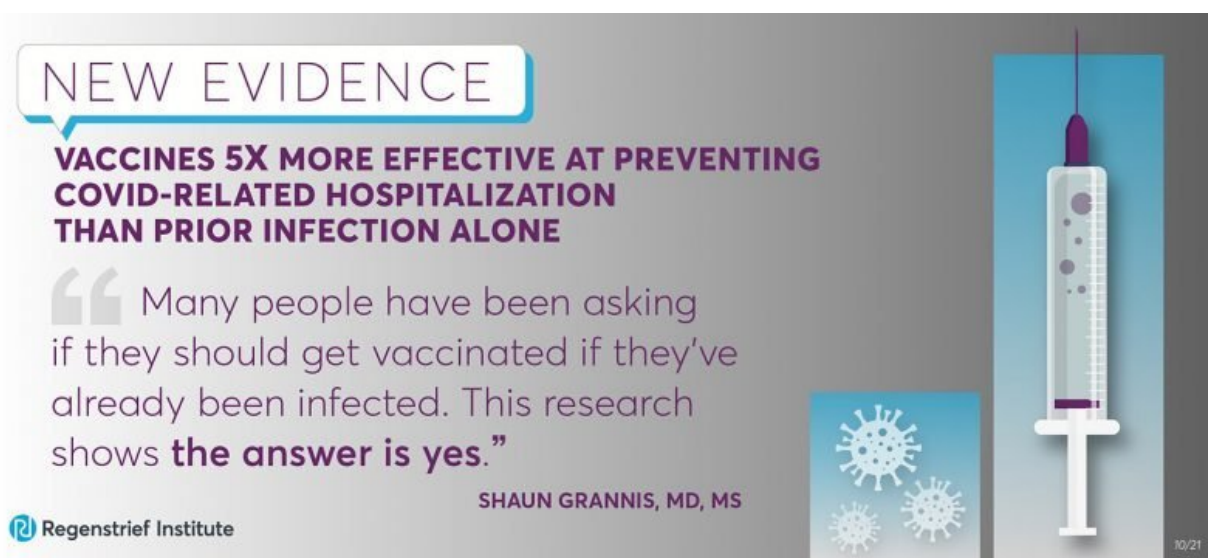


COVID vaccines five times more effective at preventing COVID-related hospitalization than prior infection alone

October 29 2021



NEW EVIDENCE

VACCINES 5X MORE EFFECTIVE AT PREVENTING COVID-RELATED HOSPITALIZATION THAN PRIOR INFECTION ALONE

“Many people have been asking if they should get vaccinated if they’ve already been infected. This research shows **the answer is yes.**”

SHAUN GRANNIS, MD, MS

Regenstrief Institute

10/21

The infographic features a dark grey background. On the left, a white speech bubble contains the text 'NEW EVIDENCE'. Below it, the main headline is in bold purple and white. A quote in purple text follows, attributed to Shaun Grannis, MD, MS. The Regenstrief Institute logo is in the bottom left. On the right, there is a vertical illustration of a syringe with a purple plunger and needle, set against a blue background. Below the syringe, there are three white virus-like particles on a blue square. A small date '10/21' is in the bottom right corner.

Credit: Regenstrief Institute

A nationwide study from the Centers for Disease Control and Prevention (CDC) shows that mRNA COVID-19 vaccines are associated with significantly more immunity than a prior COVID-19 infection.

Researchers from the CDC's VISION Network gathered data from more than 201,000 hospitalizations in nine different states. About 7,000 people in that group fit the criteria for this study. The research team

analyzed the number of unvaccinated individuals who had a positive COVID-19 test more than three months before being hospitalized for the virus as well as the number of individuals who received the Pfizer or Moderna vaccine and were not diagnosed with COVID prior to being admitted to the hospital. The research team found that overall, unvaccinated adults with a previous COVID-19 infection were about five times more likely to be hospitalized than those who were vaccinated.

"This data provides powerful evidence that vaccinations offer superior protection against COVID-19 than relying on natural immunity alone," said Shaun Grannis, M.D., M.S., [vice president](#) for data and analytics at Regenstrief Institute and professor of family medicine at Indiana University School of Medicine. "Many have been asking if they should get vaccinated if they've already been infected—this research shows the answer is yes." Regenstrief contributes data and expertise to the VISION Network.

The data analysis also found among adults older than 65, overall mRNA vaccines were nearly 20 times more effective at preventing hospitalizations than prior infection alone.

Authors are from 10 states and 14 institutions, including the [public sector](#), research, clinical and academia. Dr. Grannis was the second author of about 50. Other Regenstrief authors include Brian E. Dixon, Ph.D., MPA, Regenstrief and IU Richard M. Fairbanks School of Public Health; William F. Fadel, Ph.D., a Regenstrief fellow; Peter J. Embi, M.D., M.S., Regenstrief and IU School of Medicine; and Nimish Ramesh Valvi, DrPH, MBBS, a Regenstrief fellow.

The study findings are consistent with laboratory evidence that mRNA vaccines create high levels of antibodies, whereas those who recover from COVID-19 have varying levels of antibodies, especially if they

experienced mild symptoms or were asymptomatic.

The paper "Laboratory-Confirmed COVID-19 Among Adults Hospitalized with COVID-19–Like Illness with Infection-Induced or mRNA Vaccine-Induced SARS-CoV-2 Immunity—Nine States, January–September 2021" is published in the CDC's *Morbidity and Mortality Weekly Report*.

More information: Catherine H. Bozio et al, Laboratory-Confirmed COVID-19 Among Adults Hospitalized with COVID-19–Like Illness with Infection-Induced or mRNA Vaccine-Induced SARS-CoV-2 Immunity—Nine States, January–September 2021, *MMWR. Morbidity and Mortality Weekly Report* (2021). [DOI: 10.15585/mmwr.mm7044e1](https://doi.org/10.15585/mmwr.mm7044e1)

Provided by Regenstrief Institute

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