

Summary

January 23, 2023

6:29 PM

- Still here 3 years later
- New variants (Omni, Kraken, etc)
- Lockdowns in China
- New Conspiracies
 - Canadian Doctor
 - Multi Booster
 - Depopulation
- Numbers

Omicron, Delta, Alpha, and More: What To Know About the Coronavirus Variants

BY KATHY KATELLA JANUARY 6, 2023

A quick guide to the coronavirus variants that have been top-of-mind.



(Originally published: Dec. 10, 2021. Updated: Jan. 6, 2023)

Note: Information in this article was accurate at the time of original publication. Because information about COVID-19 changes rapidly, we encourage you to visit the websites of the Centers for Disease Control & Prevention (CDC), World Health Organization (WHO), and your state and local government for the latest information.

One thing we know for sure about SARS-CoV-2, the virus that causes COVID-19, is that it is changing constantly. Since the beginning of the pandemic, we've seen a number of prominent variants, including Alpha, Beta, Delta, and Omicron. Although new variants are an expected part of the evolution of viruses, monitoring each one that surfaces is essential in ensuring we—in the U.S. and globally—are prepared. This is especially true if a new variant is more aggressive, highly transmissible, vaccine-resistant, able to cause more severe disease—or all of the above, compared with the original strain of the virus. The World Health Organization (WHO) names new coronavirus variants using the letters of the Greek alphabet, starting with the Alpha variant, which emerged in 2020.

Below is a list of—and information about—some of the variants that have been top-of-mind.

Omicron and its subvariants



Omicron and its subvariants have ranked as the predominant SARS CoV-2 strains in the U.S. for over a year now. The original Omicron strain (BA.1) was first identified in Botswana and South Africa in late November 2021, and cases quickly began to surface and multiply in other countries. By December of that year, Omicron was causing daily case numbers in the U.S. to skyrocket to over a million, and it began to spawn subvariants. One of those was BA.5, which became the predominant virus strain in the U.S., only to be replaced in November 2022 by two new subvariants known as BQ.1 and BQ.1.1. At the beginning of 2023, a new subvariant called XBB.1.5 was on the rise.

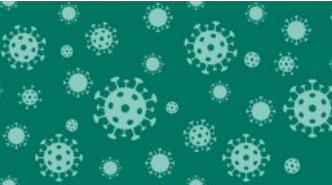
Meanwhile, experts are still learning about several newer Omicron strains circulating in the U.S., each of which, as of mid-December, were causing less than 6% of infections. They include BF.7, XBB, BN.1, BF.11, and others.

How contagious is it? Omicron's subvariants are considered to be especially efficient spreaders of the disease, and while scientists are still learning about XBB.1.5, they say it is the most transmissible strain of the virus so far. The original strain of Omicron was more transmissible than Delta was. One explanation was that more than 30 of Omicron's mutations are on the virus's spike protein, the part that attaches to human cells, and several of those are believed to increase the probability of infection.

Severity: Scientists are still working to learn more about whether the current Omicron strains cause more severe disease than their predecessors. Data has suggested that the original Omicron strain was less severe, in general, than previous variants, according to the CDC. But it has also noted that surges in cases may lead to significant increases in hospitalizations and deaths, as they did during the variant's spread in the beginning of 2022, when the estimated death rates went as high or higher than they were at the time of the Delta variant surge in the previous autumn.

Can vaccination prevent it? The CDC says that while breakthrough infections in vaccinated people are expected, getting vaccinated and staying up-to-date with your vaccine and the latest booster shot is the best protection against Omicron. In 2022, the FDA authorized Pfizer-BioNTech and Moderna bivalent booster shots for everyone 6 months of age and older. These boosters are designed to protect against disease caused by the original strain of the SARS-CoV-2 virus, as well as the Omicron subvariants BA.4 and BA.5 (although experts are still learning about their effectiveness against the latest Omicron subvariants).

Delta



Delta (B.1.617.2) was first identified in India in late 2020; it soon spread throughout the world, becoming what was the predominant version of the coronavirus—until Omicron took its place in mid-December.

How contagious is it? It's estimated that Delta caused more than twice as many infections as previous variants—in Connecticut, it was estimated to have been 80 to 90% more transmissible than the Alpha variant. In the U.S., in June 2021, after a steady decline in COVID-19 cases and hospitalizations, the arrival of Delta coincided with a rapid reversal of that trend. In the fall of 2021, there were surges even in the most vaccinated states, prompting experts to urge people to get their booster shots.

Severity: Delta caused more severe disease than other variants in people who weren't vaccinated. Early studies from Scotland and Canada, both cited by the CDC, suggested Delta was more likely to result in hospitalization in the unvaccinated. A report in the *Lancet* this past summer found that people in England had double the hospitalization risk with Delta than they did with Alpha, the previously dominant variant in that country.

Can vaccination prevent it? All three vaccines in the U.S. were considered highly effective against severe illness, hospitalizations, and death from Delta. No vaccine is 100% effective, and Delta caused breakthrough infections in some fully vaccinated people. Also, infected vaccinated people could spread the virus to others, although likely they were infectious for a shorter time.

Delta also prompted the CDC to recommend "layered prevention strategies" for both the vaccinated and the unvaccinated. That means that, in addition to staying up-to-date with their vaccines, people were advised to practice such strategies as washing hands, wearing masks, and maintaining a physical distance from one another, especially when indoors in places where there was substantial or high transmission.

Delta AY.4.2*

Delta AY.4.2, sometimes referred to—incorrectly—as Delta Plus, was actually the most prominent of a number of Delta offshoots, some of which had mutations new to Delta but that were found in other variants. AY.4.2 had two mutations to its spike protein, AY145H and A222V, that were considered to be key, but they were not located in a place where they would inhibit vaccines or treatments. This variant was thought to be slightly more contagious than Delta itself, but while Great Britain was tracking a steady rise of AY.4.2, it did not rise as quickly in the U.S.

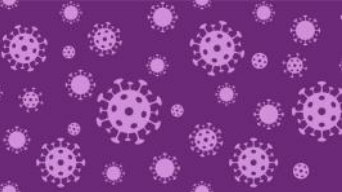
How contagious is it? While the data is limited, it was thought to be 10 to 20% more transmissible than Delta.

Severity: It did not appear to pose a greater chance of hospitalization or death.

Can vaccination prevent it? There was some evidence to show vaccines were effective against AY.4.2. Experts also recommended masking, physical distancing, and other mitigation strategies.

*AY.4.2 is technically an offshoot of Delta and not itself a coronavirus variant.

Beta



This variant, or B.1.351, was identified in South Africa at the end of 2020 and spread to other countries. Experts had been concerned about its several mutations and its potential to evade antibodies. Beta was not common in the U.S.

How contagious is it? The CDC said Beta was about 50% more contagious than the original coronavirus strain.

Severity: There was evidence to suggest that Beta may have been more likely than other variants to lead to hospitalization and death.

Can vaccination prevent it? South Africa stopped offering the AstraZeneca-Oxford vaccine (which is not available in the U.S.) early in 2021 after clinical trials showed it did not provide strong protection against mild and moderate disease from the Beta variant. Pfizer-BioNTech, Moderna, and Johnson & Johnson also reported less protection against Beta.

Alpha

What is the 'Kraken' Variant? What We Know About the New COVID Variant So Far

The variant is XBB.1.5, a highly contagious "recombinant" variant that spawned from two different BA.2 variants

Published January 6, 2023 • Updated on January 6, 2023 at 11:19 am

Dr. Allison Arwady, the Commissioner of the Chicago Department of Public Health discussed the COVID-19 pandemic on Tuesday, focusing on the rapidly rising XBB.1.5 variant. NBC 5's Patrick Fazio reports.

You may have heard about a so-called "kraken" variant circulating right now, but what exactly is it and why is being called that?

The nickname refers to the XBB.1.5 variant, which has quickly become the dominant COVID strain in the U.S.

But why the "kraken" variant?

Dr. Ryan Gregory, a biology professor at the University of Guelph in Ontario, Canada, said the nickname was simply "intended to help people keep track of who's who in the ever-growing variant soup."

In a tweet earlier this week, Gregory stressed the nickname was "informal." Previous variants have also been given nicknames like the "nightmare" or "scorable" variants.

Regardless of which name you've seen, the new-dominant COVID variant has been making headlines for a variety of reasons in the new year.

Here's a look at what we know so far and what experts are saying.

What is XBB.1.5?

The variant is XBB.1.5, a highly contagious "recombinant" variant that spawned from two different BA.2 variants. It is related to the [XBB variant](#), which was previously behind a COVID surge in Singapore.

"It's basically just a combination of two of the earlier subtypes, two variants," said Chicago Department of Public Health Commissioner Dr. Allison Arwady Tuesday.

What is Different About XBB.1.5?

The variant has quickly rose to dominance, as experts say it is more contagious than many of its predecessors.

"It went from 4% of sequences to 40% in just a few weeks," Dr. Ashish Jha, White House COVID czar, tweeted. "That's a stunning increase."

Jha said the variant is likely more immune evasive, even "more than other omicron variants."

Arwady also said the variant is "clearly more infectious" than other variants, "meaning it's spreading more easily" and "out-competing the other variants."

Andrew Pekosz, a virologist at Johns Hopkins University, [said CNBC](#) the XBB.1.5 has an additional mutation that makes it bind better to cells.

"The virus needs to bind tightly to cells to be more efficient at getting in and that could help the virus be a little bit more efficient at infecting people," Pekosz said.

Jha echoed that finding, saying the variant "binds more tightly to the human ACE receptor," which can affect contagiousness.

Where is XBB.1.5 Highest Right Now?

Within the last few months, tracking numbers from the Centers for Disease Control and Prevention showed the XBB.1.5 variant has climbed to now make up more than 40% of cases in the U.S. In the Midwest, however, the numbers are much lower, with XBB.1.5 making up just 6% of cases.

Currently, the new variant is surging largely in the Northeast, where it makes up more than 75% of cases.

Is XBB.1.5 Making People Sicker?

The rapid rise in dominance has led some experts to question whether or not the variant will lead to added concerns in the weeks following holiday gatherings, with COVID hospitalizations already rising in the U.S.

While it's not clear where the variant originated exactly, Arwady said it has so far not shown signs of leading to more severe infections.

"They are seeing some increase in hospitalizations in older folks in the Northeast, but that seems to be at least based on what you know, I'm reading and hearing from folks, that seems to be based as much on the fact that they're seeing just a surge overall... and so with that increase, it seems like we're just seeing more older people get infected and if they're not up-to-date, especially with their vaccines, they are somewhat more likely to be hospitalized," she said during a Facebook Live Tuesday. "But no, I haven't seen anything suggesting that this new subvariant is clearly making people sicker. I think we learn more as we follow it."

COVID-19 hospitalizations are rising in the United States, even as hospitalizations for respiratory syncytial virus and the flu continue to fall.

One concern is that recent strains of COVID have left some treatment options ineffective.

"As this virus continues to mutate, what we have seen is that all of what are called our monoclonal antibodies, our clinical monoclonal antibodies are inactive against these most recent subvariants," Arwady said. "And the monoclonal antibodies are these IV infusions that people with really severe immunocompromised will often take people who have an organ transplant, for example, and the vaccine doesn't work very well because their whole immune system has been tampered down and even though they take the vaccine, it's safe, they don't mount enough of an immune response, and so we've historically used what's called a monoclonal antibody, which helps give them passive protection, but the problem is that as these new subvariants have gotten further and further from the original... the virus has figured out how to mutate around them. So we have lost most of that monoclonal antibody treatment."

Arwady noted that while there are significant concerns surrounding the new strain, it remains an omicron subvariant, which of fers less risk than if the variant were in an entirely different family.

