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Democracy Dies in Darkness

‘The war has changed’: Internal CDC document urges new messaging, warns delta infections likely more severe

The internal presentation shows that the agency thinks it is struggling to communicate on vaccine efficacy amid increased breakthrough infections

By Yasmeen Abutaleb, Carolyn Y. Johnson and Joel Achenbach

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The delta variant of the coronavirus appears to cause more severe illness than earlier variants and spreads as easily as chickenpox, according to an internal federal health document that argues officials must “acknowledge the war has changed.”

The document is an internal Centers for Disease Control and Prevention slide presentation, shared within the CDC and obtained by The Washington Post. It captures the struggle of the nation’s top public health agency to persuade the public to embrace vaccination and prevention measures, including mask-wearing, as cases surge across the United States and new research suggests vaccinated people can spread the virus.

The document strikes an urgent note, revealing the agency knows it must revamp its public messaging to emphasize vaccination as the best defense against a variant so contagious that it acts almost like a different novel virus, leaping from target to target more swiftly than Ebola or the common cold.

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It cites a combination of recently obtained, still-unpublished data from outbreak investigations and outside studies showing that vaccinated individuals infected with delta may be able to transmit the virus as easily as those who are unvaccinated. Vaccinated people infected with delta have measurable viral loads similar to those who are unvaccinated and infected with the variant.

CDC scientists were so alarmed by the new research that the agency earlier this week significantly changed guidance for vaccinated people even before making new data public.

The data and studies cited in the document played a key role in revamped recommendations that call for everyone — vaccinated or not — to wear masks indoors in public settings in certain circumstances, a federal health official said. That official told The Post that the data will be published in full on Friday. CDC Director Rochelle Walensky privately briefed members of Congress on Thursday, drawing on much of the material in the document.

One of the slides states that there is a higher risk among older age groups for hospitalization and death relative to younger people, regardless of vaccination status. Another estimates that there are 35,000 symptomatic infections per week among 162 million vaccinated Americans.

The document outlines "communication challenges" fueled by cases in vaccinated people, including concerns from local health departments about whether coronavirus vaccines remain effective and a "public convinced vaccines no longer work/booster doses needed."

The presentation highlights the daunting task the CDC faces. It must continue to emphasize the proven efficacy of the vaccines at preventing severe illness and death while acknowledging milder breakthrough infections may not be so rare after all, and that vaccinated individuals are transmitting the virus. The agency must move the goal posts of success in full public view.

The CDC declined to comment.

"Although it's rare, we believe that at an individual level, vaccinated people may spread the virus, which is why we updated our recommendation," according to the federal health official, who spoke on the condition of anonymity because they were not authorized to speak publicly. "Waiting even days to publish the data could result in needless suffering and as public health professionals we cannot accept that."

The presentation came two days after Walensky announced the reversal in guidance on masking among people who are vaccinated. On May 13, people were told they no longer needed to wear masks indoors or outdoors if they had been vaccinated. The new guidance reflects a strategic retreat in the face of the delta variant. Even people who are vaccinated should wear masks indoors in communities with substantial viral spread or when in the presence of people who are particularly vulnerable to infection and illness, the CDC said.

The document presents new science but also suggests a new strategy is needed on communication, noting that public trust in vaccines may be undermined when people experience or hear about breakthrough cases, especially after public health officials have described them as rare.

Matthew Seeger, a risk communication expert at Wayne State University in Detroit, said a lack of communication about breakthrough infections has proved problematic. Because public health officials had emphasized the great efficacy of the vaccines, the realization that they aren't perfect may feel like a betrayal.

"We've done a great job of telling the public these are miracle vaccines," Seeger said. "We have probably fallen a little into the trap of over-reassurance, which is one of the challenges of any crisis communication circumstance."

The CDC's revised mask guidance stops short of what the internal document calls for. "Given higher transmissibility

CDC must “improve communications around individual risk among [the] vaccinated” because that risk depends on a host of factors, including age and whether someone has a compromised immune system.

The document includes CDC data from studies showing that the vaccines are not as effective in immunocompromised patients and nursing home residents, raising the possibility that some at-risk individuals will need an additional vaccine dose.

The presentation includes a note that the findings and conclusions are those of the authors and do not necessarily represent the CDC’s official position.

The internal document contains some of the scientific information that influenced the CDC to change its mask guidance. The agency faced criticism from outside experts this week when it changed the mask guidance without releasing the data, a move that violated scientific norms, said Kathleen Hall Jamieson, director of the Annenberg Public Policy Center at the University of Pennsylvania.

“You don’t, when you’re a public health official, want to be saying, ‘Trust us, we know, we can’t tell you how,’” Jamieson said. “The scientific norm suggests that when you make a statement based on science, you show the science. … And the second mistake is they do not appear to be candid about the extent to which breakthroughs are yielding hospitalizations.”

