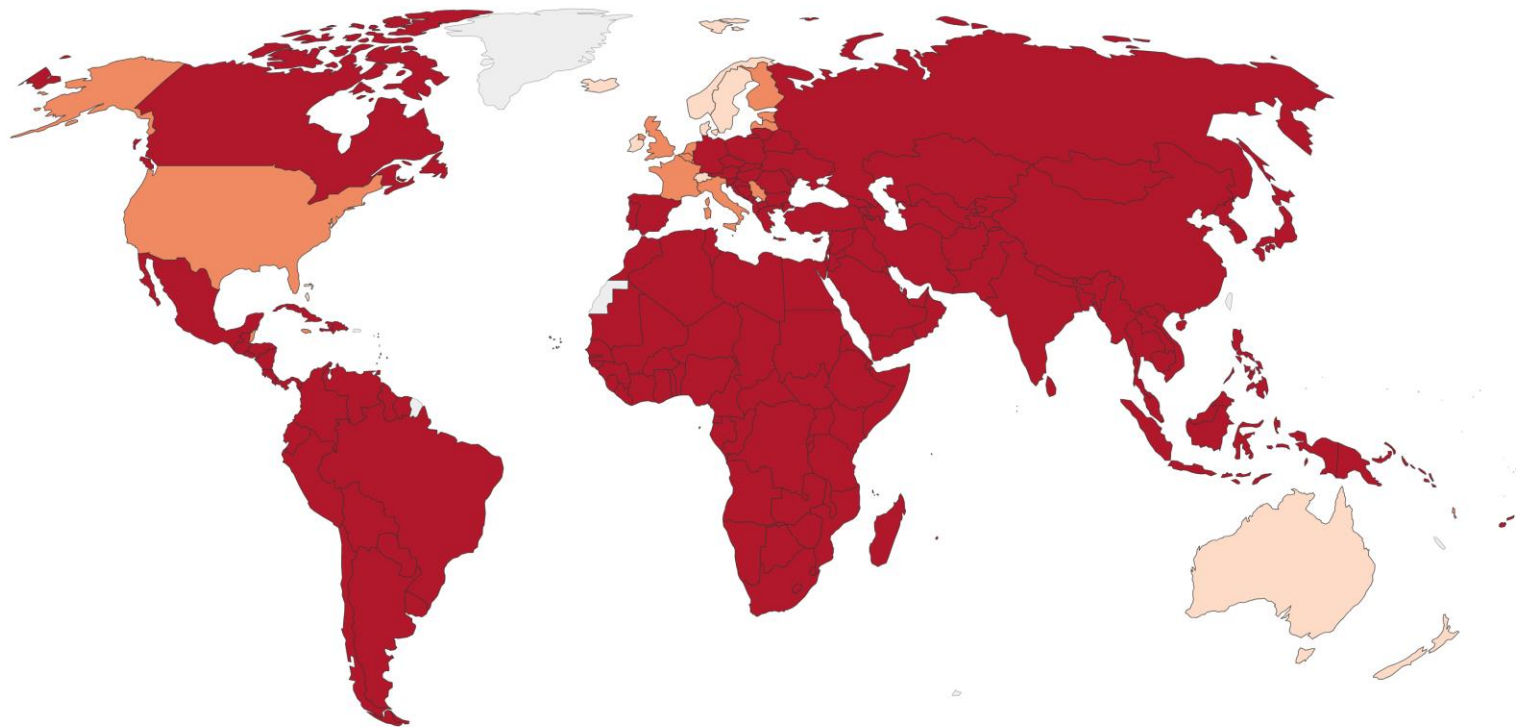


Source: Gapminder estimates up until 1949 and UN Population Division from 1950 to today

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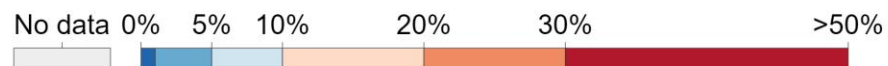
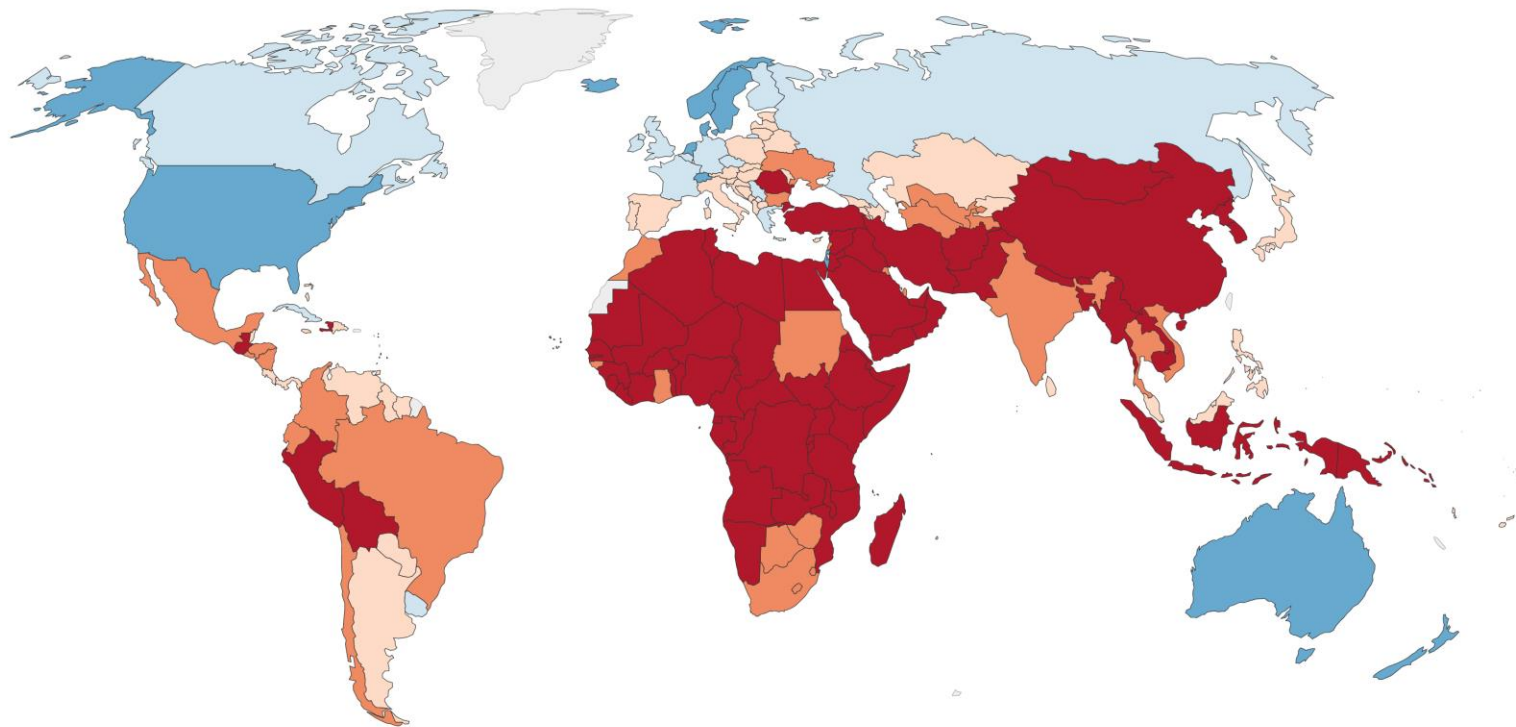