"It's in that variant of interest category. We label it, we monitor it, we give it those alphabet soup of letters to be able to keep track of it, but the big worry is if we see something emerge and grow to be a new variant of concern, meaning it gets a new letter in the Greek alphabet," Arwady said. "We haven't had one of those in a year. I hope we never have one again."

Do Boosters Work on XBB.1.5?

Experts have said the bivalent COVID booster appears to offer some protection against the newer strains, particularly against severe illness, in large part because they remain under the omicron family.

"It does look like the vaccine, the bivalent booster is providing continued protection against hospitalization with these variants," Pekosz told CNBC. "It really emphasizes the need to get a booster particularly into vulnerable populations to provide continued protection from severe disease with these new variants."

But Jha noted that for those who had infections before July or who haven't received a bivalent COVID booster shot, protection is much lower.

"Right now, for folks without a very recent infection or a bivalent vaccine, you likely have very little protection against infection," he tweeted.

What Are the Symptoms Associated With the Variant?

Arwady said COVID symptoms haven't changed with the new variant, though she noted that symptoms similar to the flu are less common, particularly in those who are vaccinated and boosted. "COVID is showing up very much like it already has. I think, if anything, we are seeing it a little bit less likely to have the more severe symptoms," Arwady said. "Definitely people get the severe symptoms still, especially if they're not up-to-date with their vaccines. But more often now we are seeing people - especially if they're fully up-to-date, maybe it's their second time getting COVID, whatever it might be - we're seeing more people actually just have cold-like symptoms, less likely to have those flu-like, really feeling very sick, the high fevers."

Will There Be Another Surge Associated With the New Variant?

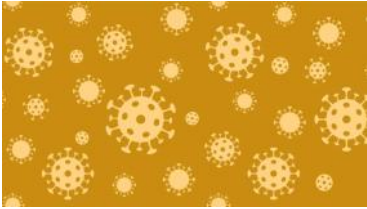
The answer here is unclear.

Experts say they are monitoring as the variant quickly climbs in numbers.

"Whether we'll have an XBB.1.5 wave (and if yes, how big) will depend on many factors including immunity of the population, people's actions, etc.," Jha said. Arwady said Chicago was closely monitoring what happens in the Northeast, which has previously seen surges ahead of the Midwest. She added that hospitalizations have not risen to levels seen earlier in the pandemic.

"Am I concerned about XBB.1.5? Yes," Jha said. "Am I worried this represents some huge set back? No."

From <https://www.nbcchicago.com/news/coronavirus/what-is-the-kraken-variant-what-we-know-about-the-new-covid-variant-so-far/3018770/>



Alpha (B.1.1.7) was the first of the highly publicized variants. Alpha first appeared in Great Britain in November 2020 and infections surged in December of that year. It soon surfaced around the world and became the dominant variant in the U.S., where the CDC classified it as a variant of concern. Then, Alpha faded away with the rise of the more aggressive Delta variant.

How contagious is it? Some mutations in Alpha's spike protein were thought to make it more infectious. The B.1.1.7 lineage was believed to be 30 to 50% more contagious than the original SARS-CoV-2 strain. In the U.S., in mid-April 2021—before Delta became predominant—Alpha comprised 66% of cases, according to a [study](#) released in June by the CDC.

Severity: Studies have suggested the B.1.1.7 lineage was more likely to land infected people in the hospital and was deadlier than the original virus.

Can vaccinations prevent it? Pfizer, Moderna, and Johnson & Johnson all said their vaccines were effective in preventing severe disease and hospitalization in Alpha cases.

This article was medically reviewed by Yale School of Public Health epidemiologist [Nathan Grubaugh, PhD](#).

Note: Information provided in Yale Medicine articles is for general informational purposes only. No content in the articles should ever be used as a substitute for medical advice from your doctor or other qualified clinician. Always seek the individual advice of your health care provider with any questions you have regarding a medical condition.

From <https://www.yalemedicine.org/news/covid-19-variants-of-concern-emerge>

China's authorities are quietly rounding up people who protested against COVID rules



Students hold up placards including blank white sheets of paper on the campus of the Chinese University of Hong Kong, in solidarity with protests held on the mainland over Beijing's COVID-19 restrictions, on Nov. 28.

Peter Parks/AFP via Getty Images

Her gaze is steady and her voice barely quivers in the video as she remembers what brought her out onto the Beijing streets in late November, and the consequences she knew she likely faced for her decision. "I have delegated some friends to publicize this video after I disappear. When you see this video, I will have been arrested too," the 26-year-old woman states calmly.

On Christmas Eve, the woman, an editor at a Beijing publishing press, was arrested at her family home in Changsha, the capital of Hunan province, and taken into police custody in Beijing, according to three people who know her.

She is one of eight people NPR was able to confirm had been arrested in connection to peaceful demonstrations held across the country last November. The protests began after a [deadly fire](#) in the western city of Urumqi, where at least 10 people died after they were unable to escape their blazing apartment [due](#) to pandemic [lockdown measures](#).

Influrated by nearly three years of stringent COVID-19 policies, residents of nearly every major Chinese city [held vigils](#) commemorating the lives of the those who had died while trapped under lockdown conditions or because they were denied potentially life-saving care.

Sponsor Message

Many attendees held up blank white sheets of paper to represent the lack of agency and freedom of expression they felt under the pandemic rules. Since then, the demonstrations have been dubbed "the A4 protests," named after the A4 paper size used internationally.

The demonstrations were also a powerful rebuke of Chinese leader Xi Jinping, who has become closely associated with a suite of regulations loosely termed "zero COVID" and meant to keep coronavirus infection numbers near zero. Less than two weeks after the A4 protests first began, Chinese authorities announced they were [rolling back](#) nearly all of their zero-COVID policies. They eliminated extensive contact-tracing and quarantine systems, as well as mandatory coronavirus testing once required every two to three days.

The police need a theory to explain away the protests.

A friend of a detained vigil participant

By then, China's security ministries were already hunting down people they believed were behind the vigils. "The police need a theory to explain away the protests and they are trying to find an organizer to blame," says a friend of one of the vigil participants arrested. NPR is not using the names of protesters and others interviewed for this story for their safety. That blame would be pinned on the Beijing editor and other journalists and writers, many of them young women, in the weeks ahead.

They came together for a vigil

On Nov. 26, passersby spontaneously began laying bouquets of flowers near the sign for Urumqi Road, a major commercial thoroughfare in the metropolis of Shanghai, in remembrance of the victims of the apartment fire in the city of Urumqi that the road was named after. Residents also shared pictures of the bouquets on social media, bringing even more people onto the street. Hours later, hundreds of people had gathered, and the atmosphere grew rowdier, according to two people NPR interviewed after the demonstration. One person began shouting for Xi to step down, a call [echoed](#) by dozens of other demonstrators.

Sponsor Message

At dawn, riot police [charged](#) the crowd, dragging several of them away and dispersing the remaining demonstrators, but not before videos and pictures of the protest were shared with people living in other cities.

In Beijing, the editor and his friends were hoping to remember the victims of the Urumqi fire. They decided to join a vigil they had heard would be held along the Liangma River, which runs across central Beijing and through a ritzy commercial boardwalk.



Protesters hold up their mobile phones during a protest against China's strict zero-COVID measures on the Liangma River on Nov. 27 in Beijing.

Kevin Frayer/Getty Images

Around 8 p.m. on Nov. 27, a features writer for a state-run newspaper arrived at the river. Her boyfriend, the co-owner of a bar, gave her a ride on his motorcycle to the vigil. They brought some flowers, several of the writer's favorite poems handwritten on sheets of paper, and some candles.

They soon met up with two more friends.

Also at the riverside vigil was a former journalist who was pursuing a master's degree in film. "She often feels guilty for her family's more affluent circumstances and that other people still live in poverty and pain," says a friend of the film student.

During an extreme [lockdown of Shanghai](#) last spring, the graduate student volunteered to find transportation for doctors and dialysis patients and also remotely coordinated online requests for help from Wuhan, [when it was under lockdown in 2020](#).

The Beijing publishing editor came too, joining a crowd of several hundred people who slowly gathered as the frigid evening turned to dawn.

Other vigil participants held up blank paper and chanted against [mandatory coronavirus testing](#), which was required to enter all public spaces including grocery stores and the metro, and [shouted in favor](#) of greater civil liberties and freedom of speech.

Most of the attendees wore face masks to both hide their identities but also to protect themselves against the coronavirus, which was already spreading more quickly through Beijing and the southern city of Guangzhou.

Sponsor Message

Very few of those at the Liangma River that night thought they would face serious legal consequences for showing up — perhaps a police reprimand or, at worst, a day of detention, according to the people who were there. Almost none of the attendees were activists or even politically active, but simply engaged young professionals who saw the vigil as a humane gesture toward their fellow citizens.

"If we are arrested for expressing our sympathy, then how much space do our opinions have in this society?" the editor remembered thinking at the time.

They were tracked down and detained

The crackdown came swiftly.

Using phone tower data, police were able to roughly triangulate who had been near the Liangma River the night of Nov. 27. They called in vigil attendees or visited their homes at night. Most participants were let go after a few hours of questioning, but the editor watched with a growing sense of dread as her friends were detained one by one.

The newspaper journalist was asked repeatedly which feminist organizations and events she had participated in. Police were especially aggressive when questioning a woman who works as an accountant at a multinational firm, who frequented live rock music events.

The accountant had been in a chat group on the encrypted messaging app Telegram about the vigil. Since she happened to be the administrator of the chat, she must be the demonstration organizer, police reasoned. Some had been at the vigil purely by accident. A 31-year-old techno enthusiast happened to be drinking with friends at a bar along the Liangma River. The German magazine *Der Spiegel* later ran a cover story with a [picture](#) of her holding a blank sheet of white paper aloft that night.

"I drink every weekend, but the police didn't believe that I was just drinking there. They think I am the organizer," the techno fan says. Police eventually let her go after 24 hours of questioning, but they confiscated her cellphone.

Sponsor Message

On Nov. 30, police released the editor and her friends and said they could go home. The group of friends thought the worst had passed. China's leader Xi, in meetings with European diplomats soon after, reportedly [dismissed](#) the vigils as the product of a few "frustrated student protesters."

But by mid-December, the public narrative in China about the protests — previously largely unmentioned in official channels — was beginning to change. Nationalist bloggers online posted, without any factual basis, that foreign meddling was responsible for instigating the unrest. Some Chinese officials encouraged the speculation that foreign countries were responsible.

"At first, people took to the streets to express their dissatisfaction with how local governments were unable to completely and accurately implement measures introduced by the central government, but the protests were quickly exploited by foreign forces," [said](#) Lu Shiyao, China's ambassador to France, according to a Chinese Foreign Ministry [transcript of remarks](#) he gave at a reception shortly after the demonstrations.

Starting Dec. 18, many of those briefly detained earlier were formally arrested, including the editor and her friends.

The woman on the *Der Spiegel* cover was arrested as well, according to a friend.

In her video, the editor says they were forced to sign arrest notices but the space next to what crime they were being charged with, along with when and where they would be detained, had been left blank. The families of those

China declares 'new phase' in COVID response after Beijing reopens borders

Although the move to drop quarantine is expected to boost outbound travel, several countries are demanding negative tests from visitors from China. Among the countries seeing Chinese visitors for the first time in years is Thailand.

Monday 9 January 2023 10:08, UK



Image:Passengers from China arrive at Bangkok's Suvarnabhumi airport

[Why you can trust Sky News](#)

China has declared a "new phase" in its response to COVID after Beijing dropped its pandemic border controls.

The move on Sunday, which marked one of the last steps of dismantling Beijing's 'zero-COVID' policy, saw China [reopen its borders to travellers](#) from abroad with a reported surge in flight bookings.

Sponsored link

Recommended by

Tobacco is not the only offender

War-ravaged Syria faces permanent split, warns ex-CIA chief David Petraeus

The official newspaper of the Communist Party, the People's Daily wrote "Life is moving forward again!" in an editorial praising the government's virus policy which has moved from "preventing infection" to "preventing severe disease".

