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MIDDLE EAST

Israeli Study Finds Pfizer Shot Equally Effective for Young and Old

The Covid-19 vaccine from Pfizer and BioNTech is equally effective across all age groups, including those over 60, according to a new Israeli study, in a boost of confidence to global vaccine efforts.



By Dov Lieber

TEL AVIV—The Covid-19 vaccine from Pfizer Inc. and BioNTech SE is equally effective across all age groups, including those over 60, according to a new Israeli study, in a boost of confidence to global vaccine efforts.

The Pfizer vaccine provided around 94% protection against developing coronavirus symptoms across all age groups above 16 a week after the second shot of a recommended two-dose regimen, according to a study by researchers from Israel's Clalit Research Institute and Harvard University. The study also found the vaccine is 92% effective in preventing severe disease. The results are in line with the vaccine maker's own clinical

trial, but the large size of the study, which covered nearly 1.2 million people, provides more precise insight into older age groups that were sparsely covered by the drugmaker's trial, according to the study's authors. The peer-reviewed study, parts of which have been reported previously, was published Wednesday in the *New England Journal of Medicine*.

Israel is the only country that has begun vaccinating all age groups over 16 in relatively large numbers, as part of its campaign to inoculate a majority of its nine-million population by March.

The pace of Israel's inoculation drive and its technologically advanced healthcare system have allowed researchers to gather real-world data on the vaccine—from effectiveness to side effects—and given them an unprecedented view into vaccine's effect across varied age groups. The results offer important new insights for other countries as they roll out their own programs.

Researchers on this study were able to look at data from around 1.2 million people and two decades' worth of their health records. As the study was observational in nature, the researchers worked to minimize any biases between the vaccinated versus unvaccinated group that might account for better results, such as better health habits. To do this, they matched each vaccinated individual against an unvaccinated person who had a similar profile, including their risk level for infection, risk level of developing serious illness and overall health.

This study provides “scientifically validated real-world evidence of the effectiveness of the vaccine,” said Prof. Ran Balicer, Clalit's chief innovation officer and one of the study's chief authors.

Israel is leading the world in the global vaccine race. Over half of its population has received the first shot, including 90% of those over 60, and about a third of the country is fully vaccinated, according to Israel's Health Ministry. After beginning its campaign on Dec. 20 with healthcare workers and the elderly, Israel earlier this month opened it up to everyone over 16. The findings of the Clalit study were similar to recently published research out of the U.K. and from other Israeli researchers that just one Pfizer shot can offer strong protection.

One dose of Pfizer's vaccine was found to be 57% effective in preventing symptomatic Covid-19 and 62% effective at preventing severe disease 14 to 20 days after the first dose, the study found. Pfizer's own clinical study also found one dose to be 57% effective in preventing symptomatic Covid-19.

The vaccine is also highly effective for those with one to two pre-existing health

conditions, the study's authors said. But they said more testing would be needed to understand how effective the vaccine is for those with three or more pre-existing conditions.

The Israeli study included more than 110,000 people over the age of 70, and more than 40,000 people over 80. In both cases, the study showed their protection was equal to any of the younger age groups.

Most countries launched their vaccination programs by first targeting the elderly, but didn't have enough data at the time on its efficacy to support that move. Pfizer's original clinical trial, owing to its small scale, didn't have granular insight into adults 70 years or older, according to Mr. Balicer.

The large size of the Israeli data pool allowed researchers to look closely at each different age bracket.

Israel paid a premium for the vaccine and agreed to share related data for early shipments from Pfizer. It also placed orders with other vaccine companies, including Moderna Inc. and AstraZeneca PLC.

The aggressive vaccination campaign has paved the way for the country's reopening. In recent months, Israel has suffered through some of the world's worst infection rates per capita, as many flouted lockdowns, and more recently, a British variant of the disease ran rampant.

On Saturday evening, Israel began issuing so-called green passports that allow vaccinated people to enter gyms, concerts and hotels. The passes will later be used at restaurants and bars when they reopen in the coming weeks.

Jared Hopkins in New York contributed to this article.