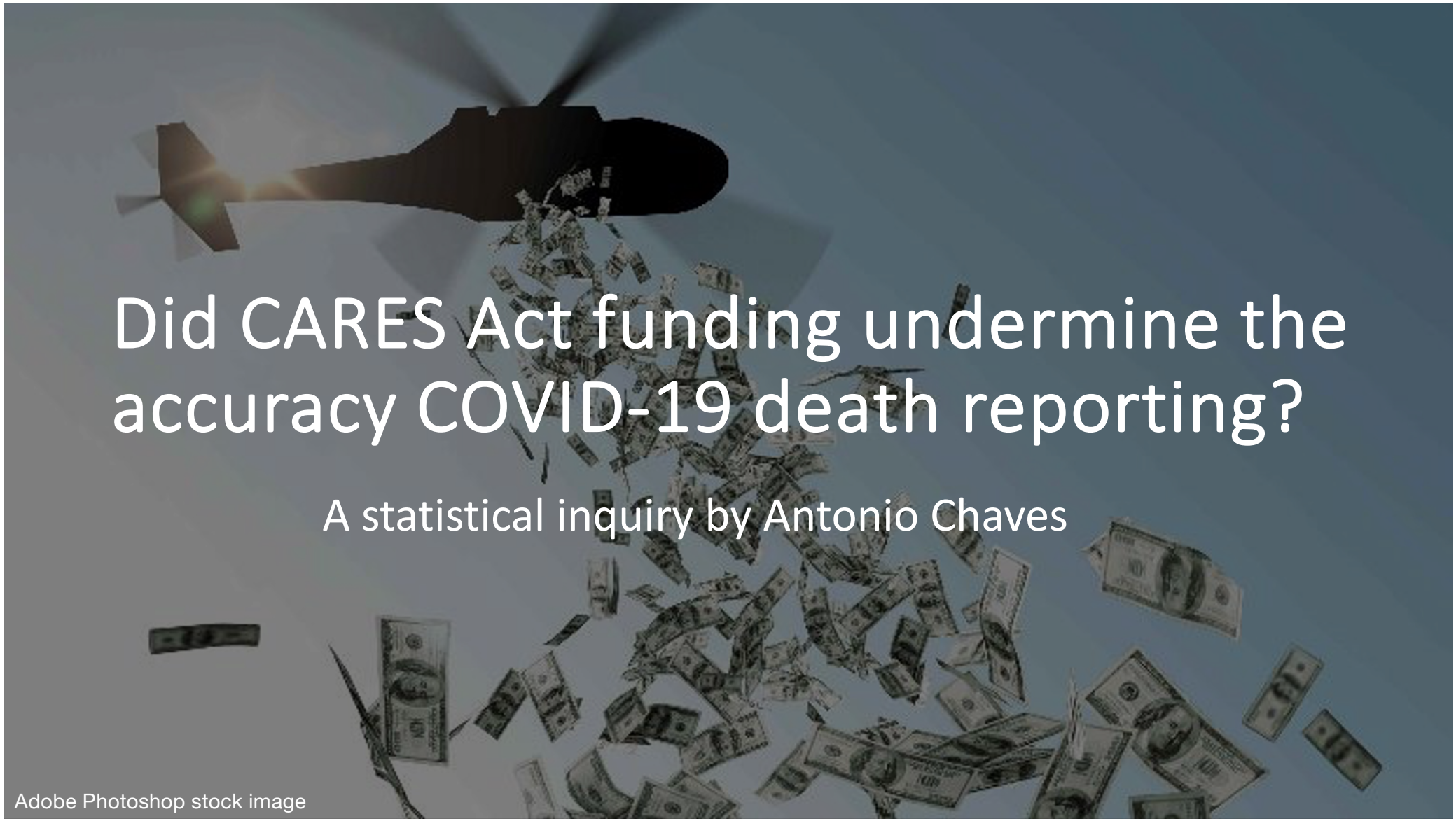
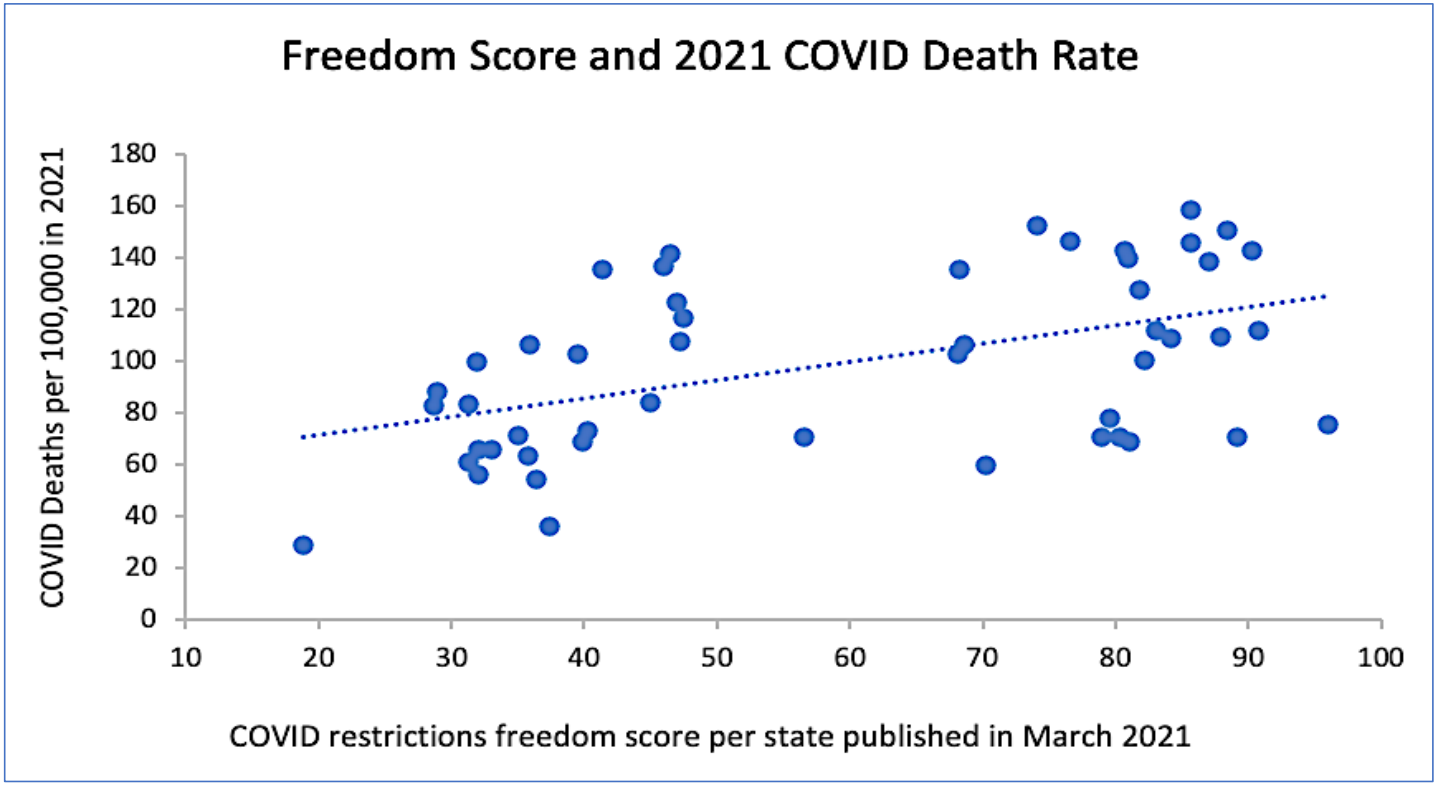

Did CARES Act funding undermine the accuracy COVID-19 death reporting?
A statistical inquiry by Antonio Chaves
Adobe Photoshop stock image

Abstract: During the first half of 2020 the most deaths from COVID-19 were reported in the Northeast and Midwest, but by the end of 2021 this trend shifted to Southern and Western states. This shift has been attributed in part to a lack of masking and social distancing in these states, but this analysis fails to adjust for differences in pre-existing comorbidities and massive disparities in CARES funding per state (from $20,000 per COVID patient in New York to $470,000 per patient in West Virginia). Preliminary statistical analysis reveals a positive correlation between CARES payments and COVID deaths. Did hospitals in states with higher payments lower their reporting standards in order to get more funding? If these causes of death are inaccurate, how might they have been misconstrued?

This graph supports the hypothesis that coronavirus restrictions "saved lives."

But this raw data fails to account for pre-existing differences between these states.

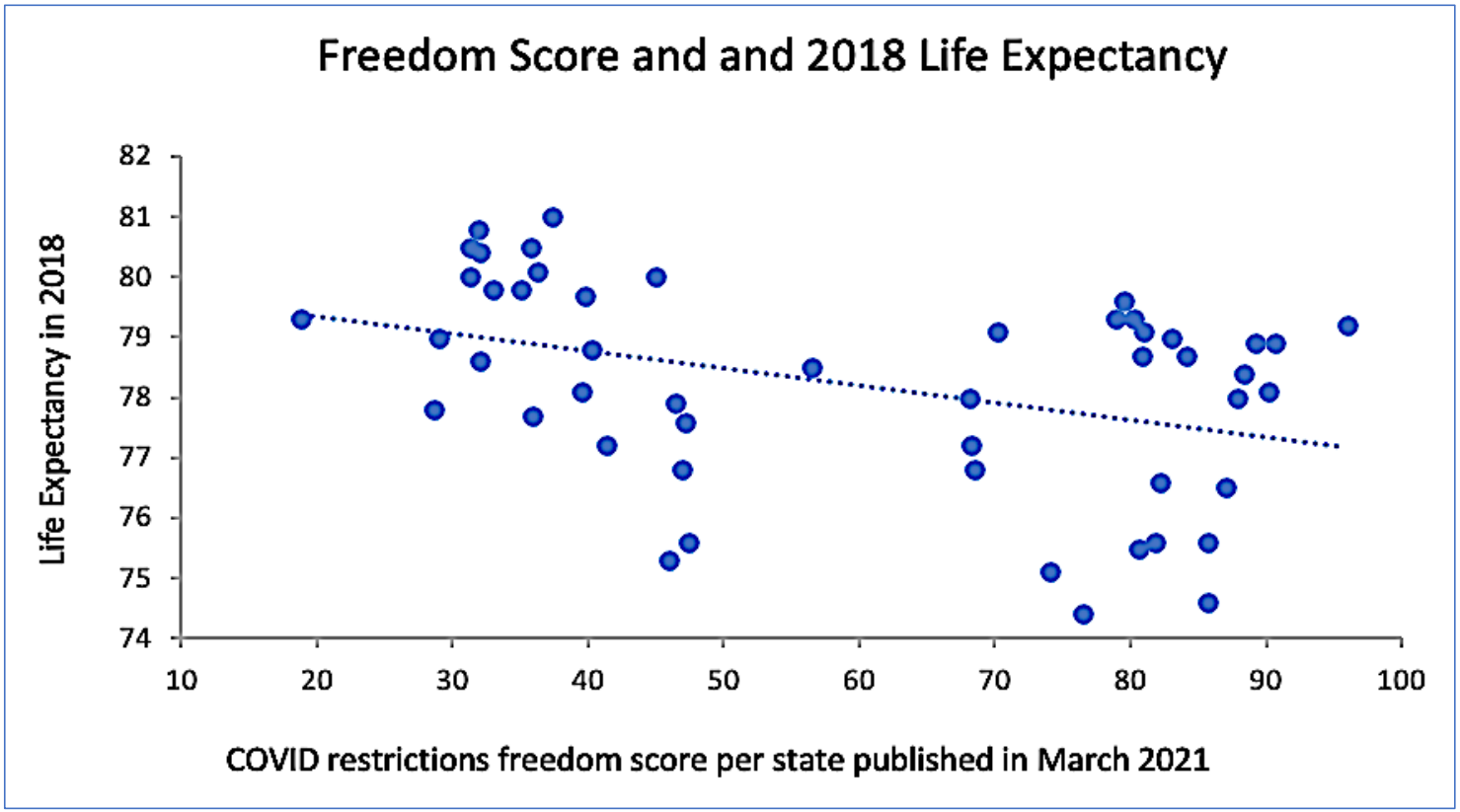


r = 0.49
(Pearson)

X-axis data from WalletHub: https://wallethub.com/edu/states-coronavirus-restrictions/73818

Y-axis data from the CDC: https://www.cdc.gov/nchs/pressroom/sosmap/covid19_mortality_final/COVID19.htm

On average, people in states with less COVID restrictions also had lower life expectancies.