State Xinhua news agency said the country had entered a "new phase" of its response, citing its virus prevention experience, the development of the epidemic and increased vaccination levels.

Changes to the rules mean people will no longer have to quarantine on arrival. There were emotional scenes at airports and ports on Sunday as people arrived in the country without having to quarantine for the first time in years, many for the Lunar New Year festival which is due in coming days, when many Chinese return to see their families.



Image:Two people embrace at Beijing International Airport after China lifted COVID quarantine requirements for inbound travellers

Following the reopening, state broadcaster CCTV reported on Sunday that direct flights from South Korea to China were close to sold out. South Koreans are the largest group of foreign residents in China.

Among the countries to which flights resumed from China was Thailand, where an initial group of an expected 3,465 passengers arrived on Monday, after the Thai government rescinded a policy announced at the weekend requiring visitors to show proof of COVID-19 vaccination.

Although China's move is expected to boost outbound travel, several other nations are demanding negative tests from visitors from China, seeking to contain an outbreak that is overwhelming many of China's hospitals and crematoriums.

Advertisement

China's top health officials and state media have repeatedly said COVID infections are peaking across the country and they are playing down the threat now posed by the disease.

Although officially China has reported just 5,272 COVID-related deaths as of 8 January - experts cast doubt over the figures.



Image:Some 3,465 passengers from China were expected to arrive in Thailand on Monday

The World Health Organisation has said China is under-reporting the scale of the outbreak and international health experts estimate more than one million people in the country could die from the disease this year.

It comes as an official reportedly said almost 90% of people in the central province of Henan, China's third most populous, have now been infected with COVID-19.

China experienced some of the most stringent COVID measures in the world, with lengthy lockdowns and harsh testing regimes.

Authorities began easing restrictions after widespread anti-lockdown protests at the end of last year.

Protests at COVID antigen kit factory

On Saturday, hundreds of protesters clashed with police at a factory producing COVID antigen kits, several videos posted to social media showed.

Read more:

Patients build up outside entrances in hospitals in China

'Surveillance programme' to begin random COVID tests for travellers

Online users said the demonstration was over wages and the layoff of several workers by the manufacturer, Zybbo, in the central municipality of Chongqing.

One video showed people throwing traffic cones, boxes and stools at police carrying riot shields. Another video, posted on

"At first, people took to the streets to express their dissatisfaction with how local governments were unable to completely and accurately implement measures introduced by the central government, but the protests were quickly exploited by foreign forces," [said](#) Lu Shaye, China's ambassador to France, according to a Chinese Foreign Ministry [transcript of remarks](#) he gave at a reception shortly after the demonstrations.

Starting Dec. 18, many of those briefly detained earlier were formally arrested, including the editor and her friends. The woman on the *Der Spiegel* cover was arrested as well, according to a friend.

In her video, the editor says they were forced to sign arrest notices but the space next to what crime they were being charged with, along with when and where they would be detained, had been left blank. The families of those detained were unable to keep a copy of the arrest warrants, according to two people close to them.

NPR reached out to the Beijing police departments that made the arrests, but they declined to comment, saying the case was a national security matter.

Some of the vigil participants have been charged with the "crime of gathering a crowd to disrupt public order," which carries a maximum five-year sentence, according to Teng Biao, a human rights lawyer and visiting professor at the University of Chicago.

Sponsor Message

"According to the definition of this crime, this should target only the people who played a leading role," not ordinary vigil participants, Teng says. "The Chinese government is trying to punish the people who are active in human rights activities like LGBTQ issues or the feminism movement."

In her last video, the editor pleads for help, and she wonders why, out of the hundreds of people who were present that night, a group of young, largely female professionals was singled out. "We want to know why we were charged and what evidence there is for these charges," she says.

Three days after the vigil held near Beijing's Liangma River, the Chinese Communist Party's top security body, the Central Legal and Political Affairs Commission, [vowed](#) to "resolutely crack down on infiltration and sabotage activities by hostile forces and illegal and criminal acts that disrupt social order."

"Now, the security forces' working theory seems to be that a group of feminists influenced by Western ideas organized the demonstrations," says a friend of several of the vigil attendees who were arrested.

Attendees denied such allegations, emphasizing the vigils were merely held to express how frustrated they were by nearly three years of China's zero-COVID policy that had left people literally starving or trapped in their own homes and destroyed the economy.

"If even ordinary people like my friends who peacefully participated in a vigil can be arrested," the friend says, "anyone can be taken."

From <<https://www.npr.org/2023/01/11/1148251868/china-covid-lockdown-protests-arrests>>

new move.

[Patients build up outside entrances in hospitals in China](#)
[‘Surveillance programme’ to begin random COVID tests for travellers](#)

Online users said the demonstration was over wages and the layoff of several workers by the manufacturer, Zybbo, in the central municipality of Chongqing.

One video showed people throwing traffic cones, boxes and stools at police carrying riot shields. Another video, posted on social media platforms such as Twitter and Douyin, showed dozens of protesters chanting "return our money".

While protests in China are not rare and have focused on issues like labour disputes and COVID lockdown measures, police have cracked down on dissent swiftly, often using forceful tactics.

From <<https://news.sky.com/story/china-declares-new-phase-in-covid-response-after-beijing-reopens-borders-12782911>>

The generic conspiracist beliefs scale – 5: A short-form measure of conspiracist ideation

Author links open overlay panelCameron S.Kay,PaulSlovic,Show moreAdd to MendeleyShareCitehttps://doi.org/10.1016/j.ep.2022.104315Get rights and content

Abstract

The Generic Conspiracist Beliefs Scale (GCB-15) is a reliable and valid measure of conspiracist ideation, but it is also inefficient. At 15 items, the GCB-15 can take upwards of four minutes to complete. Here we introduce the GCB-5 – a 5-item, short form of the GCB-15. In five studies, we use self- and informant-report methods to demonstrate that the GCB-5 is a reliable, criterion-valid, and construct-valid measure of conspiracist ideation. In the final study, we further provide evidence that the GCB-5 has promise for addressing novel research questions. Specifically, we show that people high in conspiracist ideation—as assessed by the GCB-5—are more accepting of the use of nuclear weapons and other forms of so-called “virtuous violence” (e.g., anti-abortion legislation).

Introduction

At 10:56 PM on July 20th, 1969—some 109 hours after Apollo 11 lifted off from Kennedy Space Center and some 380,000 kilometers away from the Earth—Neil Armstrong did what was widely hailed to be one of humankind’s greatest achievements: He stepped on the moon.

To some, however, this is not one of humankind’s greatest achievements. Not because they believe there is some other feat that rivals the moon landing, but because they believe the moon landing never happened in the first place. To these people, the moon landing is a *conspiracy*: a secretive plot orchestrated by a powerful group of people for some unknown but inarguably nefarious purpose (Holstadter, 1996; see also Brotherton, 2015, Uscinski, 2020).

Over the past decade, researchers have devoted considerable effort to developing various tools and methods for assessing the tendency to believe in such conspiracies—or what has also been termed *conspiracist ideation* (Uscinski, 2020; see also Imhoff et al., 2022). It is not hard to see why. Few events of any importance occur nowadays that are not accompanied by at least one conspiracy theory (and usually many more). There are, for example, conspiracy theories about the 2020 US Presidential Election (e.g., that it was stolen from Donald Trump; Rutenberg et al., 2021); the assassination of Shinzo Abe (e.g., that it was the result of Shinzo Abe threatening to reveal compromising information about Hillary Clinton; Spencer, 2022); the COVID-19 pandemic (e.g., that it was caused by the installation of 5G towers; Satariano & Alba, 2020); and the Russo-Ukrainian War (e.g., that it is little more than an elaborate hoax; Sardarizadeh & Robinson, 2022). In order to study and, eventually, develop interventions to combat conspiracy beliefs, it is crucial for researchers to be able to measure conspiracist ideation with consistency, accuracy, and, in many cases, efficiency.

In the present study, we propose one such measure—a short form of the *Generic Conspiracist Beliefs Scale – 15* (GCB-15; Brotherton et al., 2013). Before we discuss this scale further, however, it is important to discuss what exactly the GCB-15 is and why it makes for a good measure of conspiracist ideation.

Prior to 2013, conspiracist ideation was generally assessed by asking participants to rate the veracity of a small set of conspiracy theories (e.g., Douglas and Sutton, 2011, Swami et al., 2011). For instance, participants might be asked whether they believe the earth is hollow, Tupac Shakur faked his own death, or that the shooting at Sandy Hook Elementary School was a false flag operation. These measures, of course, had considerable face validity. If a researcher wanted to assess a person’s tendency to believe in conspiracy theories, they couldn’t do much better than asking the person whether they believe in conspiracy theories. The measures did, however, also have a critical limitation: by only assessing a person’s tendency to believe in a small, rather arbitrary pool of conspiracy theories, the measures were only capable of assessing a small, rather arbitrary pool of conspiracist thought.

In response to this apparent limitation, Brotherton and colleagues (2013) set out to develop a measure that would be better able to assess the full breadth of conspiracist ideation. They started by factor analyzing 75 different conspiracist beliefs. The results revealed that most conspiracist beliefs are one of five types: (1) beliefs that global events are controlled by a small group of people, (2) beliefs in plots that threaten one’s personal wellbeing, (3) beliefs that the government regularly engages in corrupt and criminal acts, (4) beliefs that the public is being deceived about the existence of aliens, and (5) beliefs that information is routinely modified or suppressed for the benefit of the government and other large organizations (see also Drinkwater et al., 2020, but also Swami et al., 2017). Using these five types (or “themes”) as a basis, Brotherton and colleagues developed a 15-item, 5-factor measure of generic conspiracist beliefs: the *Generic Conspiracist Beliefs Scale – 15* (GCB-15; Brotherton et al., 2013).

Over the past nine years, the GCB-15 has become the go-to measure of conspiracist ideation among conspiracy theory researchers.¹ For the most part, this popularity is well-deserved. Not only does the GCB-15 appear to capture the full breadth of conspiracist ideation, but it has proven, time and time again, to be a *reliable*, *criterion-valid*, and *construct-valid* measure of conspiracist ideation.

The reliability of a scale refers to whether it produces consistent measurements (Cronbach, 1947, John and Soto, 2007). Studies using the GCB-15 regularly find that over 90 % of the variance in its scores can be attributed to *true* variation in conspiracist ideation (e.g., Bensley et al., 2020, Denovan et al., 2020, March and Springer, 2019, Swami et al., 2014), indicating that most of its items are tapping similar content.

Criterion validity refers to the extent to which a measure is associated with a theoretically relevant outcome or “criterion” (Allen & Yen, 1979). The GCB-15 has been shown to be able to predict the tendency to believe in a wide swathe of specific conspiracy theories (Dieguez et al., 2015, Green and Douglas, 2018), including those about terrorist acts (e.g., 7/7; Brotherton et al., 2013); historical and political events (e.g., the JFK assassination; Dagnall et al., 2015); and the outbreak of various diseases (e.g., COVID-19; Alper et al., 2020, Juanchich et al., 2021). It has also been shown to be associated with several other previously validated measures of conspiracist ideation (Atari et al., 2019, Kay, 2021b, Lantian et al., 2016, Swami et al., 2017), including the *Conspiracy Mentality Questionnaire* (CMQ; Bruder et al., 2013) and the *COVID-19 Conspiracist Ideation Scale* (Kay, 2020).

