



## **Fox News guests use questionable lockdown study to launch misleading attacks on masks, vaccines**

Conservatives think a study casting doubt on lockdowns proves they're right about vaccines and masks. It doesn't

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Fox News segments on Wednesday repeatedly conflated a new study that questions the effectiveness of pandemic lockdowns with the controversies over vaccines and mask mandates, essentially to claim that all public health measures are ineffective. Yet many scientists across the globe have rushed to speak out against the paper, pointing out its flaws — something that Fox News did not address in its constant coverage of the study.

The network repeatedly highlighted a non-peer-reviewed study published online by a group of economists at [Johns Hopkins University](#) that claimed lockdowns had little effect in reducing COVID deaths. Fox News then trotted out various conservative pundits with no expertise in public health who equated lockdowns — a blunt instrument largely intended to prevent hospitals from being overrun in the early days of the pandemic — with public health measures that have been shown to work at reducing transmission and preventing severe disease and death.

The paper in question was [a meta-analysis](#) concluding that lockdowns had reduced COVID-19 deaths by just 0.2%, while shelter-in-place orders reduced deaths by 2.9% on average. In the study, a "lockdown" is defined as a government mandate that directly restricts peoples' movement — for example, by closing schools and businesses, and banning most non-essential travel.

"While this meta-analysis concludes that lockdowns have had little to no public health effects, they have imposed enormous economic and social costs where they have been adopted," the researchers concluded. "In consequence, lockdown policies are ill-founded and should be rejected as a pandemic policy instrument."

Notably, the researchers said that closing non-essential businesses did appear to have reduced COVID-19 deaths by 10.6%. Researchers suspect that was likely related to the closure of bars.

The study was published in a publication called Studies in Applied Economics, which is not a peer-reviewed journal and describes itself as a "series of working papers" published on the website of the Institute for Applied Economics, Global Health, and the Study of Business Enterprise at Johns Hopkins, jointly run by the Krieger School of Arts and Sciences and the Whiting School of Engineering. The institute was co-founded by one of the authors of the paper, Steve H. Hanke, who is also a fellow at the libertarian Cato Institute. Many of the working papers in the online site for Studies in Applied Economics are written or coauthored by Hopkins undergraduates, and most are written by individuals with a background in economics, not public health.

The paper was not peer-reviewed, and according to the website, the papers are published in a series that "fills gaps in the history, statistics, and scholarship on a variety of subjects." The authors are fellows and students at Hopkins University. There is an entirely different peer-reviewed journal called Studies of Applied Economics, and the similar names could easily lead to confusion.

On Wednesday, scientists in the United Kingdom released statements pointing out flaws in the study.

Professor Neil Ferguson, Director of the MRC Centre for Global Infectious Disease Analysis at Imperial College London, said in a statement via the Science Media Centre that the analyzed policies which included "lockdowns" varied widely in different countries. Ferguson questioned whether measuring the effectiveness of lockdowns based on deaths was an appropriate statistical analysis.

"Such interventions are intended to reduce contact rates between individuals in a population, so their primary impact, if effective, is on transmission rates," Ferguson said. "Impacts on hospitalisation and mortality are delayed, in some cases by several weeks. In addition, such measures were generally introduced (or intensified) during periods where governments saw rapidly growing hospitalisations and deaths."

This might be one reason why deaths were substantially higher following the introduction of lockdowns, as Ferguson elaborated on.

Dr. Seth Flaxman, Associate Professor in the Department of Computer Science, University of Oxford, said that the exclusion of papers regarding disease transmission likely altered the results of the Johns Hopkins paper.

"These do not include key facts about disease transmission such as: later lockdowns are less effective than earlier lockdowns, because many people are already infected; lockdowns do not immediately save lives, because there's a lag from infection to death, so to see the effect of lockdowns on Covid deaths we need to wait about two or three weeks," Flaxman said in a statement. "This was all known in March 2020 – we discussed it in a paper released that month, and later published in Nature. Our paper is excluded from consideration in this meta-analysis."

Flaxman explained the flaw via a metaphor on smoking and cancer.

"It's as if we wanted to know whether smoking causes cancer and so we asked a bunch of new smokers: did you have cancer the day before you started smoking? And what about the day after?" Flaxman said. "If we did this, obviously we'd incorrectly conclude smoking is unrelated to cancer, but we'd be ignoring basic science."

Flaxman added: "The science of diseases and their causes is complex, and it has a lot of surprises for us, but there are appropriate methods to study it, and inappropriate methods. This study intentionally excludes all studies rooted in epidemiology—the science of disease."

Fox News guests and hosts did not scrutinize or even discuss the study's origins, but took its findings at face value arguing that it proved that lockdowns have done "more harm than good" and suggesting that the study doesn't merely undermine the basis for lockdowns but for all other public health measures as well. (Vaccines and mask mandates are not mentioned in the study.)

