

UK data: COVID-19 vaccines sharply cut hospitalizations

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Britain's Prime Minister Boris Johnson with quality control technician Kerri Symington, visits the French biotechnology laboratory Valneva in Livingston, Scotland, Thursday Jan. 28, 2021, where they will be producing a COVID-19 vaccine on a large scale, during a visit to Scotland. (Wattie Cheung/Pool via AP)

Two U.K. studies released Monday showed that COVID-19 vaccination programs are contributing to a sharp drop in hospitalizations, boosting hopes that the shots will work as well in the real world as they have in carefully controlled studies.

Preliminary results from a study in Scotland found that the Pfizer-BioNTech [vaccine](#) reduced hospital admissions by up to 85% four weeks after the first dose, while the Oxford-AstraZeneca shot cut admissions by up to 94%. In England, preliminary data from a study of health care workers showed that the Pfizer vaccine reduced the risk of catching COVID-19 by 70% after one dose, a figure that rose to 85% after the second.

"This new evidence shows that the jab protects you, and protects those around you," U.K. Health Secretary Matt Hancock said. "It is important that we see as much evidence as possible on the

vaccine's impact on protection and on transmission and we will continue to publish evidence as we gather it."

The studies were released as British Prime Minister Boris Johnson laid out plans Monday to ease a lockdown that has shuttered pubs, schools and nonessential shops since early January. The vaccine rollout is critical to returning the country to some sense of normalcy. More than 17.5 million have received one vaccine dose so far—more than a third of the U.K.'s [adult population](#).

Britain has had Europe's deadliest [coronavirus](#) outbreak, with more than 120,000 deaths.

Public Health England said its study of health-care workers suggest the vaccine may help prevent virus transmission "as you cannot spread the virus if you do not have infection." The findings are based on COVID-19 testing conducted every two weeks that detects infections whether or not someone shows symptoms.

Broader testing in the overall population showed that the Pfizer vaccine was 57% effective in preventing symptomatic illness in people over 80 three to four weeks after the first dose. That rose to more than 85% after the second dose. Overall, hospitalizations and death should be reduced by over 75% after one dose of the vaccine, Public Health England said.

The agency said it is still monitoring the impact of the AstraZeneca vaccine, but "early signals in the data suggest it is providing good levels of protection from the first dose."

U.K. regulators authorized widespread use of the AstraZeneca vaccine on Dec. 30, almost a month after they approved the Pfizer vaccine.

The Scotland study was conducted by scientists at the University of Edinburgh, the University of

Strathclyde and Public Health Scotland.

according to the country's Ministry of Health.

The preliminary findings were based on a comparison of people who had received one dose of vaccine and those who hadn't been inoculated yet. The data was gathered between Dec. 8 and Feb. 15, a period when 21% of Scotland's population received their first vaccine shot.

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"These results are very encouraging and have given us great reasons to be optimistic for the future," said Professor Aziz Sheikh, director of the University of Edinburgh's Usher Institute. "We now have national evidence—across an entire country—that vaccination provides protection against COVID-19 hospitalizations."

About 650,000 people in Scotland received the Pfizer vaccine during the study period and 490,000 got the AstraZeneca shot, the Usher Institute said. Because hospitalization data was collected 28 days after inoculation, the data on hospital admissions came from a subset of 220,000 people who received the Pfizer vaccine and 45,000 who got the AstraZeneca shot.

Outside experts said while the findings in Scotland are encouraging, they should be interpreted with caution because of the nature of this kind of observational study. In particular, relatively few people were hospitalized after receiving the vaccines during the study period.

Stephen Evans, a professor of pharmacoepidemiology at the London School of Hygiene & Tropical Medicine, urged those making [political decisions](#) about the pandemic to be cautious.

"It will be important that euphoria, especially from political sources that do not understand the uncertainty in the numerical values, does not cause premature decisions to be made," he said. "Cautious optimism is justified."

Earlier this month, Israel reported encouraging results from people receiving the Pfizer vaccine. Six weeks after vaccinations began for people over age 60, there was a 41% drop in confirmed COVID-19 infections and a 31% decline in hospitalizations,

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