Construct validity refers to the extent to which a measure behaves in a way that is theoretically consistent with the underlying construct (Cronbach & Meehl, 1955). The GCB-15 is associated with a great many constructs that it should, theoretically, be associated with. As a case in point, people who score high on the GCB-15 are more likely to be uncomfortable with uncertainty (Alper et al., 2020); believe the world is dangerous (Moulding et al., 2016); suffer from paranoia, delusions, and hallucinations (Brotherton et al., 2013, Dagnall et al., 2015); believe in ghosts and other phantasms (Lantian et al., 2016, Majima and Nakamura, 2020); and fall for pseudo-profound bullshit (Hart & Graether, 2018; Pennycook et al., 2015). The GCB-15 is also *not* associated with a great many constructs that it should, theoretically, *not* be associated with. People scoring high on the GCB-15 are, for example, no more likely to be extraverted (Majima and Nakamura, 2020, Siwiak et al., 2019); self-confident (Cichocka et al., 2016); optimistic (Dieguez et al., 2015); religious (Atari et al., 2019); fiscally conservative (Marchlewska et al., 2022); or knowledgeable about European politics (Swami et al., 2018) than their non-conspiratorial counterparts.

Taken together, the above research indicates that the GCB-15 has a number of desirable psychometric properties. It is, however, limited in one crucial way: its length. When it comes to scale construction, the length (or “efficiency”) of a scale is often less talked about than its reliability or validity, but it is an important property to consider for at least two reasons.

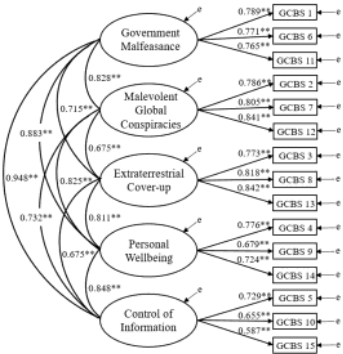
First, the length of a scale and, by extension, the length of a study can affect the amount of time and money required to run the study. In paid online studies, for example, longer scales mean participants must be paid more for their participation, increasing research costs. In studies run through university human subjects pools, longer scales mean participants must be awarded more research credit for their participation, increasing the overall time it takes to collect data. Even in the case of volunteer studies, where participants receive neither money nor research credit for their participation, longer scales mean fewer participants will be willing to complete the study (Galesic & Bosnjak, 2009), again increasing the overall time it takes to collect data.

The second reason that the efficiency of a scale is an important property to consider is that the longer a participant spends responding to a study, the more likely they are to start responding inattentively. As but one example, Bowling and colleagues (2021) found that for every 100 additional items a participant completed, the odds of them responding carelessly increased by 1.26 times. Depending on the design of one’s study, this careless responding can artificially increase or artificially decrease observed effect sizes (Credé, 2010) and create phantom factors in otherwise unidimensional data (Woods, 2006). If a researcher is interested in minimizing their research costs while also maximizing the quality of the data they collect, they should, therefore, consider the efficiency of the scales that they are using.

At 15 items, the GCB-15 can take upwards of four minutes to complete. This is not exceptionally long, especially when compared to some other measures commonly used in psychology (e.g., the 240-item NEOPI-R; Costa & McCrae, 1992), but it does make the GCB-15 less useful in certain situations. For example, if funds are limited, such as is often the case for studies run by early career researchers and those from countries without established funding institutions, the GCB-15 may prove financially prohibitive. Likewise, if participant attention is limited, such as is often the case at the end of long surveys and among particularly unmotivated samples, the GCB-15 may push some participants over the edge into careless responding. In these situations, it would be valuable to have a measure of conspiracist ideation that has similar levels of reliability, criterion validity, and construct validity to the GCB-15, while also being more efficient to administer.

When it comes to creating short-form measures, researchers often make two assumptions (Smith et al., 2000). First, they assume that the reliability and validity evidence of the long-form measure automatically applies to the short-form measure and, second, they assume that, because it is shorter, the short-form measure does not require as much evidence for its reliability and validity. Both of these assumptions are wrong. The goal of the present study was, therefore, to create a short form of the GCB-15 that is reliable, criterion valid, and construct valid in its own right.

To that end, we conducted five studies to evaluate the psychometric properties of a 5-item, short-form measure of the Generic Conspiracist Beliefs Scale: the GCB-5. In Study 1, we tested the reliability of the GCB-5 by first exploring its factor structure and then by estimating a common index of reliability. We also assessed its criterion validity by examining its associations with a tendency to believe in a broad collection of specific conspiracy theories, as well as with a second, previously validated measure of conspiracist ideation. In Study 2, we tested the reliability and criterion validity of the GCB-5 in a similar fashion to Study 1. We further evaluated the GCB-5’s construct validity by examining its associations with various constructs that it should (e.g., delusional ideation) and should not (e.g., trustworthiness) be associated with. In Study 3 and Study 4, we examined the reliability, criterion validity, and construct validity of the GCB-5 in a similar manner to Study 2, but further extended our validation efforts by including additional measures (e.g., the Uniqueness Scale; Snyder & Fromkin, 1977) and an additional source of data (i.e., informant-report ratings). In Study 5, we, again, examined the reliability and the construct validity of the GCB-5. The reliability of the GCB-5 was assessed in much the same way as in the previous four studies, but the construct validity of the GCB-5 was assessed by examining its associations with a number of theoretically relevant social and political issues (e.g., support for stricter voting laws; opposition to COVID-19



Variable	M	SD	1	2	3	4	5	6	7	8	9	10
Study one												
1. Total GCB-5	47.689	12.445		0.878**	0.830**	0.811**	0.869**	0.788**				
2. GM	10.233	2.934			0.692**	0.599**	0.694**	0.713**				
3. MG	9.495	3.120				0.576**	0.668**	0.556**				
4. ET	8.552	3.313					0.669**	0.514**				
5. PW	8.575	3.032						0.684**				
6. CI	11.083	2.438							0.684**			
Study two												
1. Total GCB-5	39.368	15.853		0.889**	0.691**	0.810**	0.911**	0.828**	0.516**	0.292**	0.253**	0.243**
2. GM	7.408	3.207			0.767**	0.651**	0.775**	0.677**	0.471**	0.262**	0.229**	0.214**
3. MG	6.893	3.396				0.658**	0.772**	0.614**	0.453**	0.237**	0.217**	0.186**
4. ET	6.093	3.321					0.657**	0.540**	0.496**	0.272**	0.207**	0.205**
5. PW	7.631	3.198						0.723**	0.513**	0.261**	0.248**	0.197**
6. CI	8.634	2.939							0.298**	0.233**	0.202**	0.193**
7. IPO-RT	41.760	15.969								0.493**	0.518**	0.264**
8. Total BCIS	35.678	6.924									0.893**	0.792**
9. Self-Construal	19.254	6.692										0.632**
10. Self-Defectiveness	13.624	3.457										

GCB-5, Generic Conspiracist Beliefs Scale; GM, Government Malfeasance; MG, Malevolent Global Conspiracies; ET, Extraterrestrial Cover-up; PW, Personal Wellbeing; CI, Control of Information; IPO-RT, Reality Testing; BCIS, Basic Cognitive Insight Scale. ** indicates p < .001 https://doi.org/10.1016/j.ep.2022.104315

vaccine mandates). The primary purpose of Study 5 was, however, to demonstrate the GCB-5's usefulness for providing novel insights into the nature of conspiracist ideation. To that end, we examined whether people high in conspiracist ideation, as assessed by the GCB-5, are more accepting of the use of nuclear weapons and other acts of so-called *virtuous violence* (i.e., acts of violence that are perceived as being morally right; Fiske & Rai, 2014; see also Slovic et al., 2020).

Section snippets

Study 1

The purpose of Study 1 was to assess both the reliability and criterion validity of the GCB-5. The reliability of the GCB-5 was assessed by first examining the dimensionality of the scale—a necessary precondition for calculating many popular reliability indices (Cortina, 1993, John and Soto, 2007, Schmitt, 1996)—and then by estimating a popular index of reliability (i.e., Cronbach's alpha; Cronbach, 1951). The criterion validity of the GCB-5 was assessed by examining its associations with the

Study 2

The results of Study 1 indicated that the GCB-5 is both a reliable and criterion-valid measure of conspiracist ideation. Study 2 was intended, in part, to replicate these findings. Specifically, we again assessed the reliability of the GCB-5 by first examining its dimensionality and then by estimating a popular index of reliability. We also assessed the criterion validity of the GCB-5 by first examining its associations with the BCTI-21, BCTI-15, and CMQ and then by comparing these associations

Study 3

The results of Study 1 and Study 2 indicated that the GCB-5 is a reliable and criterion-valid measure of conspiracist ideation, and the results of Study 2 further indicated that the GCB-5 is a construct-valid measure of conspiracist ideation. Study 3 was intended to replicate these findings. For the most part, we assessed the reliability, criterion validity, and construct validity of the GCB-5 in the same way as we did in Study 2. We did, however, make two notable changes.

First, we changed

Study 4

The results of Study 3 largely replicated the findings from Study 1 and Study 2, providing further support for the reliability, criterion validity, and construct validity of the GCB-5. The aim of Study 4 was to further replicate these findings using a similar method to that used in Study 3. However, we did make three changes.

First, in addition to having participants complete a general measure of conspiracist ideation (i.e., the CMQ; Bruder et al., 2013), we also had participants complete a

Study 5

The first four studies found consistent support for the reliability, criterion validity, and construct validity of the GCB-5. Study 5 was intended, in part, to further examine the reliability and construct validity of the GCB-5. Its reliability was tested in a similar fashion to that seen in Study 1, Study 2, Study 3, and Study 4. Its construct validity, on the other hand, was evaluated by examining its associations with the endorsement of a number of social and political issues that it should,

General discussion

The purpose of the present project was to evaluate the psychometric properties of a short-form version of the Generic Conspiracist Beliefs Scale (Brotherton et al., 2013): the GCB-5. To that end, we conducted five studies (*N*_{TOTAL} = 2,071). In all five studies, we examined the GCB-5's reliability by first examining whether it was unidimensional—a prerequisite for calculating many common estimates of reliability (Cortina, 1993, John and Soto, 2007, Schmitt, 1996)—and then by calculating a popular

Limitations and future directions

An oft-repeated adage among psychometricians is that scale evaluation is never over; there is always more than can be learned about any given measure. The present set of studies should, therefore, not be taken as the final word on the GCB-5. Instead, it should be taken simply as an initial investigation into the psychometric properties of the GCB-5. In this section, we outline four ways that this investigation can be extended in future work.

First, future work should assess the test–retest

Conclusion

Conspiracy theory researchers have devoted substantial time and effort to developing various tools and methods for assessing conspiracist ideation, and for good reason. The tendency to believe in conspiracy theories is associated with a host of troubling beliefs and behaviours, including climate change denial (Lewandowsky et al., 2013b), political apathy (Butler et al., 1995), vaccine apprehensiveness (Jolley & Douglas, 2014a), Islamophobia (Uenal, 2016), xenophobia (Sapountzis & Condor, 2013),

CRediT authorship contribution statement

Cameron S. Kay: Conceptualization, Data curation, Investigation, Methodology, Project administration, Visualization, Writing – original draft, Writing – review & editing. **Paul Slovic:** Conceptualization, Funding acquisition, Investigation, Methodology, Visualization, Writing – review & editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

Funding from the Alfred P. Sloan Foundation under Grant Number G-2018-11100 is gratefully acknowledged along with support from Ben Delo and Longview Philanthropy.

From <<https://www.sciencedirect.com/science/article/abs/pii/S0092656622001283>>

Why won't a debunked conspiracy theory about doctors harmed by the COVID vaccine go away?

Julian WoodNovember 7, 2022



On the third Sunday in July, a Toronto ear doctor and devoted father of three died after a “ridiculously unfair” bout of lung cancer, according to his obituary.

The next day, a longtime neurologist who loved literature, classical music and the outdoors also died of cancer. The third doctor to die this week had a passion for pain medicine and had just given birth to a son when he died of an aggressive form of stomach cancer, according to news reports.

