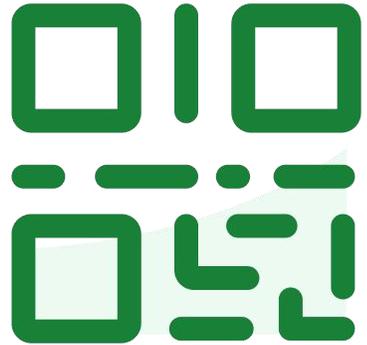


# All of Us and The Necessity of Action

Renee Crichlow MD, FAAFP

# slido



Join at [slido.com](https://slido.com)  
#2463948

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**Name of favorite childhood pet or food,  
no explanation.**

① Click **Present with Slido** or install our [Chrome extension](#) to activate this poll while presenting.



## Renee Crichlow MD, FAAFP

Immediate Past President of the Society of Teachers of Family Medicine, STFM

Boston University a Vice Chair in Dpt. Family Medicine,

Chief Medical Officer Codman Square Health Center, Boston

Dr. Crichlow declares that she does not have relevant financial interests in ineligible companies to disclose.

Dr. Crichlow does not intend to discuss off-label uses of drugs, mechanical devices, biologics, or diagnostics approved OR investigational drugs, mechanical devices, biologics, or diagnostics not approved by the FDA for use in the United States.

All event planners have no relevant financial relationships with ineligible companies to disclose.

# Learning Objectives

1. Analyze key elements of successful systemic change through historical case studies to identify critical components of transformative interventions
2. Evaluate how centering marginalized populations in system-wide interventions drives broader societal improvements
3. Develop frameworks for implementing sustainable systemic change by synthesizing evidence across multiple domains

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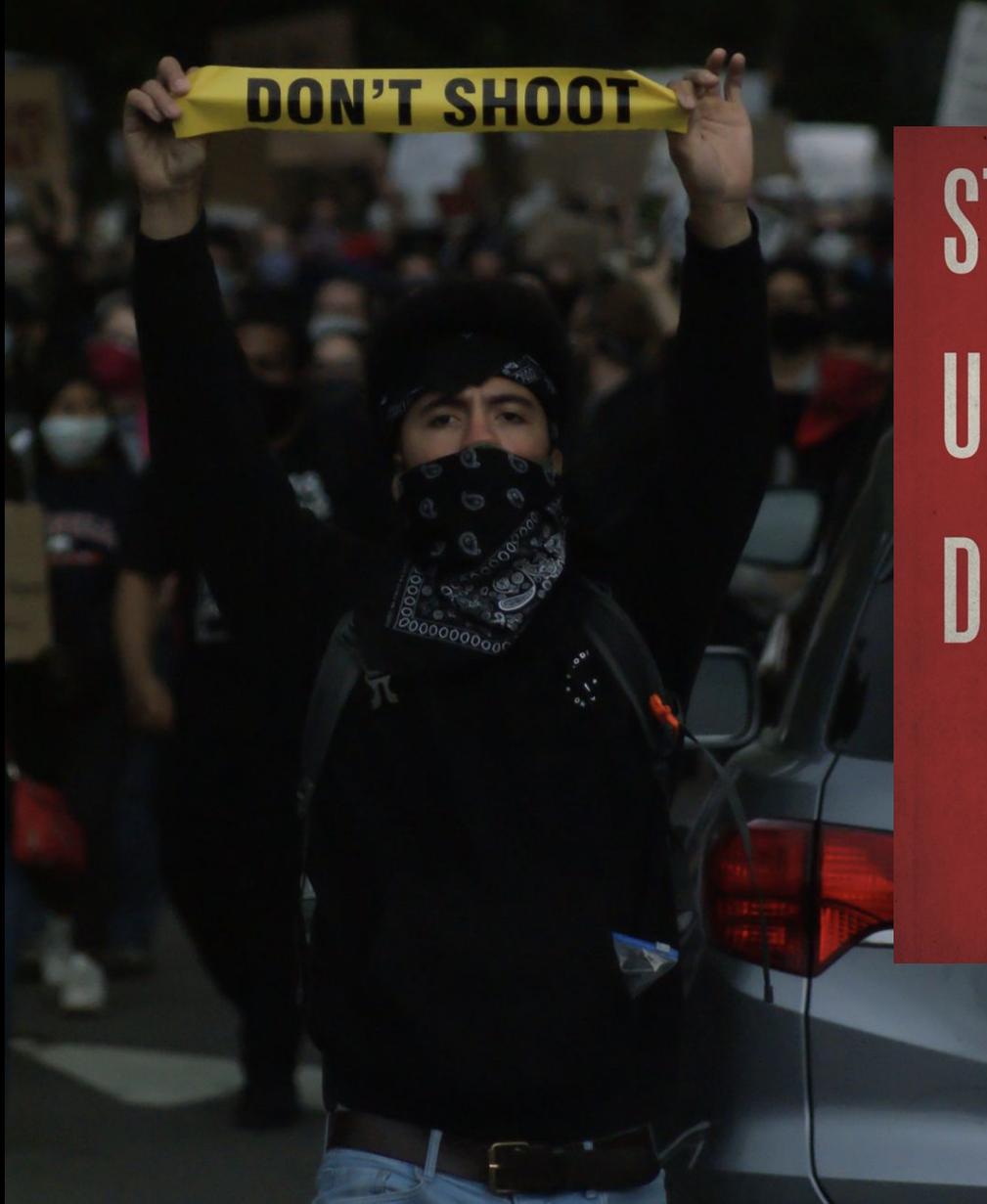
**Year of your Birth. I'm 1967**

① Click **Present with Slido** or install our [Chrome extension](#) to activate this poll while presenting.



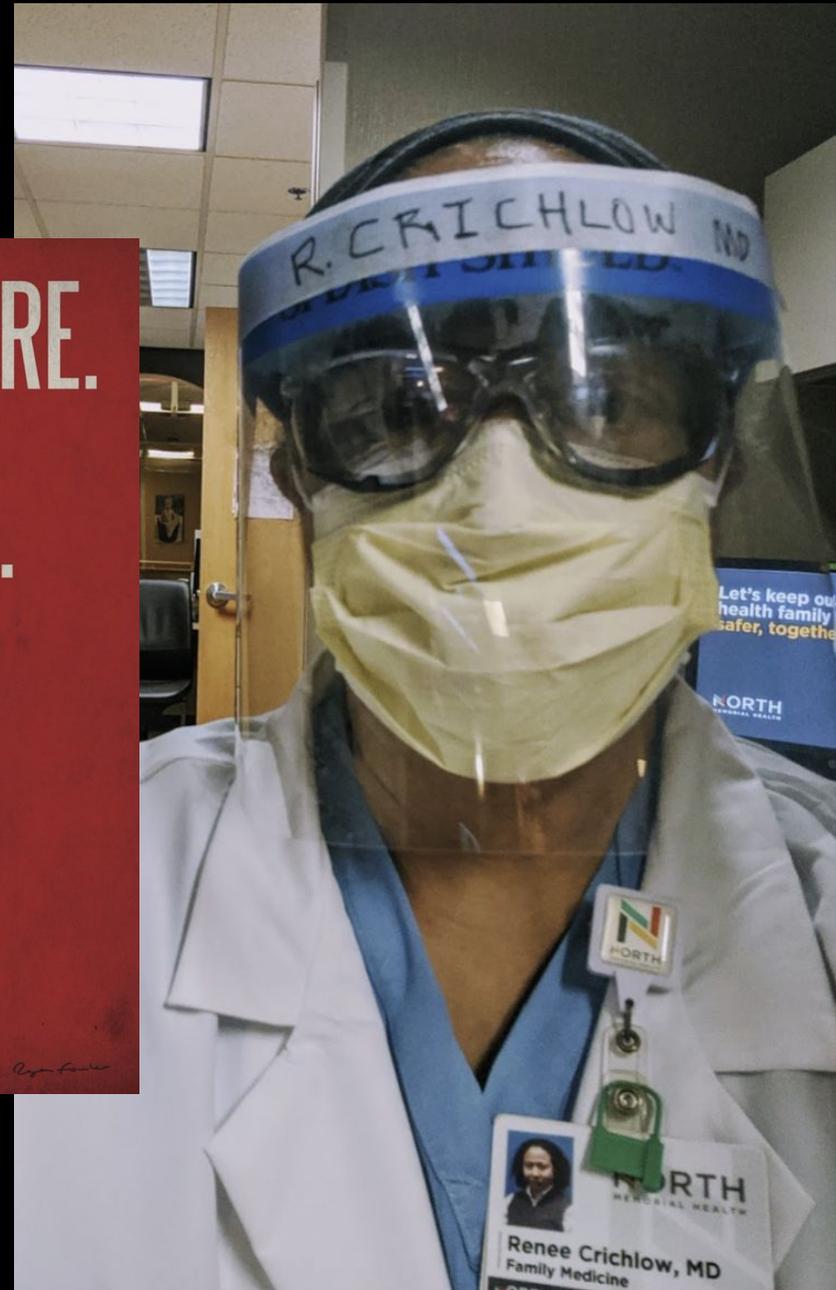
[This Photo](#) by Unknown Author is licensed under [CC BY-SA-NC](#)





START WHERE YOU ARE.  
USE WHAT YOU HAVE.  
DO WHAT YOU CAN.