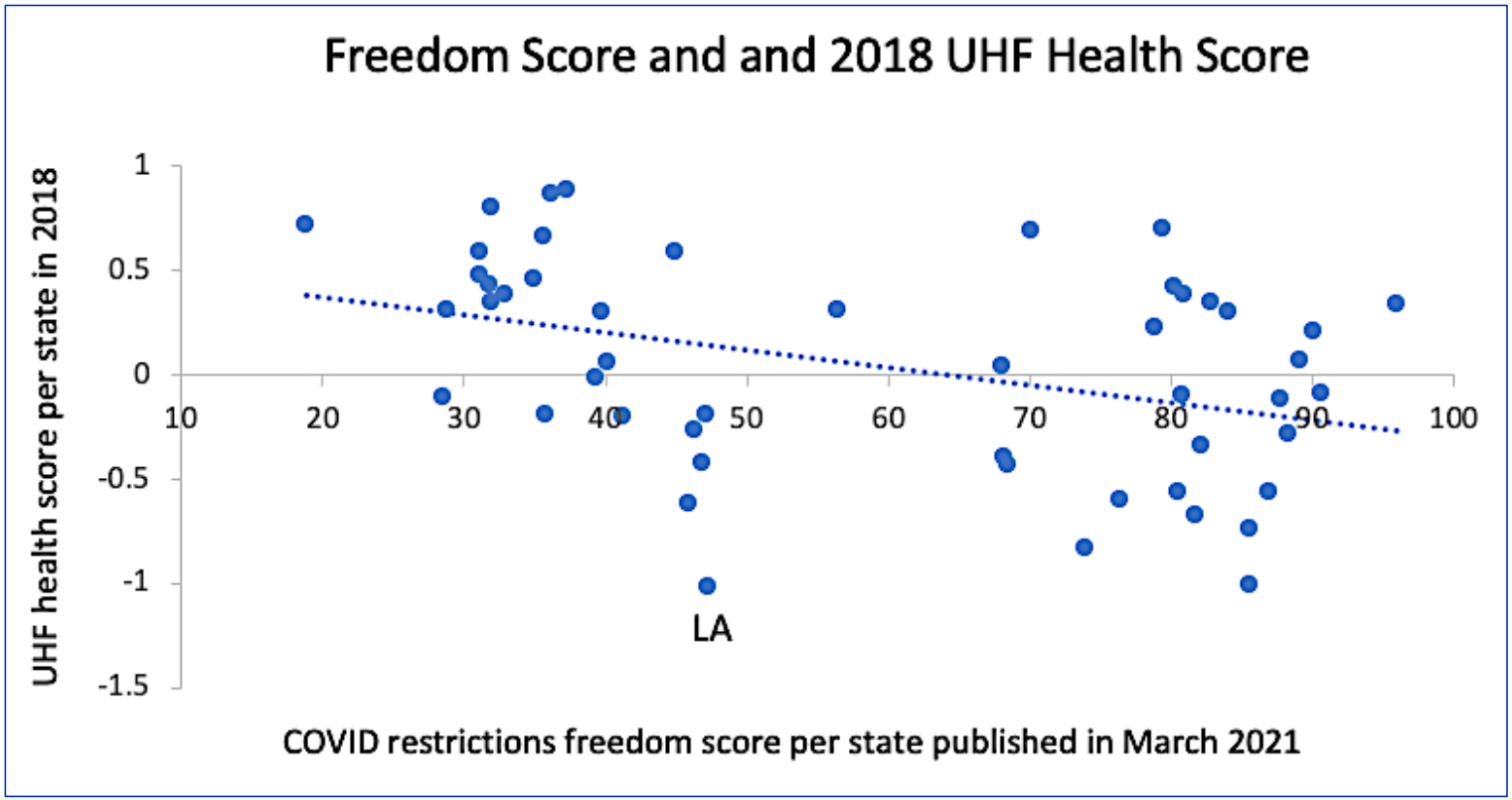
r = -0.39
P < 0.01
(Pearson)

r = -0.41
P < 0.005
(Spearman)

X-axis data from WalletHub: https://wallethub.com/edu/states-coronavirus-restrictions/73818

Y-axis data from the CDC: https://www.cdc.gov/nchs/pressroom/sosmap/life_expectancy/life_expectancy.htm

Residents of states with less COVID restrictions were also more likely to score poorly on health.



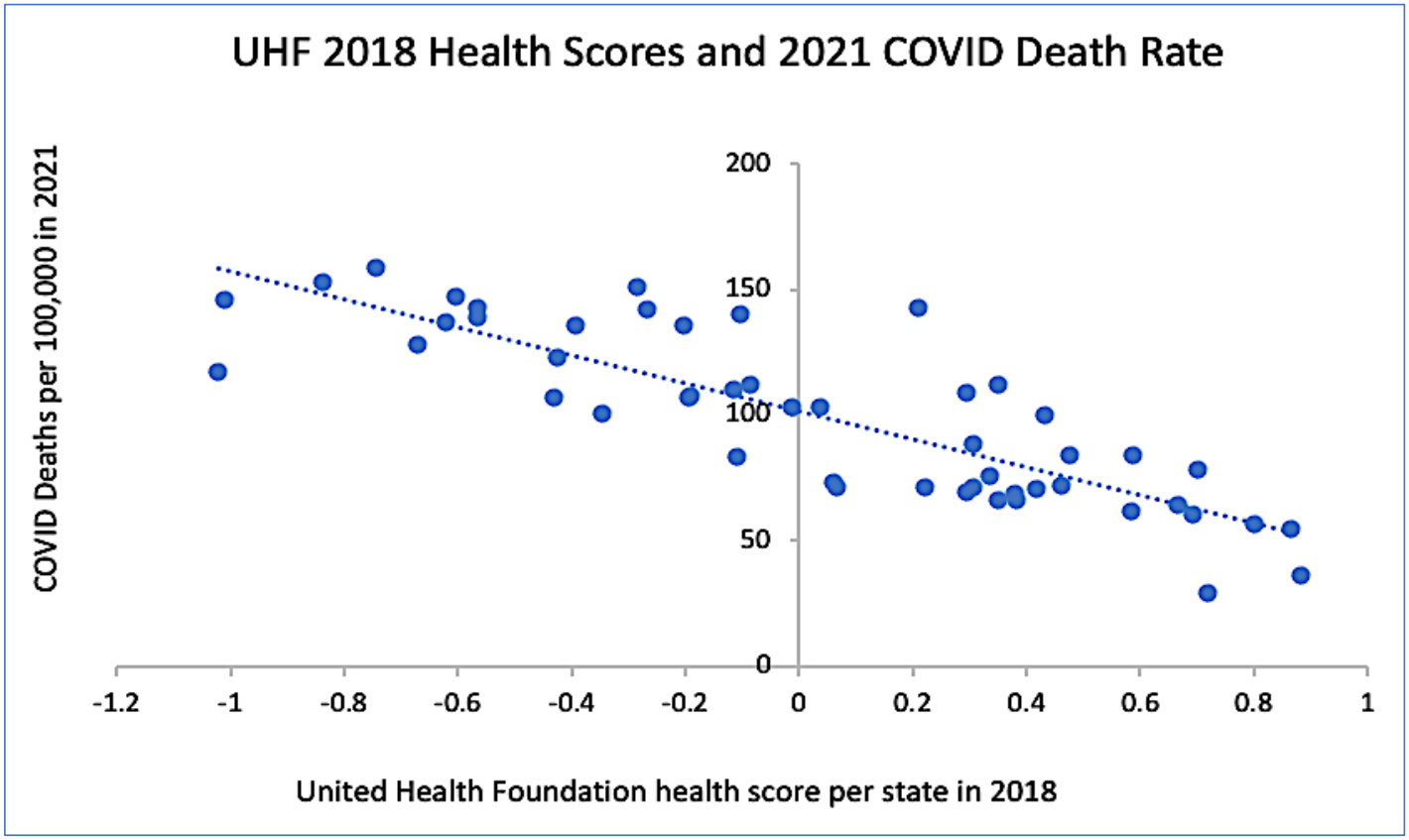
r = -0.39
P < 0.01
(Pearson)

r = -0.43
P < 0.005
(Spearman)

X-axis data from WalletHub: https://wallethub.com/edu/states-coronavirus-restrictions/73818

Y-axis data from the United Health Foundation: https://assets.americashealthrankings.org/app/uploads/2018ahrannual_020419.pdf

People with better overall health are less likely to die from respiratory infections.

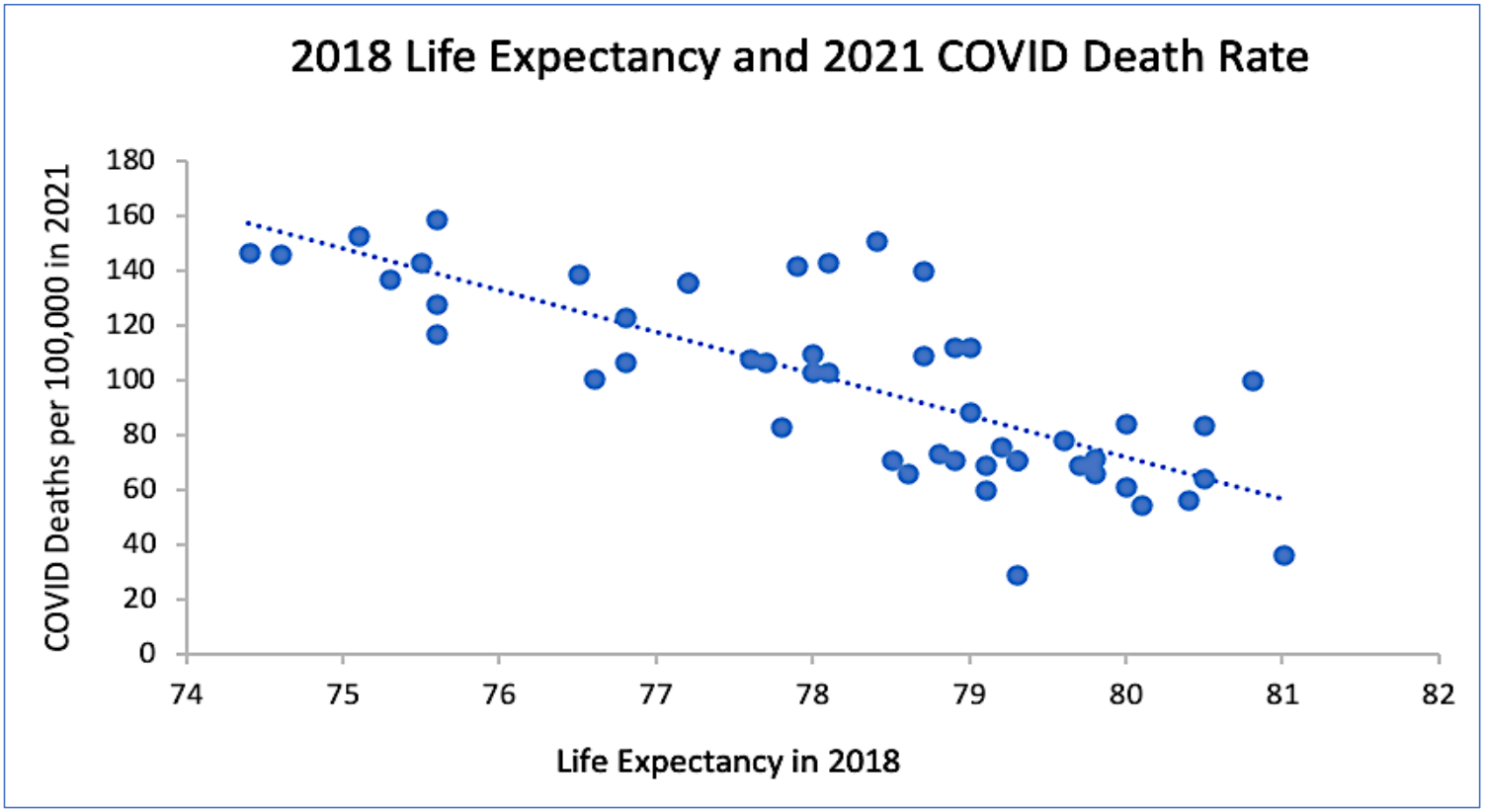


r = -0.84
(Pearson)

X-axis data from the United Health Foundation: https://assets.americashealthrankings.org/app/uploads/2018ahrannual_020419.pdf

Y-axis data from the CDC: https://www.cdc.gov/nchs/pressroom/sosmap/covid19_mortality_final/COVID19.htm

Reporting of COVID-19 deaths are also inversely correlated with life expectancy.



r = -0.77
(Pearson)

X-axis data from the CDC: https://www.cdc.gov/nchs/pressroom/sosmap/life_expectancy/life_expectancy.htm

Y-axis data from the CDC: https://www.cdc.gov/nchs/pressroom/sosmap/covid19_mortality_final/COVID19.htm

Did CARES funding adversely affect the reporting of COVID deaths per state?