Source: Gapminder estimates up until 1949 and UN Population Division from 1950 to today

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# Child mortality rate, 1947

Shown is the share of children (born alive) who die before they are five years old.



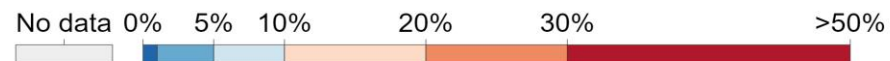
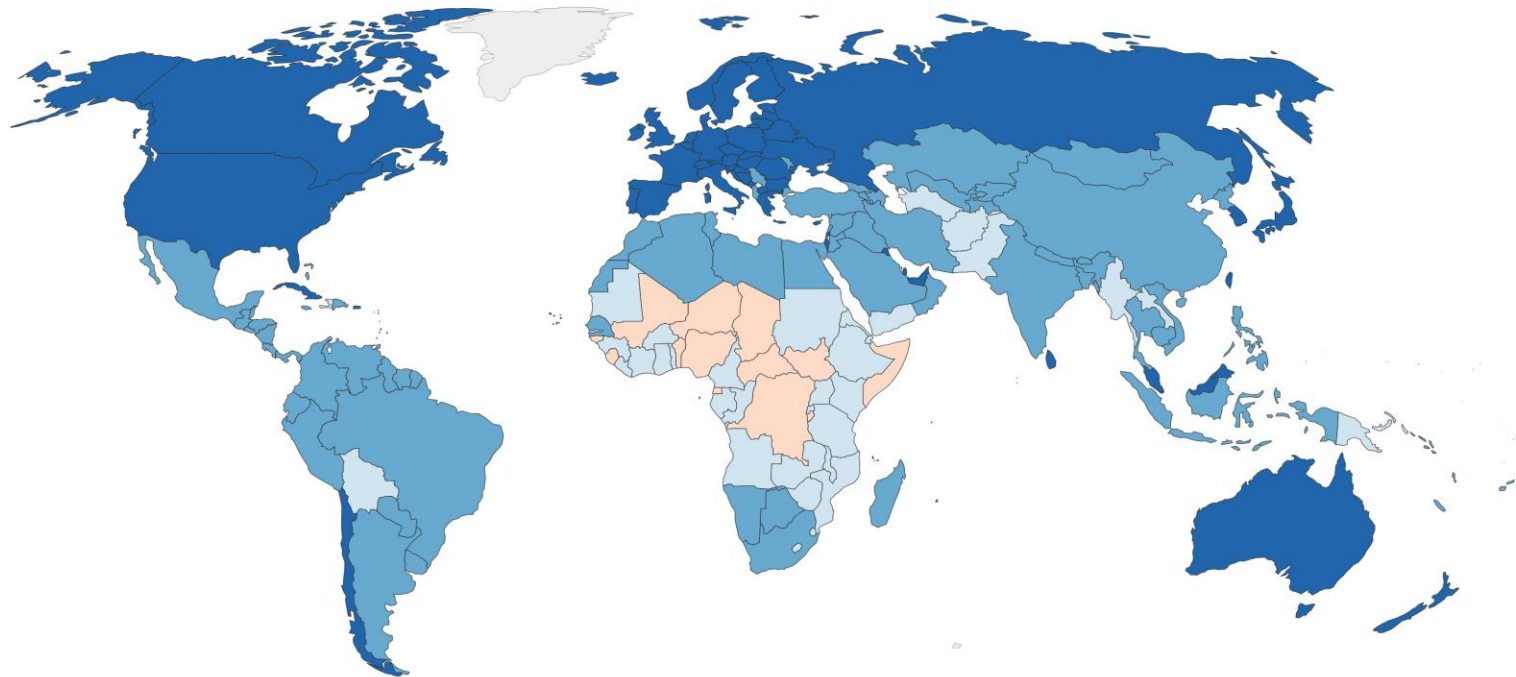
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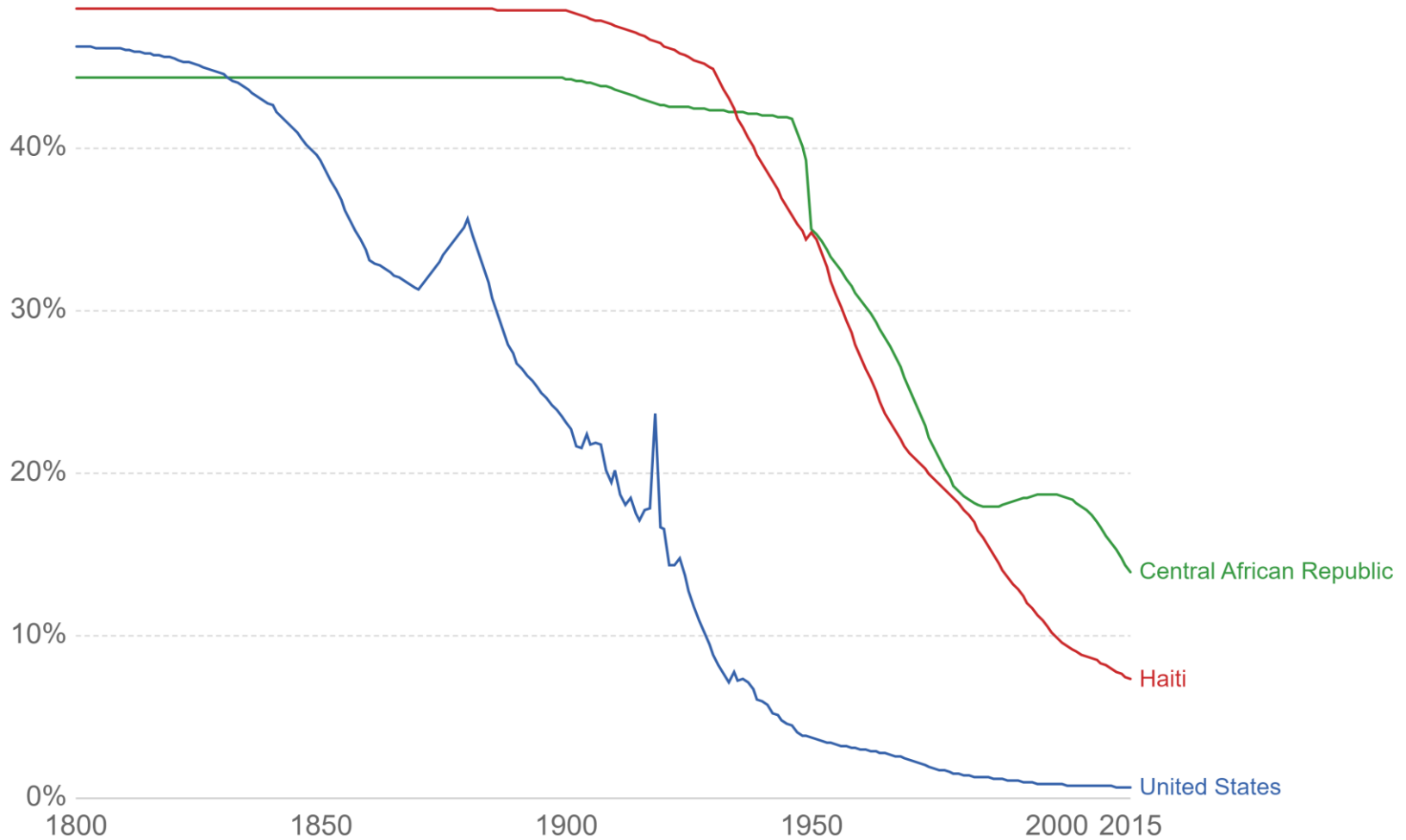
Source: Gapminder estimates up until 1949 and UN Population Division from 1950 to today