(ARTHUR ASHE)



**STILLNESS**

## THE WAY IT IS

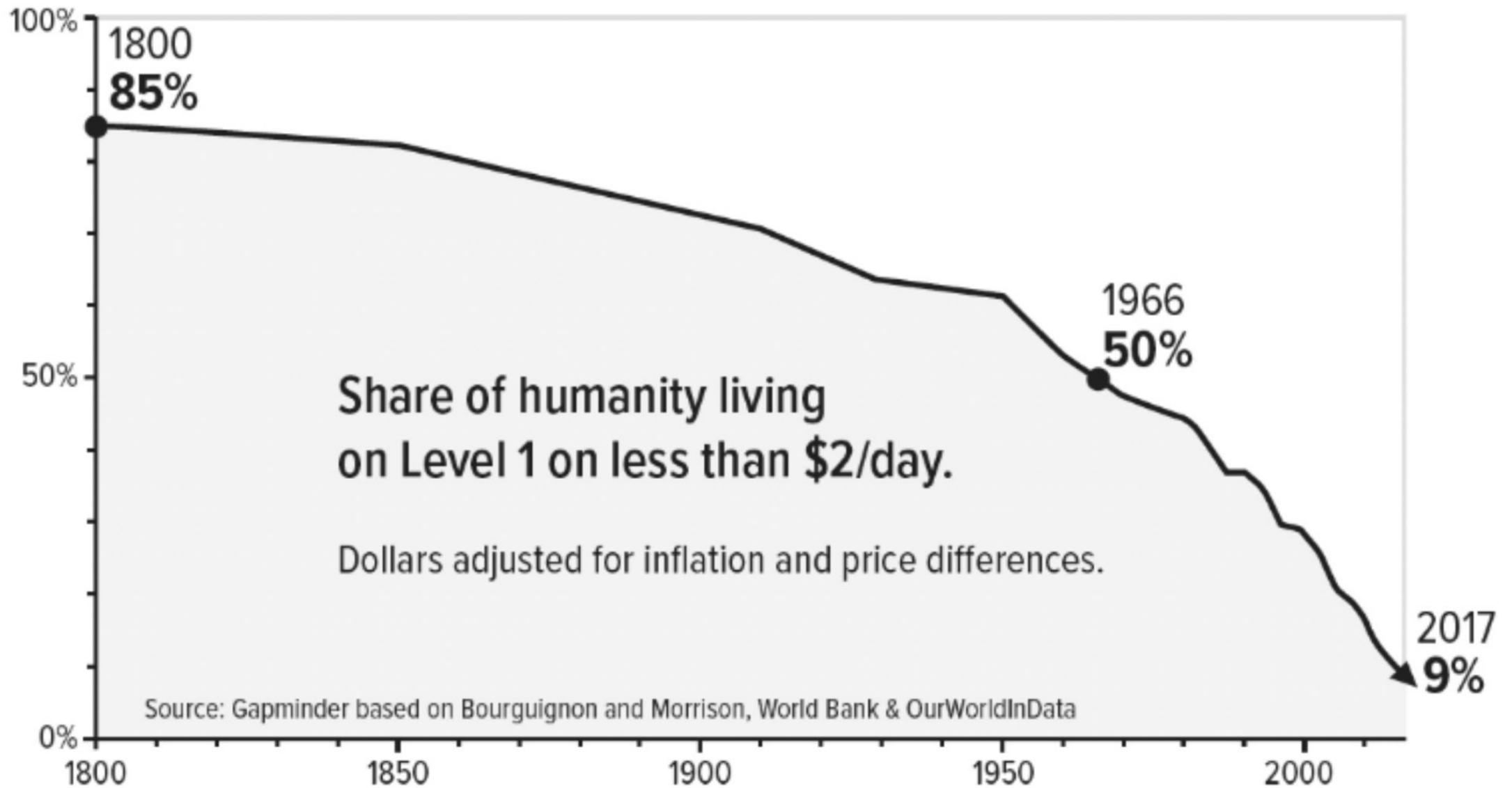
THERE'S A THREAD YOU FOLLOW. IT GOES AMONG  
THINGS THAT CHANGE. BUT IT DOESN'T CHANGE.  
PEOPLE WONDER ABOUT WHAT YOU ARE PURSUING.  
YOU HAVE TO EXPLAIN ABOUT THE THREAD.  
BUT IT IS HARD FOR OTHERS TO SEE.  
WHILE YOU HOLD IT YOU CAN'T GET LOST.  
TRAGEDIES HAPPEN; PEOPLE GET HURT  
OR DIE; AND YOU SUFFER AND GET OLD.  
NOTHING YOU DO CAN STOP TIME'S UNFOLDING.  
YOU DON'T EVER LET GO OF THE THREAD.

WILLIAM STAFFORD

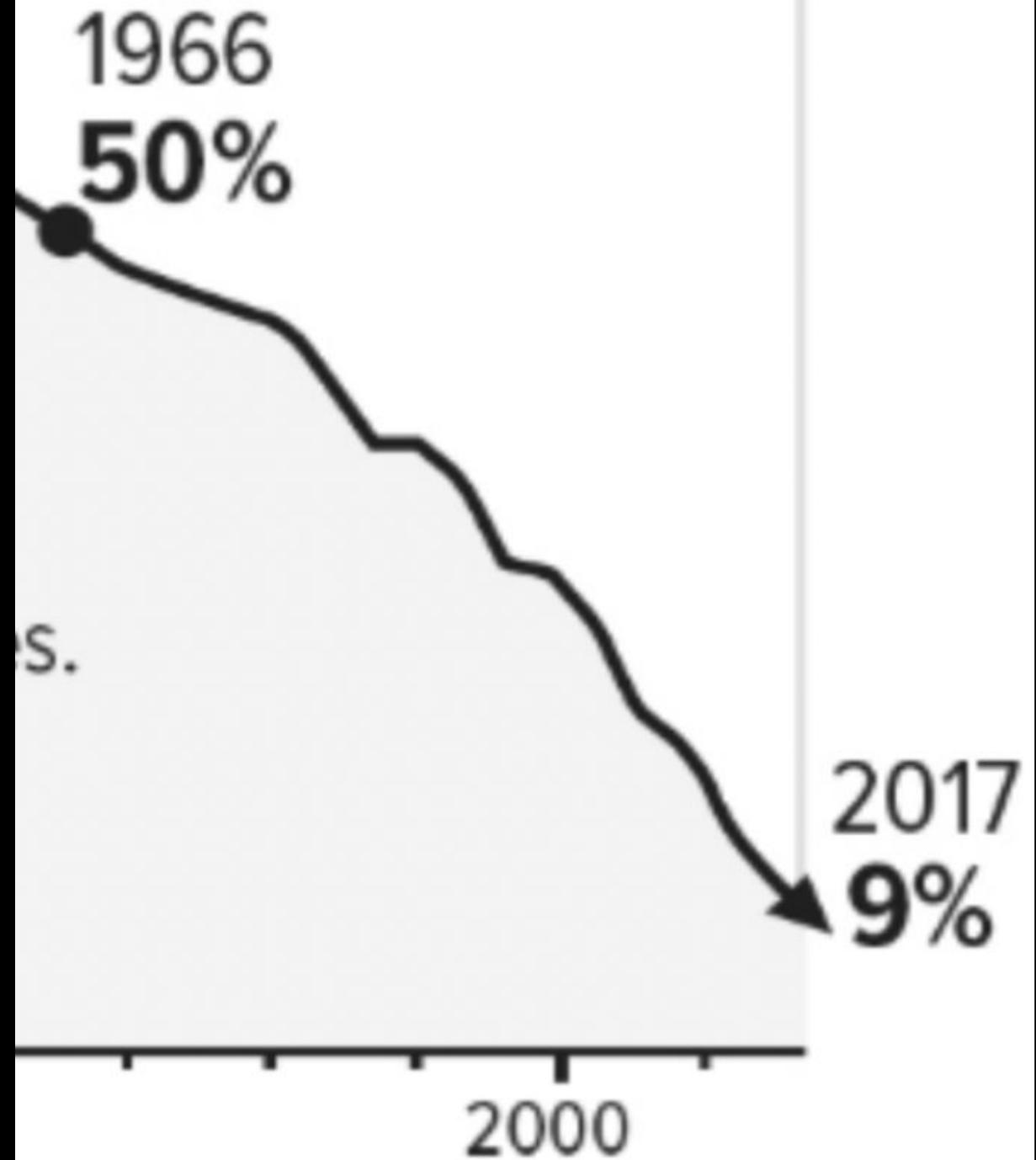
**Believe you can is the first  
necessary action**

