New research shows COVID vaccines still protect against severe disease

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(HealthDay)—Two new government reports confirm that while the

power of coronavirus vaccines wanes over time, they still protect strongly against severe disease, even as the highly contagious Delta variant overtakes America.

One study that looked at Los Angeles County reaffirmed that fully vaccinated people are far less likely than unvaccinated people to be hospitalized, admitted to an intensive care unit, require mechanical ventilation or die from COVID-19. Meanwhile, a second study that followed front-line health workers for months found vaccine effectiveness against COVID-19 infection dropped from 91% to 66% once the Delta variant accounted for the majority of circulating virus, but the vaccinated were still far less likely to be infected.

"While we did see a reduction in the protection of the COVID-19 vaccine against the Delta variant, it's still two-thirds reduction of risk," Ashley Fowlkes, author of the second study and an epidemiologist for CDC's COVID-19 Emergency Response Team, told *CNN* on Tuesday.

"It's still a very powerful vaccine," Fowlkes added, particularly against severe disease. "But we are also looking towards continuing to use masks for a little bit longer."

Fowlkes' study falls in line with other research from around the world that illustrates Delta's increased tendency to cause largely minor infections among fully vaccinated people.

The new paper is the latest chapter in an ongoing study that has been following health care personnel, first responders, and other essential and frontline workers who receive weekly PCR tests in eight locations across six U.S. states, *CNN* reported. The vast majority are vaccinated.

In the Los Angeles study, unvaccinated people were five times more likely to become infected with the coronavirus and 29 times more likely

to be hospitalized as people who were fully immunized. It is the latest evidence that vaccines continue to significantly reduce the risk of severe illness, despite the spread of the more contagious Delta variant.

Still, there is little doubt that vaccine effectiveness has dropped as the Delta variant has spread. On May 1, the report said, people who had not been immunized were more than eight times as likely to be infected as people who were fully vaccinated. Once Delta took hold, that dropped to about a fivefold greater risk.

"Prior to Delta, it did indeed appear that the vaccines were also very good at protecting against infection overall," Paul Simon, chief science officer for the Los Angeles County Department of Health, told the *Washington Post*. "But when Delta emerged, there was a big change, because Delta is so much more infectious. The vaccine didn't protect as well against infection."

"The vaccines are doing exactly what they promised us they'd do—they are keeping us from getting sick and dying, but with the Delta variant, we are seeing more transmission than we saw with the Alpha [British] variant," Barbara Ferrer, director of the Los Angeles health department, told the *Post* this month.

And breakthrough cases will continue to climb as vaccination rates increase overall, experts pointed out.

"Simply, it's math. As we have more people vaccinated, more of our infections that we diagnose are going to be in vaccinated people," Oregon state epidemiologist Dean Sidelinger told the *Post*. "It's not entirely unexpected."

The amount of virus circulating in the community can be compared to the intensity of of a rainfall, Simon explained to the *Post*.

"It's not a drizzle; it's a storm. Even if you're fully vaccinated, you should add that layer of extra protection—a raincoat, a mask—when you're out in the rain," Simon said. "Once we get this level of community transmission back down to a low level, I think people who are fully vaccinated will again have much more confidence."

Both government studies were published Tuesday in the CDC publication *Morbidity and Mortality Weekly Report.*

FDA Grants Full Approval to Pfizer COVID Vaccine

The U.S. Food and Drug Administration on Monday granted full approval for Pfizer's coronavirus vaccine.

"The FDA's approval of this vaccine is a milestone as we continue to battle the COVID-19 pandemic," Acting FDA Commissioner Dr. Janet Woodcock said in an agency news release. "While this and other vaccines have met the FDA's rigorous, scientific standards for emergency use authorization, as the first FDA-approved COVID-19 vaccine, the public can be very confident that this vaccine meets the high standards for safety, effectiveness, and manufacturing quality the FDA requires of an approved product."

U.S. health officials hope the decision will trigger more vaccine mandates and boost vaccination rates among Americans who remain hesitant about immunization, *The New York Times* reported.

"While millions of people have already safely received COVID-19 vaccines, we recognize that for some, the FDA approval of a vaccine may now instill additional confidence to get vaccinated," Woodcock said. "Today's milestone puts us one step closer to altering the course of this pandemic in the U.S."

The approval is likely crucial for greater vaccine uptake.

For example, as students prepare to return to college campuses across the country, some, like Indiana University, already require vaccines for students. But others, like the University of Memphis, will likely only pursue a vaccine mandate when coronavirus vaccines gain full federal approval, the *Times* reported.

Speaking to *CNN* on Sunday, U.S. Surgeon General Dr. Vivek Murthy said he thought full FDA approval would definitely have a significant impact on millions of Americans who remain vaccine-hesitant.

"This may tip them over toward getting vaccinated," he said, adding that he expected companies, governors and schools to use the full FDA approval to impose vaccine mandates. "We already know that there are many businesses and universities that have moved toward vaccine requirements."

About 60% of eligible people in the United States are now fully vaccinated, according to figures from the U.S. Centers for Disease Control and Prevention.

Three in 10 unvaccinated adults said they would be more likely to get vaccinated if one of the vaccines currently authorized for emergency use were to receive full approval from the FDA, according to a June poll by the Kaiser Family Foundation.

The Pentagon also plans to make COVID-19 vaccinations mandatory for the country's 1.3 million active-duty troops by the middle of next month or when the FDA gives full approval to the vaccine, whichever comes first.

For the 45 percent of unvaccinated Americans who have steadfastly said

they will not get the vaccine, full approval will likely prompt new restrictions, including limitations on employment and an increase in health insurance premiums, the *Times* reported.

Some states and municipalities could follow the lead of New York City, which will soon require at least one vaccine dose for those seeking to enter indoor restaurants, gyms or cultural events.

The FDA updated its authorizations of the Pfizer and Moderna vaccines last week to allow third "booster" doses for some immunocompromised people, a decision backed by the CDC.

Regulators are still reviewing Moderna's application for full approval for its vaccine, and a decision could come at least several weeks after the one for Pfizer. Moderna is planning to submit its data in support of a booster shot in September, the *Times* reported.

More information: The U.S. Centers for Disease Control and Prevention has more on COVID-19.