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# Child mortality rate

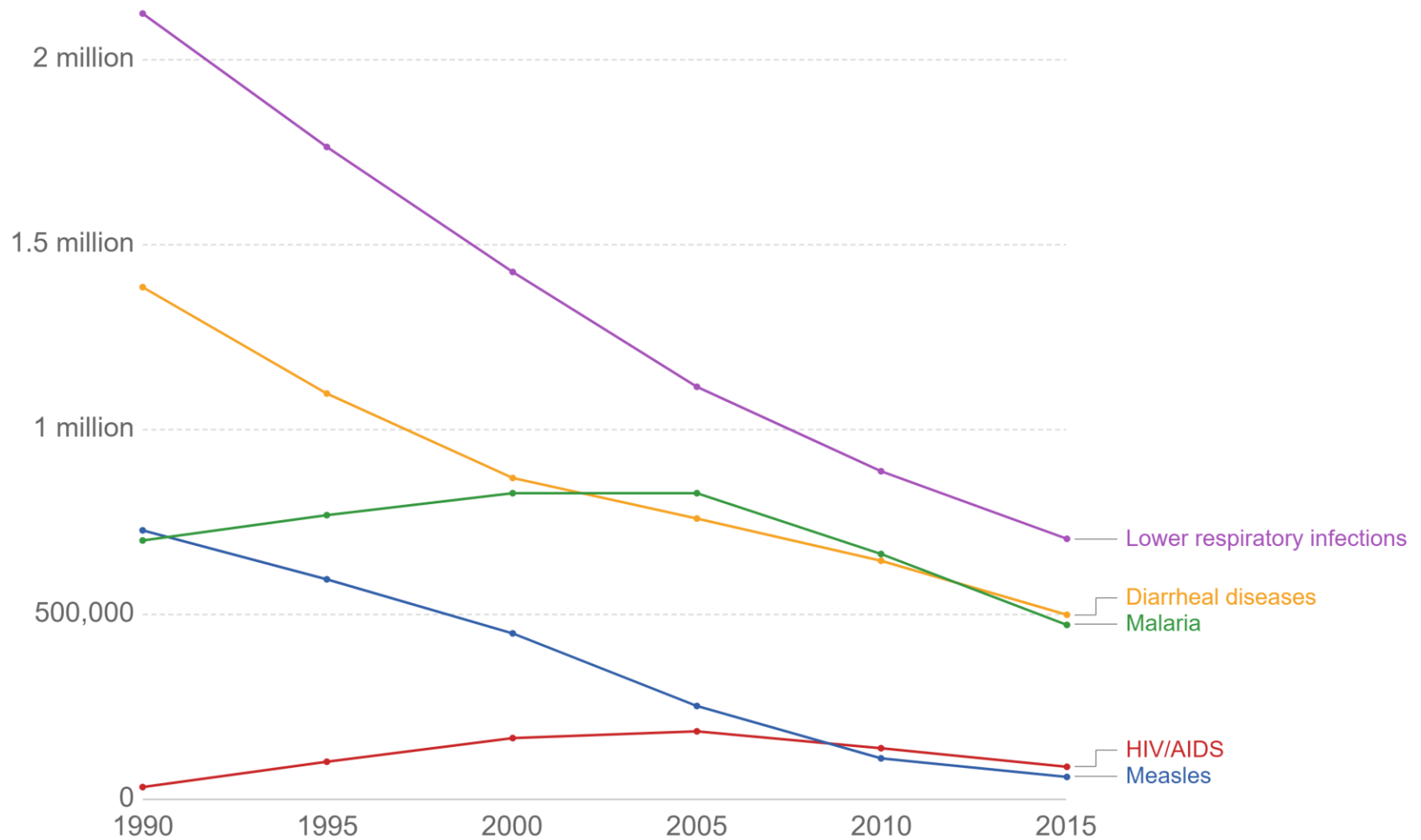
Shown is the share of children (born alive) who die before they are five years old.



Source: Gapminder estimates up until 1949 and UN Population Division from 1950 to today