# Stories of Systems Change

# EXTREME POVERTY RATE FROM 1800 TO TODAY

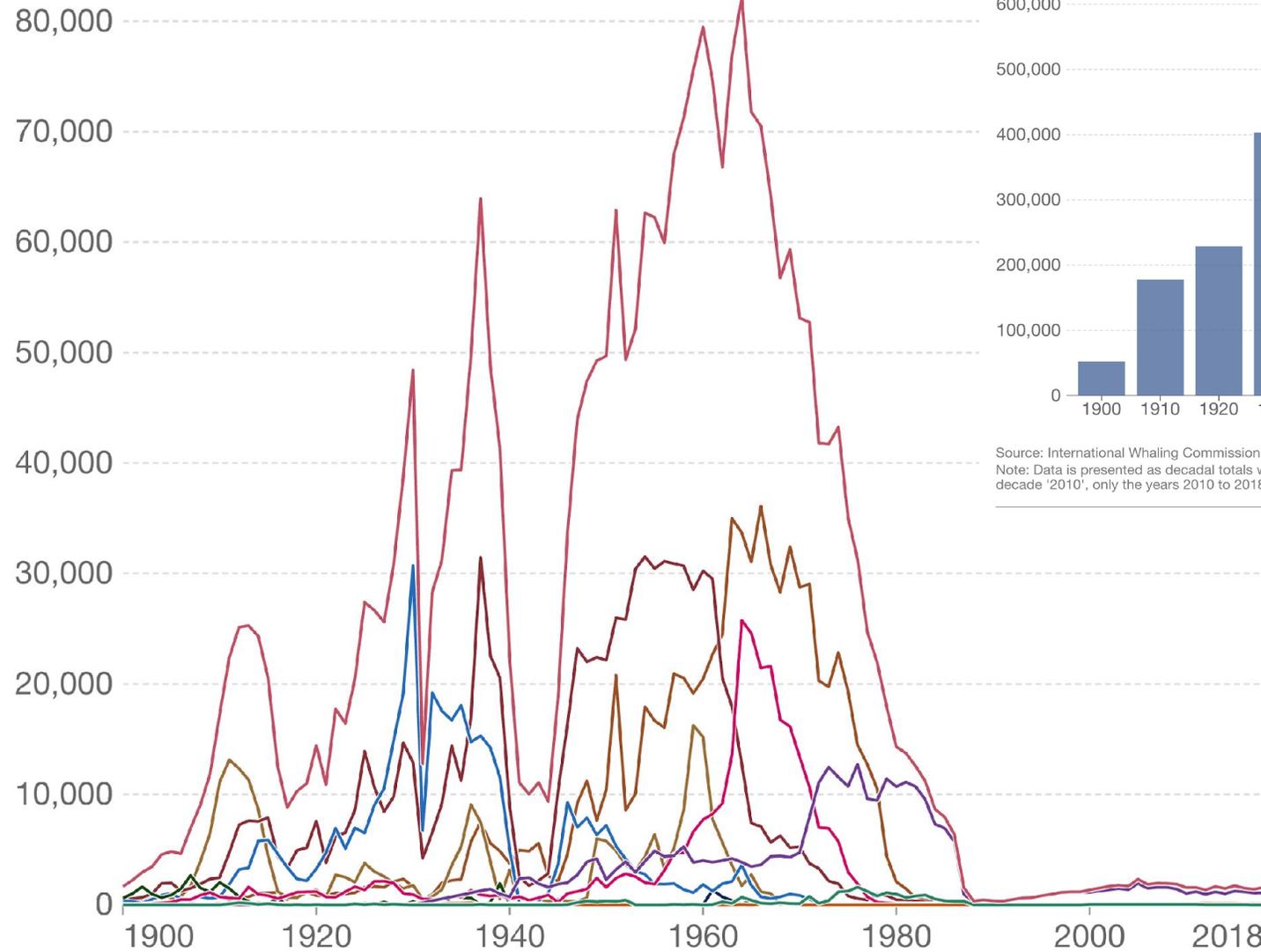


**CHANGED  
WITHIN OUR  
LIFETIME.** (at least within mine)



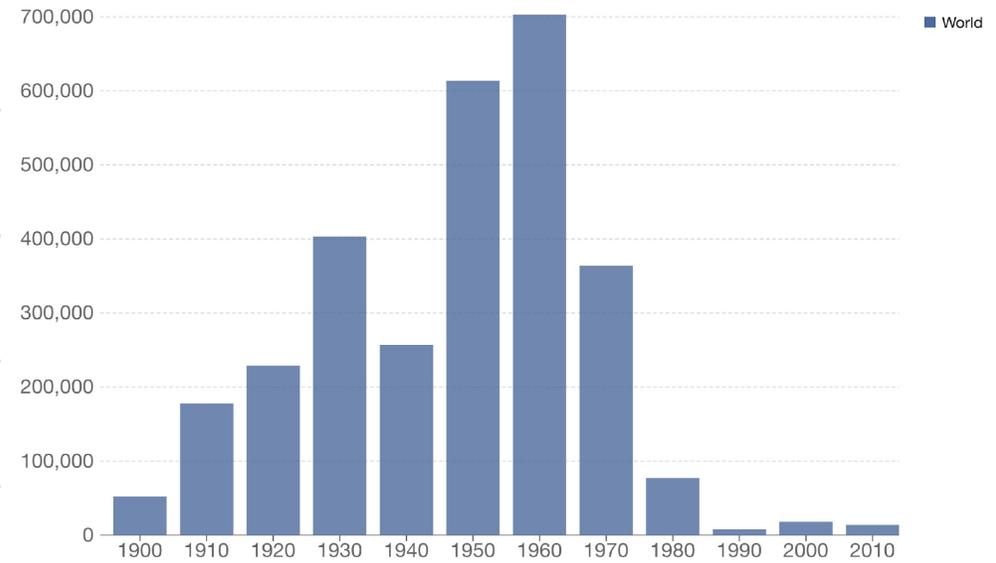
**The Stories we tell shape the  
world we create**

# Number of whales killed, World



Source: International Whaling Commission (IWC); Rocha et al. (2014)

## Number of whales killed globally per decade



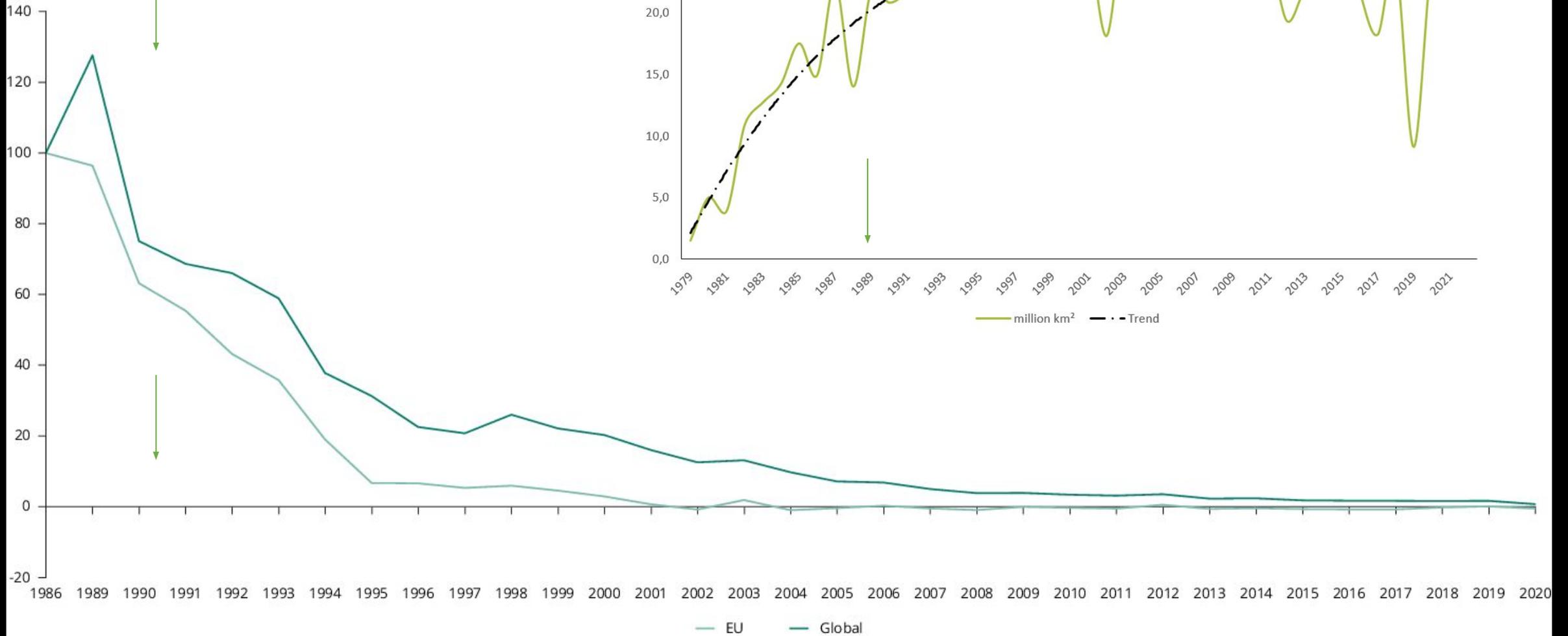
Source: International Whaling Commission (IWC) & Rocha et al. (2014)  
 Note: Data is presented as decadal totals where '1900' is equal to the total catch from 1900 to 1909; '1910' is from 1910 to 1919 etc. For the decade '2010', only the years 2010 to 2018 are included.

- All whale species
- Minke whale
- Fin whale
- Sei whale
- Gray whale
- Sperm whale
- Bryde's whale
- Unspecified/other species
- Blue whale
- Humpback whale
- Right whale

