

No Evidence COVID-19 Vaccines Will Block Spread of Coronavirus

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On Nov. 9, 2020, Pfizer, Inc. announced that the experimental messenger RNA (mRNA) BNT162b2 vaccine for COVID-19 it developed in partnership with Germany's BioNTech SE had an efficacy rate of 90 percent, based on the results of human clinical trials on the vaccine.^{1 2 3} This news was followed up a week later with an announcement by Moderna, Inc. on Nov. 16 that its experimental mRNA mRNA-1273 for COVID-19 showed an efficacy of 94.5 percent.^{4 5 6}

Seemingly not to be outdone by Moderna and perhaps in anticipation of an impending emergency use authorization (EUA)—not “approval”—by the U.S. Food and Drug Administration for the first COVID-19 vaccine to be distributed to the U.S. public and used, Pfizer revised upward the efficacy of its BNT162b2 vaccine to 95 percent on Nov. 18.^{7 8 9} The FDA granted an EUA for the BNT162b2 vaccine on Dec. 11. It followed with an EUA for the mRNA-1273 vaccine on Dec. 18.^{10 11}

During the past two months, other pharmaceutical and biotechnology companies have revealed efficacy rates for COVID-19 vaccines they have developed. On Nov. 23, the United Kingdom's AstraZeneca plc announced that its experimental AZD1222 COVID-19 vaccine, developed in partnership with Oxford University, had attained an efficacy of 70 percent during clinical trials. On Dec. 14, Russia's Gamaleya National Center of Epidemiology and Microbiology announced its Sputnik V COVID-19 vaccine was 91.4 percent efficacious. On Dec. 30, China's Sinopharm Group Co. Ltd. announced its COVID-19 was 79.34 percent efficacious.^{12 13 14}

Many other pharmaceutical companies, universities and government agencies are continuing to work on their own COVID-19 vaccines that they hope to submit for governmental approval or at least EUAs over the next year. They are proceeding with clinical trials to determine the safety and efficacy of their products. The market for COVID-19 vaccines has begun to take shape and some of the early leading manufacturers have become apparent. Additionally, a bar has been set for the range of effectiveness expected of a COVID-19 vaccine. An efficacy rate of 95 percent is currently considered to be the gold standard for COVID-19 vaccines.

What is Meant by “Efficacy” of COVID-19 Vaccines?

But what exactly does “efficacy” mean when it comes to COVID-19 vaccines? Does it mean that the vaccines will prevent people from becoming infected with the SARS-CoV-2 virus? Does it mean that they will prevent people who have the virus from spreading it to others? Based on clinical trials, there is no evidence the vaccines will prevent either. In an interview last month with NBC's Lester Holt, Pfizer CEO Albert Bourla acknowledged he didn't know if the BNT162b2 vaccine would prevent the spread of the SARS-CoV-2 virus. “I think this is something that needs to be examined. We are not certain about that right now with what we know,” Bourla

said.¹⁵

Bourla's comments were echoed by Moderna's chief medical officer, Tal Zaks, MD. In an interview with Axios on Nov. 23, Dr. Zaks noted, "When we start the deployment of [the mRNA-1273] vaccine, we will not have sufficient concrete data to prove that this vaccine reduces transmission."¹⁶¹⁷

"These COVID vaccines are preventing clinical disease, we don't know if they prevent transmission [of the SARS-CoV-2 virus]," says infectious disease expert Chris Beyer, MD of the Johns Hopkins University Bloomberg School of Public Health. According to vaccines expert David Diemert, MD of George Washington University, it is not known if the COVID-19 vaccines will prevent the SARS-CoV-2 virus from entering the body or leaving a vaccinated body.¹⁸ ¹⁹ ²⁰

Preventing Infection is Not "Primary Endpoint" of COVID-19 Vaccines

Similar views were expressed last year by Anthony Fauci, MD, director of the U.S. National Institute of Allergy and Infectious Diseases (NIAID) which partnered with Moderna on the development of the mRNA-1273 vaccine. At Yahoo Finance's All Markets Summit on Oct. 26, Dr. Fauci was asked the following question by reporter Anjalee Khemlani:

I wonder about the effectiveness. That's something that has been a topic of conversation, and I've heard a broad range of commentary, from... it will block the virus entirely to it will simply diminish the most severe cases. And if anyone experiences the virus, it will actually be a milder version. So based on what you know right now and what you're seeing, do you anticipate that the first sets of vaccines out the door will be more of a less effective blocker of the virus?¹⁹ ²²
Dr. Fauci responded:

That's the primary endpoint of most of the [vaccines] is to prevent clinical disease, to prevent symptomatic disease. Not necessarily to prevent infection... that's a secondary endpoint. But the primary thing you want to do is that if people get infected—prevent them from getting sick. And if you prevent them from getting sick, you will ultimately prevent them from getting seriously ill. So that's what we want to do. The first, which we call the primary endpoint, is that.²¹ ²²
He added:

If the vaccine also allows you to prevent initial infection, that would be great. But what I would settle for, and all of my colleagues would settle for, is the primary endpoint—to prevent clinically recognizable disease. And that's what we hope happens.¹⁹ ²²

More recently, Dr. Fauci was asked specifically by Newsweek if people who get a COVID-19 vaccines could still pass on the SARS-CoV-2 to others. He answered: "That's a good question. We don't know that yet. We do not know if the vaccines that prevent clinical disease also prevent infection."²³ ²⁴

Finally, the World Health Organization (WHO) is also not particularly bullish on the ability of

COVID-19 vaccines to control the SARS-CoV-2 contagion. “I don’t believe we have the evidence on any of the vaccines to be confident that it’s going to prevent people from actually getting the infection and therefore being able to pass it on,” said the WHO’s chief scientist, Soumya Swaminathan, MD.²³ 25

In short then, what has been measured in the trials on the BNT162b2 and mRNA-1273 vaccines, as well as other experimental COVID-19 vaccines, is not whether they prevent infection with and transmission of the SARS-CoV-2 virus but how well they can prevent or minimize symptoms of COVID-19 disease that can be caused by the virus. There is no evidence to suggest the vaccines will have any effect in terms of protecting people from getting the virus and spreading it.

It doesn’t look like these COVID-19 vaccines are going to come anywhere close to being the proverbial ‘silver bullet.’

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