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# Childhood deaths from the five most lethal infectious diseases worldwide

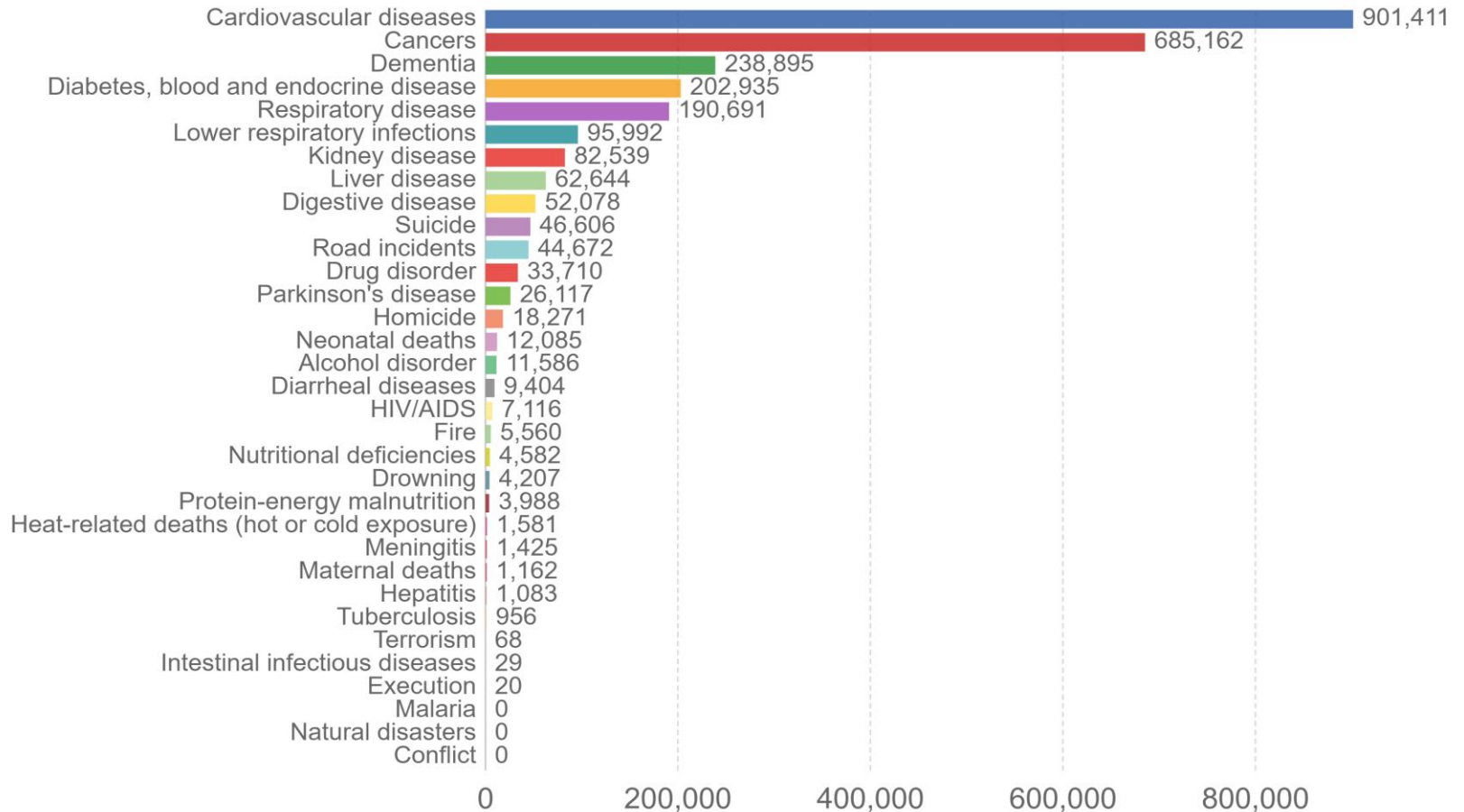


Source: IHME Global Burden of Disease (child deaths by disease) (2017)