Financial Management

State-by-state breakdown of federal aid per COVID-19 case

Ayla Ellison - Tuesday, April 14th, 2020

Nebraska $379,000	**South Carolina** $186,000
Nevada $98,000	**South Dakota** $241,000
New Hampshire $201,000	**Tennessee** $166,000
New Jersey $18,000	**Texas** $184,000
New Mexico $171,000	**Utah** $94,000
New York $12,000	**Vermont** $87,000
North Carolina $252,000	**Virginia** $201,000
North Dakota $339,000	**Washington** $58,000
Ohio $180,000	**West Virginia** $471,000
Oklahoma $291,000	**Wisconsin** $163,000
Oregon $220,000	**Wyoming** $278,000

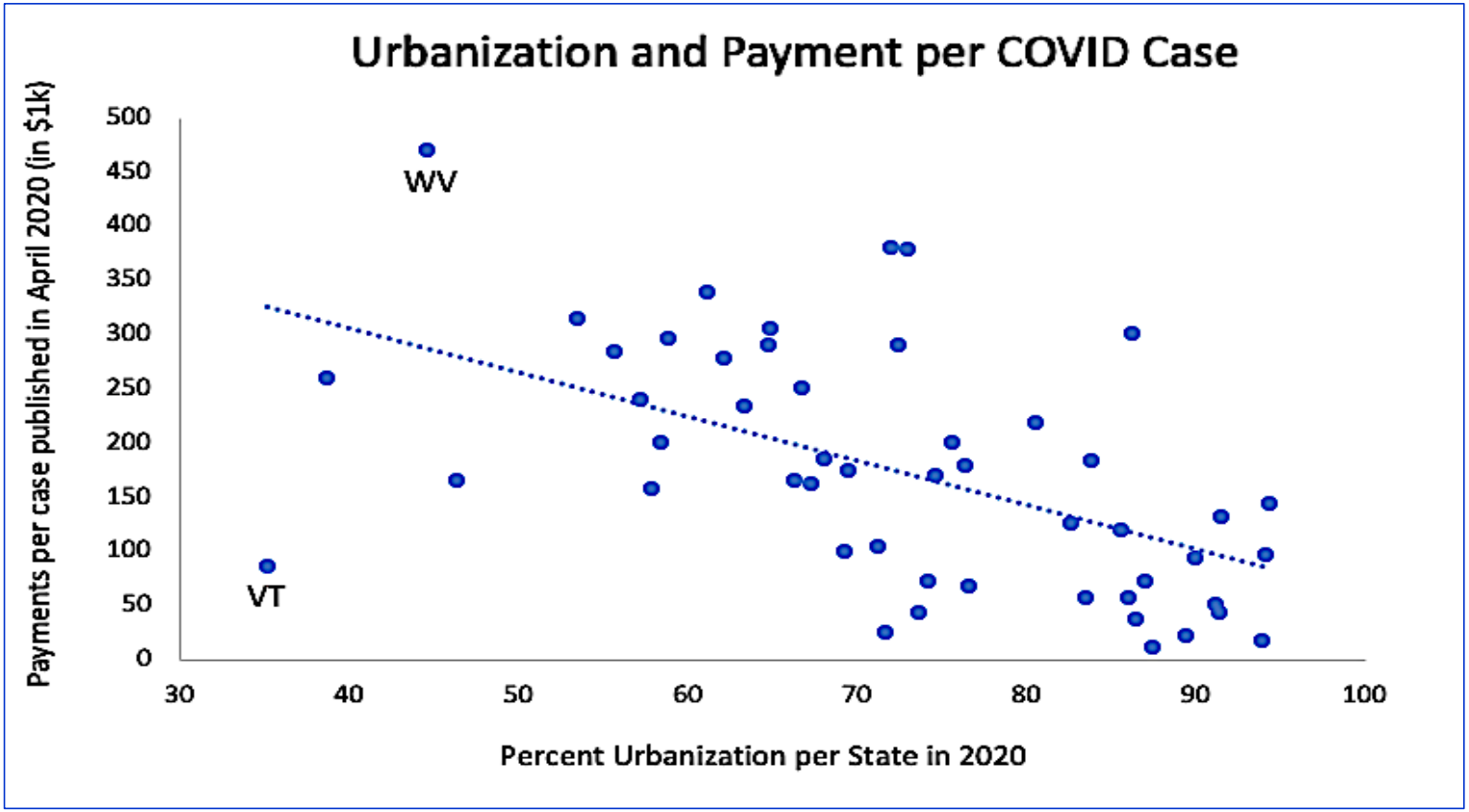
Why did states like Nebraska and West Virginia get 20X more funding per patient than New York and New Jersey?

The first round of grants will be distributed based on historical share Medicare revenue, not based on COVID-19 burden. Therefore, hard-hit states like New York will receive far less per COVID-19 case than most other states.

HHS said it doled out the first slice of funding based on Medicare revenue to get support to hospitals as quickly as possible. The agency said the next round of grants "will focus on providers in areas particularly impacted by the COVID-19 outbreak," rural hospitals and other healthcare providers that receive much of their revenues from Medicaid.

Data from Becker's Hospital Review: https://www.beckershospitalreview.com/finance/state-by-state-breakdown-of-federal-aid-per-covid-19-case.html

States that were more urbanized often received lower payments.

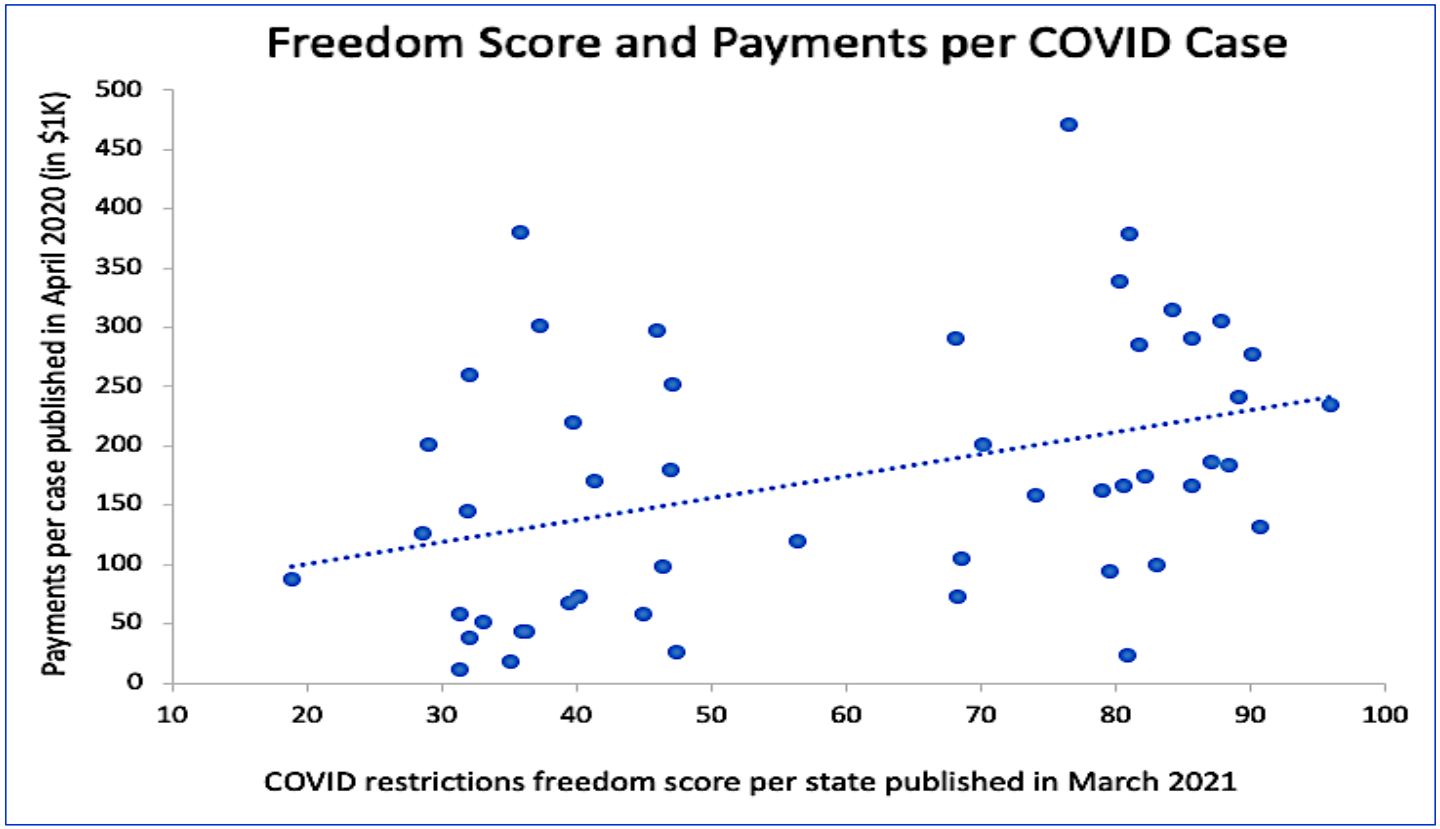


r = -0.54
(Pearson)

X-axis data from the Visual Capitalist: https://www.visualcapitalist.com/sp/mapping-us-urbanization-by-state/

Y-axis data from Becker's Hospital Review: https://www.beckershospitalreview.com/finance/state-by-state-breakdown-of-federal-aid-per-covid-19-case.html

States with less coronavirus restrictions often received higher payments.



r = 0.39
P < 0.01
(Pearson)

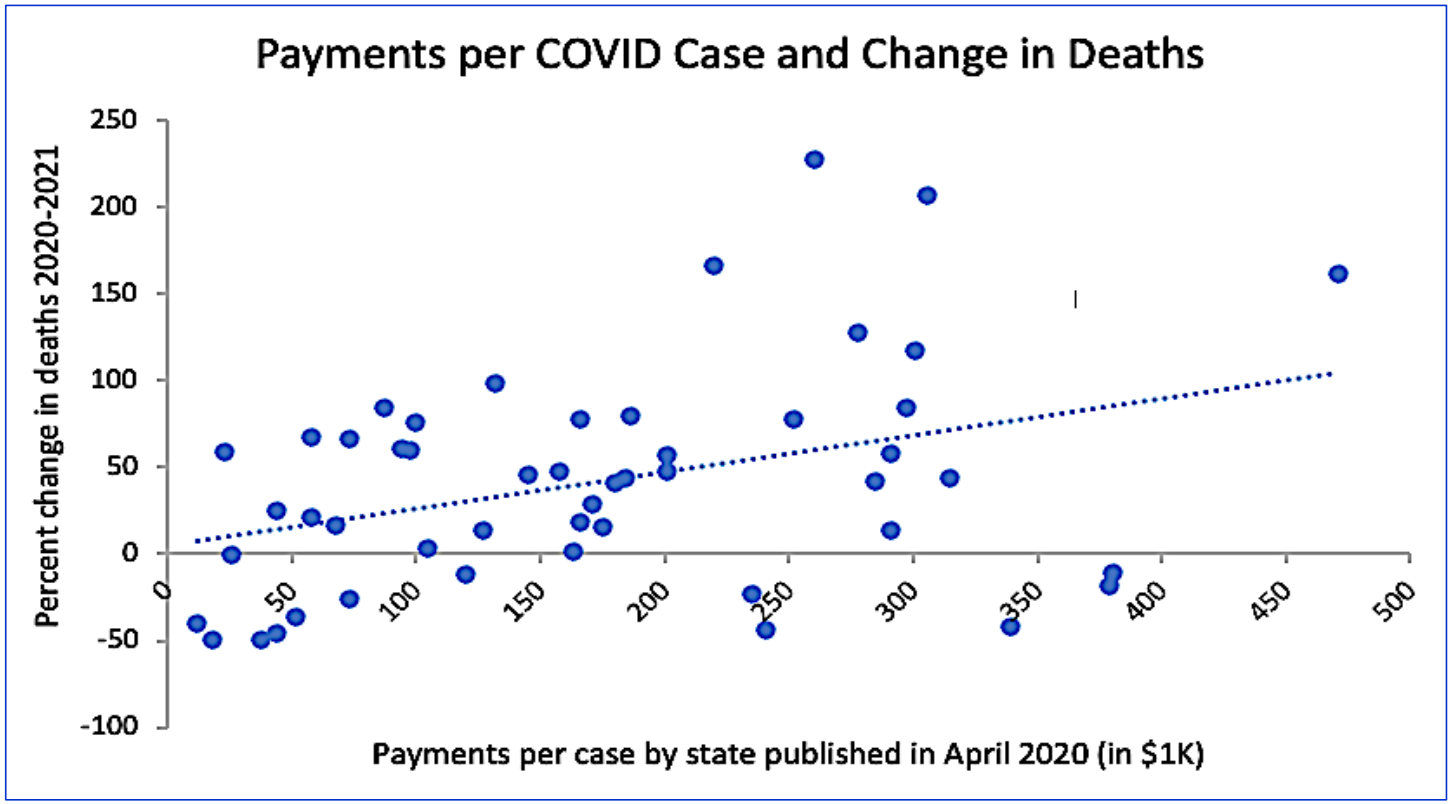
r = 0.41
P < 0.005
(Spearman)

X-axis data from WalletHub: https://wallethub.com/edu/states-coronavirus-restrictions/73818

Y-axis data from Becker's Hospital Review: https://www.beckershospitalreview.com/finance/state-by-state-breakdown-of-federal-aid-per-covid-19-case.html

Did these higher CARES payments influence how some states reported COVID deaths in 2021?

