

Positivity rates highest ever recorded in REACT-1 study, but prevalence plateauing

Over 100,000 volunteers in England took part in [the study](#) to examine the levels of coronavirus (COVID-19) in the general population between 5 and 20 January.

The latest findings from Imperial College London and Ipsos MORI, covering 5 January to 20 January 2022 (round 17 of the study), show that prevalence in England during this period was 4.41%, by far the highest figure recorded since the beginning of the study, and over 3-fold higher than the prevalence [observed in round 16](#) (23 November to 14 December).

It means that during the period in which swabs were collected, approximately 1 in 23 people in England were infected with the virus.

The increase in prevalence seen in round 17 corresponds with Omicron becoming the dominant variant in England in recent weeks and it became the dominant variant in the final stages of round 16.

Within round 17 itself there are indications of a drop in prevalence, declining from a peak estimated to be around 5 January and flattening off by mid-January. Since that point, prevalence remains very high but trends overall are uncertain, with an increase in prevalence among children and decrease in adults.

From the 1,816 positive round 17 samples sequenced to 16 January 2022, 1,406 lineages were determined. Of these, 1,392 lineages corresponded to Omicron, with the remaining 14 corresponding to the Delta variant. This confirms data published elsewhere that Omicron now makes up the vast majority of all new positive cases.

Among the 3,582 swab-positive individuals reporting whether or not they had had previous infection, 2,315 (64.6%) reported a confirmed previous infection and 267 (7.5%) reported a suspected previous infection. Results on reported previous COVID-19 infections are based on self-reported data and therefore it is uncertain what proportion of these are reinfections or recent infections picked up due to the sensitivity of PCR testing.

Dr Jenny Harries, Chief Executive of the UK Health Security Agency (UKHSA), said:

The latest round of REACT data reiterates that while case rates have slowed recently, prevalence is still high.

Vaccination remains the best way to protect yourself from severe disease and hospitalisation from Omicron, and I would urge anyone

who has not done so to come forward for their primary and booster doses as soon as possible. The impact the vaccination is having on preventing severe disease and hospitalisations is clear to see.

To ensure we continue on the downward trend and protect our communities, it is still important for us all to follow public health advice, particularly in crowded spaces and areas of poor ventilation. If you are visiting friends and family, make sure to take a test before going out.

The main findings from the report are as follows:

There were 4,011 positives from 100,607 swabs in round 17, giving an overall weighted prevalence of 4.41%. This is more than 3-fold higher than the weighted prevalence recorded in round 16, which stood at 1.40%.

The peak prevalence was estimated to have occurred around 5 January as data collection in round 17 took place. Prevalence then fell before flattening off in-round by mid-January.

At all ages, weighted prevalence increased between round 16 and round 17. The highest weighted prevalence was observed in those aged 5 to 11 at 7.81%. The next highest prevalence occurred in the 12 to 17 age bracket, with a figure of 5.17%.

Weighted prevalence increased 7-fold from the previous round in the 65 to 74 age bracket (0.48% to 3.06%), and 12-fold in those aged 75 and above (0.21% to 2.43%).

A within-round R estimate suggested an increase in weighted prevalence for those aged 17 years and under, but a decrease in those aged 18 to 54 years and 55 years and above.

Weighted prevalence increased in every region from round 16 to 17, with the highest figure recorded in the North East at 6.85%, followed by Yorkshire and The Humber at 5.58%. That observation is backed up by lower-tier local authority level data, where smoothed estimates of prevalence (based on a nearest neighbour method) indicated areas of highest prevalence in the North East, Birmingham and London.

Highest weighted prevalence in round 17 was recorded in those living in urban areas (4.72%), those from Asian and black ethnicities (6.59% and 6.65% respectively), those in households with 6 or more persons (7.51%) and those who were in contact with a confirmed COVID-19 case (12.9%).

Weighted prevalence was 14.1% (13.5%, 14.7%) among those who reported confirmed previous COVID-19 infection compared to 1.75% (1.63%, 1.88%) in those who reported no previous COVID-19 infection.

Among those who tested positive and reported on symptoms, 28.2% reported no symptoms in round 17 compared to 29.5% in round 16.

From 1,816 positives samples sequenced to 16 January 2022, 1,392 of the 1,406 determined lineages corresponded to Omicron, with the other 14 corresponding to Delta.

Health and Social Care Secretary Sajid Javid said:

It's reassuring to see COVID-19 infections beginning to slow across the country, as we move back to Plan A.

COVID-19 rates are still high, so, as we learn to live with the virus, it is vital we continue to be vigilant – wash your hands, let in fresh air, get tested and, if you haven't already, get boosted now.

Professor Paul Elliott, director of the REACT programme from Imperial's School of Public Health, said:

There is good news in our data in that infections had been rapidly dropping during January, but they are still extremely high and may have recently stalled at a very high prevalence.

Of particular concern is that there is rapidly increasing prevalence among children now they are mixing more following the start of the school term and, compared with December, prevalence in older people aged 65 and over has increased 7- to 12-fold, which may lead to increased hospitalisations.

It's therefore vital that we continue to monitor the situation closely to understand the impact of the Omicron variant, which now makes up almost all infections in the country.

Kelly Beaver, CEO at Ipsos MORI, said:

The large increase in infections associated with the extraordinarily rapid rise of the Omicron variant highlights the need to continue following the public health advice. But the in-round decline in prevalence is encouraging and everyone should get vaccinated when able to.

Surveillance studies like REACT continue to be critical to monitoring the virus within the community, so thank you to the over 2.3 million people who have now participated since the study's inception.