OurWorldInData.org/biodiversity • CC BY

# OZONE

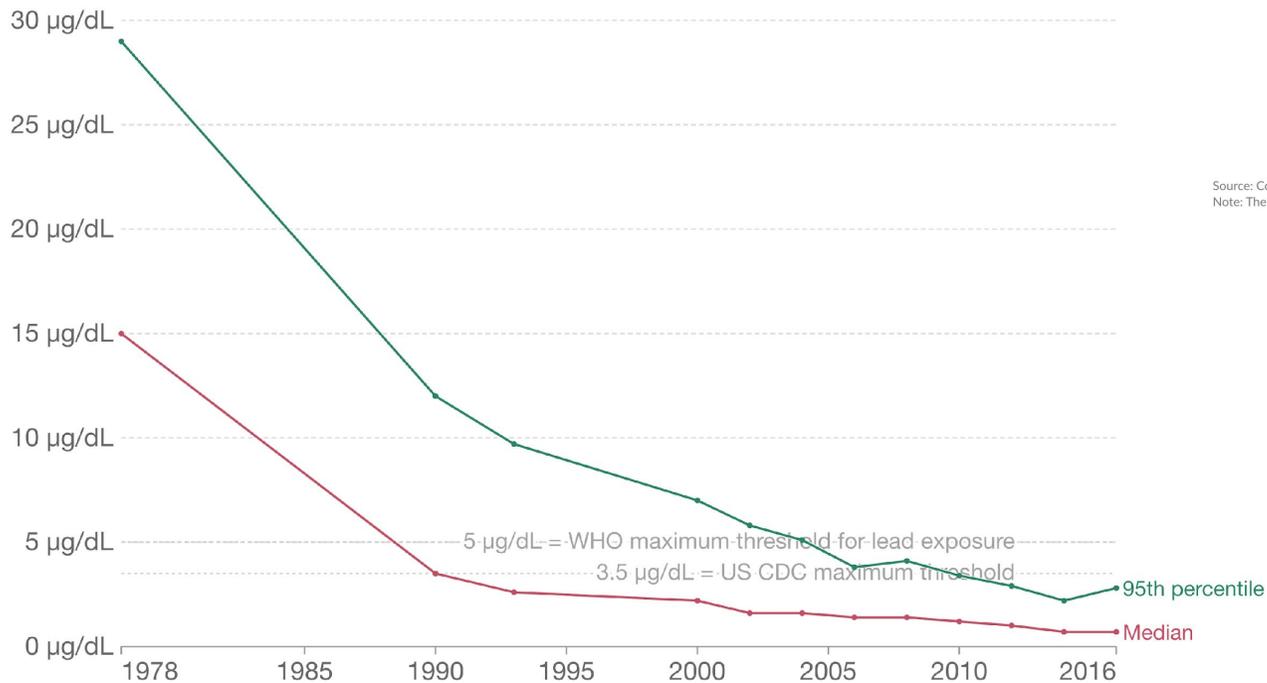
Consumption in ODP tonnes, 1986=100



# LEAD

## Lead concentrations in the blood of children in the United States

Lead concentrations measured in blood samples from children aged one to five years old. Children are particularly vulnerable to lead poisoning and can suffer permanent impacts on the development of the brain and nervous system.

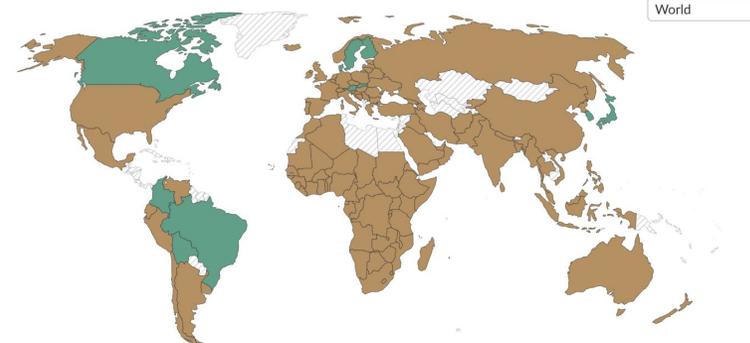


Source: Centers for Disease Control and Prevention; National Center for Health Statistics  
OurWorldInData.org/decline-lead-poisoning • CC BY

## Global phase-out of leaded petrol in road vehicles, 1995

All countries have banned the use of leaded petrol in road vehicles. Algeria was the final country to do so in 2021.

Our World in Data



Still in use Banned Unknown year of ban

Source: Collected by Our World in Data based on multiple sources

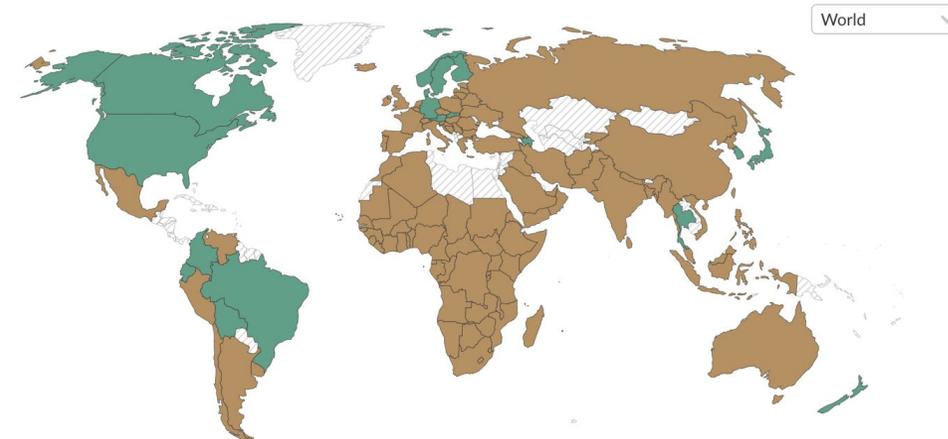
OurWorldInData.org/lead-pollution • CC BY

Note: The specific date of phase-out could not be found for some countries, but all countries have banned its use.

## Global phase-out of leaded petrol in road vehicles, 1997

All countries have banned the use of leaded petrol in road vehicles. Algeria was the final country to do so in 2021.

Our World in Data



Still in use Banned Unknown year of ban

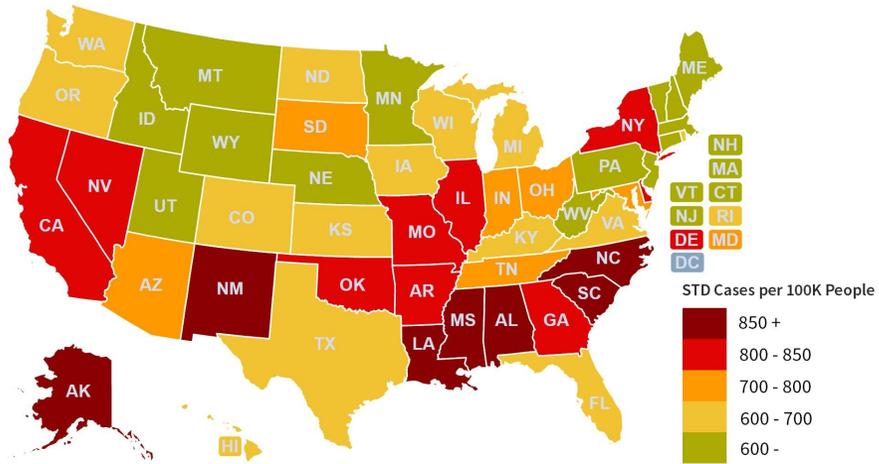
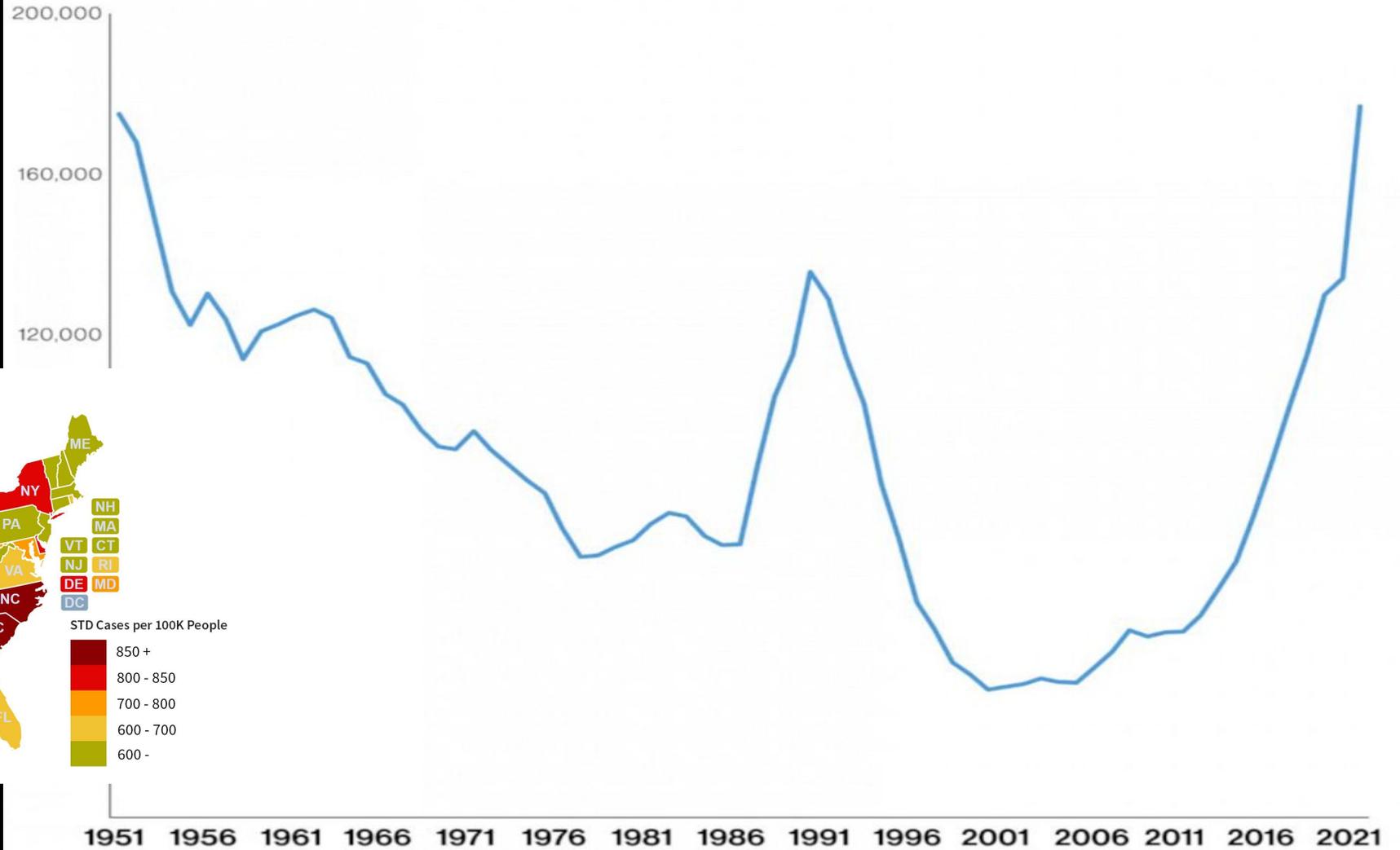
**Nothing is fixed.  
Most things are fixable.**