OurWorldInData.org/child-mortality/ • CC BY-SA

# Annual number of deaths by cause, United States, 2016

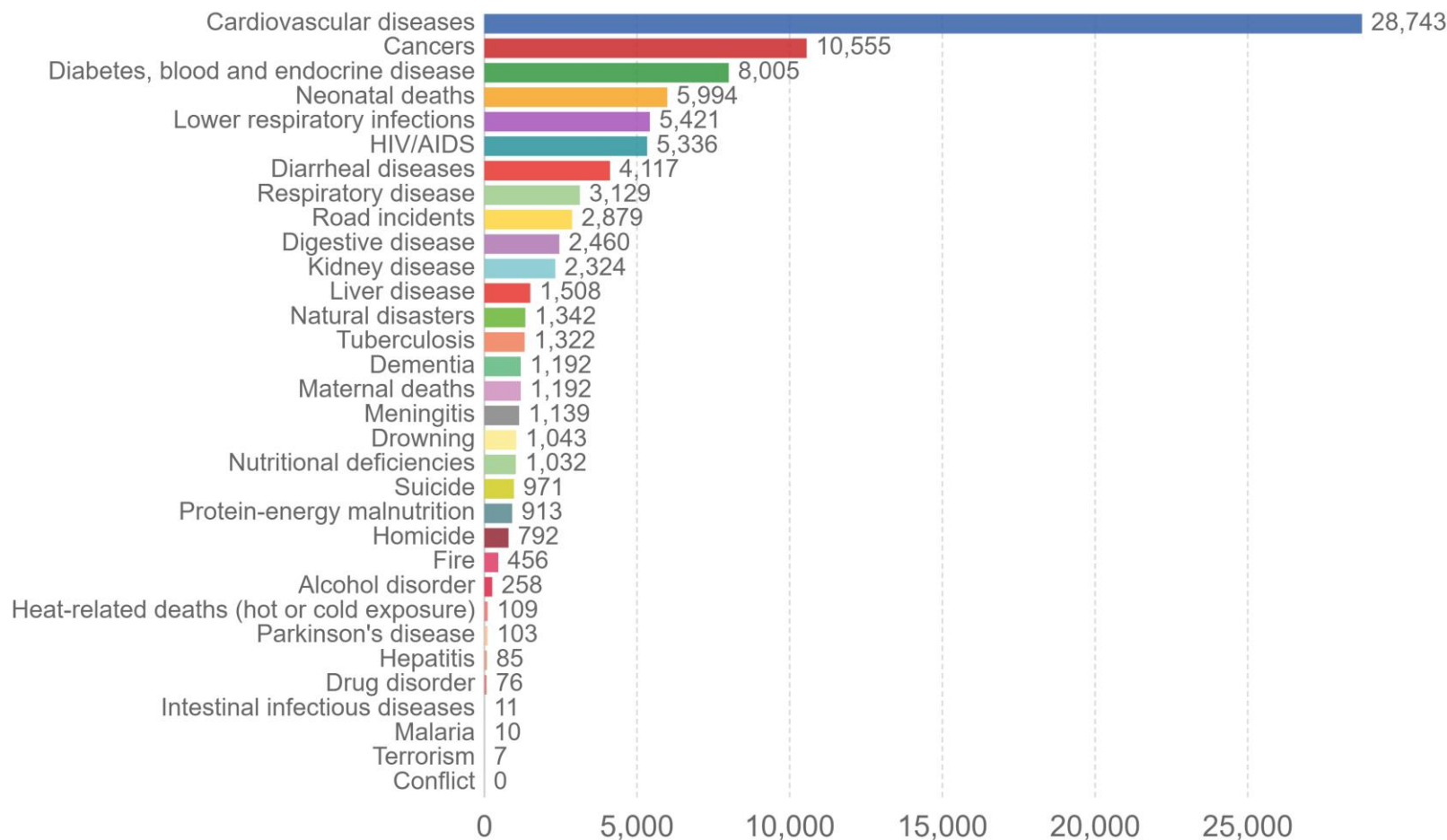
Data refers to the specific cause of death, which is distinguished from risk factors for death, such as air pollution, diet and other lifestyle factors. See sources for further details on definitions of specific cause categories.



Source: Institute for Health Metrics and Evaluation (IHME); Global Terrorism Database (GTD); Amnesty International  
[OurWorldInData.org/causes-of-death/](https://OurWorldInData.org/causes-of-death/) • CC BY-SA

# Annual number of deaths by cause, Haiti, 2016

Data refers to the specific cause of death, which is distinguished from risk factors for death, such as air pollution, diet and other lifestyle factors. See sources for further details on definitions of specific cause categories.