All three worked at Trillium Health Partners, a Mississauga and Etobicoke hospital system that posted a statement online of the “deep sadness” of mourning three colleagues at once. But unusually, the statement went a step further: “The rumor circulating on social media is simply not true,” it said.

“Her death was not related to the COVID-19 vaccine.”

The summer’s spate of deaths helped ignite what is now a bonfire – a conspiracy theory that is now selling a list of dozens of doctors online, including the three who died in July, as well as – by their own description – several Who Drowned, one who had just cycled 105 kilometers and a doctor who died while descending K2, a mountain deadlier than Everest.

Read also: [‘New World Order’ conspiracy theory no valid argument in foreclosure case: BC judges](#)

The list has infuriated many of her surviving family members and colleagues. It has also shown how difficult it can be to quash misinformation in the pockets of the internet, where regulation is thin and bad actors thrive.

“It’s on my social media feed almost every day, if not every day. My hate mailers email me,” says Tim Caulfield, the Canadian research chair in health, law and policy at the University of Alberta, who works on misinformation.

“One of the fascinating things is that it was immediately debunked, like, ‘No, that’s wrong. This is actually how these persons died.’ But that didn’t detract from the story.

“It’s amazing that it won’t die – and it’s amazing the impact it continues to have.”

A widely shared Facebook post in the days after the three died showed pictures of the doctors and implored people to help spread its warning message: “How many times have 3 doctors died in a week days after the hospital stopped administering of the 4th shot had begun,” the message reads.

“How many ‘coincidences’ will people accept. These shots must be fired.”

Versions of the same message — some identical, others worded differently, but reflecting the conspiracy theory that the deaths were no coincidence — flooded social media.

To be clear, experts agree that this is a conspiracy theory. The causes of death were well documented by the family in messages and obituaries. It’s not clear when they were vaccinated, and their symptoms don’t match what we know about vaccine side effects from studies on millions of people.

Millions of COVID vaccines have been administered in Canada and billions around the world. Studies show that the shot is overwhelmingly safe and effective, and serious side effects are extremely rare. So far, an Ontario coroner has included a vaccination-related blood clot in a person’s cause of death, and 50 deaths that occurred after vaccination are under federal investigation.

Still, by late July and early August, the conspiracy theory was so widespread that media organizations stepped in to debunk it by pointing out the real reasons behind the deaths of these doctors. These include American outlets such as USA Today and the international news service Reuters.

Providing credible information to counter conspiracy theories is still important to those who aren’t subscribed and are genuinely looking for information, says Caulfield.

But debunking doesn’t necessarily affect those already on board with misinformation, he notes.

Conspiracy theories are becoming increasingly self-assured, he says, since any attempt to correct them only reinforces them for core believers. For example, when health officials reveal the real reason these doctors died, for some it becomes just further evidence that the medical system is corrupt, he says.

The fact that the deaths of doctors fits well with other myths about the healthcare system makes this a particularly powerful misinformation, says Dr. Michelle Cohen, a family doctor in Brighton, Ontario, who has been following the theory’s progress since Summer.

If you already believe doctors are lying about vaccine safety, the idea of the same healthcare providers being harmed is a “dark joy,” she argues.

“Then also, seeing doctors as victims of their own hubris or victims of the system (which makes people wonder) how the rest of us can meet the challenge against these dark globalist forces,” she adds.

The fact that major digital players have made real efforts to quash misinformation has changed the landscape in terms of conspiracy theories. For most people, a quick Google search for Toronto doctors who died from the COVID vaccine yields a menu of stories challenging the virus theory, but that has helped push some of these ideas into lesser-known corners of the internet urge or prompted the creation of new disguises.

Anti-vaccination messages are more searchable on newer platforms like Telegram, TikTok, and Gettr.

It also persists on Facebook, where some users have struggled to dodge efforts to root out misinformation. For example, the deaths of doctors piggybacked on an existing conspiracy theory, says Cohen, that says anyone who died suddenly could have been a victim of the vaccine.

There are Facebook groups that have embraced the idea — many of which have been created or expanded in recent months — but which use scrambled language to disguise their intent, using euphemisms for the vaccine such as cupcake or juice.

One such private group called Died Suddenly Worldwide, which was formed in late August, now has more than 20,000 members discussing why they believe people they know have been harmed by vaccines. It even includes in its rules that members must use different code words. (Which at least one member seems to find confusing, and in a recent post wondered why everyone couldn’t just pick a term and stick with it — “Good heavens! It’s stressful trying to decipher it.”)

But the idea of doctors dying was also reinforced by high-profile figures, including those from outside the country.

In August, American tech millionaire-turned-vaccination opponent Steve Kirsch wrote about “14 young Canadian doctors” who died after being given an injection. (The number of doctors has grown over time.)

Weeks later, a video by American radio personality Stew Peters claimed that “hundreds” of Canadian doctors had died. “Doctors are dropping like flies in Canada,” says a post that has been viewed nearly 190,000 times.

Peters released a film later this month that claims to study all people who have died after being vaccinated. The trailer includes clips of pop artist Justin Bieber, who recently suffered facial paralysis as a result of Ramsay Hunt Syndrome, which doctors say is unrelated to a vaccination, and Katy Perry, who recently described a twitch on stage as her “party trick with a broken doll’s eye”.

This fall, the torch was picked up again here by William Makis, an Alberta-based physician who no longer practices. He claims to have used the obituaries to determine that there are now more doctors who have died from the COVID vaccine and has called on the Canadian Medical Association to investigate.

“There is no evidence to confirm or support the various theories that have been circulated,” the CMA said in an email.

The organization “deals with misinformation and conspiracy theories circulating online about recent doctor deaths across the country.

Still, anti-vaccination publications like The Epoch Times, Bright Light News and Western Standard have picked up the story.

According to a recent article in The Epoch Times — an anti-China Falun Gong-related publication — Makis has declined to provide his full database, instead basing his calculation on notes of deaths on medical association websites, including the Canadian Medical Association.

Cohen says after more than two years fighting a pandemic, it’s hard to imagine her colleagues being used to discredit a medical procedure that saved lives. As misinformation about COVID continues to circulate, doctors have found it particularly difficult to see one targeting their own.

“Taking photos and words about someone’s life submitted by a family member in honor of a funeral service? And split it all over these disinformation networks?

Kraken, Elon Musk and dead Canadian doctors: Disinformation surges 3 years into the pandemic



A new Ipsos poll conducted for Global News found nearly a third of Canadians say they are less trusting of information from social media than they were prior to the pandemic. The poll also shows some significant generational divides around trust and regulation of online spaces. Mike Armstrong explains – Dec 23, 2022
Delaney Barth knows exactly how her mother died – because she was the one who found her body and the suicide note.

After a long battle with mental illness, Louise Feddema, a physician in Canmore, Alta., took her own life on New Year's Eve, 2021. Barth and her sister had arrived at their mother's house after Christmas with their father, only to find her body, a note and a list of important contacts and next steps.

So when Barth later discovered that Feddema's name was circulating on a fake list of 80 doctors whose deaths were linked to the COVID-19 vaccine, she found it “truly insulting.

The bogus theory – promoted by a small group of Canadian doctors who have spent the pandemic falsely claiming or suggesting that the vaccine kills or harms people – insists, without proof, that the vaccine may have played a role in the death of an evergrowing number of physicians.

Global News has spent months investigating the list of doctors and speaking to their families and has found no link of the COVID vaccine to any of their deaths. Where Global News was able to determine the most likely cause of death, it was most often cancer, heart attack or suicide. At least one wasn't even vaccinated.

And some family members say beyond the lies about their loved ones, they themselves have also become the target of hate mail and abuse.

“This is not OK. This is not right. I've been getting calls into my husband's clinic from patients who have seen this and they're calling and leaving horrible messages,” Catherine Cole, wife of Dr. Christopher Cole, who died in May this year after a battle with mental health issues, says.

Having to field calls from anti-vaxxers while trying to mourn his loss had been “brutal,” she says through tears. “It had nothing to do with COVID. This is insanity.”



2:09Hate speech surging on Twitter under Elon Musk. But, the truth cannot contain the spread of the theory which, along with other COVID falsehoods – is no longer confined to the fringes of the internet. After Twitter dismantled its [tools to root out COVID disinformation](#) in November, disinformation accounts and bad actors that were previously banned from the website reemerged under [Elon Musk's](#) ownership. And, much like the virus and its new [subvariant XBB.1.6](#), that disinformation is now spreading with reckless abandon.

Alongside Musk's Twitter, winter pressures on health services and the latest COVID-19 subvariant, also known as Kraken, has helped disinformation thrive in recent months, according to the Centre for Countering Digital Hate (CCDH).

The Canadian doctor conspiracy theory had 3.3 million views on Twitter between Nov. 20 and Dec. 20, CCDH data shows. During the week of Nov. 23 alone, when Twitter removed its disinformation policy, the theory reached 1.4 million views.

Its surge in popularity at that time coincided with the release of misinformation film *Died Suddenly*, with “Died Suddenly” and “Vaccine Death” now routinely trending hashtags.

From <https://globalnews.ca/news/9405373/covid-conspiracy-theory-doctors-canada/>



From <https://globalnews.ca/news/9405373/covid-conspiracy-theory-doctors-canada/>

"I find it absolutely disgusting."

From <<https://canadatoday.news/26/why-wont-a-debunked-conspiracy-theory-about-doctors-harmed-by-the-covid-vaccine-go-away-41390/>>

Multiple Booster Shots Wreck your Immune System

January 14, 2023 6:43 PM

The latest COVID conspiracy claims multiple booster shots wreck your immune system

A conspiracy theory about booster shots resurfaced this month — here's what experts say

By [NICOLE KARLIS](#)

Senior Writer

PUBLISHED JULY 19, 2022 4:30PM (EDT)



A woman receives her Covid-19 vaccination booster jab at the Sir Ludwig Guttmann Health & Wellbeing Centre on November 10, 2021 in the Stratford area of London, England. (Leon Neal/Getty Images)

[Facebook](#)

143

[Twitter](#)

[Reddit](#)

23

[Email](#)

4

save

Like a sinister game of Whac-A-Mole, every time a [COVID-19 conspiracy theory](#) is debunked, another one emerges anew. The latest conspiracy theory making the rounds in [anti-vaccine](#) social media circles is the idea that multiple [COVID-19 boosters](#) somehow destroy one's immune system.

The claim resurfaced again last week, likely due to recent news about the possibility of omicron-targeted booster shots arriving this fall. As Salon [previously reported](#), the U.S. Food and Drug Administration (FDA) advised manufacturers to reformulate [booster shots](#) to specifically protect against the BA.4 and BA.5 [omicron](#) variants earlier this month. One [video](#) making the rounds featured a news anchor stating that European Union regulators were warning that frequent COVID-19 booster shots could negatively affect the immune system.

So, is there any truth here — or is this just another bout of anti-

vaccine disinformation?

Advertisement:

While the [context in which the video was shared](#) made it appear to be recent news, the claim dates back to January 2022, when experts from the European Medicines Agency (EMA) argued at a press conference that COVID-19 booster shots should not be given too close together. The video is a clip from when Bloomberg Quicktake Now [reported on the conference](#).

***Want more health and science stories in your inbox?
Subscribe to Salon's weekly newsletter [The Vulgar Scientist](#).***

"We are rather concerned about a strategy that entangles repeated vaccination within a short term; we cannot really continuously give a booster dose every 3 or 4 months," said Marco Cavaleri, the head of Biological Health Threats and Vaccines Strategy at the EMA press briefing in January 2022. "If we have a strategy in which we give boosters, let's say every 4 months approximately, we will end up potentially having a problem with the immune response, and the immune response may end up not being as good as we would like it to be."

Why Sherri Shepherd is so thankful for "The View" and Barbara Walters
Advertisement:

As Cavaleri noted at the press conference, there were hypothetical concerns about multiple boosters for a couple of reasons. One concern took into account that booster shot-makers are apt to be playing a constant game of catch-up with the next variant, which might not make them as effective as they could be. Then, there's the risk of the general public growing tired of the need for new shots.

