

# 'War Has Changed': CDC Says Delta as Contagious as Chicken Pox

Damian McNamara

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*Editor's note: Find the latest COVID-19 news and guidance in Medscape's [Coronavirus Resource Center](#).*

Internal Centers for Disease Control and Prevention (CDC) documents support the high transmission rate of the Delta variant and put the risk in easier to understand terms.

In addition, the agency released a new study that shows that breakthrough infections in the vaccinated make people about as contagious as those who are unvaccinated. The new report, [published](#) today in *Morbidity and Mortality Weekly Report (MMWR)*, also reveals that the Delta variant likely causes more severe COVID-19 illness.

Given these recent findings, the internal CDC slideshow advises that the agency should "acknowledge the war has changed."

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## A "Pivotal Discovery"

CDC Director Rochelle Walensky, MD, MPH, said in [a statement today](#) that the *MMWR* report demonstrates "that [D]elta infection resulted in similarly high SARS-CoV-2 viral loads in vaccinated and unvaccinated people."

"High viral loads suggest an increased risk of transmission and raised concern that, unlike with other variants, vaccinated people infected with [D]elta can transmit the virus," she added. "This finding is concerning and was a pivotal discovery leading to CDC's updated [mask recommendation](#)."

The report investigators analyzed 469 COVID-19 cases reported in Massachusetts residents July 3 through 17, 2021. The infections were associated with an outbreak following multiple events and large gatherings in Provincetown in that state's easternmost Barnstable County, also known as Cape Cod.

Notably, 346 infections, or 74%, of the cases occurred in fully vaccinated individuals. This group had a median age of 42, and 87% were male. Also, 79% of the breakthrough infections were symptomatic.

Researchers also identified the Delta variant in 90% of 133 specimens collected for analysis. Furthermore, viral loads were about the same between samples taken from people who were fully vaccinated and those who were not.

Four of the five people hospitalized were fully vaccinated. No deaths were reported.

The publication of these results was highly anticipated following the CDC's [updated mask recommendations](#) on Tuesday.

Outside the scope of the *MMWR* report is the total number of cases associated with the outbreak, including visitors from outside Massachusetts, which now approach [900 infections](#), *NBC Boston* reported.

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## "Very Sobering" Data

"The new information from the CDC around the [D]elta variant is very sobering," David Hirschwerk, MD, infectious disease specialist at Northwell Health in New Hyde Park, New York, told *Medscape Medical News*.



Dr David Hirschwerk

"The CDC is trying to convey and present this uncertain situation clearly to the public based on new, accumulated data," he said. For example, given the evidence for higher contagiousness of the Delta variant, Hirschwerk added, "there will be situations where vaccinated people get infected, because the amount of the virus overwhelms the immune protection.

"What is new that is concerning is that people who are vaccinated still have the potential to transmit the virus to the same degree," he said.

Today's *MMWR* study "helps us better understand the question related to whether or not a person who has completed a COVID-19 series can spread the infection," agreed Michelle Barron, MD, a professor in the division of infectious disease at the University of Colorado School of Medicine in Aurora.

"The message is that, because the [D]elta variant is much more contagious than the original strain, that unvaccinated persons need to get vaccinated because it is nearly impossible to avoid the virus indefinitely," Michael Lin, MD, MPH, infectious diseases specialist and epidemiologist at Rush University Medical Center in Chicago, Illinois, said when asked to comment.

Furthermore, Lin added, "This new data highlights that vaccinated persons, if they become sick, should still seek COVID-19 testing and should still isolate, as they are likely contagious."

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## More Contagious Than Other Infections

The internal CDC slide presentation also puts the new transmission risk in simple terms. Saying that the Delta variant is about as contagious as [chickenpox](#), for example, immediately brings back vivid memories for some of staying indoors and away from friends during childhood or teenage outbreaks.



Dr Michelle Barron

"A lot of people will remember getting [chicken pox](#) and then having their siblings get it shortly thereafter," Barron said. "The only key thing to note is that this does not mean that the COVID-19 [D]elta variant mechanism of spread is the same as [chickenpox](#) and [Ebola](#). The primary means of spread of COVID-19, even the Delta variant, is via droplets."

This also means each person infected with the Delta variant could infect an average of eight or nine others.

In contrast, the original strain of the SARS-CoV-2 virus was about as infectious as the common cold. In other words, someone was likely to infect about two other people on average.

In addition to the cold, the CDC notes that the Delta variant is now more contagious than [Ebola](#), the [seasonal flu](#), or smallpox.

These Delta variant comparisons are one tangible way of explaining why the CDC on Tuesday recommended a return to masking in schools and other indoor spaces for people — vaccinated and unvaccinated — in about 70% of the counties across the United States.

In comparing the Delta variant with other infections, "I think the CDC is trying to help people understand a little bit better the situation we now face since the information is so new. We are in a very different position now than just a few weeks ago, and it is hard for people to accept this," Hirschwerk said.

The Delta variant is so different that the CDC considers it almost acting like a [new virus altogether](#).

The CDC's internal documents were first released by *The Washington Post* on Thursday. The slides cite communication challenges for the agency to continue promoting vaccination while also acknowledging that breakthrough cases are occurring and therefore the fully vaccinated, in some instances, are likely infecting others.

Moving back to science talk, the CDC used the recent outbreak in Barnstable County as an example. The cycle threshold, or Ct values, a measure of viral load, were about the same between 80 vaccinated people linked to the outbreak who had a mean Ct value of 21.9, compared with 65 other unvaccinated people with a Ct of 21.5.

Many experts are quick to note that vaccination remains essential, in part because a vaccinated person also walks around with a much lower risk for severe outcomes, hospitalization, and death. In the internal slide show, the CDC points out that

vaccination reduces the risk for infection threefold.

"Even with this high amount of virus, [the Delta variant] did not necessarily make the vaccinated individuals as sick," Barron said.

In her statement, Walensky credited collaboration with the Commonwealth of Massachusetts Department of Public Health and the CDC for the new data. She also thanked the residents of Barnstable County for participating in interviews done by contact tracers and their willingness to get tested and adhere to safety protocols after learning of their exposure.

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## Next Moves by CDC?

The CDC notes that next steps for the agency include consideration of prevention measures including vaccine mandates for healthcare professionals to protect vulnerable populations, universal masking for source control and prevention, and reconsidering other community mitigation strategies.

Asked if this potential policy is appropriate and feasible, Lin said, "Yes, I believe that every person working in healthcare should be vaccinated for COVID-19, and it is feasible."

Barron agreed as well. "We as healthcare providers choose to work in healthcare, and we should be doing everything feasible to ensure that we are protecting our patients and keeping our co-workers safe."

"Whether you are a healthcare professional or not, I would urge everyone to get the COVID-19 vaccine, especially as cases across the country continue to rise," Hirschwerk said. "Unequivocally vaccines protect you from the virus."

*Damian McNamara is a staff journalist based in Miami. He covers a wide range of medical specialties, including infectious diseases, gastroenterology, and critical care. Follow Damian on Twitter: [@MedReporter](#).*

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