"Lockdowns are not based in science," Sen. Rand Paul, R-Ky., said in a segment, before conflating lockdowns with other public health measures that have been found to be effective. "Masks didn't work," he said, although studies have shown that surgical and filtered masks reduce COVID transmission.

An analysis of 72 studies published in BMJ last fall showed that masks were the most effective non-pharmaceutical measure in reducing the spread of COVID. An analysis commissioned by Missouri Gov. Mike Parson's office last year found that localities with mask mandates had fewer COVID deaths than those that did not. Another analysis from the University of Kansas last summer found that hundreds of lives were saved in Kansas counties that adopted mask mandates.

"The one thing we know that did work is vaccines and natural immunity," Paul argued. In fact, public health experts have pushed for additional mitigation measures during the omicron surge, as breakthrough infections penetrated both vaccine and natural immunity. Paul then went on to defend dining in a restaurant that refused to enforce Washington's vaccine mandate, arguing that there are "not enough police" in the city to shut down all the restaurants that refuse to comply with policies that "make no scientific sense."

Even though the omicron variant has been shown to penetrate both vaccine and natural immunity, data from the Centers for Disease Control and Prevention show that vaccine boosters are 90% effective against hospitalization and also offer some level of protection against infection. Unvaccinated Americans over age 50 are 45 times more likely to require hospitalization after COVID infection than those who received a booster, according to the CDC.

Former Rep. Sean Duffy, R-Wis., in another segment, predicted that future studies would also show that "masks didn't work, the vaccines and vaccine mandates didn't work to stop the spread, all of these public health policies have been ineffective at stopping the spread."

Even amid the spread of the highly-transmissible omicron variant, vaccine boosters have been shown to reduce the spread, though it's unclear for how long. They are highly effective at preventing serious illness, hospitalization, and death. Duffy, who has nine children, later said it was "insanity" to vaccinate young children because their hospitalization rate is "very, very low."

It's true that children are far less likely to be hospitalized with COVID than older adults, but the number of child hospitalizations spiked to record levels last month. A recent analysis from the Mayo Clinic found that babies under one year old may be at higher risk of severe illness than older kids.

"I don't know why we would risk the health of our little kids and vaccinate them," Duffy said, dismissing concerns that children could spread the virus to high-risk people. "Everyone's getting COVID!" he said.

A study published in the medical journal JAMA Pediatrics last year found that younger children are more likely to transmit the virus to other household members than older children, even when they do not have symptoms.

British author Douglas Murray, in a different segment, used the study to criticize all "restrictions," including vaccine and mask requirements in states like New York.

"If they remove them, they have to admit, or at least start to try to admit, that what they did in recent years was such a disaster," he said.

A meta-analysis study like the one cited by Fox News is a statistical analysis that looks at the results of multiple studies and lands on a conclusion based on research from these studies. For this Studies in Applied Economics paper, the authors started with 18,590 studies, but after three levels of screening — a typical filtration process for a meta-analysis study — only 24 studies qualified for inclusion in the study that met the PRISMA (Preferred Reporting Items for Systematic Reviews) guidelines. The PRISMA guidelines involve a 27-item checklist and a 4-phase flow diagram that help researchers determine which evidence-based studies to use to conduct a meta-analysis to answer the question at hand. The researchers purposely excluded studies that analyzed the effect of early lockdowns in contrast to later lockdowns, as they note in the study. Not all papers included in the analysis were peer-reviewed.

Researchers in the Studies in Applied Economics paper noted that some of the studies they analyzed found that shelter-in-place orders lowered COVID deaths, but argued that the data series in those studies didn't cover a full COVID "wave." Some studies analyzed argued the opposite, which the researchers suspected "could be the result of an (asymptomatic) infected person being isolated at home under a SIPO [shelter-in-place order] can infect family members with a higher viral load causing more severe illness."

"They have contributed to reducing economic activity, raising unemployment, reducing schooling, causing political unrest, contributing to domestic violence, and undermining liberal democracy," the researchers argued. "These costs to society must be compared to the benefits of lockdowns, which our meta-analysis has shown are marginal at best."

It's important to note in context that while a meta-analysis can certainly have value in science, it is not considered a primary source. Additional recent studies have argued that lockdowns did indeed save lives. For example, a retrospective study published in PLOS One by University of Michigan researchers this month, which was peer-reviewed, found that lockdowns implemented

during the first six months of the pandemic saved far more lives (between 866,350 to 1,711,150) than the number of lives potentially lost (57,922 to 245,055). When looking at the quality-adjusted life expectancy added by lockdown, however, researchers concluded that the results were more "ambiguous" and added that their research should not be used to implement more lockdowns.

"We evaluated the full packet of public health measures as it was implemented in the beginning of the pandemic, but lesser mitigation measures may have worked just as well to reduce lives lost," Olga Yakusheva, an associate professor at Michigan's School of Nursing, said in a press statement. "The fact is, we just will never know. At the time, we had to work with the information that we had. We knew the pandemic was deadly, and we did not have therapeutics or a vaccine."