"There is the risk of fatiguing the population with the continued administration of boosters," Cavaleri said.

RELATED: [More proof vaccines don't cause autism](#)

Notably, Cavaleri never advocated against giving boosters, nor did he question the safety and effectiveness of the COVID-19 vaccines. Rather, he was supporting the idea of issuing boosters, but in a more spread-out timeframe.

"It would be much better to start thinking about an administration of boosters that are more spaced in time," Cavaleri said. "Ideally, if you want to move towards a scenario of endemicity, then such boosters should be synchronized with the arrival of cold season in each of the hemispheres, similarly to what we are doing with the influenza vaccine."

Advertisement:

"There is no evidence that repeated boosters weaken the immune system," Dr. Monica Gandhi told Salon. "In fact, this important paper shows that any exposure or any booster actually broadens and diversifies the T cell

memory repertoire (e.g. expands your immune response)."

Yet Cavaleri's remarks from January have been repeatedly decontextualized to fit an anti-vaccine agenda and scare the public into not getting boosters. Currently, about half of [vaccinated Americans](#) have received a single booster. Only a quarter of boosted people over the age of 50 who are eligible have received a second one. This newest piece of misinformation, that, boosters will "destroy" or "ruin" a person's immune system, has been perpetuated by anti-vaccine talking heads like Robert Malone and Alex Jones.

Advertisement:

Experts affirm that the notion that "too many" boosters will ruin peoples' immune systems isn't true. In fact, boosters do just the opposite.

"There is no evidence that repeated boosters weaken the immune system," Dr. Monica Gandhi, infectious disease doctor and professor of medicine at the University of California–San Francisco, told Salon via email. "In fact, [this important paper](#) shows that any exposure (breakthrough infection) or any booster actually broadens and diversifies the T cell memory repertoire (e.g. expands your immune response)."

Gandhi [pointed to a second paper](#) published in Nature that suggests either exposure to the virus or a booster shot can help a person's immune system be better prepared to respond to newer subvariants.

"Repeated boosters seem to provide enhanced protection, and they seem to actually broaden the immune response," William Schaffner, a professor of infectious diseases at the Vanderbilt University Medical Center, told Salon. "And that broadening is important, because you get better coverage against the variants."

Advertisement:

Schaffner added that a booster, in general, "does what its name suggests." In other words, it boosts the immune system — it does not weaken it.

"It reminds the immune system to get active again, and the immune system makes the protection — the antibodies — and does so in an enhanced way," Schaffner said. "It does it better than previously — that's what the booster is designed to do — so you get more antibodies, and you get a broader representation of antibodies."

In the case of the COVID-19 vaccines, boosters have been necessary for two reasons, Schaffner said. The first being that the virus has been mutating, which may reduce efficacy of the initial vaccine. The second reason is that immunity wanes after several months, according to [multiple studies](#).

"This is a virus that is very different from, for example, the measles virus. The measles virus is very stable, it doesn't mutate, and once you get vaccinated securely against measles, you're protected for life," Schaffner said. "The whole group of coronaviruses are a different family, and their immune response is not as long-lasting as it is against measles."

Advertisement:

Finally, Schaffner added that the COVID-19 vaccines being presented as a two-dose series, plus a booster, was a "misnomer."

"We first said, 'oh, COVID vaccines are a two-dose vaccine' and then we'll get a booster,'" Schaffner said. "The vaccines really were a three-dose vaccine, so don't get all hung up on the name."

From <<https://www.salon.com/2022/07/19/the-latest-conspiracy-claims-multiple-booster-shots-wreck-your-immune-system/>>

'Died Suddenly' Pushes Bogus Depopulation Theory

By [Saranac Hale Spencer](#), [Jessica McDonald](#) and [Catalina Jaramillo](#)
Posted on December 1, 2022

What appear to be ordinary postmortem blood clots are held up in a viral online video as supposed evidence that there's a depopulation plot underway using COVID-19 vaccination to kill people. There's no evidence for this theory. The hourlong video also repeats numerous falsehoods that have previously been debunked.



How do we know vaccines are safe?

Full Story

Misinformation masquerading as documentary has been a fixture of the COVID-19 pandemic — from the “[Plandemic](#)” [videos](#) that suggested “the scientific and political elite” planned the pandemic to the Stew Peters [video](#) claiming that the disease was caused by snake venom secretly injected into the water supply by the Catholic Church and government agencies.

Now another video from Peters, a conservative radio host, is making the rounds on social media, racking up millions of views across major platforms — such as [Facebook](#) and [YouTube](#) — and niche platforms — such as [Rumble](#) and [Gab](#). It's also been promoted by high-profile anti-vaccine campaigners, including Robert F. Kennedy Jr.'s [Children's Health Defense](#) and [Rep. Marjorie Taylor Greene](#).

The roughly hourlong video repeatedly flashes across the screen what appear to be postmortem blood clots, which are often found in dead bodies. Although such clots are common, the video features nine embalmers and funeral directors who describe the clots as a new anomaly and surmise that they were caused by COVID-19 vaccines. The video suggests that this is part of a shadowy plot to depopulate the world.

The video, which is called “Died Suddenly,” offers no evidence to support this theory and, instead, relies on references to previous conspiracy theories — including the false claim that circulated earlier this year that [Sudden Arrhythmic Death Syndrome](#) was somehow related to vaccination; the long-standing false claim that [athletes are dropping dead](#) due to vaccination; and the false claim that pilots are causing [plane crashes](#) because of COVID-19 vaccination.

Like most conspiracy theories, this one contains a tiny grain of truth. One of the vaccines available in the U.S., [made by Johnson & Johnson](#), can cause a particular kind of clotting combined with low platelets. But the condition is very rare — it has occurred in about [4 cases per 1 million doses administered](#) — and in December the [Centers for Disease Control and Prevention recommended](#) the two mRNA vaccines over Johnson & Johnson's. Only about 3% of the [vaccine doses administered](#) in the U.S. have been from Johnson & Johnson.

And experts say the clots shown in the video appear to be a different type of clot.

“Just looking at those blood clots from the movie, they look like very common postmortem blood clots, and I feel like it was just the shock and awe value of using these images of blood clots taken out of context to scare people,” Dr. [Eric Burnett](#), of Columbia University's Irving Medical Center, [told MedPage Today](#).

We'll explain more on that below.

Embalmers' Claims Not Evidence of Vaccine Harm

As we said, the video's central claim is that embalmers have been noticing unusual clots in dead people, and that these clots have killed people and may be due to COVID-19 vaccination. Photos and videos of scary-looking clots taken from corpses pepper the movie.

As the camera pans over clot specimens in tubes, Richard Hirschman, a [licensed](#) funeral director and embalmer in Alabama featured in the video, asks, “How come, all of a sudden, these things are happening in so many people?”

While Hirschman takes one of the clots out of a tube, describing it as “like a rubber band or like calamari,” the filmmaker says, “So of course that would explain people stroking out.”

Hirschman was featured in a [video](#) posted by the “Stew Peters Network” on Rumble in January, and his apparent findings have been highlighted on other [dubious websites](#). But in a phone interview with FactCheck.org, he told us he never said he could prove a connection between the clots he was showing and the COVID-19 vaccines.

“I can't prove what this is,” Hirschman told FactCheck.org in a phone interview. “I'm not a doctor nor a scientist — I never said I was.”

Later, John O'Looney, a U.K. funeral director, holds up another specimen, saying the clots “take the shape of the vessels that they're growing in,” and the clot is what killed the person.

But there is no evidence that the clots are related to vaccination, nor are they necessarily abnormal. Many of the clots shown, in fact, appear to be postmortem clots, or blood clots that form after death, which would have nothing to do with vaccination or why someone died.

[Burnett](#), the Columbia physician, [explained](#) in a TikTok video debunking the “documentary” that the clots have many features characteristic of postmortem clots.

“If you look at postmortem clots just with the naked eye, they're gelatinous and they're rubbery. And if you listen to the embalmers on this documentary, that's exactly how they're describing these new, strange clots,” he said. “Postmortem clots typically take the shape of the blood vessel they're in, and that's exactly how these embalmers describe these newfangled clots that they're finding. They're pulling out these perfect casts of blood vessels.”

Other experts have come to the same conclusion when asked before by fact-checkers about such claims from funeral service providers, including Hirschman and O'Looney.

“The images look to me more like postmortem clots, mainly due to the color, the shape, and particularly because of the amount,” Nikolaus Klupp, an associate professor of forensic medicine at the Medical University of Vienna, [told](#) Health Feedback in September.

“The blood clots are from refrigeration. It happens to many bodies,” embalmer [Monica Torres](#), of NXT Generation Mortuary Support, [told](#) AFP the same month. “It's just that there were so many bodies to process, many of them sat in refrigeration for long durations so they got blood clots. It's not a big deal and these people are trying to make it a thing.”

Some of the clots could be ones that formed prior to death, as blood clots are relatively common, but there is no evidence that COVID-19 mRNA vaccination causes them, as we've [written](#).

The [Johnson & Johnson vaccine](#) can [very rarely](#) cause a very particular blood clotting problem involving low levels of blood platelets, known as thrombosis with thrombocytopenia syndrome, or TTS. But the condition has not been linked to the mRNA vaccines from Pfizer/BioNTech or Moderna, and there is no evidence that the vaccines raise the risk of blood clotting generally.

Research suggests vaccination [prevents](#) blood clots by protecting against COVID-19, which raises the risk of clotting and associated health problems.

The National Funeral Directors Association [told](#) PolitiFact in February that embalmers had noticed an increase in blood clots among COVID-19-related deaths, including vaccinated and unvaccinated people.

Jessica Koth, director of public relations for the association, told us in an email that “[f]uneral service professionals are in no way qualified to draw any conclusions about COVID vaccines and blood clots. We're not medical examiners or physicians or scientists.”

She pointed us to a [blog post](#) by funeral director and embalming expert Ben Schmidt, who called such claims “clickbait” and noted that it would be “extremely unusual for an embalmer to know someone's medical history unless they were closely related to the deceased person,” and that embalming “often takes place before a specific cause of death is communicated to the embalmer let alone their vaccination records.”

He added that postmortem clots “can form quickly as long as the blood is still in a liquid state” and that formaldehyde coagulates proteins, such as those in blood, during the embalming process.

Hirschman told us that he started noticing the clots after the vaccines became available and discussed his thoughts with colleagues and his personal doctor. He didn't bring his concerns to any federal or state health agency because, he said, “I didn't know who to bring it to.”

Instead, he went to a person identified in the January “Stew Peters Network” video as Dr. Jane Ruby. She has a doctor of education degree, but [is not a medical doctor](#), although she wears a white coat and stethoscope in [pictures on social media](#).

Over the last year or so, Hirschman brought in people he worked with as a contract embalmer in Alabama. He knew three of the morticians who appeared in the video, he said.

One of them is Chad Whisnant, whose name is spelled incorrectly in the video.

Whisnant runs a [funeral home](#) in Alabama with his wife, Brooke.

He didn't return our call for comment, but Brooke Whisnant told us in a phone interview that the clots shown in the video aren't out of the ordinary and that she doesn't share her husband's view of vaccination, which has changed over the last several years.

“I'm now an antivaxxer,” Chad Whisnant said in the video. “I wasn't before.”

“It's been a slow, slow process ever since Trump took office,” Brooke Whisnant said of her husband's shifting beliefs after former President Donald Trump took office in 2017. “It's been a very weird abyss of misinformation on the internet,” she said.

