

# COVID-19 infection granted patients strong and long-lasting protection from reinfection: study

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A study released in *JAMA Network Open* by investigators at Providence,

one of the largest health systems in the United States, and the University of Chicago, found that the level of protection granted by a prior symptomatic COVID-19 infection among unvaccinated individuals was on par with the level of protection provided by mRNA vaccines, with natural immunity providing a longer window of protection than mRNA vaccines. The study was conducted before the emergence of the highly transmissible omicron variant in the United States.

"We found that, before the emergence of the [omicron](#) variant, natural immunity provided a similar degree of protection against COVID-19 infection as mRNA vaccination," said Ari Robicsek, M.D., Providence's chief medical analytics officer and senior author of the study. "That said, vaccination is a considerably safer way to acquire that immunity."

Conducted by a team of expert clinicians and scientists within the Providence Research Network, the study examined data from over 100,000 patients tested for SARS-COV-2 at 1,300 sites of care across Providence's extensive health care system between October 1, 2020 and November 1, 2021. The researchers observed that prior COVID-19 infection was 85% protective against [reinfection](#) and 88% protective against hospitalization, with protection from reinfection lasting for up to nine months following the initial infection, as far out as they were able to study.

The Providence study, one of the largest of its type, exhibits the importance of connecting researchers with large scale health care data, and the influence an interconnected health system can have in understanding specific public health challenges. The study is unique not only in scale, but in its extensive follow-up period, and inclusion of only unvaccinated individuals with symptomatic COVID-19.

"This data is key to helping us understand the strength and longevity of [natural immunity](#) and allows us to compare the effectiveness of a prior

infection with mRNA vaccines," said Amy Compton-Phillips, M.D., Providence's chief clinical officer. "The results provide new insight into the length of protection following an initial infection among the unvaccinated population and could have important implications for vaccination guidelines and public health policy."

**More information:** Rates of COVID-19 Among Unvaccinated Adults With Prior COVID-19, *JAMA Network Open* (2022).

[jamanetwork.com/journals/jamanetworkopen.2022.7650](https://jamanetwork.com/journals/jamanetworkopen.2022.7650)

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