If many of these deaths were not caused by COVID-19, how were these numbers generated?



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r = 0.32
P < 0.05
(Spearman)

X-axis data from Becker's Hospital Review: https://www.beckershospitalreview.com/finance/state-by-state-breakdown-of-federal-aid-per-covid-19-case.html

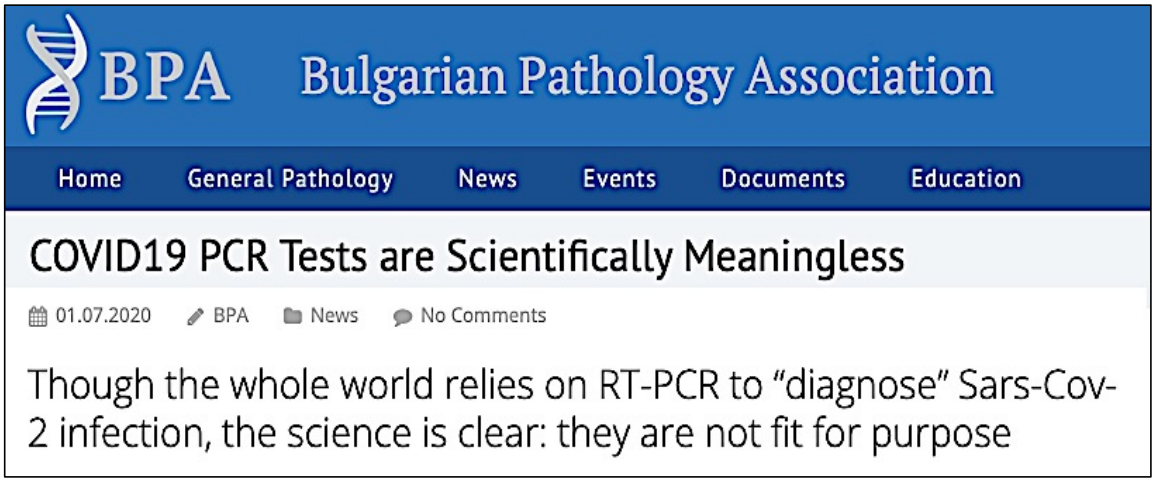
Y-axis data from the CDC: https://www.cdc.gov/nchs/pressroom/sosmap/covid19_mortality_final/COVID19.htm

How reliable were the COVID tests?

If PCR testing often generates false positives, what are the odds a hospital patient will be misdiagnosed after getting tested multiple times?

Did high CARES payments incentivize hospitals and clinics to test more frequently?

From the Internet Archive: https://archive.org/details/kary-mullis-with-pcr-you-can-find-almost-anything-in-anybody



From the Bulgarian Pathology Association: https://bpa-pathology.com/covid19-pcr-tests-are-scientifically-meaningless/

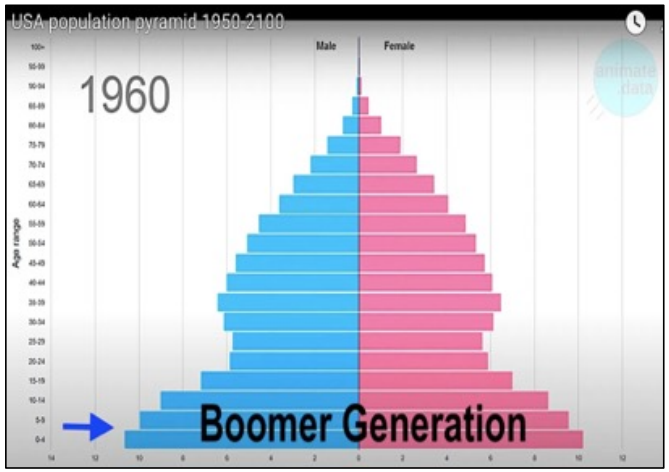
Could some “COVID” deaths be attributed to this anticipated rise in all-cause mortality*?

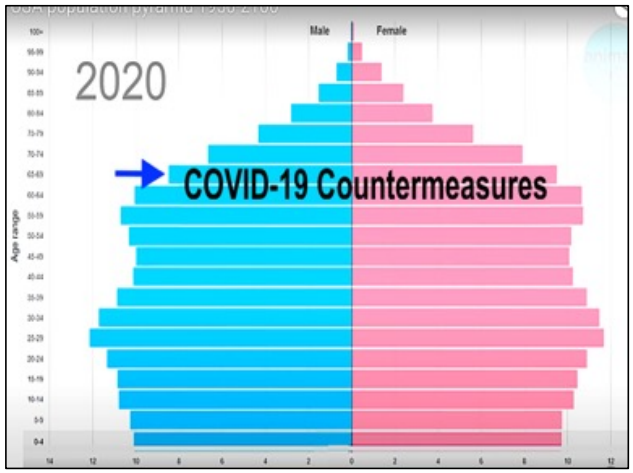
The term “boomer” refers to Americans born during the “baby boom” that happened after the end of World War II (1946 to 1964).

The budget surplus of 1998-2001 was largely driven by a critical mass of working Americans contributing record amounts of tax revenue during the 1980’s and 1990’s. This is when boomers were in their prime.

In 2020, boomers were between ages 56 and 76. This is when many of them started to die off.

*Hat Tip: Jonathan Couey of Gigaohm Biological https://gigaohmbiological.com/

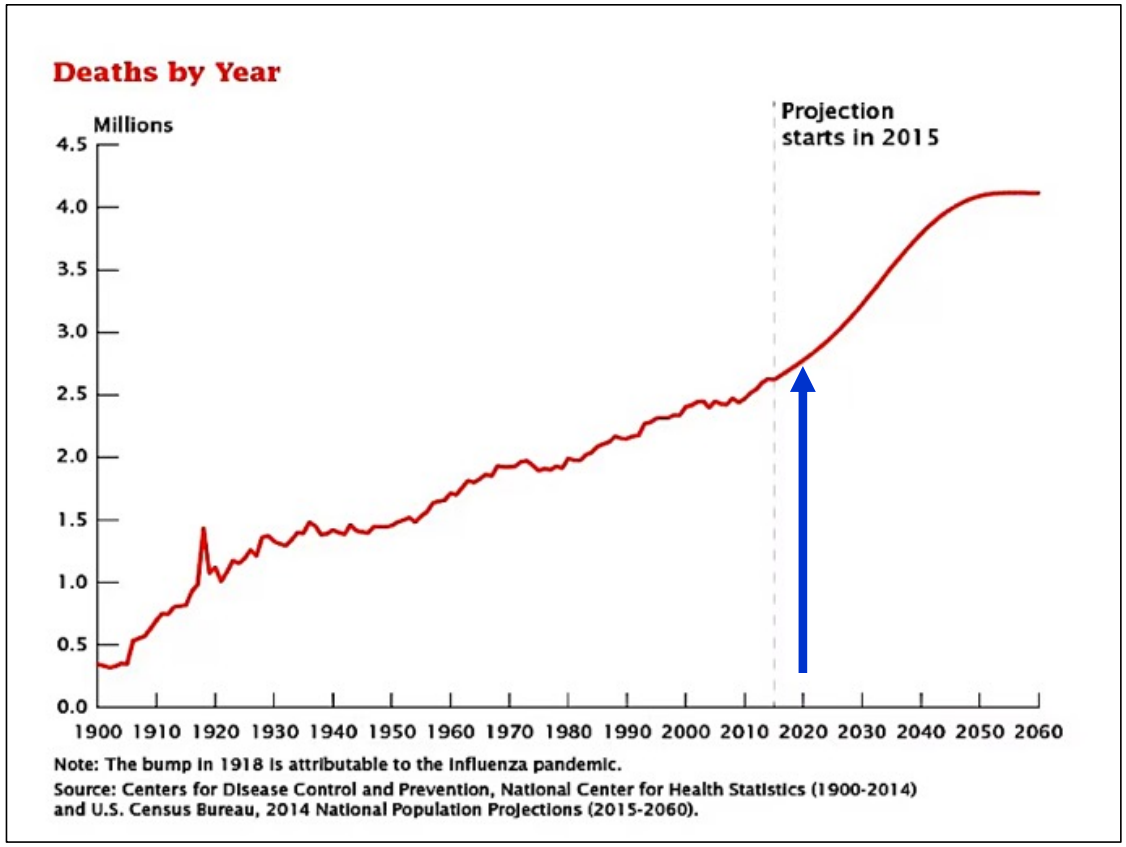




Video stills from AnimateData: https://www.youtube.com/@AnimateData

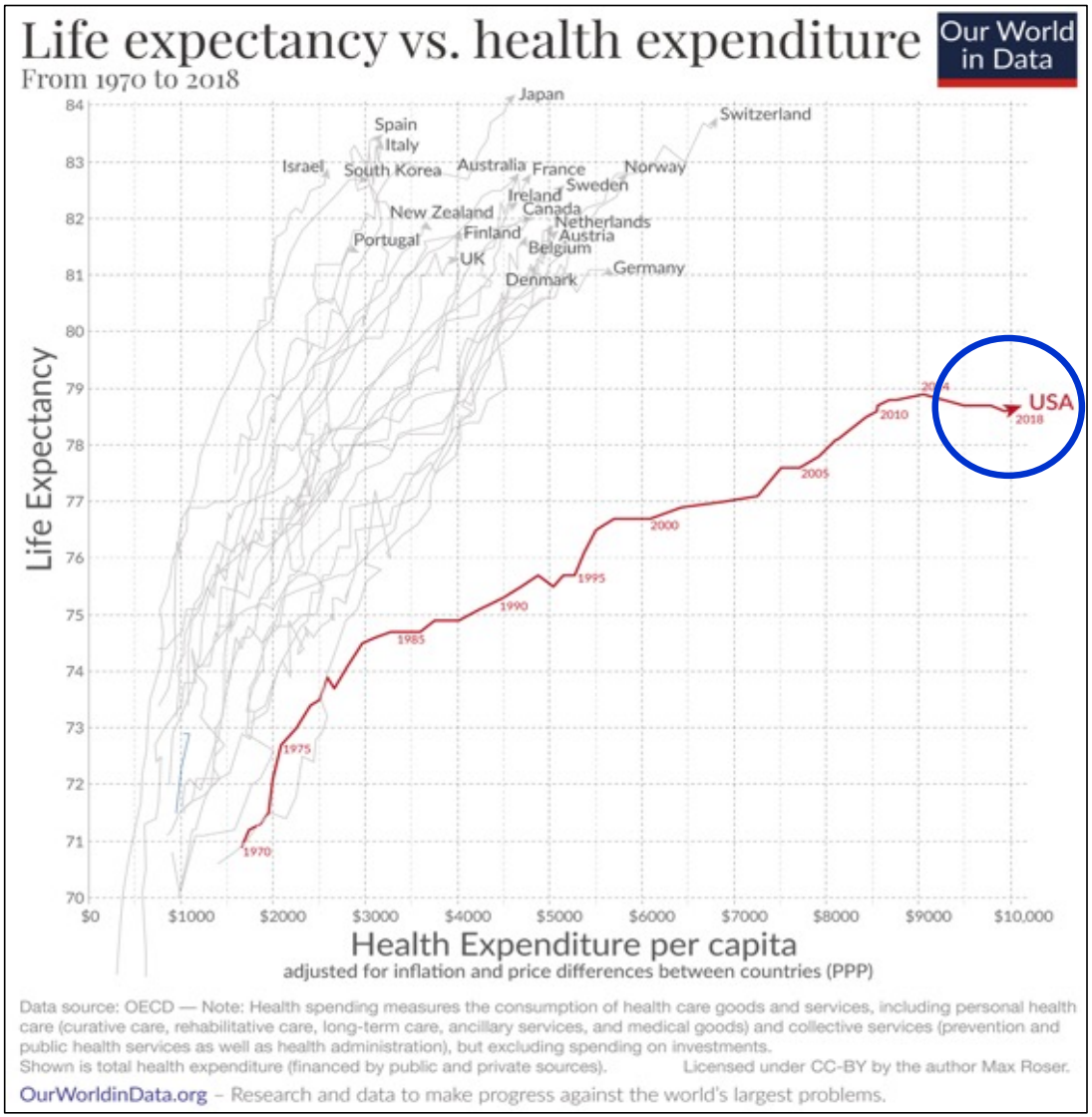
This article from the US Census Bureau predicted a steep rise in the death rate after 2015.