Chad Whisnant's first appearance in the video actually references a well-worn piece of misinformation that [we've addressed before](#). The filmmakers play a clip of Bill Gates misleadingly edited to make it look like he was saying vaccines could be used to kill people as part of an effort by elites to depopulate the world. But Gates was really saying that improving health care and reducing child deaths, including through vaccines, can reduce population growth, which will be important in the future for limiting carbon dioxide emissions.

Brooke Whisnant also said that Hirschman had performed embalming services at their funeral home and pointed out that they don't know who's been vaccinated and who hasn't among the deceased.

Finally, it's worth noting that some of the video used in “Died Suddenly” has been taken from a medical education video [posted](#) on YouTube in April 2019. The procedure shown, known as a [pulmonary embolectomy](#), involves surgical removal of a clot, and is typically only done in extreme cases. Since the video was posted in the spring of 2019, it has no connection whatsoever to COVID-19 vaccination. (Also, contrary to what the “documentary” claims, there are [several methods](#) for identifying a problematic clot without resorting to surgery.)

The video below shows a side-by-side comparison of footage from the “Died Suddenly” video and the 2019 YouTube educational video.

Google Search Provides No Evidence of Vaccine Deaths

One of the frequently referenced claims throughout the video is that people have been dropping dead because of the COVID-19 vaccines. Despite a complete lack of evidence, this claim has been made many times before — often with reference to [athletes](#) or to [Sudden Arrhythmic Death Syndrome](#).

Both of those versions of the claim have been addressed by [us](#) and other [fact-checkers](#) before, but the suggestion continues to spread online.

For example, within the first 10 minutes, the video suggests that a Google search of the term “died suddenly” will reveal deaths related to the vaccines. But, of the 17 headlines that scroll across the screen in this segment, none of the deaths has been attributed to the vaccine, according to publicly available information.

In one case, the person had died in a [car crash](#) in 2017 — three years before the pandemic began. His name was Eric Cruz, and his mother, [Dolores Cruz](#), had written a piece about her journey with grief that was published on [HuffPost](#). The only part of the story that showed up in “Died Suddenly,” though, was the headline from that essay: “My Kind, Compassionate Son Died Unexpectedly. This Is What I Want You To Know About Grief.”

In another case, a 32-year-old English woman died after having a [pulmonary embolism](#) — a blood clot in the lung — weeks after giving birth. Samantha Crosbie had suffered from [pelvic girdle pain](#) during her pregnancy, which made it hard for her to move during that time, putting her at risk for developing blood clots, her mother, Jane Parker, [explained](#) to the British newspaper the Sun.

“Samantha not being able to move around for nine months, not doing very much, was a sign that could have been highlighted,” Parker told another newspaper, the Daily Mail. “If she had understood that she would be more at risk of a blood clot, I am sure it would have made a difference,” she said.

All of that information was included in the story that was referenced in “Died Suddenly,” but the only thing the video showed was the [headline](#): “Mother, 32, died just five weeks after giving birth because of a ‘preventable’ blood clot.”

In another example, Robert Cormier — an actor who appeared in the Canadian television show [Heartland](#) — died Sept. 23 in what his [family described](#) as a “tragic accident.” [His sister told](#) the Hollywood Reporter that he died of injuries he suffered from a fall.

But the only thing the video showed was a [headline](#) that said: “Actor's sudden death aged 33.”

Similarly, video footage played in the segment shows television news anchors reporting on the death of baseball Hall of Famer Hank Aaron, falsely suggesting it was related to COVID-19 vaccination. As we've [written](#), Aaron was vaccinated against COVID-19 as part of a public health campaign encouraging vaccination shortly after the shots became available, but there is no evidence that had anything to do with his death. He died of natural causes at the age of 86.

One of the last examples in that segment featured [Jacob Clynick](#), a 13-year-old Michigan boy who died June 16, 2021. His death, which occurred days after he had received his second dose of the Pfizer COVID-19 vaccine, was [reported](#) to the CDC and investigated for any potential connection to the vaccine.

The investigation found that there was no causal link between the vaccine and his death.

“Conclusions reached by the CDC and local investigators discovered no evidence of a causal relationship between vaccine administration and this young man's death,” a [press release](#) from the Michigan Institute of Forensic Science and Medicine said.

So, as we said, there is no publicly available evidence connecting any of the deaths referenced in this portion of the video with COVID-19 vaccination and, in some cases, the evidence contradicts the claim.

Later in the video, filmmakers play clips of people collapsing with the suggestion that the cause was vaccination, but, as [others have pointed out](#), some of the clips are old and don't have anything to do with vaccination.

In one example, a woman in Argentina is shown [falling off a platform into a moving train](#) earlier this year. The woman, who's been identified only by her first name in news reports, survived the incident, which has not been linked to vaccination. She [said afterward](#), "I am undergoing treatment for hearing and nutrition issues, and I have to undergo neurological exams."

Invalid Claims About Excess Deaths and Health Conditions

Twenty minutes into "Died Suddenly," Peters introduces Lt. Col. Theresa Long, an Army flight surgeon who as an expert for the [anti-vaccine group](#) America's Frontline Doctors has [falsely claimed](#) that the COVID-19 vaccines contain an active ingredient in antifreeze.

As the camera pans over a [news article](#) with the headline "Indiana life insurance CEO says deaths are up 40% among people ages 18-64," Long incorrectly suggests that the excess deaths are due to the COVID-19 vaccines. "40%," Long says, while the camera zooms in on that number in the headline. "No one's even, no one's even calculated that. ... It's apocalyptic." But the fact is that the increase in deaths was linked to COVID-19, not to the vaccines. The number comes from a presentation by J. Scott Davison, CEO of OneAmerica, [during a news conference](#) about a surge of COVID-19 cases in Indiana in December 2021.

Davison said death rates in the third quarter of the year "are up 40% over what they were pre-pandemic," primarily in working age people. "Just to give you an idea of how bad that is," he added, "a 1 in 200-year catastrophe would be a 10% increase over pre-pandemic."

Davison [associated the increase](#) with COVID-19 itself, not the vaccine. He added that the deaths reported as COVID-19 deaths are "greatly" understated. His comments were later [misrepresented](#) by Dr. Robert Malone and others, and fact-checked by the [Associated Press](#) and [PolitiFact](#) earlier this year.

According to an [analysis of life insurance data](#) conducted by Jeffrey Morris, a biostatistician at the University of Pennsylvania, in August, the excess deaths in young and middle adults in the fall of 2021 were related to COVID-19. "There is no evidence of any connection to vaccination," he wrote.

Next, Long and Lt. Col. Pete Chambers, another military physician, bring up the [Defense Medical Epidemiology Database](#), or DMED, which they claim has shown a concerning spike in medical conditions among the military caused by the COVID-19 vaccines.

This claim was debunked in early 2021 by [Reuters](#), [PolitiFact](#) and [Health Feedback](#), among others.

"Seeing the DMED data, I have significant concerns that we won't have a standing Army in five years," Long says.

The video then [shows](#) a clip from a COVID-19 discussion hosted by Sen. Ron Johnson on Jan. 25, in which attorney Thomas Renz presents DMED data provided by Long, Chambers and a third military physician.

"Miscarriages increased by 300% over the five-year average ... We saw almost 300% increase in cancer over the five-year average," Renz says, giving a special mention to Ryan Cole, a doctor from Idaho who has [baselessly claimed](#) the vaccines cause cancer and autoimmune diseases.

"This one's amazing ... neurological issues, which would affect our pilots — over 1,000% increase," Renz continues.

But as we said, these numbers are invalid. The apparent increases were caused by a data error in DMED for the years 2016 to 2020.

In February, a Department of Defense representative [told Reuters](#) that when the Defense Health Agency's Armed Forces Surveillance Division compared the DMED database with the source data contained in the Defense Medical Surveillance System, it "discovered that the total number of medical diagnoses from 2016-2020 that were accessible in DMED represented only a small fraction of actual medical diagnoses for those years."

So comparing data from 2021, which was up-to-date, with data from 2016-2020 "resulted in the appearance of significant increased occurrence of all medical diagnoses in 2021 because of the underreported data for 2016-2020," the representative added.

The article also notes that the agency temporarily took DMED offline "to identify and correct the root-cause of the data corruption." The database is now back [online](#).

But "Died Suddenly" falsely [suggests](#) the database went offline to avoid further investigation and incorrectly implies it's still inaccessible.

In randomized controlled trials and surveillance studies, the COVID-19 vaccines have been shown to be remarkably safe, often causing temporary and expected side effects such as a sore arm, but only [very rarely](#) causing serious harm. The Johnson & Johnson vaccine, as we mentioned, very rarely may cause TTS, and may also increase the risk of Guillain-Barré Syndrome. The mRNA vaccines are both associated with an increased risk of myocarditis and pericarditis, or inflammation of the heart or its surrounding tissue. While real, the risk of these conditions is very low, and they are primarily observed in younger males. There is no evidence that the vaccines cause the wide range of health problems the video claims.

No Link Between COVID-19 Vaccination and Miscarriage, Stillbirth

The last quarter of "Died Suddenly" is devoted to unsupported claims about the effect of COVID-19 vaccination on pregnant people. Studies have repeatedly shown that the vaccines are not associated with an increased risk of miscarriage or stillbirth, contrary to what is presented in the video.

The video shows a [phone call](#) with Michelle Gershon, described onscreen as a "whistle blower RN from the post partum ward of a major hospital in Fresno, CA," who suggests that an increase in stillbirths at her hospital are related to COVID-19 vaccination. As evidence, she shares an internal hospital email that gives a record high number of "demise patients" for one month.

But as we've [written](#), there hasn't been an increase in stillbirths in Fresno or California with the advent of COVID-19 vaccination. And the email, which makes no reference to COVID-19 vaccination, never states that its figure is only for stillbirths. [Fetal death](#), or fetal demise, refers to death at any time in pregnancy. Deaths before 20 weeks of gestation are miscarriages, while deaths after 20 weeks (or sometimes 28 weeks) are considered [stillbirths](#).

For that reason, among others, no rate of stillbirths can be calculated from the email figure. Yet that is precisely what "Died Suddenly" proceeds to do, showing a presentation given by Dr. James Thorp, a Florida gynecologist who has trafficked in COVID-19 misinformation, in which he erroneously attempts to graph the purported increase in stillbirths calculated using the number.

Thorp then repeats this same flawed exercise using two bogus figures for stillbirths (more than 80 stillbirths in Waterloo, Canada, and 13 "dead fetuses in one 24-hour period") that [we](#) and [others](#) have previously debunked.

Numerous studies have not found any link to COVID-19 vaccination and a higher risk of stillbirth. In fact, some have found a lower risk, likely because the shots protect against COVID-19, and the disease is known to increase the risk of stillbirth. Thorp then baselessly claims there is a "substantial increase in miscarriages, in birth defects" as a result of vaccination, with the video showing a series of images of infants with deformities. The implication is that the photos are of babies born to mothers who had been vaccinated, but that's incorrect.

Two of the images are from well before the vaccines were available. The first, as Dr. Frank Han, a cardiologist at the University of Illinois at Chicago, [noted](#) on Twitter, comes from a scientific paper [published](#) in 2011. The second, which shows a child born without a nose, is an AP photo from 2015 that ran in a Today Show [story](#) about the boy.

A third image has been taken from a YouTube [video](#) posted by a plastic surgery clinic in India, for a baby born [prior to April 2021](#). There is no indication the child's cleft palate is due to COVID-19 vaccination. India did not even authorize COVID-19 shots for pregnant people [until July 2021](#), and the country at the time [wasn't using](#) any of the COVID-19 vaccines authorized in the U.S.

The video then pivots to another claim about pregnancy loss, with Long, the Army flight surgeon, falsely saying that a Pfizer document "outlined that 83% of all pregnant women who got vaccinated ended up with a dead baby."

Purveyors of misinformation have previously misinterpreted the document to incorrectly claim, as we've [written](#), that it showed 44% of vaccinated women miscarried. Again, studies have found that COVID-19 vaccination does not increase the risk of miscarriage and can reduce the risk of stillbirth by protecting against COVID-19.

