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Covid-19: Vaccines are highly effective in preventing deaths from delta variant, study indicates

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The first countrywide study of deaths caused by the delta variant of covid-19 has found that vaccination is 90% effective in preventing people from dying.

The research was carried out in Scotland and was based on an analysis of 114 706 cases of SARS-CoV-2 infection detected in the community between April and September this year. Almost all infections were of the delta variant. The study found that the Oxford-AstraZeneca vaccine was 91% effective in preventing deaths in people who have been double vaccinated, while the Pfizer-BioNTech vaccine was 90% effective. The results are published in a letter in the *New England Journal of Medicine*.¹

The paper says the study was the first to show across an entire country how effective vaccines are at preventing death from the delta variant, which is now the dominant form of covid-19 in the UK and many other countries. It used data from the Scotland-wide Eave II covid-19 surveillance platform,² which has developed a dataset of all 5.4 million people in Scotland registered with a family doctor. Analysis of information provided by the platform has helped to track the progress of the virus across Scotland and has helped to inform policy makers.

The research team, from the Universities of Edinburgh and Strathclyde and Public Health Scotland, analysed a dataset as part of the Eave II project to investigate the effectiveness of the vaccines. They said the results should be seen as early findings and that the research needs to be repeated elsewhere to have greater confidence in the conclusions.

Chris Robertson, professor of public health epidemiology at the University of Strathclyde, said, "This study shows the value of carrying out analyses of routine healthcare data available in near real time. Our findings are encouraging in showing that the vaccine remains an effective measure in protecting both ourselves and others from death from the most dominant variant of covid-19. It is very important to validate these early results in other settings and with a longer follow-up study."

Aziz Sheikh, professor of primary care research at the University of Edinburgh, who leads the Eave II project, said, "With the Delta variant now the dominant strain in many places worldwide and posing a higher risk of hospitalisation than previous variants seen in the UK, it is reassuring to see that vaccination offers such high protection from death very shortly after the second dose."

1 Sheikh A, Robertson C, Taylor B. BNT162b2 and ChAdOx1 nCoV-19 vaccine effectiveness against death from the delta variant. *N Engl J Med* 2021;(Oct). doi: 10.1056/NEJMc2113864.

2 About EAVE II. <https://www.ed.ac.uk/usher/eave-ii/about-eave-ii>.

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