The breakthrough cases are to be expected, the CDC briefing states, and will probably rise as a proportion of all cases because there are so many more people vaccinated now. This echoes data seen from studies in other countries, including highly vaccinated Singapore, where 75 percent of new infections reportedly occur in people who are partially and fully vaccinated.

The CDC document cites public skepticism about vaccines as one of the challenges: “Public convinced vaccines no longer work,” one of the first slides in the presentation states.

Walter A. Orenstein, associate director of the Emory Vaccine Center, said he was struck by data showing that vaccinated people who became infected with delta shed just as much virus as those who were not vaccinated. The slide references an outbreak in Barnstable County, Mass., where vaccinated and unvaccinated people shed nearly identical amounts of virus.

“I think this is very important in changing things,” Orenstein said.

A person working in partnership with the CDC on investigations of the delta variant, who spoke on the condition of anonymity because they were not authorized to speak, said the data came from a July 4 outbreak in Provincetown, Mass. Genetic analysis of the outbreak showed that people who were vaccinated were transmitting the virus to other vaccinated people. The person said the data was “deeply disconcerting” and a “canary in the coal mine” for scientists who had seen the data.

If the war has changed, as the CDC states, so has the calculus of success and failure. The extreme contagiousness of delta makes herd immunity a more challenging target, infectious-disease experts said.

some sense, vaccination is now about personal protection — protecting oneself against severe disease. Herd immunity is not relevant as we are seeing plenty of evidence of repeat and breakthrough infections."

The document underscores what scientists and experts have been saying for months: It is time to shift how people think about the pandemic.

Kathleen Neuzil, a vaccine expert at the University of Maryland School of Medicine, said getting more people vaccinated remains the priority, but the public may also have to change its relationship to a virus almost certain to be with humanity for the foreseeable future.

"We really need to shift toward a goal of preventing serious disease and disability and medical consequences, and not worry about every virus detected in somebody's nose," Neuzil said. "It's hard to do, but I think we have to become comfortable with coronavirus not going away."

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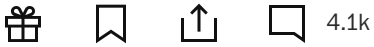
CDC reversal on indoor masking prompts experts to ask, 'Where's the data?'

By Joel Achenbach, Yasmeen Abutaleb, Ben Guarino and Carolyn Y. Johnson

Yesterday at 8:35 p.m. EDT



New recommendations from federal health officials this week on when vaccinated Americans should don face masks came with a startling bolt of news: People who have had their shots and become infected with the delta variant of the coronavirus can harbor large amounts of virus just like unvaccinated people. That means they could become spreaders of the disease and should return to wearing masks indoors in certain situations, including when vulnerable people are present.

But the Centers for Disease Control and Prevention did not publish the new research. In the text of the updated masking guidance, the agency merely cited "CDC COVID-19 Response Team, unpublished data, 2021."

Some outside scientists have their own message: Show us the data.

"They're making a claim that people with delta who are vaccinated and unvaccinated have similar levels of viral load, but nobody knows what that means," said Gregg Gonsalves, an associate professor at the Yale School of Public Health. "It's meaningless unless we see the data."

When CDC Director Rochelle Walensky spoke to reporters Tuesday, she cited the "new scientific data" but provided limited details about how the research was done. She said the data comes from outbreak investigations in which researchers compared delta infections among vaccinated and unvaccinated people.

The data will be "published imminently," according to a federal official knowledgeable about the research but who was not authorized to be a spokesperson for the government.

"These data were alarming and recently presented," the official said Wednesday. "We saw the data and thought it was urgent enough to act — in the context of a steeply rising, preventable fourth surge of covid-19."

Because tests showed similar levels of virus in the vaccinated and unvaccinated, the CDC inferred the delta variant can be transmitted by people with breakthrough infections.

"I think the implications [of the data] are that people who are vaccinated, even when they're asymptomatic, can transmit the virus, which is the scientific foundation of why this recommendation is being made," Anthony S. Fauci,

Fauci said.

Three senior administration officials who spoke on the condition of anonymity to describe internal discussions said the new research convinced health officials that it was time to update the agency's guidance. When scientists compared viral loads in vaccinated and unvaccinated individuals infected with an earlier variant of the virus — the alpha variant, which was dominant in the spring — there were considerable differences in the amount of virus each carried.

The CDC did not answer questions Wednesday about whether it relied on outside sources of data or the number of patients examined in its outbreak investigations.

The medical and scientific community has generally endorsed the change in CDC mask guidance. Several organizations and public health experts issued statements saying the CDC should have gone further and broadened the criteria for deciding which communities have transmission high enough to warrant universal masking indoors.

The question about viral loads is among the many unknowns surrounding SARS-CoV-2, including the frequency of breakthrough infections and whether they play a significant role in the recent rise in cases.

"If we're seeing more breakthroughs, is it just because the virus is better and the vaccines don't hold up quite as well, or is the efficacy of the vaccines beginning to wane, independent of the delta?" asked Robert Wachter, chair of the Department of Medicine at the University of California at San Francisco. "This is three-dimensional chess, there's a hundred things going on at the same time."