**Centering structural changes in the most marginalized shifts the system for all.**

# SYPHILIS

## Syphilis Cases in the United States

1951-2021







Sunlight and smog in Los Angeles in 1973. [EPA](#)

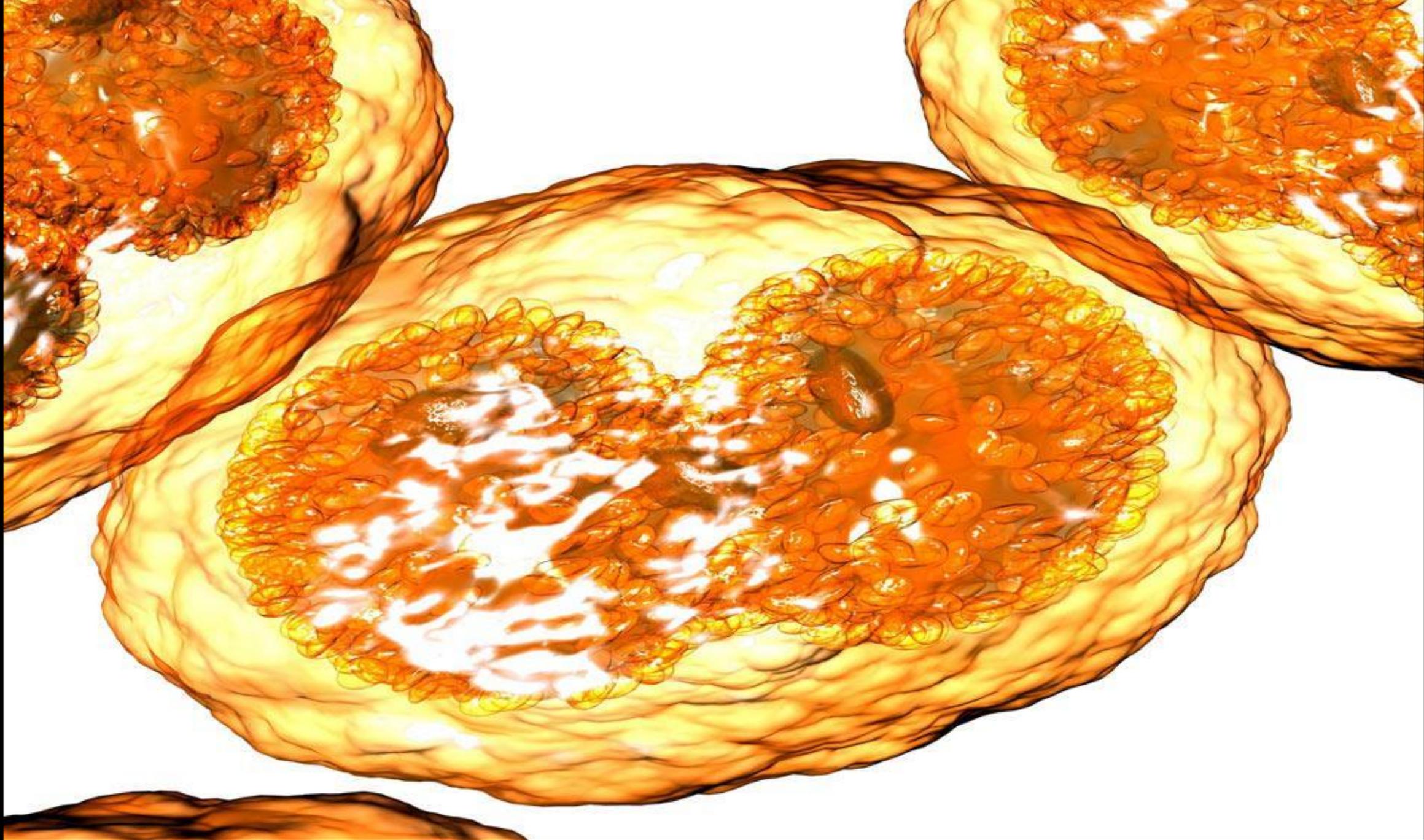


Heavy smog in Los Angeles in 1973. [EPA](#)

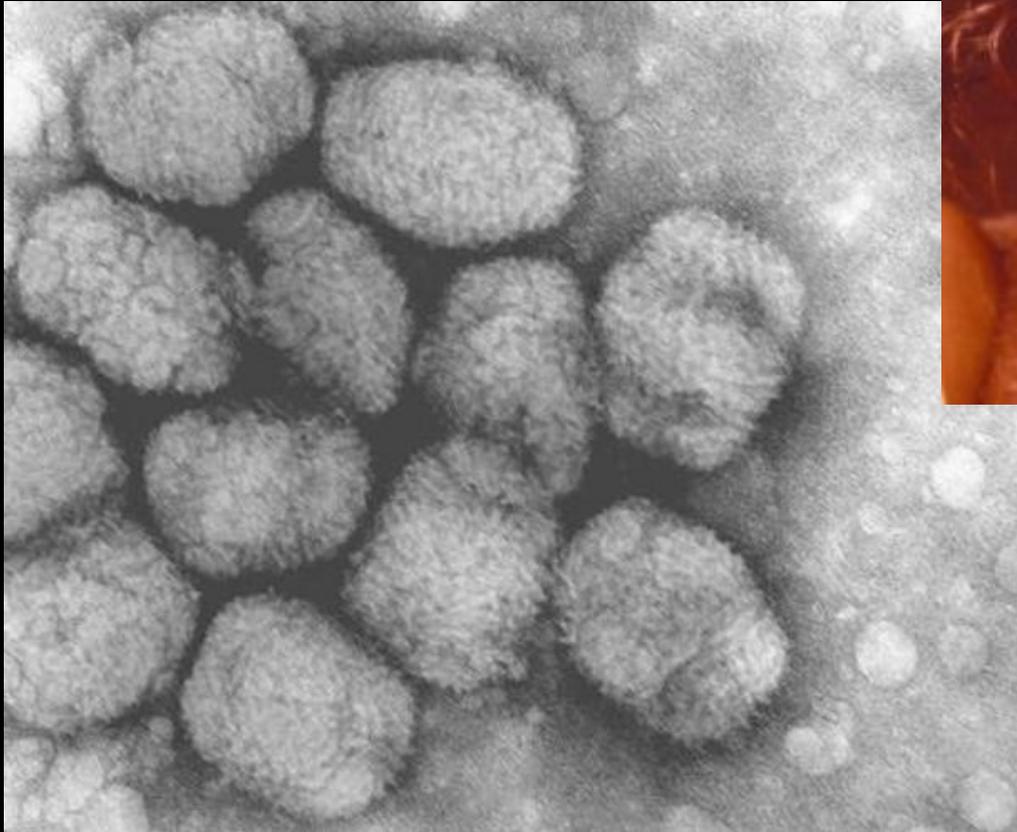


**Thick smog obscured the mountains from downtown LA on September 17, 2019. The day before, you could see the mountains. [Rebecca Harrington/Business Insider](#)**

**We have done great thing at a global level...**



# Smallpox



- Short incubation period
- No animal reservoir
- High morbidity and mortality
- Clinically apparent disease
- Mode of transmission
- An effective vaccine
- Sufficient funding



JOIN THE FIGHT  
AGAINST  
SMALL-POX  
AND  
MEASLES



BE  
VACCINATED  
TODAY





# Systems Change

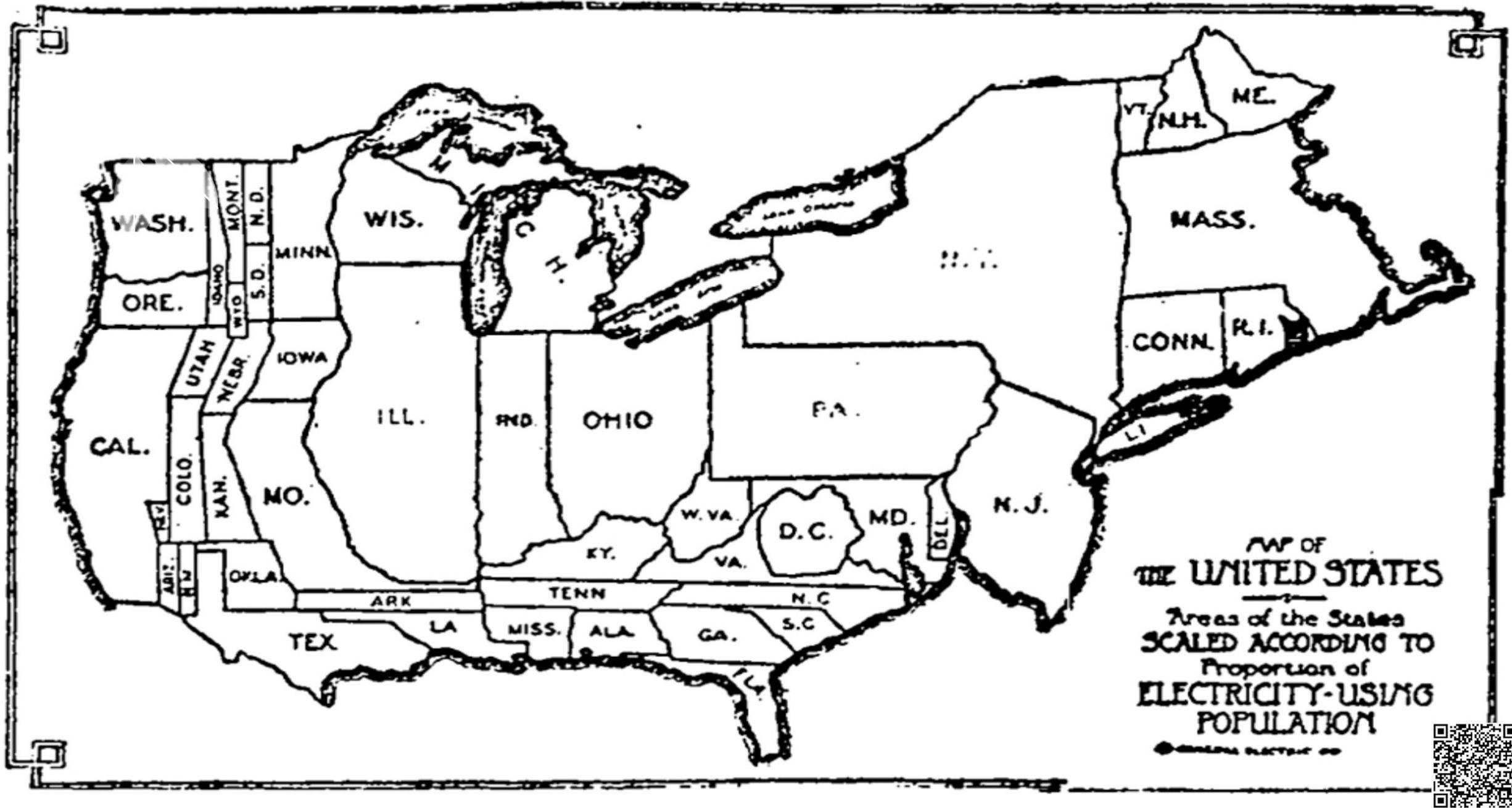
A large flock of birds, likely starlings, is captured in flight against a sunset sky. The birds are densely packed in the center, forming a large, dark, V-shaped formation that tapers towards the left. The sky transitions from a pale blue at the top to a warm orange and red at the bottom. In the bottom left corner, a utility pole with power lines is visible. The overall scene conveys a sense of complex, coordinated movement.