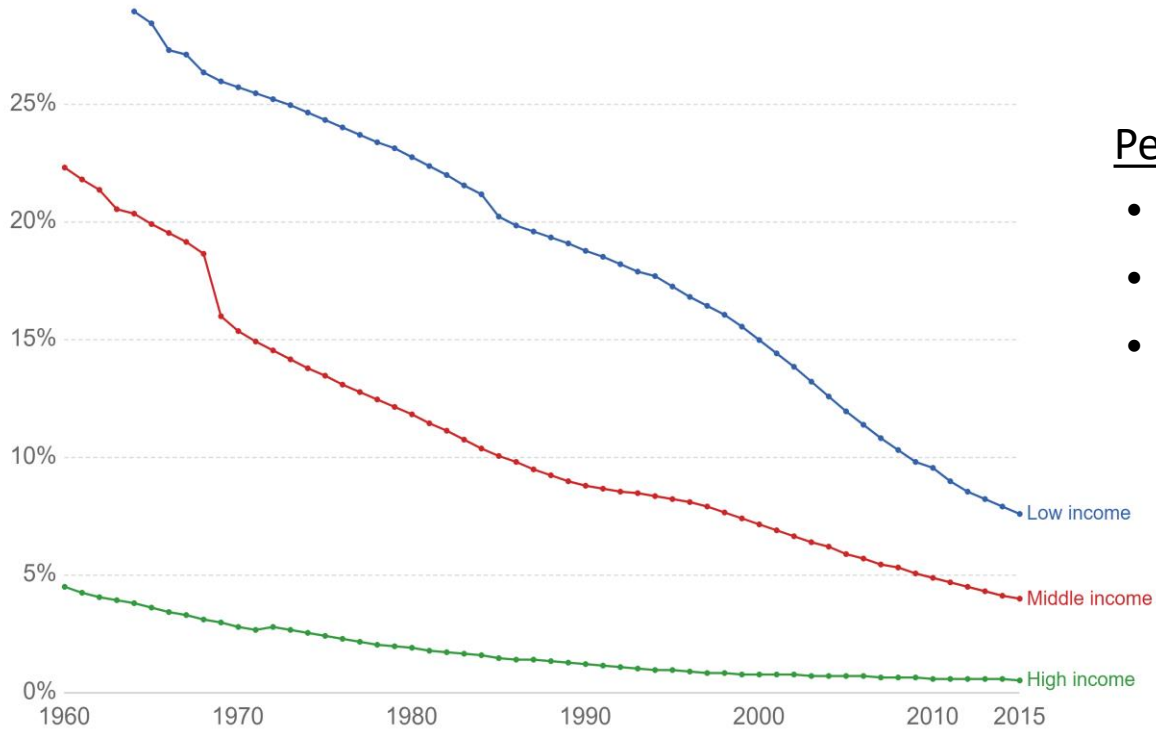


Source: Institute for Health Metrics and Evaluation (IHME); Global Terrorism Database (GTD); Amnesty International  
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## Child mortality by income level of country

The child mortality rate measures the share of children that die before reaching the age of 5.



Source: World Bank – WDI

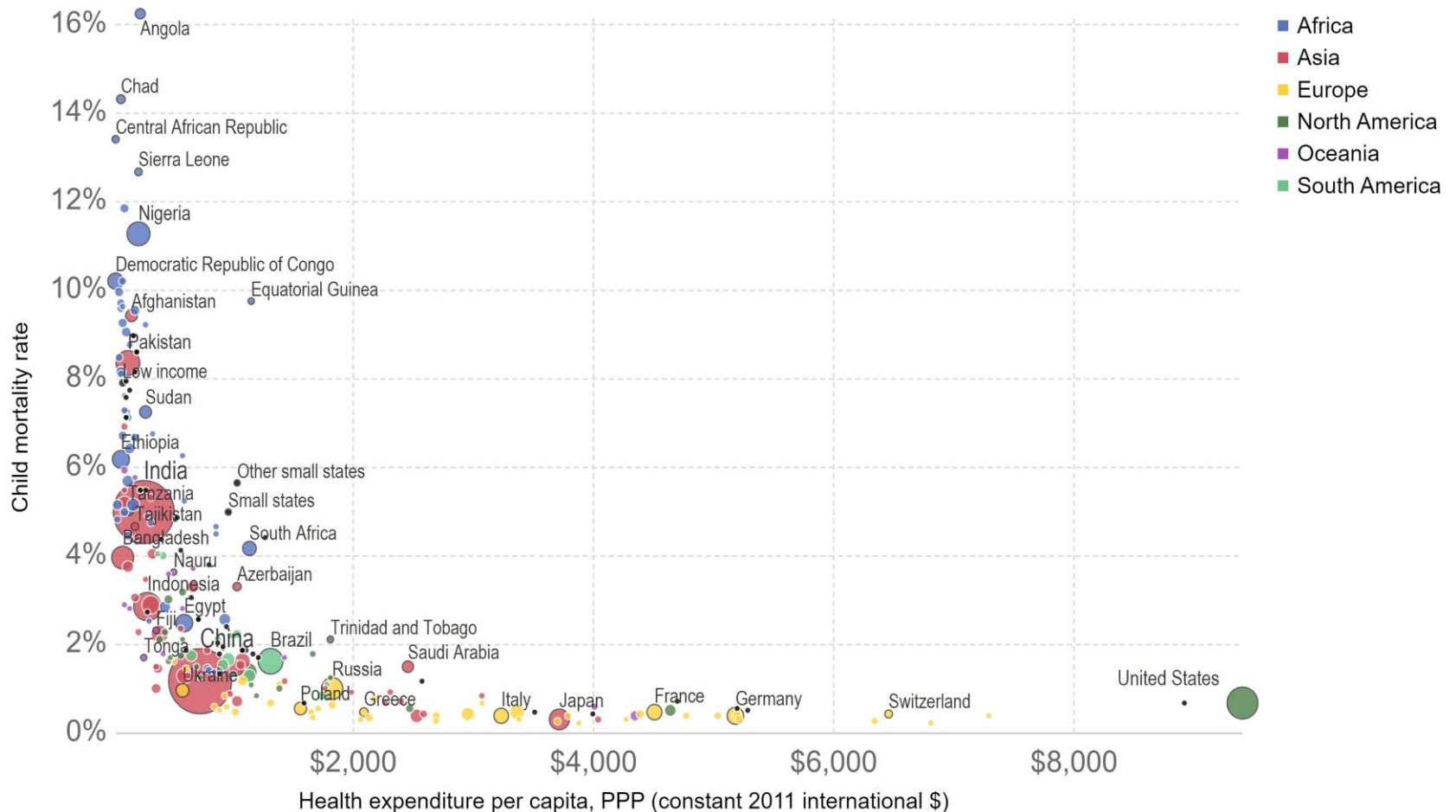
OurWorldInData.org/child-mortality/ • CC BY-SA

