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## Covid-19: Four in 10 people with evidence of past infection had no classic symptoms, study finds

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Around one in four people who had evidence of past covid-19 infection were completely asymptomatic, while 40% did not have one of the three classic symptoms—fever, persistent dry cough, or loss of sense of taste or smell, according to a UK study.<sup>1</sup>

The UK Biobank SARS-CoV-2 Serology study, funded by the Department of Health and Social Care, analysed monthly blood samples of nearly 19 000 people between 27 May and 4 December 2020. It found that 99% of participants who tested positive for previous infection retained antibodies for three months after being infected, and 88% did so for at least six months.

Over the study period, the researchers found that the proportion of the population with antibodies to SARS-CoV-2 rose from 6.6% (May and June) to 8.8% (November and December). During this time, 453 people were newly identified as having a positive test, most of them from September onwards.

Loss of sense of taste or smell was the most common symptom linked to past infection (odds ratio 29.8, 95% confidence interval 22.8 to 38.9), followed by fever (OR 8.2, 95% CI 6.7 to 10.0) and chills (OR 6.4, 95% CI 5.4 to 7.7).

The study also identified significant differences in seroprevalence by age, ethnicity, and socioeconomic status. Those aged 50 and over were consistently less likely to have been infected, with the percentage positive in different age groups ranging from 13.5% among those aged under 30 to 6.7% among those aged over 70. People living in deprived areas were also more likely to have been infected, with 11.4% of people in areas of higher deprivation reported as seropositive, compared with 7.8% in areas of lower deprivation. Looking at ethnicity, the study found that people of black ethnicity were most likely to have had a past infection (16.3%), while those who were white (8.5%) or Chinese (7.5%) were less likely. The increased risk of testing seropositive for the virus among black people remained “significantly higher” after adjusting for age, sex, socioeconomic deprivation, region, and urban or rural status. People of South Asian ethnicity were also more likely to be seropositive compared with their white counterparts following these adjustments.

Naomi Allen, chief scientist for UK Biobank and professor of epidemiology at the University of Oxford, said, “This important study has revealed that most people retain detectable antibodies for at least six months after infection with the coronavirus. Although we cannot be certain how this relates to immunity, the results suggest that people may be protected against subsequent infection for at least six months following natural infection. More prolonged follow-up will allow us to determine how long such protection is likely to last.”

1 Biobank UK. SARS-CoV-2 Serology Study. 2021. [www.ukbiobank.ac.uk/media/xOnd5sul/ukb\\_serologystudy\\_report\\_revised\\_6months\\_jan21.pdf](http://www.ukbiobank.ac.uk/media/xOnd5sul/ukb_serologystudy_report_revised_6months_jan21.pdf).

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