# Choosing Inputs & Feedbacks to Shift Complex Systems

**Centering structural changes in the most marginalized shifts the system for all.**



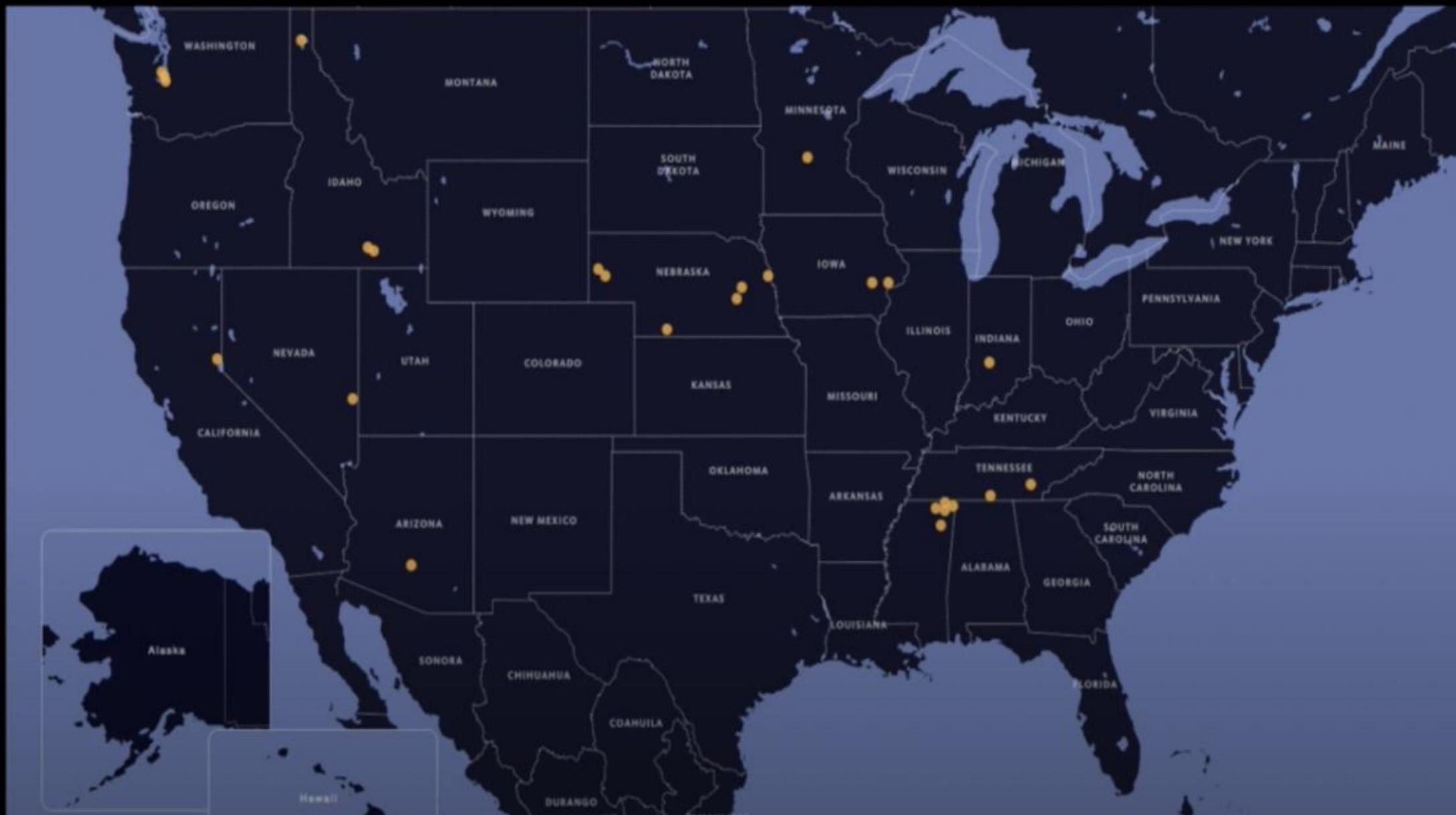




A 1921 cartogram based on access to central station power. (Photo courtesy General Electric)

# 1935

## Eastern Iowa L & P Co-op





# WHAT MAKES GOOD LIGHTING

1. ENOUGH LIGHTING  
FOR THE JOB

2. LIGHT OF GOOD QUALITY

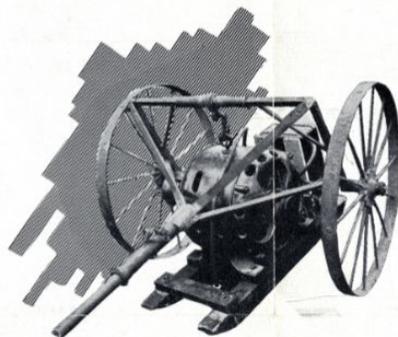
3. NO GLARE—  
DIRECT NOR INDIRECT





## Planning YOUR FARMSTEAD WIRING AND LIGHTING

U. S. DEPT. OF AGRICULTURE RURAL ELECTRIFICATION ADMINISTRATION Miscellaneous Pub. No. 277



Day after day, season after season, every farm has heavy and tedious jobs which must be done. Such work soaks up energy and time. More, it soaks up money. The farmer needs strong, fast help that costs little. Electric power is the answer. . . . Cheap to start with, the more it is used, the cheaper it gets. Modern farmers know how electricity can be turned into dollars. Electric farm equipment has been proved by experience. It is labor saving, pocketbook filling. Look at the equipment on this page. Think of it on your farm . . . its saving, its ready power, its money-making possibilities, now and in the future.

# MORE POWER TO THE FARMER



THE ELECTRIC BROODER.—For as little as ½ of 1 kilowatt-hour per chick, a whole brood can be raised under a modern brooder.



THE ELECTRIC MILK COOLER.—Milk keeps sweet in a modern regulated dairy cooler; 1 kilowatt-hour will cool 10 gallons of milk a day.

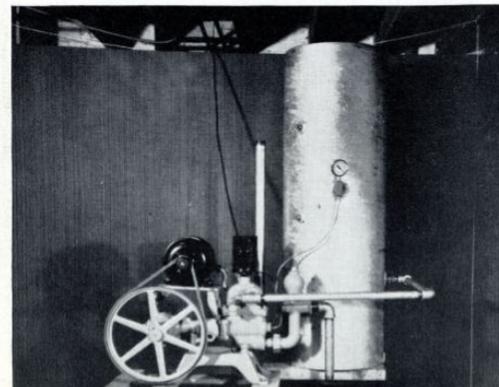
THE ELECTRIC MILKER.—It can milk 100 cows and never tire; it can milk 1 cow for an entire month for the cost of only 1½ kilowatt-hours.



THE ELECTRIC SAW.—It saws up a cord of wood for as little as the cost of 2 kilowatt-hours, saves arm ache, time and money.



THE ELECTRIC PUMP.—It fetches water without grumbling, can serve all needs of the farm and home for about 25 kilowatt-hours per month.



THE ELECTRIC GRINDER.—It grinds many tools to a keen cutting edge at great speed, making the farmer's work surer, quicker, easier.

