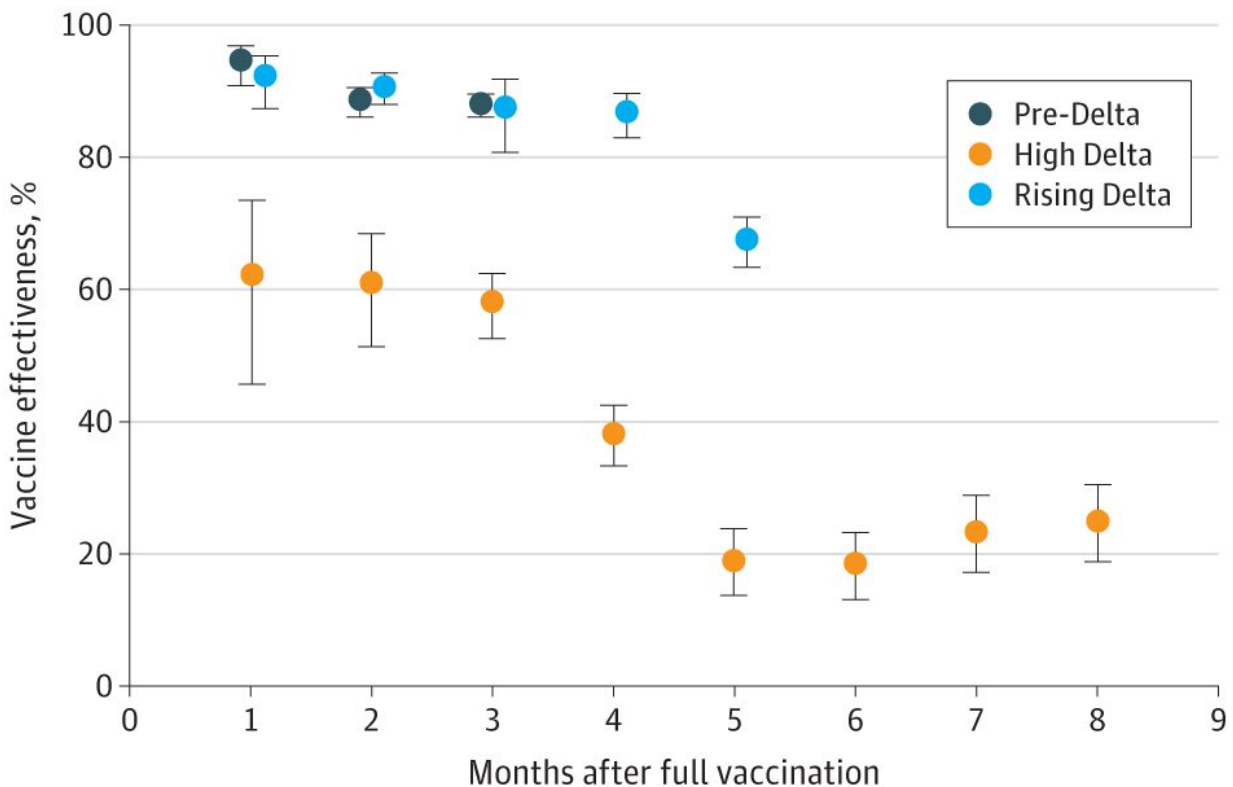


Study of older veterans found efficacy of mRNA vaccines against delta fell dramatically over six months

December 16 2021, by Bob Yirka



Estimated Messenger RNA Vaccine Effectiveness Against SARS-CoV-2 Infection by Delta Variant Period, January to September 2021. Credit: DOI: 10.1001/jamanetworkopen.2021.38975

A team of researchers working at the White River Junction Veterans

Affairs Medical Center in Vermont reports that the efficacy of the two mRNA vaccines from Pfizer and Moderna declined in aging veterans more quickly than has been reported in other studies. In their *JAMA Network Open* Research Letter, the group describes their study of the effectiveness of the mRNA vaccines against COVID-19 in 1,363,180 men 65 years or older who were enrolled in the Vermont VA system.

To learn more about how well the two main mRNA vaccines protect [older people](#), the researchers conducted a three-part study in which they measured the effectiveness of the vaccine during three stages of the pandemic: pre-delta, emerging delta and high delta, with delta referring to the SARS-CoV-2 variant.

All of the veterans in the study were vaccinated in January or February, 2021. The pre-delta test phase was conducted from January to April; the second was conducted over May to June; the third from July through September.

As expected, the researchers found that the protection afforded by either vaccine was high during the pre-delta phase, with effectiveness measured at 94%. But they found that the effectiveness dropped to 87.9% after three months. Then, after the delta variant arrived, things changed dramatically. The efficacy of the vaccine dropped to 62% in the first month and then down to 57.8% after three months. And after five months efficacy dropped to just 20%—a noticeably larger dip than has been seen in other similar studies.

The researchers noted that over the course of the study, 14,238 of the veterans in the study tested positive for COVID-19 and 56,592 tested negative. They suggest the [rapid decline](#) in effectiveness was likely due to both an expected decline in effectiveness and the introduction of the [delta](#) variant. They also note that because their study involved only older male veterans, it is not clear if the findings are applicable to people in

other categories. They also note that the impact of boosters on veterans was not included in the study.

More information: Yinong Young-Xu et al, Estimated Effectiveness of COVID-19 Messenger RNA Vaccination Against SARS-CoV-2 Infection Among Older Male Veterans Health Administration Enrollees, January to September 2021, *JAMA Network Open* (2021). [DOI: 10.1001/jamanetworkopen.2021.38975](https://doi.org/10.1001/jamanetworkopen.2021.38975)

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