The inflection point begins near 2020; the same year a pandemic was declared in the US.



As Population Ages, U.S. Nears Historic Increase in Deaths

Downloaded from the US Census: https://www.census.gov/library/stories/2017/10/aging-boomers-deaths.html

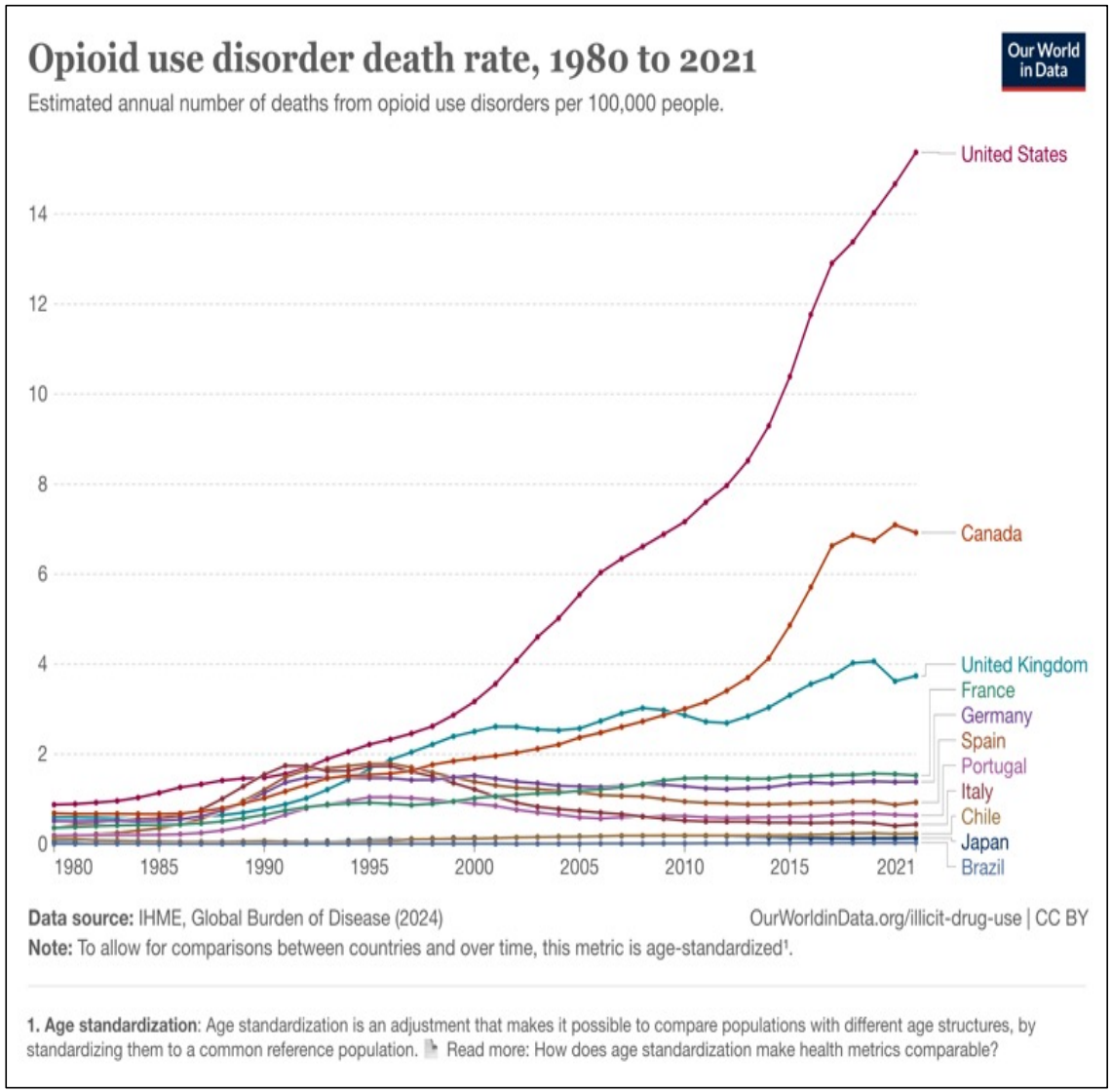


Could some "COVID" deaths be attributed to the recent decline in US life expectancy?*

Why did life US life expectancy decline in 2016 *and* 2018!?

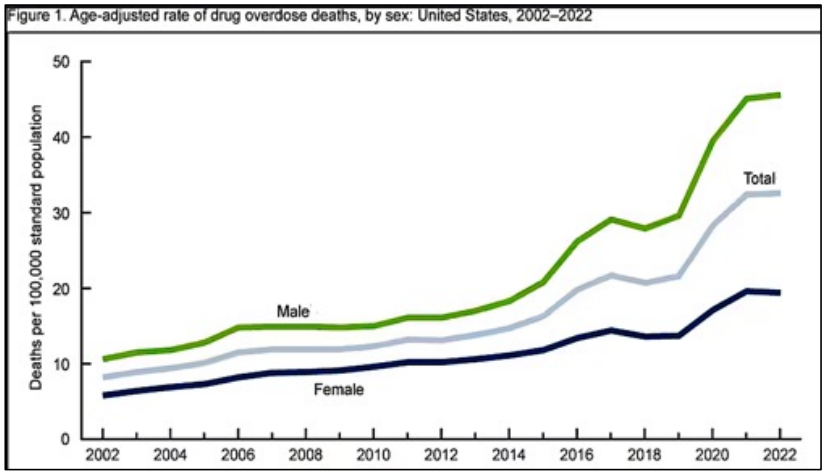
*Hat Tip: Mark Kulacz of Housatonic
https://rumble.com/user/Housatonic

Max Roser (2020) - "Why is life expectancy in the US lower than in other rich countries?" Published online at OurWorldinData.org. Retrieved from: https://ourworldindata.org/us-life-expectancy-low



Could some "COVID" deaths be attributed to opioids?*

Why did overdose deaths spike in 2020?

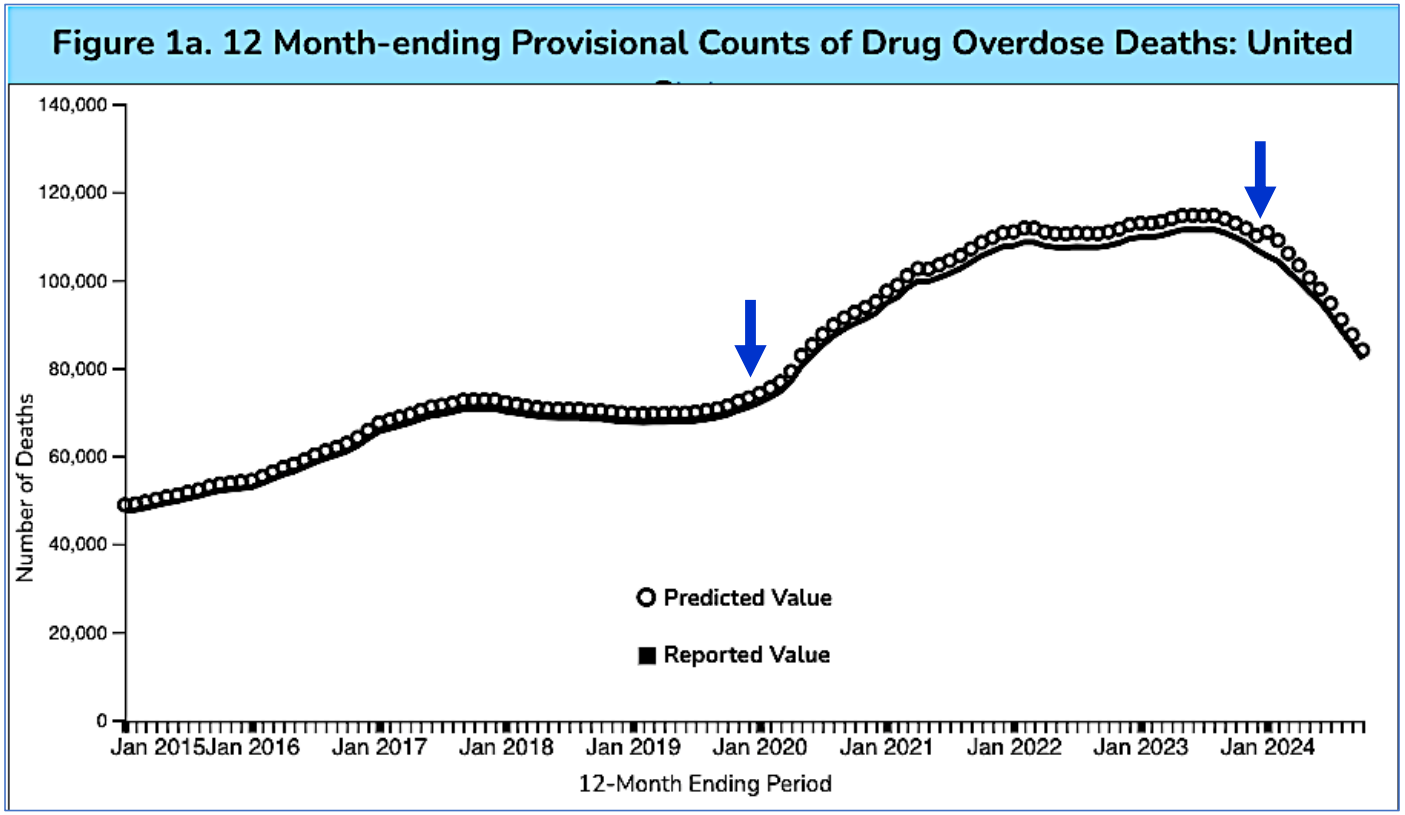


https://www.cdc.gov/nchs/products/databriefs/db491.htm

*Hat Tip: Mark Kulacz of Housatonic
https://rumble.com/user/Housatonic

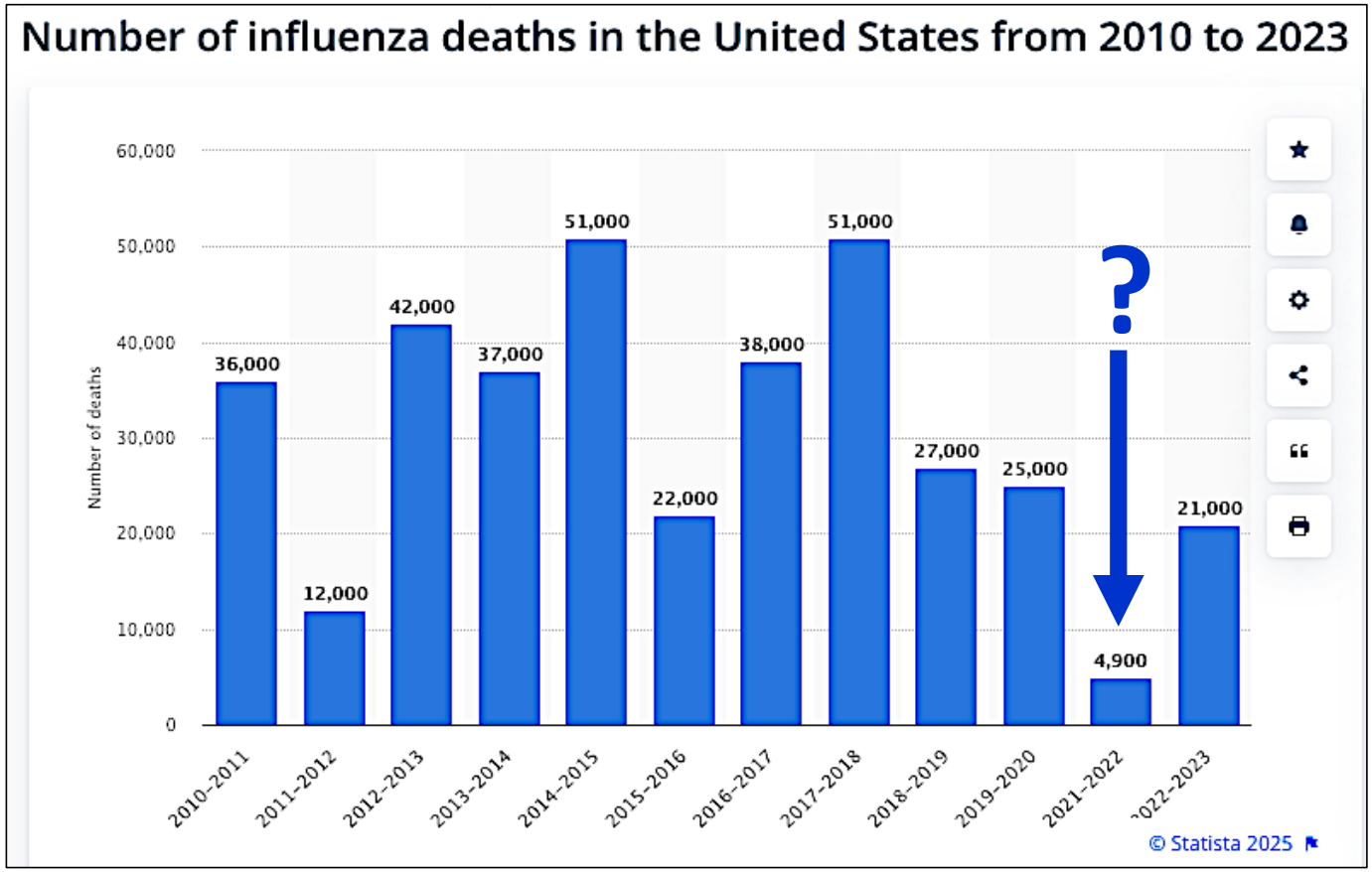
Max Roser (2020) - "Why is life expectancy in the US lower than in other rich countries?" Published online at OurWorldinData.org. Retrieved from: https://ourworldindata.org/us-life-expectancy-low

This interactive chart from the CDC indicates that about 416,000 Americans died from drug overdoses from January of 2020 to January of 2024.



