



Kent

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## Covid-19: Exponential growth in infections in England is driven by young people

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Coronavirus infections in England grew exponentially between 20 May and 7 June, with a doubling time of 11 days and an estimated R number of 1.44, the latest snapshot survey from Imperial College London shows.<sup>1</sup>

The findings from the 12th round of the Real Time Assessment of Community Transmission (React 1) study shows that growth is being driven by younger age groups, with a fivefold higher rate of swab positivity among children aged 5-12 years and adults aged 18-24 years than in people aged 65 or over. The rate among people below the age of 50 was 2.5 times that among those aged 50 or over.

The study, published as a preprint, also confirmed the rise of the delta (B.1.617.2) variant. At the beginning of the sampling period 60% of positive swab tests were due to the delta variant, rising to around 90% by 7 June.

Steven Riley, professor of infectious disease dynamics at Imperial College London, told a Science Media Centre briefing, "Clearly, it's bad news, but it's very difficult to predict the duration of the exponential phase." He added that he was optimistic that extending vaccination to younger age groups in the next month should slow down the growth.

The survey, which provides a snapshot of the spread and prevalence of covid-19 across England by testing a random sample of the population, has the advantage of picking up asymptomatic as well as symptomatic cases.

The overall number of positive results was 135 from 108 911 valid swabs, giving a weighted prevalence of 0.15% (95% confidence interval 0.12% to 0.18%), up from 0.10% (0.08% to 0.13%) in the previous round, carried out between 15 April and 3 May.

The highest prevalence was found in the north west of England, at 0.26%, whereas in the south west it was 0.05%. People living in the most deprived areas were nearly twice as likely to have a positive test result as those in the least deprived areas.

At the beginning of February the association between infection rates and hospital admissions and deaths started to weaken, although in late April 2021 infection rates and hospital admissions started to reconverge. However, when the data are split by age, the weakened link between infection rates and hospitalisations was maintained among people aged 65 or over.

Paul Elliott, director of the React programme and chair in epidemiology and public health medicine at Imperial, said, "We can take a lot of comfort in the fact that there does appear to be very good protection in the older age groups, where virtually everyone has been doubly vaccinated."

The final step of relaxation of covid restrictions in England has been delayed from 21 June to 19 July.<sup>2</sup> The researchers said that they would be feeding interim data from the next round of the study to the government to inform its decision making.

- 1 Riley S, Wang H, Eales O, et al. REACT-1 round 12 report: resurgence of SARS-CoV-2 infections in England associated with increased frequency of the Delta variant. <https://www.imperial.ac.uk/medicine/research-and-impact/groups/react-study/real-time-assessment-of-community-transmission-findings>.
- 2 Mahase E. Covid-19: Delaying end of lockdown will allow more people to be vaccinated, UK government announces. *BMJ* 2021;373:n1552.

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