

COVID-19 vaccines highly effective in clinical risk groups

The [study from Public Health England](#) (PHE), which included more than 1 million people in at-risk groups, found:

- overall vaccine effectiveness against symptomatic disease in risk groups is approximately 60% after one dose of either AstraZeneca or Pfizer-BioNTech, with little variation by age
- after 2 doses, vaccine effectiveness with Pfizer-BioNTech is 93% and 78% with AstraZeneca in people in risk groups aged 16 to 64 in people in risk groups aged 65 and over, vaccine effectiveness with Pfizer-BioNTech is 87% and 76% with AstraZeneca
- for those who are immunosuppressed, vaccine effectiveness after a second dose is 74%, with similar protection to those who are not in a risk group – this rises from 4% after a first dose

Although age is the greatest risk factor for adverse outcomes following coronavirus (COVID-19) infection, certain health conditions also increase the risk of severe disease.

Diabetes, severe asthma, chronic heart disease, chronic kidney disease, chronic liver disease, neurological disease, and diseases or therapies that weaken the immune system – such as blood cancer, HIV or chemotherapy – have all been linked to an increased risk of hospitalisation or death with COVID-19.

People with these conditions who are at highest risk were initially advised to shield during the peak of the pandemic and all risk groups were then prioritised for vaccination. The government announced the dose interval would be brought forward from 12 to 8 weeks for the clinically vulnerable on 14 May, and everyone in these groups should now have been offered a second dose.

Data on vaccine effectiveness among people in clinical risk groups was previously limited. Though more data is needed, protection against hospitalisation and death in risk groups is expected to be greater than protection against symptomatic disease, as has been seen in studies of the general population.

Dr Mary Ramsay, Head of Immunisation at PHE, said:

This real-world data shows for the first time that most people who are clinically vulnerable to COVID-19 still receive high levels of protection after 2 doses of vaccine.

It is vital that anyone with an underlying condition gets both doses, especially people with weakened immune systems as they gain so much more benefit from the second dose.

The Joint Committee on Vaccination and Immunisation (JCVI) advised that those living with immunosuppressed adults should be prioritised for vaccination to help limit the spread of the virus to people in this group.

If the planned booster programme goes ahead, the JCVI has recommended that immunosuppressed adults and their household contacts should also be among the first to be offered a third dose of vaccine in September.

PHE estimates that 30,300 deaths and 8,151,000 infections have been prevented as a result of the COVID-19 vaccination programme, up to 25 June. This is based on modelling analysis from PHE and Cambridge University's MRC Biostatistics Unit.

PHE also estimates that 46,300 hospitalisations have been prevented in people aged 65 or older in England up to 27 June (approximately 7,000 admissions in those aged 65 to 74, 18,000 in those aged 75 to 84, and 21,300 in those aged 85 and over).