### Per Capita GDP

- US \$56,116
- Haiti \$818
- Sierra Leone \$6530

# Per capita total health expenditure vs child mortality, 2014

Total health expenditure is the sum of public and private health expenditure



Source: World Bank – WDI

OurWorldInData.org/child-mortality/ • CC BY-SA

Note: Per capita health expenditure is measured in PPP-adjusted dollars to adjust for price differences across countries. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation.

# Roots of Global Health Inequity

- “Third World” to “Developing World” to “**Impoverished World**”
  - Extrinsic not intrinsic (structural violence)
  - Poor health systems common in countries fleeced of human and natural resources
  - Neoliberal economic policies of the 1970s prevented impoverished countries from investing in healthcare resources and infrastructure (World Bank loans limited amount governments could spend on education and healthcare, forcing countries to reduce per capita healthcare spending from \$60 USD to \$6 USD)

# A little data...

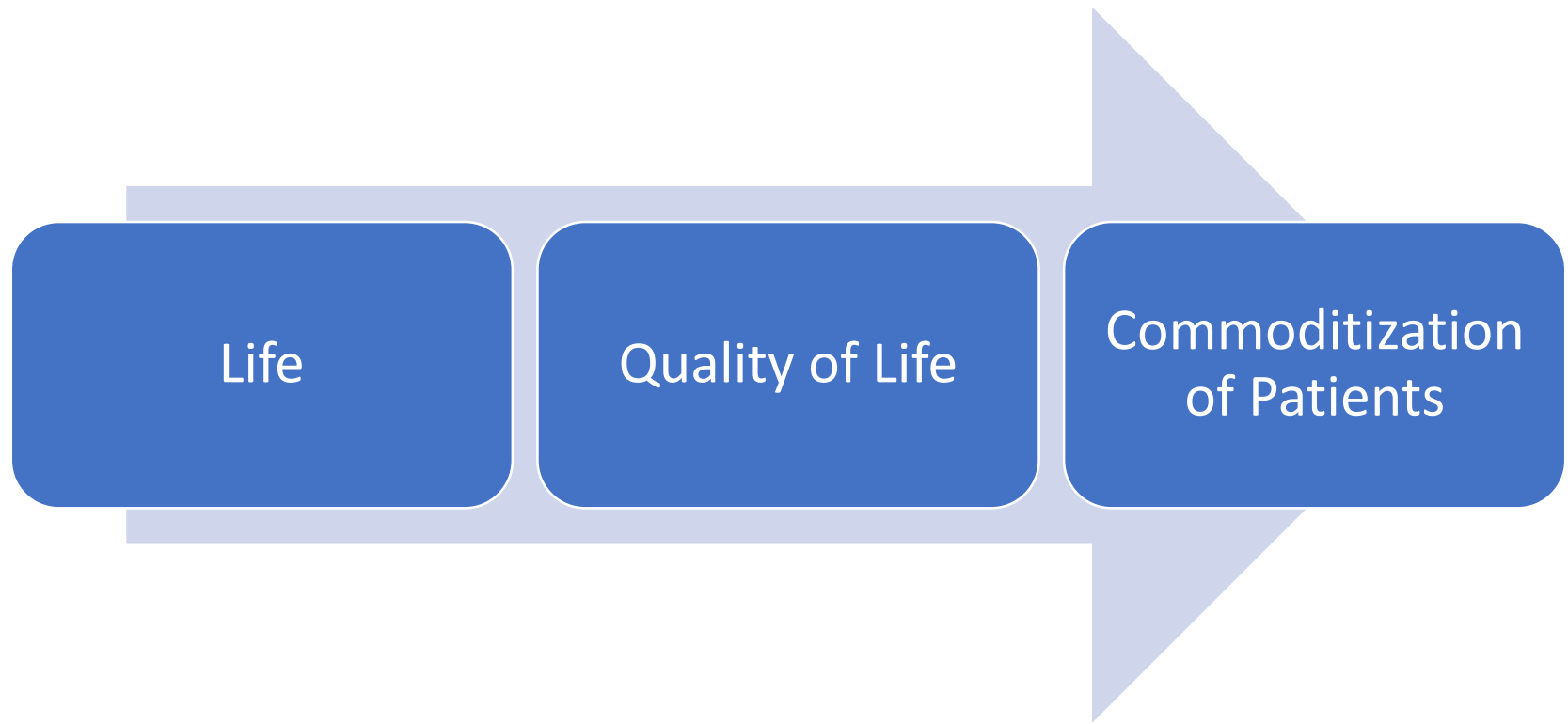
- “Between 1619 and 1865, European settlers in the United States extracted an estimated 222,505,049 hours of forced labor from African slaves, worth \$97 trillion dollars at the current US minimum wage. This amount is more than the combined GDP of all of the world’s countries today.”

Hickel J. “Enough of Aid – Let’s Talk Reparations”. *The Guardian*. Nov 27, 2015.



- “European powers, using indigenous and later African slave labor, extracted 100 million kilograms of silver from Latin America by the end of the 18<sup>th</sup> century. 100 million kilograms of silver invested in 1800 would be worth \$165 trillion today. Many historians feel that silver provided much of the capital for the industrial revolution in Europe.”