Data downloaded from the CDC: https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm

Could some “COVID” deaths be attributed to underreporting of the seasonal flu?



Data downloaded from Statista: https://www.statista.com/statistics/1124915/flu-deaths-number-us/

Did pandemic countermeasures make things worse?

The **Prep Act** of 2020 provided liability protection to health workers and manufacturers from all procedures and products designated as "pandemic countermeasures."
https://www.federalregister.gov/documents/2020/03/17/2020-05484/declaration-under-the-public-readiness-and-emergency-preparedness-act-for-medical-countermeasures

Did the Prep Act liability protections and CARES Act funding incentivize US hospitals to prioritize novel countermeasures over patient needs?

Did novel recommendations like widespread intubation/ventilation, remdesivir (US), midazolam (UK), high-flow oxygen,* and the withholding of antibiotics do more harm than good?

Key Bridge Collapse in Baltimore (3/26/24)

Hanlon's razor: Never attribute to malice that which can be adequately explained by incompetence or stupidity.

*Hat Tip: Mark Kulacz of Housatonic https://rumble.com/user/Housatonic

Widespread intubation/ventilation was "not for the patients' benefit" but to "control the epidemic."

Hospitals Retreat From Early Covid Treatment and Return to Basics; Changing practices, based on data and experience, appear to be improving outcomes for the sickest coronavirus patients

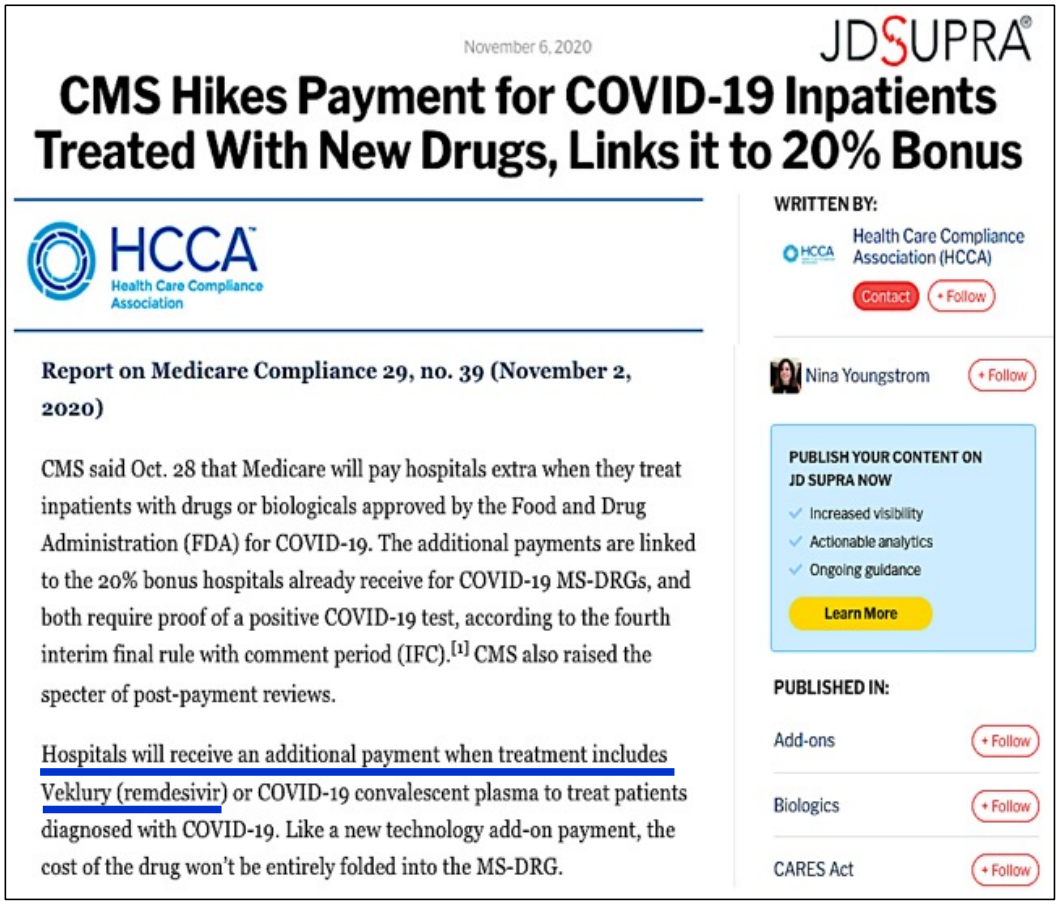
Evans, Melanie. *Wall Street Journal (Online)* Dow Jones & Company Inc. Dec 20, 2020.

Last spring, doctors put patients on ventilators partly to limit contagion at a time when it was less clear how the virus spread, when protective masks and gowns were in short supply. Doctors could have employed other kinds of breathing support devices that don't require risky sedation, but early reports suggested patients using them could spray dangerous amounts of virus into the air, said Theodore Iwashyna, a critical-care physician at University of Michigan and Department of Veterans Affairs hospitals in Ann Arbor, Mich.

At the time, he said, doctors and nurses feared the virus would spread through hospitals. "We were intubating sick patients very early. Not for the patients' benefit, but in order to control the epidemic and to save other patients," Dr. Iwashyna said "That felt awful."

Ventilators can injure lungs by causing too much strain as the machines force in air. They deliver air and oxygen through a throat tube, which the body typically fights. "We've got gag reflexes that are pretty hard to go away, precisely to avoid things going into our lungs," Dr. Iwashyna said.

Bonuses were given for remdesivir despite its questionable efficacy and problematic safety record.



November 6, 2020

JDSUPRA

CMS Hikes Payment for COVID-19 Inpatients Treated With New Drugs, Links it to 20% Bonus

HCCA Health Care Compliance Association

Report on Medicare Compliance 29, no. 39 (November 2, 2020)

CMS said Oct. 28 that Medicare will pay hospitals extra when they treat inpatients with drugs or biologicals approved by the Food and Drug Administration (FDA) for COVID-19. The additional payments are linked to the 20% bonus hospitals already receive for COVID-19 MS-DRGs, and both require proof of a positive COVID-19 test, according to the fourth interim final rule with comment period (IFC).[1] CMS also raised the specter of post-payment reviews.

Hospitals will receive an additional payment when treatment includes Veklury (remdesivir) or COVID-19 convalescent plasma to treat patients diagnosed with COVID-19. Like a new technology add-on payment, the cost of the drug won't be entirely folded into the MS-DRG.

WRITTEN BY:

Health Care Compliance Association (HCCA)

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Posted in JD Supra: https://www.jdsupra.com/legalnews/cms-hikes-payment-for-covid-19-19452/

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The Strange Story Of Remdesivir, A Covid Drug That Doesn't Work

By JV Chamary, Former Contributor. Journalist and science communicator

Jan 31, 2021, 06:59pm EST

From Forbes: https://www.forbes.com/sites/jvchamary/2021/01/31/remdesivir-covid-coronavirus/

> Clin Pharmacol Ther. 2021 Apr;109(4):1021-1024. doi: 10.1002/cpt.2145. Epub 2021 Jan 16.

Remdesivir and Acute Renal Failure: A Potential Safety Signal From Disproportionality Analysis of the WHO Safety Database

PubMed

Alexandre O Gérard [1,2], Audrey Laurain [1], Audrey Fresse [2], Nadège Parassol [2], Marine Muzzone [2], Fanny Rocher [2], Vincent L M Esnault [1], Milou-Daniel Drici [2]

From Clinical Pharmacology & Therapeutics: https://pubmed.ncbi.nlm.nih.gov/33340409/

High-flow oxygen therapy may have also irreversibly damaged the lungs of some COVID patients.

LETTER TO THE EDITOR Vol. 46. Issue 6. pages 353 (June 2022)

Pulmonary toxicity by oxygen and COVID-19

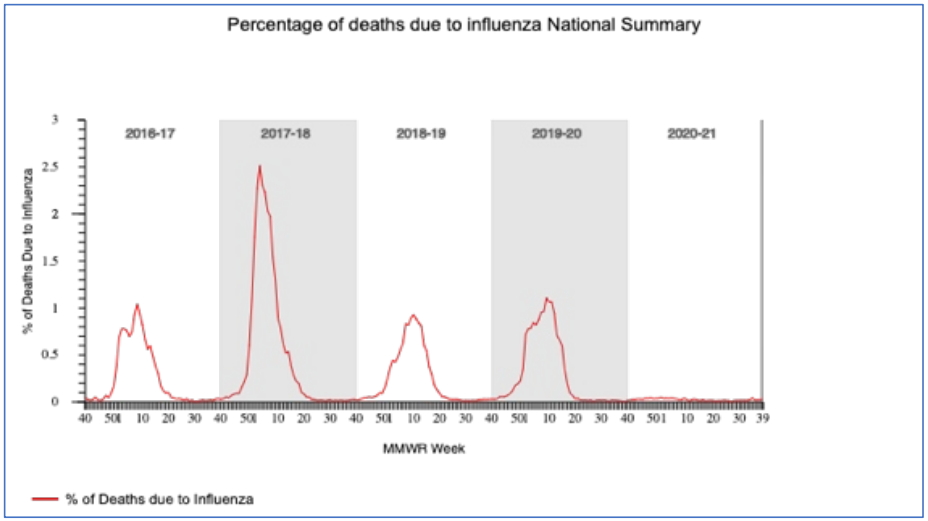
medicina intensiva

A. León-Jiménez, E. Vázquez-Gandullo, F. Montoro-Ballesteros

Unidad de Gestión Clínica de Neumología, Alergología y Cirugía Torácica, Servicio de Neumología, Hospital Universitario Puerta del Mar, Cádiz, Spain

The appearance of COVID19 has challenged respiratory support, and the need for applying elevated fractions of inspired oxygen has been a constant in many patients whether through high-flow nasal oxygen (HFNO) therapy or concomitantly to ventilation systems. However, the high mortality rates reported in cases of ARDS—an average of 39%—is indicative that, at least in some cases, the application of elevated concentrations of oxygen is worsening or triggering COVID-19[3]-related ARDS-like lesions. It could even cause a vicious circle that would create the need to increase the concentration of oxygen gradually in the air breathed in thus causing greater pulmonary impairment.