Earlier in the video, Long also incorrectly cited the same Pfizer document as evidence that the vaccine is harming people — and part of a conspiracy to intentionally kill people.

"I think if you look at the ... post-marketing analysis report and the 1,291 adverse events, I don't think those came as diagnostic tests. I think they came as confirmatory tests," she said. "You ordered a product, you wanted the product to kill people, pay stockholders, you got exactly what you ordered."

Except the [Pfizer document](#), which covers the first three months of the vaccine's rollout, shows nothing of the sort, as we've [written](#). It describes the adverse events reported following vaccination — which are not necessarily caused by vaccination — and "confirms a favorable benefit: risk balance" of the vaccine. In other words, the document is evidence of the vaccine's continued safety.

As for the 1,291 adverse events, that's a misinterpretation of the document's appendix, which lists in alphabetical order all of the adverse events of special interest that Pfizer was monitoring for. It is not a list of health problems that have been observed after or shown to be due to vaccination.

Birth Rate Decline Claims

The "documentary" also baselessly blames COVID-19 vaccination for a birth rate decline in several countries.

In a clip of what is labeled on screen as a 2022 hearing before the Hungarian Parliament, a woman speaking Hungarian, dubbed into English, says that in January, "something happened that has not happened for decades: The birth rate fell by 20% compared to the same period last year." She adds that according to the [Centre for Economic and Regional Studies](#) the "drastic decline came just nine months after the COVID mass vaccination began in Hungary."

[There is no evidence](#) that COVID-19 vaccination has lowered the birth rate or reduced fertility. Preliminary [data](#) from the Hungarian Central Statistical Office show a decline of 11.6% in the number of births for the first quarter of 2022, compared with the same period a year before. But the decline narrows to less than 5% for the cumulative totals in the second and third quarters — and those totals are nearly identical to the figures from just a few years ago.

Experts quoted in Hungarian [news reports](#) have said the decline in births in January of this year could be due to several factors, including people postponing having children either because of the pandemic or because of wanting to wait to get pregnant after getting vaccinated. They said the drop might also reflect the impact of [policies used](#) to increase the population, which may have incentivized families to have children earlier than they otherwise would have, boosting births in 2020 and 2021, but artificially lowering them in later years. According to the [data](#), the figures for births in 2022 are very similar to those in 2019.

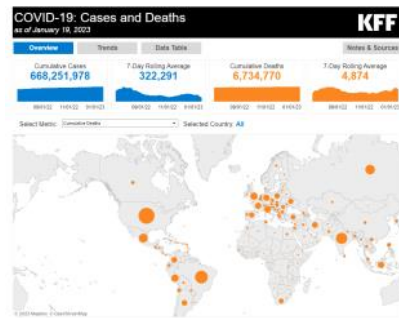
Later, the video shows a graph purportedly charting birth rate declines in several countries, but with no dates or sources, so it's not even clear what the decline is relative to. The worst listed decline, of 70%, is in Australia.

We could not find any support for this statistic. Australia's fertility rate has been falling since the 1960s, according to the [Australian Institute of Family Studies](#). The [birth rate fell](#) from 64 per 1,000 women in 2010 to 56 per 1,000 women in 2020.

Fertility rates reached a [record low in 2020](#), and officials [said](#) "COVID-19 disruptions" could have played a role. But in 2021, the [birth rate increased](#) for the first time in a decade (up 5.3% from 2020), and [some argue](#) the lockdowns might have had a positive impact.

This tracker provides the cumulative number of confirmed COVID-19 cases and deaths, as well as the rate of daily COVID-19 cases and deaths by country, income, region, and globally. This tracker will be updated regularly, as new data are released. Please see the Methods tab for more detailed information on data sources and notes.

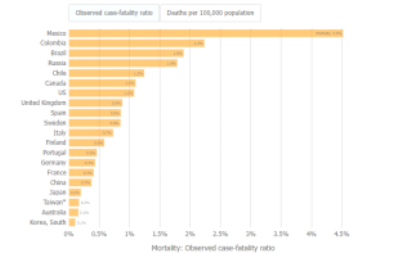
From <https://www.kff.org/coronavirus/covid-19/news/kff-global-covid-19-tracker/>



MORTALITY ANALYSES SHARE

Mortality in the most affected countries

For the twenty countries currently most affected by COVID-19 worldwide, the bars in the chart below show the number of deaths either per 100 confirmed cases (observed case-fatality ratio) or per 100,000 population (this represents a country's general population, with both confirmed cases and healthy people). Countries at the top of this figure have the most deaths proportionally to their COVID-19 cases or population, not necessarily the most deaths overall.



From <https://coronavirus.jhu.edu/data/mortality>

COVID Data Tracker

Maps, charts, and data provided by CDC, updates Mon-Fri by 8 pm ET

COVID-19 Home

CDC recommends use of [COVID-19 Community Levels](https://www.cdc.gov/coronavirus/2019-ncov/communities/levels.html) to determine the impact of COVID-19 on communities and to take [action](https://www.cdc.gov/coronavirus/2019-ncov/communities/levels.html). CDC also provides [Transmission Levels](https://www.cdc.gov/coronavirus/2019-ncov/communities/levels.html) (also known as Community Transmission) to describe the amount of COVID-19 spread within each country. Healthcare facilities use [Transmission Levels](https://www.cdc.gov/coronavirus/2019-ncov/communities/levels.html) to determine [intervention](https://www.cdc.gov/coronavirus/2019-ncov/communities/levels.html) strategies.



From <https://covid.cdc.gov/covid-data-tracker/#cases>

How have Covid-19 fatalities compared with other causes of death?

As Covid slowly turns from a societal threat into a process of risk management, it is important that people have a sense of the risks they have faced, may face in the future, and may pose to others. As with all our work at the Winton Centre, we intend only to inform people, not to persuade them.

But simply quoting numbers of deaths, or death rates per 100,000 people, is not sufficient to inform people of their risk. First because death is only the most extreme negative outcome, and long-term health effects are important - unfortunately statistics are not yet available, and then would need to be compared, for example, to numbers seriously injured on the roads. Second because there is no completely 'neutral' presentation: every choice of context can make a number look big or small. In this article we compare the numbers of deaths with those from other causes, with the aim of providing a form of context or scale to judge the magnitude of the risks people have faced, and in particular to illustrate the extremely strong dependence on age.

Finally, it's vital to emphasise that although the risk may be very low for most people, clearly we all have responsibility to help protect others, particularly those who are more vulnerable because of age or other factors. Therefore any behavioural choices should reflect both your attitudes to your own risk, and protecting others if you are unknowingly infected. Fortunately, as infection rates go down, both risks become lower.

To give as balanced an impression of the magnitudes of the risks as we can, we first compare Covid deaths with a whole year of other causes. We then scale deaths from other causes proportionally to give an idea of comparable risks over a 16-week period.

We included flu deaths as the most typical infectious respiratory disease, and also accidental deaths that happen unexpectedly, as death from Covid may feel. Suicides and homicides are included to provide some context, but we do not make explicit comparisons with Covid.

Comparisons of 16 weeks of Covid deaths vs other causes over a year.

Table 1 lists the number of deaths registered with Covid-19 in England and Wales up to 3rd July 2020 in 5-year age bands, and compares with the number of deaths from the other causes. Other causes shown include influenza during an average year and during a bad year, deaths from injuries and all accidents, and deaths from road accidents, suicides and homicides. Influenza data are estimates, adjusted to England and Wales' population and 5-year age bands. See the Appendix for sources of all statistics, and any adjustments done to each cause of death reported.

Deaths in England and Wales over a year									
Age group	Covid (up to 3rd July 2020)	Injuries of all accidents (2018)	Influenza average year (2014/15)	Influenza bad year (2014/15)	Road accidents (2018)	Homicide and suicide probable (2018)	Homicide and suicide probable (2018)	All causes (2018)	All causes (2018)
1-4	3	55	28	66	15	11	3	2,632	
5-9	0	19	9	10	8	11	0	266	
10-14	3	49	3	3	17	5	19	307	
15-19	9	220	10	7	105	49	180	823	
20-24	24	375	73	9	152	69	303	1,349	
25-29	49	480	111	7	137	64	423	1,791	
30-34	79	603	33	23	118	52	467	2,496	
35-39	127	765	36	28	112	60	456	3,576	
40-44	242	845	73	51	101	48	490	4,961	
45-49	444	875	117	87	87	45	684	8,830	
50-54	830	775	184	729	99	53	596	12,973	
55-59	1,433	831	229	760	83	28	426	18,084	
60-64	2,943	626	247	89	27	339	24	24,159	
65-69	2,553	583	771	1,007	80	20	240	35,993	
70-74	4,567	779	1,270	1,690	87	18	201	54,010	
75-79	6,587	1,050	1,873	2,532	72	8	161	85,087	
80-84	9,445	1,645	3,156	4,408	99	11	145	86,562	
85-89	10,160	2,261	4,660	6,509	87	19	101	99,934	
90+	10,790	2,749	7,431	10,407	61	7	57	117,120	
Total	49,487	15,395	26,147	27,483	1,527	622	5,381	546,265	

We note the massive increase in the numbers of Covid deaths for increasing age.

Compared with other causes over the whole year:

- For each age-group under 20, fewer have died with Covid than on average die from flu each year. This means that for all ages above 20, more have died from Covid than would typically die from flu each year.
 - For those over 90, around the same number have died with Covid as died from flu in 2014-2015, the worst recent year.
 - For each age-group under 35, fewer have died with Covid than on average die from road accidents each year.
 - For each age-group under 50, fewer have died with Covid than on average die from accidents and injuries each year.
- Note that over 80% of Covid deaths are to those with a pre-existing medical condition. If we conservatively assume that at most 40% of the population have such a condition, then the Covid death rates for people without such a condition are less than a third those reported above (this follows since at least 60% of the people are experiencing at most 20% of the deaths).

There will be some additional Covid deaths over the remainder of 2020, although this is likely to be limited due to additional measures being precipitated by outbreaks.

Comparison with normal risks over 16 weeks

We now compare with deaths from other causes, scaled to a typical 16 weeks (ie a multiplier of 16/52).

Deaths in England and Wales over typical 16 weeks									
Age group	Covid (up to 3rd July 2020)	Injuries of all accidents (2018)	Influenza average year (2014/15)	Influenza bad year (2014/15)	Road accidents (2018)	Homicide and suicide probable (2018)	Homicide and suicide probable (2018)	All causes (2018)	All causes (2018)
1-4	3	17	21	30	5	3	1	902	
5-9	0	6	3	3	2	3	0	82	
10-14	3	16	1	1	8	2	6	94	
15-19	9	68	3	2	32	15	58	253	
20-24	24	116	4	3	47	21	118	415	
25-29	49	151	3	2	42	20	130	561	
30-34	79	188	10	7	36	16	144	766	
35-39	127	236	11	8	34	18	140	1100	
40-44	242	261	22	16	31	15	161	1526	
45-49	444	269	36	25	21	14	210	2635	
50-54	830	239	56	40	30	16	183	3967	
55-59	1,433	184	70	49	26	9	131	5564	
60-64	2,943	160	108	78	21	8	104	7434	
65-69	2,553	179	222	310	18	6	74	10862	
70-74	4,567	240	372	520	27	6	62	16818	
75-79	6,587	323	558	779	22	2	50	20026	
80-84	9,445	508	917	1367	30	3	45	26617	
85-89	10,160	698	1434	2003	27	6	31	30626	
90+	10,790	848	2293	3202	13	2	18	36037	
Total	49,487	4,788	6,199	8,432	469	191	1,636	146,235	

From https://wintoncentre.maths.cam.ac.uk/coronavirus/How_many_covid-19_fatalities_compared_other_causes_deaths/