There is now a Greek-alphabet soup of viral variants competing with one another. The delta, which was first identified in the United States in February and only gained traction in June, is dominant in the United States.

"The big concern is that the next variant that might emerge, just a few mutations away, could potentially evade our vaccine," Walensky said Tuesday.

There are multiple vaccines deployed to stop the pandemic, with a range of efficacy in stopping mild infections. The vaccines are all highly protective against severe disease and death. Pfizer published data Wednesday showing a modest drop in efficacy over the course of six months.

Although delta is more than twice as transmissible as earlier variants, it does not have some of the mutations seen in other variants that can help the virus evade antibodies. But the delta floods the zone. It grows so quickly in the nose that it may be overwhelming the body's vaccine-enhanced defenses before the immune system can marshal a robust response, said William Hanage, an epidemiologist at the Harvard T.H. Chan School of Public Health.

"The immune response, once activated, takes a while to kick in even among people who have been vaccinated," Hanage said in an email. "As a result if the virus can copy itself really quickly it might be able to get a few rounds of replication in, even in vaccinated folks, before the immune system brings it under control."

The Singapore Ministry of Health recently found that three-fourths of coronavirus cases in the past four weeks were in people who were fully or partially vaccinated, most with no or mild symptoms. And in India, vaccinated health-care workers showed high viral loads when infected with the delta, according to a study from University of Cambridge researchers that is not yet peer-reviewed.

with breakthrough delta infections. That suggests vaccinated people should wear masks, he said.

Research by Chinese scientists posted online and not yet peer-reviewed describes the stunning ability of the delta variant to replicate in the human body. The viral load from the delta is 1,000 times that detected in the earliest variants of the virus. That is about 10 times the viral load sparked by the alpha variant, which was first seen in the United Kingdom and became dominant in the United States this spring before the delta overcompeted it.

"Delta is alpha on steroids," said James M. Musser, chair of the Department of Pathology and Genomic Medicine at Houston Methodist Hospital and Research Institute.

In the eight hospitals run by Houston Methodist, there are about 300 covid-19 patients, triple the number in early June, Musser said. Most new cases involve the delta variant. He estimated that 20 percent of the covid patients were fully vaccinated before becoming infected.

But he cautioned that most of these patients have underlying medical conditions that impaired their ability to mount an immune response after being vaccinated.

These post-vaccination infections have often been described by Walensky and other medical experts as rare. How rare is unclear. News reports of people getting sick after vaccination have been common in recent weeks. But scientific data is limited.

The CDC on May 1 said it would stop tracking mild and moderate breakthrough cases, and focus only on hospitalizations and deaths. As of July 19, the CDC had documented 5,914 such breakthroughs, including 1,141 deaths.

CDC spokeswoman Kristen Nordlund said Wednesday the agency conducts "cohort" studies to obtain estimates of the efficacy of the vaccines that often involve tens of thousands of people. Scientists examine vaccinated and unvaccinated patients for a period of time to see if they develop covid-19, Nordlund said.

Several experts have criticized the agency for not tracking mild and moderate breakthrough cases on a broader scale, arguing it makes it difficult to know how rare these cases really are.

Even though the vaccines remain effective against all variants of the coronavirus, they are not designed to create "sterilizing" immunity. That's why breakthrough infections happen. The virus can infect the nose and begin replicating before the immune system rallies its range of defenses. The vaccines prime the immune system, including the "B memory" cells that begin cranking out antibodies after detection of an invasive pathogen.

Paul Offit, a vaccine expert at Children's Hospital of Philadelphia, said it's like the fire extinguisher in your kitchen. The immune system ensures you have that fire extinguisher standing by for an emergency. But it can't prevent the initial conflagration. "You still had a little fire in the kitchen," Offit said.

Larry Corey, a virologist at the Fred Hutchinson Cancer Research Center, said it would not be surprising to see a variant emerge that is better at replicating in people's noses. Animal studies, he said, indicated that vaccines were better at protecting animals' lungs from infection than their noses. That might help explain why vaccinated people can become infected but rarely develop severe disease.

"The virus is under selective pressure to jump from nose to nose," Corey said. "So its evolutionary sort of pressure is to

health-care workers in Israel, published Wednesday in the New England Journal of Medicine, found 39 breakthrough infections among 1,497 fully vaccinated people. About three-fourths of those people had, at some point while infected, what researchers characterized as high viral loads. There was no evidence that a breakthrough case led to other infections.

Natalie Dean, a biostatistics expert at Emory University's Rollins School of Public Health, said she remains unconvinced a high viral load in the nose truly means that vaccinated and unvaccinated people are equally as likely to spread the virus, although she acknowledged there is an ongoing debate about the issue.

"I feel like nasal viral load is one part of a lot of other parts" that determine how infectious a person is, Dean said, adding that she thinks the amount of virus in the throat or lungs could be important and might differ between people who are vaccinated and those who are not.

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