From Medicina Intensiva: https://www.medintensiva.org/en-pulmonary-toxicity-by-oxygen-covid-19-articulo-S2173572722000777

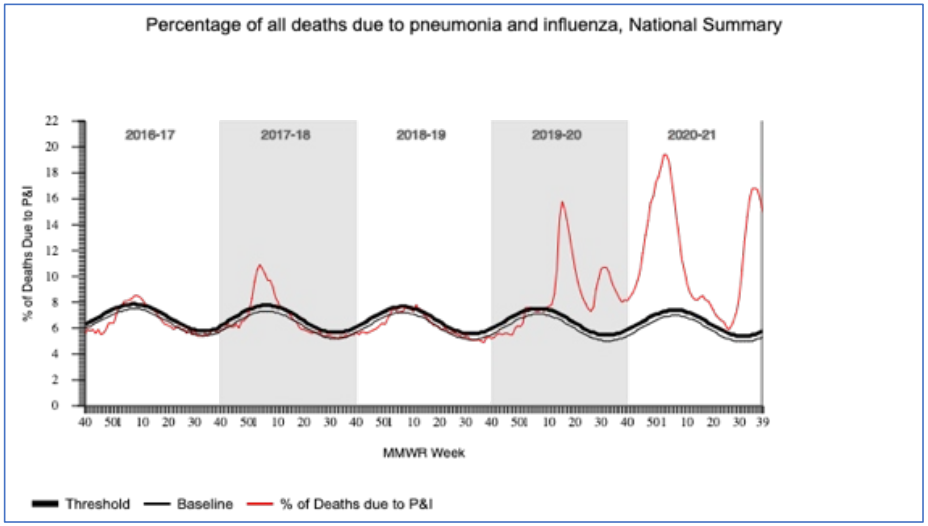


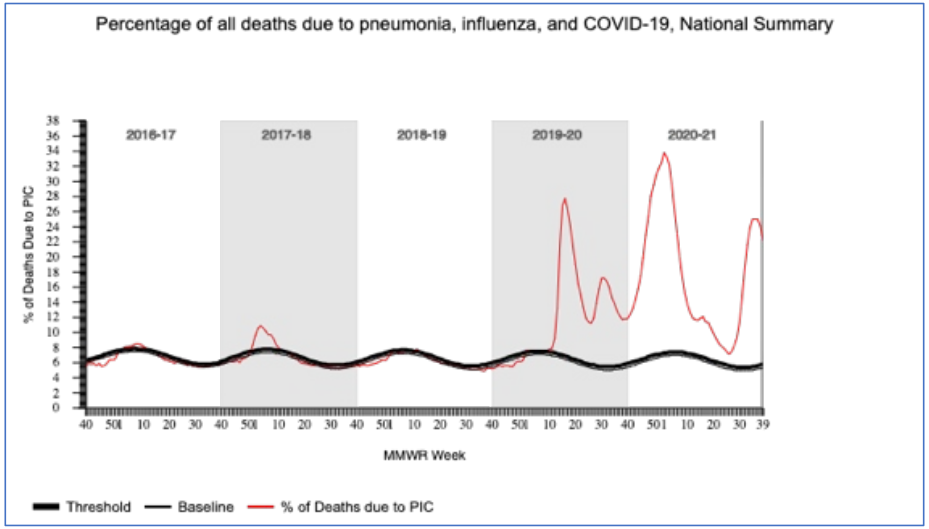
Why did influenza deaths "disappear" 2020-2021?

Why did pneumonia deaths spike 2020-2021?

Why does this coincide with COVID deaths?*

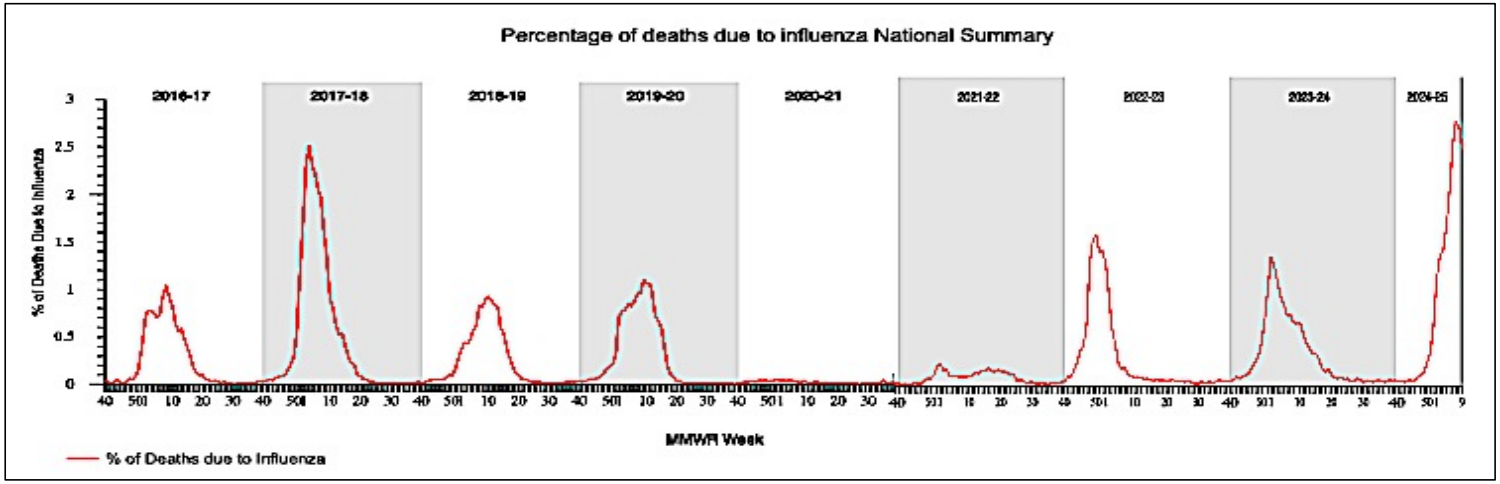
*Hat Tip: Jonathan Couey of Gigaohm Biological https://gigaohmbiological.com/

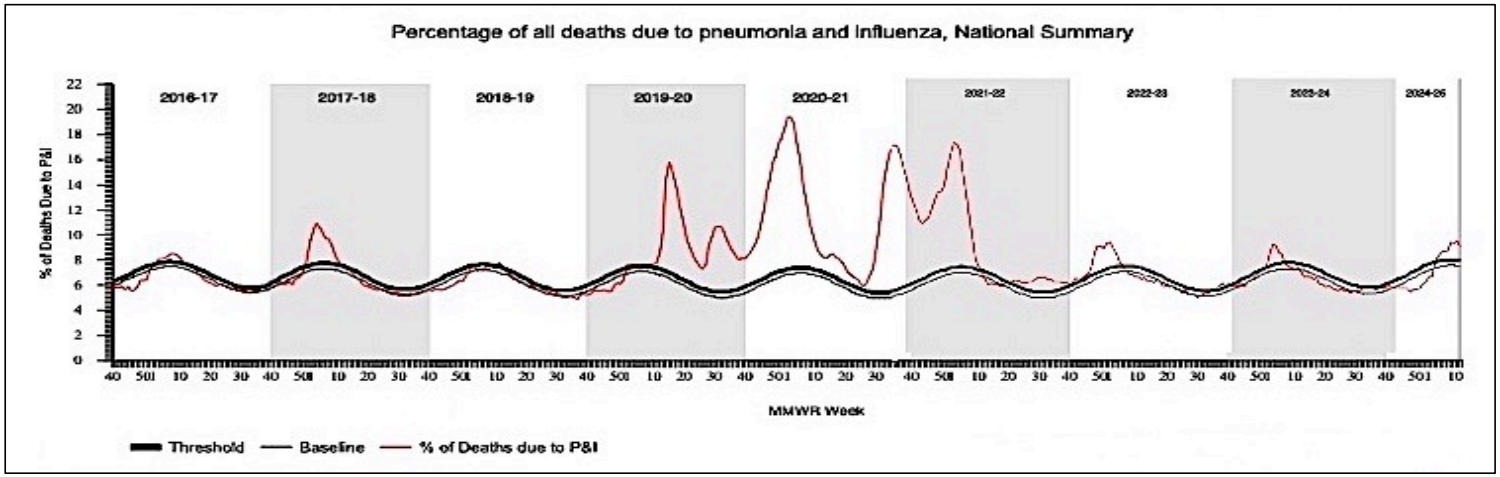




Downloaded from the CDC: https://gis.cdc.gov/grasp/fluview/mortality.html

Why did influenza and pneumonia mortality return to pre-pandemic levels after 2022?





Downloaded from the CDC: https://gis.cdc.gov/grasp/fluview/mortality.html

Did government recommendations discourage health workers from detecting and treating cases of bacterial pneumonia caused by prolonged exposure to high flow oxygen?

…high flow oxygen from mechanical ventilation promotes the growth of microbes (such as *Staphylococcus aureus*) in the lungs which can result in pneumonia and abscess. From First Post: https://www.firstpost.com/health/covid-19-complications-high-oxygen-flow-from-ventilators-changes-microbiota-makes-lungs-vulnerable-to-damage-8723411.html

From the CDC: https://www.cdc.gov/antimicrobial-resistance/data-research/threats/COVID-19.html

How many cases of pneumonia-related septic shock were mislabeled as a “cytokine storm”?

What really killed COVID-19 patients: It wasn't a cytokine storm, suggests study

by Northwestern University MAY 4, 2023

Medical Xpress

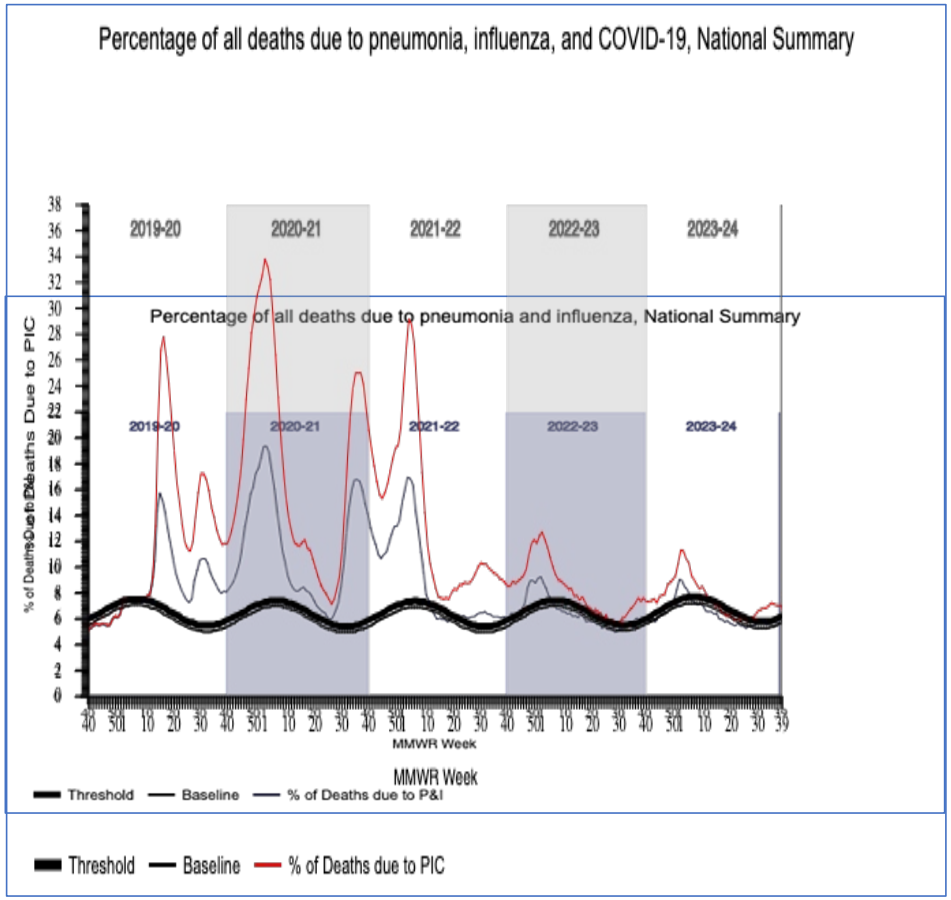
Credit: Unsplash/CC0 Public Domain

…The investigators found **nearly half of patients with COVID-19 develop a secondary ventilator-associated bacterial pneumonia**…Those who were cured of their secondary pneumonia were likely to live, while those whose pneumonia did not resolve were more likely to die…**The study findings also negate the cytokine storm theory**…

Downloaded from: https://medicalxpress.com/news/2023-05-covid-patients-wasnt-cytokine-storm.html

How many of these “COVID” deaths are the consequences of untreated bacterial pneumonia?

How many of these deaths could have been prevented by treatment with antibiotics?



Downloaded from the CDC: https://gis.cdc.gov/grasp/fluview/mortality.html

These articles report massive declines in antibiotic prescriptions in the US during the spring of 2020.