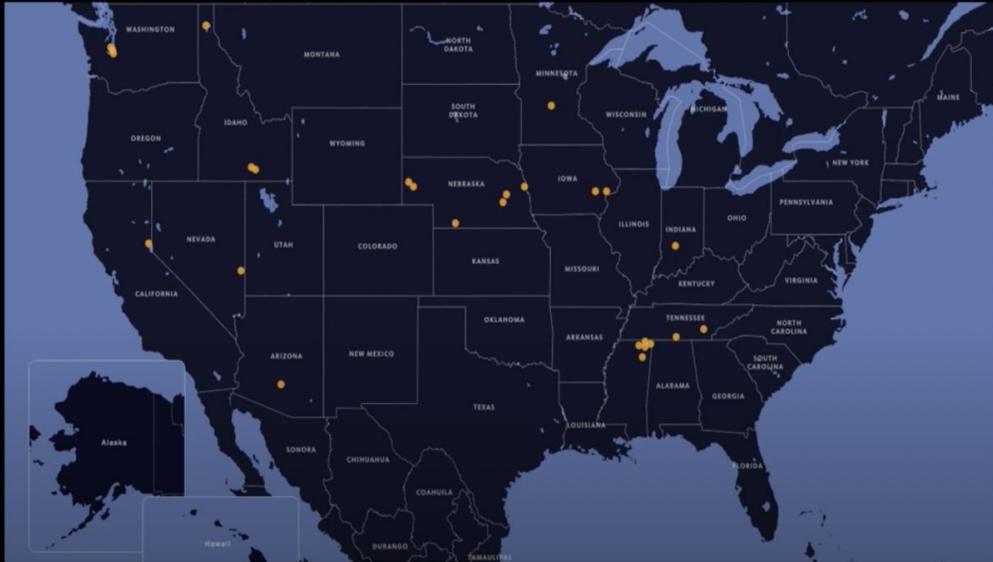




# Equity, putting resources where they are needed most

Co-op Growth Over Time

## 1935 Eastern Iowa L & P Co-op



1

Co-op Growth Over Time

## 1958 Upper Missouri G&T Elec. Co-op



2

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WE CAN MAKE EXCUSES OR  
WE CAN MAKE CHANGES,  
*BUT WE CAN'T DO BOTH.*

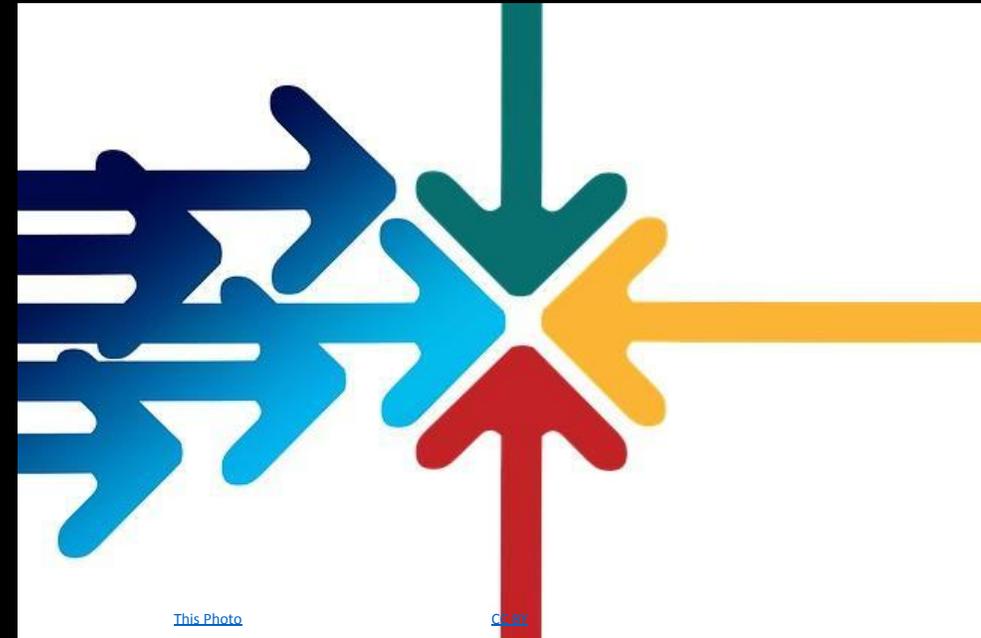
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# Systems Change

# SUCCESSFULLY

Addressing these society-level challenges requires

- **Understanding the Necessity of Action**
- **Collaborative and Multifocal Approaches**
- **Creation of Systems and Structures**
- **No Singular Leadership**
- **Persistent and Adaptive Efforts**
- **Successful Impact and Recovery**
- **Educative Process**
- **Importance of Sustaining Efforts**



**THESE events have in common demonstrate  
a complex interplay of necessity,  
collaboration,  
structural innovation,  
leadership diversity,  
persistence,  
adaptability,  
successful impact,  
continuous learning,  
and sustained effort.**

Together, these attributes offer insights into how society-level challenges can be successfully addressed and corrected.

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**Curious, what is one of the things you would like to have change?**

① Click **Present with Slido** or install our [Chrome extension](#) to activate this poll while presenting.

A large flock of birds, likely starlings, is captured in flight against a sunset sky. The birds are densely packed in the center, forming a large, dark, V-shaped formation that tapers towards the left. The sky transitions from a pale blue at the top to a warm orange and red at the bottom. In the bottom left corner, a utility pole and power lines are visible. The overall scene conveys a sense of complex, coordinated movement.

# Choosing Inputs & Feedbacks to Shift Complex Systems

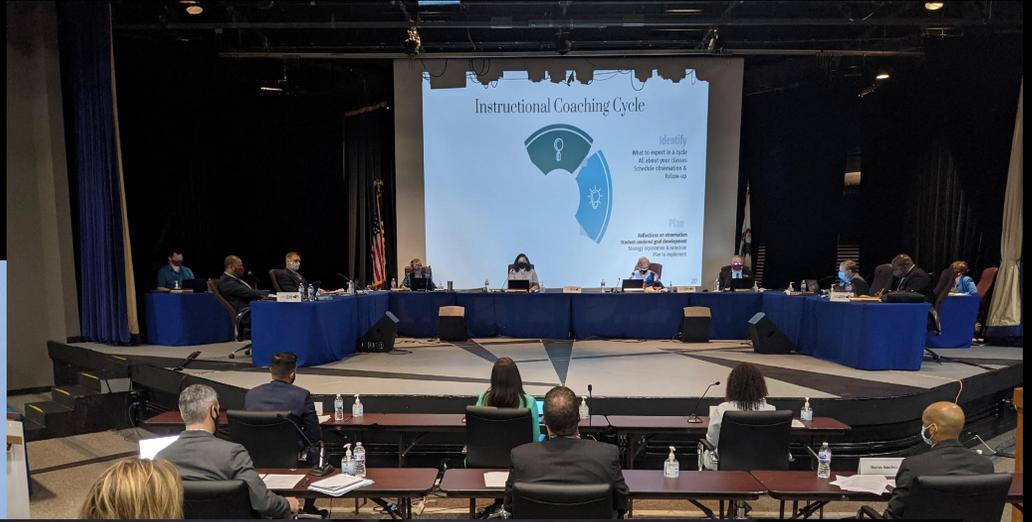
slido



**What do you see as some of the current barriers to systemic changes?**

① Click **Present with Slido** or install our [Chrome extension](#) to activate this poll while presenting.

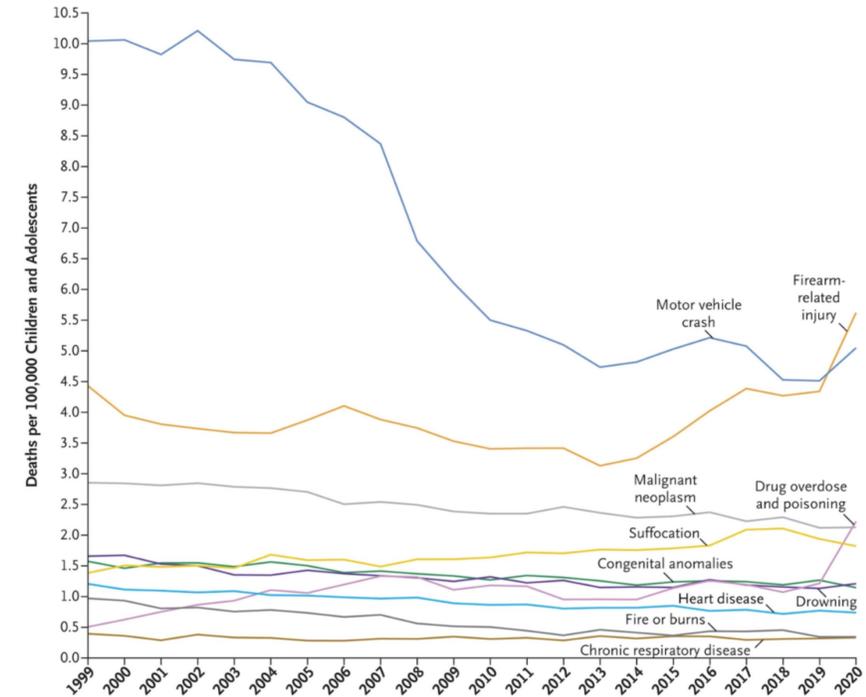
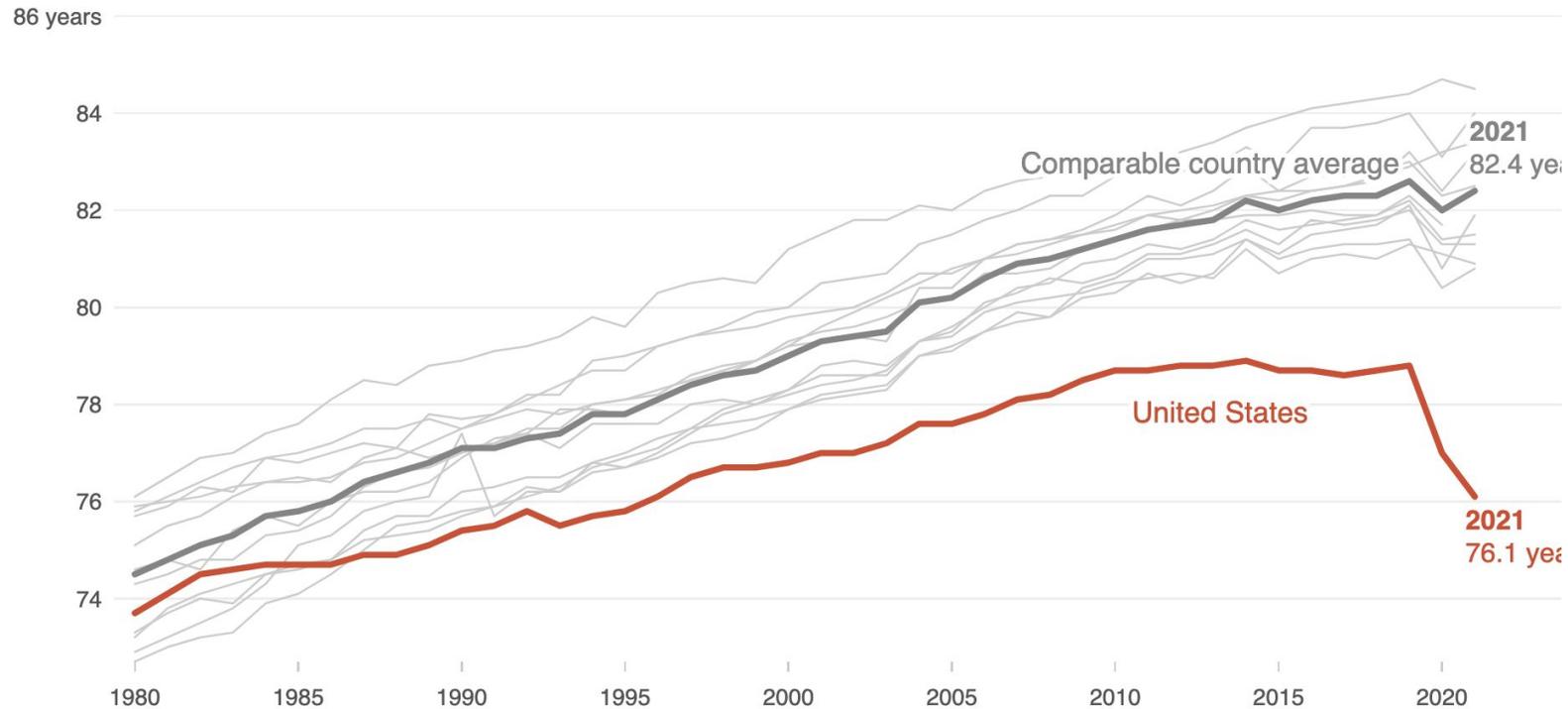
# Current Policy Landscape