# A Development Continuum...





# How to improve global health equity? Managing Populations

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1. Rebuild/rethink public infrastructure
  - Use of facilities, water quality, affordable housing, public/private partnership
2. Invest in people through education and training
  - Community health workers (CHWs)
3. Break cycle of poverty and disease (social determinants of health)
  - Vaccine preventable illness, access to clean water, food security, transportation, child care, language barriers, affordable housing
4. Use of data analytics (entrepreneurial mission with margin)
  - Camden Coalition – diabetes and incarceration
  - Tanner Pharmaceuticals - drug supply chain platform



**FLINT WATER  
CRISIS**



# CHW

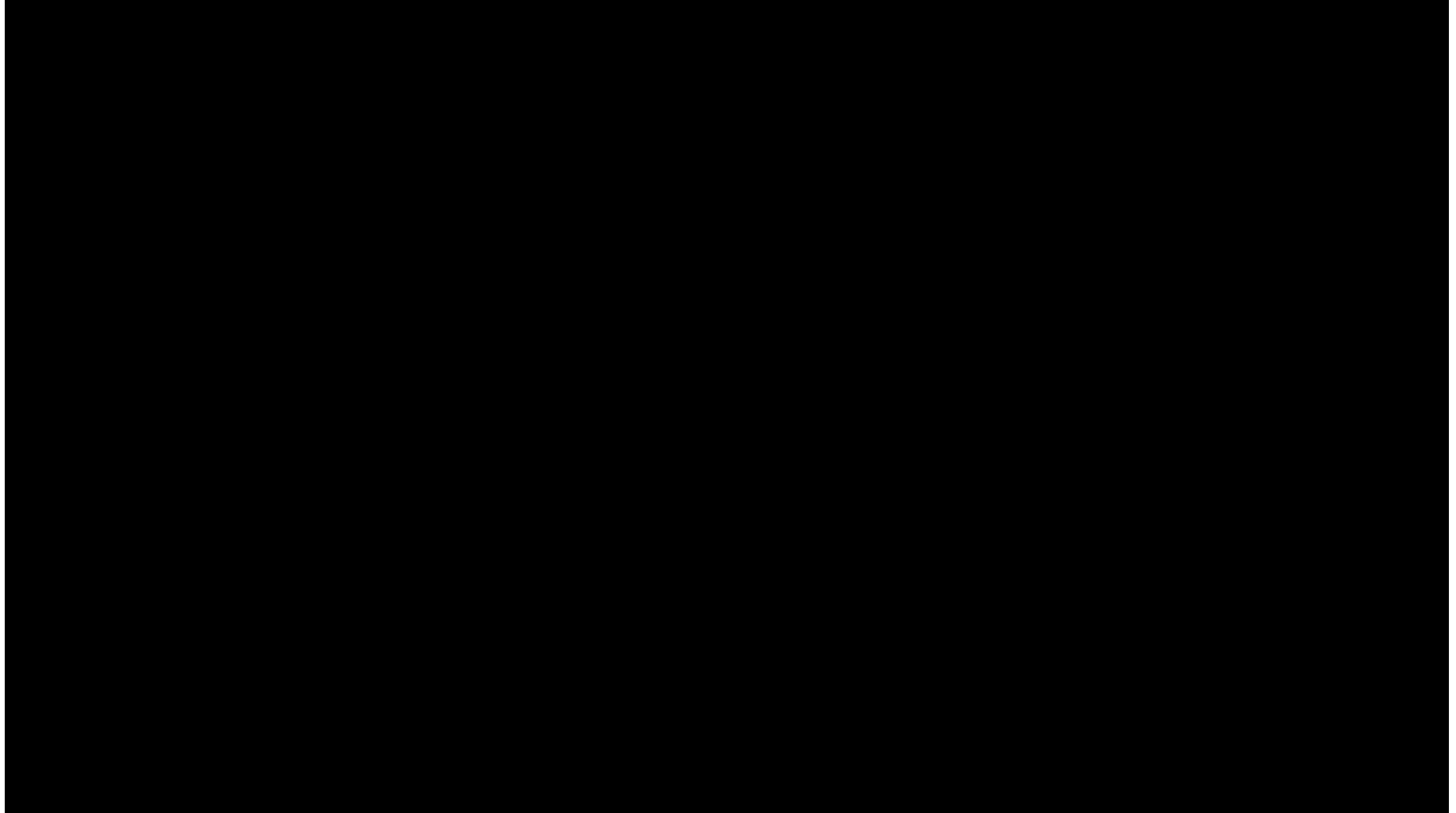
## Community Health Worker

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- Historically, CHWs provided services in areas with inadequate numbers of “traditional” healthcare workers
- We learned that CHWs address social determinants (the other 70%) better than doctors – both due to increased access as well as a common cultural understanding of the people they serve



<https://www.youtube.com/watch?v=dZAyfGvMGE&feature=youtu.be>



# In summary (good for one, good for all...)

- Rebuild public infrastructure (healthcare and civil)
- Train local people to do this work (CHWs)
- Promote fair trade/economic policies such as a living wage
- Provide acute care and prevention

# The Challenge...

- Mission with Margin - how do we save lives?
  - Have an entrepreneurial, innovative mindset

“Never before in history has innovation offered promise of so much to so many in so short a time”

--- Bill Gates
  - Be data driven and use analytics to measure impact

“The complexity of medicine outruns the ability of the expert mind”

--- unknown
  - Provide access to affordable drugs and vaccines!!!



- “We are now faced with the fact that tomorrow is today. We are confronted with the fierce urgency of now. In this unfolding conundrum of life and history, there ‘is’ such a thing as being too late. This is no time for apathy or complacency. This is a time for vigorous and positive action.”

---

Martin Luther King Jr.