Open Forum Infect Dis. 2023 Feb 22;10(3):ofad096. doi: 10.1093/ofid/ofad096

COVID-19 and Outpatient Antibiotic Prescriptions in the United States: A County-Level Analysis

Alisa Hamilton [1,✉], Suprena Poleon [2], Jerald Cherian [3], Sara Cosgrove [4], Ramanan Laxminarayan [5,6,7], Eili Klein [8,9,✉,2]

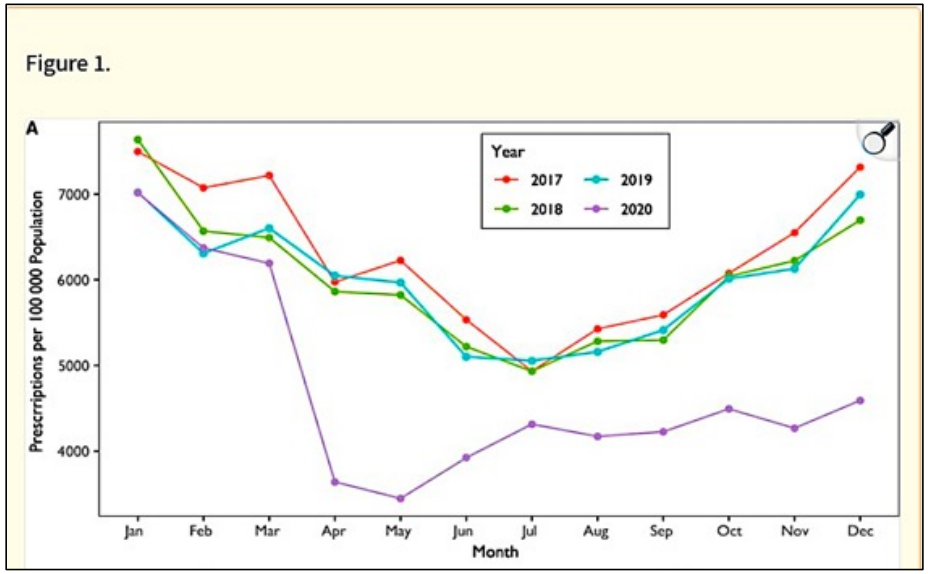
PMCID: PMC10026546 PMID: 36949878

Trends in US Outpatient Antibiotic Prescriptions During the Coronavirus Disease 2019 Pandemic FREE

Laura M King ✉, Maribeth C Lovegrove, Nadine Shehab, Sharon Tsay, Daniel S Budnitz, Andrew I Geller, Jennifer N Lind, Rebecca M Roberts, Lauri A Hicks, Sarah Kabbani

Clinical Infectious Diseases, Volume 73, Issue 3, 1 August 2021, Pages e652–e660, https://doi.org/10.1093/cid/ciaa1896

Published: 29 December 2020 **Article history** ▾



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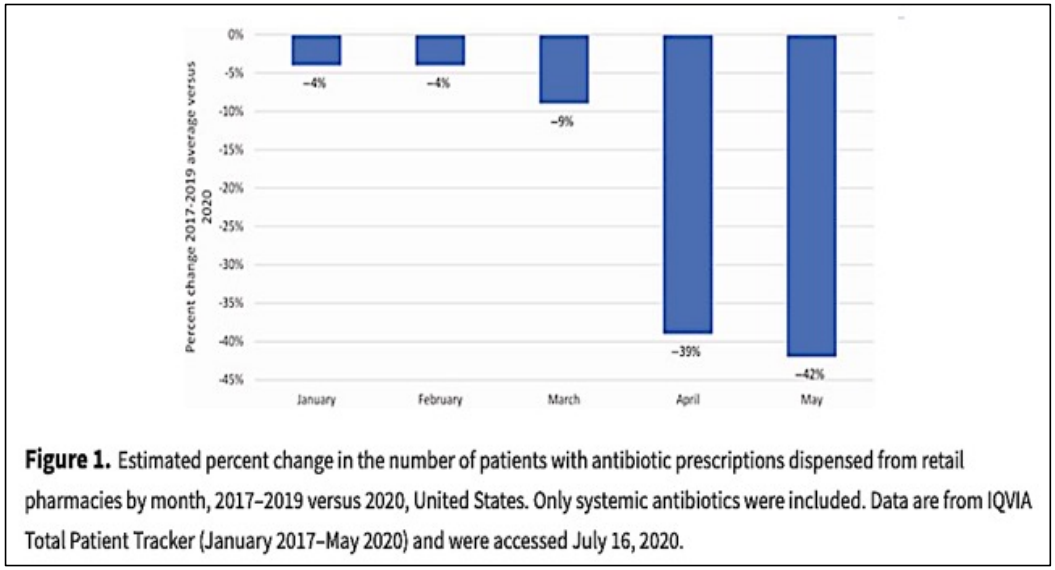


Figure 1. Estimated percent change in the number of patients with antibiotic prescriptions dispensed from retail pharmacies by month, 2017–2019 versus 2020, United States. Only systemic antibiotics were included. Data are from IQVIA Total Patient Tracker (January 2017–May 2020) and were accessed July 16, 2020.

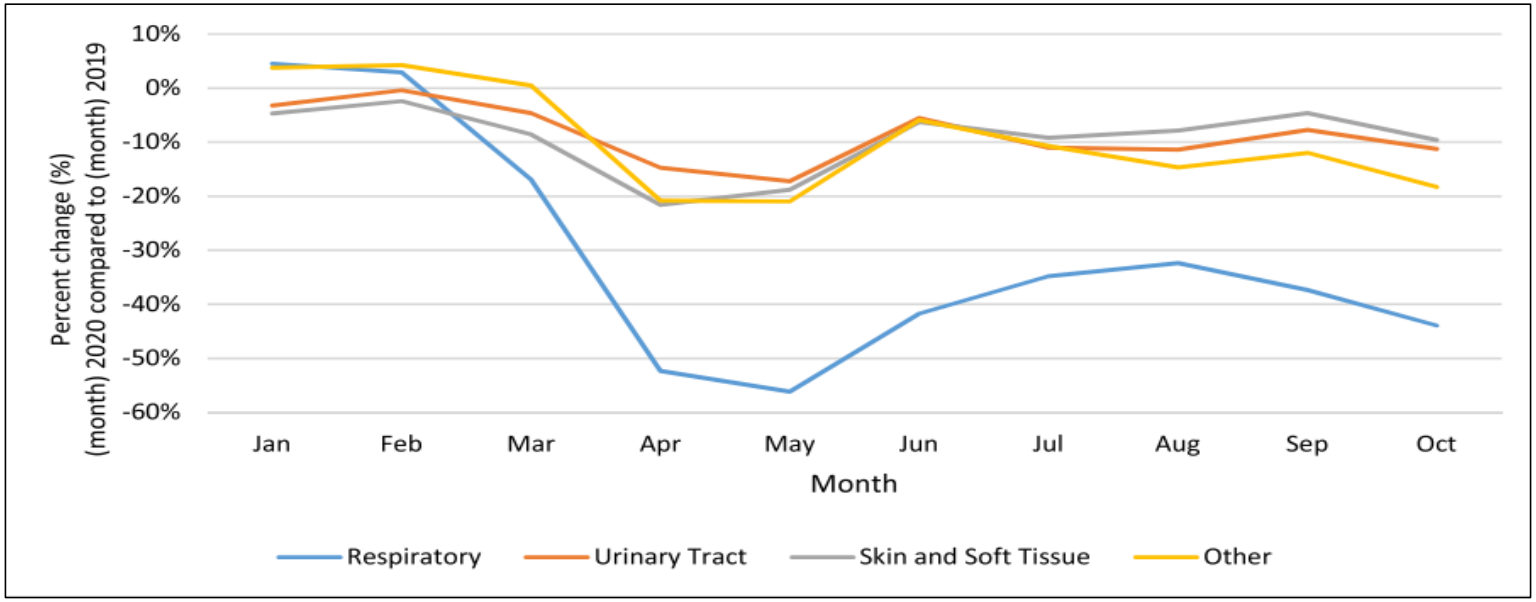
Downloaded from : https://academic.oup.com/cid/article/73/3/e652/6054971

This chart from Canada shows the steepest decline for treatment of respiratory infections.

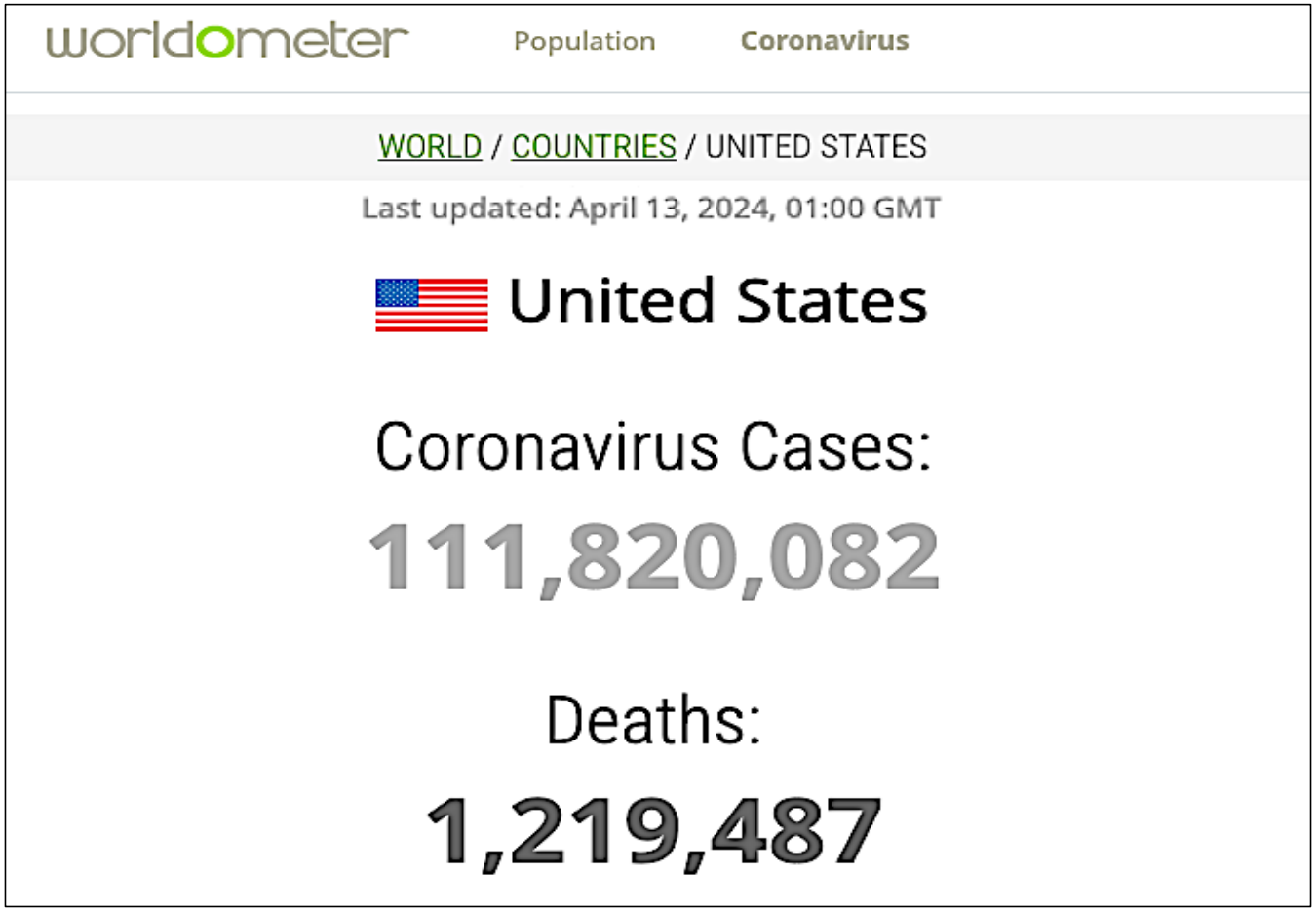
The impact of COVID-19 on community antibiotic use in Canada: an ecological study

Clinical Microbiology and Infection 28 (2022) 426–432

Braden D. Knight [1,*], Jayson Shurgold [1], Glenys Smith [1], Derek R. MacFadden [2], Kevin L. Schwartz [3,4], Nick Daneman [3,5], Denise Gravel Tropper [1], James Brooks [1]



Will we ever learn the true number of Americans that died of COVID-19?



From the Worldometer: https://www.worldometers.info/coronavirus/country/US/

According to the CDC, *only 6%* of "COVID deaths" listed COVID-19 as the sole cause.

Provisional Death Counts for Coronavirus Disease 2019 (COVID-19)

Contents

Updated: August 19, 2020

Comorbidities

Table 3 shows the types of health conditions and contributing causes mentioned in conjunction with deaths involving coronavirus disease 2019 (COVID-19). For 6% of the deaths, COVID-19 was the only cause mentioned. For deaths with conditions or causes in addition to COVID-19, on average, there were 2.6 additional conditions or causes per death. The number of deaths with each condition or cause is shown for all deaths and by age groups.

From the CDC: https://web.archive.org/web/20200817174827/https://www.cdc.gov/nchs/nvss/vsrr/covid_weekly/index.htm

Good day,

Thank you for your query. Pneumonia deaths increased in 2020 through 2022 because pneumonia was a contributing cause of death in many COVID-19 deaths.

Regards,

National Center for Health Statistics (NCHS)
Centers for Disease Control and Prevention (CDC)
https://www.cdc.gov/nchs/

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Generating Current with a Car Fan

Special thanks to Jonathan Couey (Gigaohm Biological) & Mark Kulacz (Housatonic) for their insight on the countermeasures and alternate causes of death:

https://gigaohmbiological.com/

https://rumble.com/user/Housatonic