# Deaths of Despair

## Life expectancy continues to decline in the U.S. as it rebounds in other countries

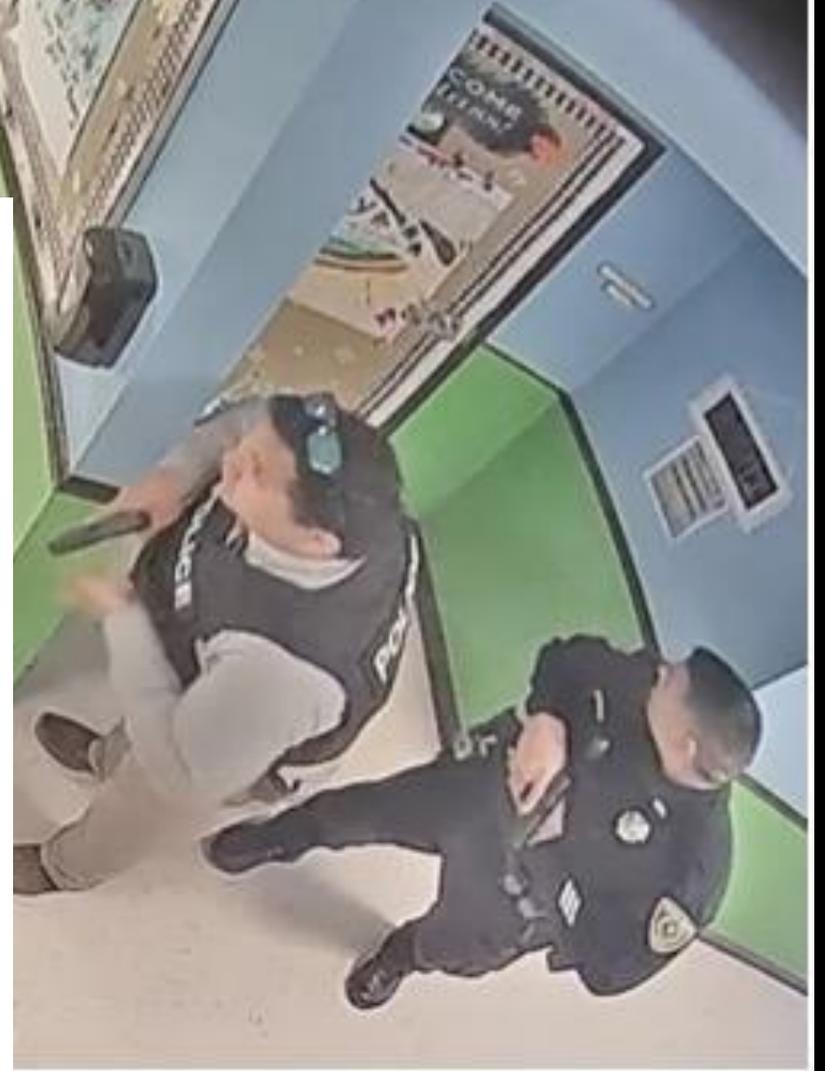
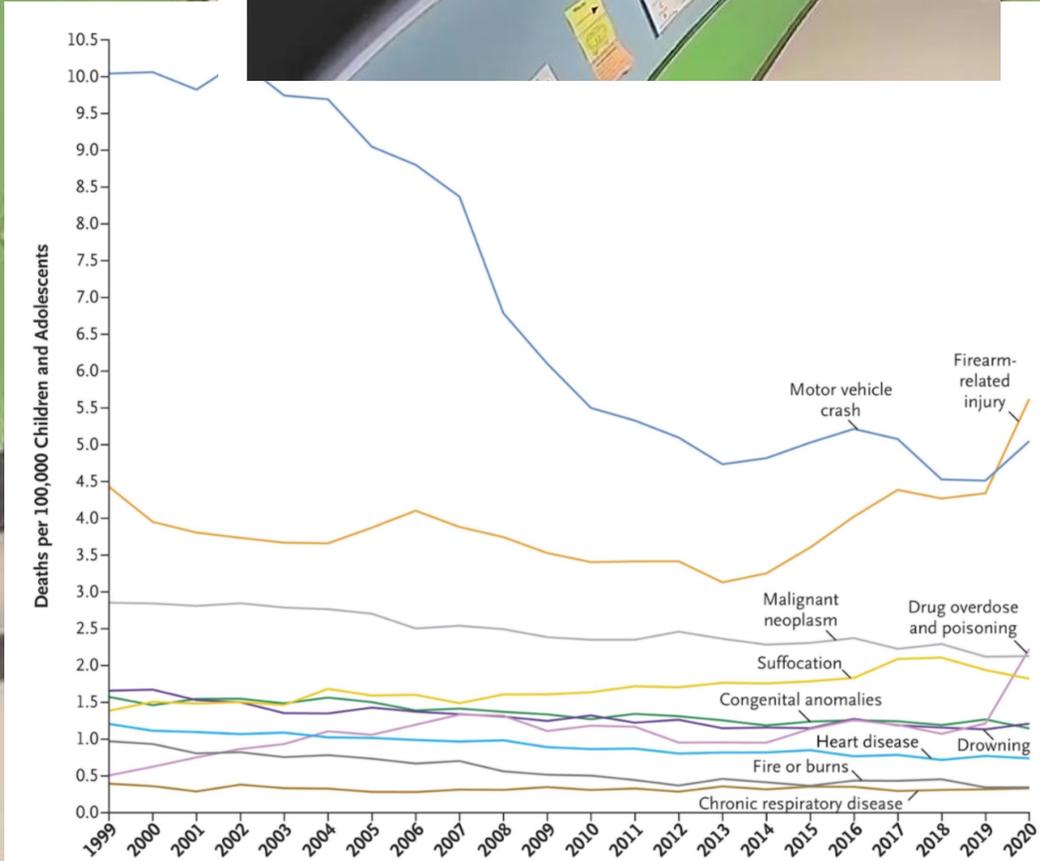
Life expectancy around the world decreased in 2020 due to COVID-19. Most peer countries rebounded by 2021, while the U.S. continued to decline.



EXIT

Real Time: 11:33:24:16

Editor's note: The sound of children screaming has been removed



## Look for the canaries in the coal mine

- 2019 over EIGHTEEN thousand  
White male suicide by gun deaths
- Six thousand Black on  
Black homicides



# Key Take Home Points

- **The Stories we tell shape the world we create**
- **Believe you can is the first necessary action**
- **Centering structural changes in the most marginalized shifts the system for all.**
- **Nothing is fixed. Most things are fixable.**

**Last... The Stories we tell shape the world we create**

[https://youtu.be/ddG\\_zH368LA?si=VKSDbM61RpfTI52Y](https://youtu.be/ddG_zH368LA?si=VKSDbM61RpfTI52Y)

<https://photos.app.goo.gl/XfmVdCEGM6M8Rmka6>



Do not be daunted  
by the enormity  
of the world's grief.  
Do justly, now.  
Love mercy, now.  
Walk humbly, now.  
You are not obligated  
to complete the work,  
but neither are you free  
to abandon it.



THANK YOU.

QUESTIONS?  
[Crichlow@BU.edu](mailto:Crichlow@BU.edu)



Four Minute Video of  
The Ladder

# Questions?

Thank you!

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## Audience Q&A

① Click **Present with Slido** or install our [Chrome extension](#) to show live Q&A while presenting.