Largest testing programme for coronavirus reinforces need for vigilance

- Over 300,000 volunteers tested across England between 24 July and 7 September, as part of the country's largest study into coronavirus
- Findings from Imperial College London and Ipsos MORI show the virus is now doubling every 7 to 8 days
- Findings reinforce the need for the 'rule of 6' for social gatherings

The third report from the country's largest study on coronavirus rates of infection has been published today showing that cases are increasing steadily across the country.

The study examines levels of infection in the general population in England. The latest findings for the period between 22 August and 7 September – testing more than 150,000 volunteers – indicate cases were doubling every 7 to 8 days. It is estimated 13 people per 10,000 were infected in England, compared with 4 people per 10,000 between 24 July and 11 August 2020.

These findings reinforce the need for continued vigilance from the public.

Health and Social Care Secretary Matt Hancock said:

> We've seen all across the world how a rise in cases, initially among younger people, leads to hospitalisations and fatalities. The pandemic is not over, and everyone has a role to play to keep the virus at bay and avoid another further restrictions.
>
> It's so important that everyone abides by the law and socialise in groups up to 6, make space between you and those outside your household, get a test and self-isolate if you develop symptoms and wash your hands regularly. It is vital you engage with NHS Test and Trace service if contacted to provide details of your close contacts and self-isolate if you are asked to do so.

COVID-19 cases are shown as no longer clustering in healthcare or care home settings, as seen in May and June, suggesting the virus is now spread more widely in the community. Infections are increasing across all adult age groups below the age of 65 years and across all areas of the country, with higher rates seen in young people aged 18 to 24 years. Infection is highest in Yorkshire and the Humber, the North East and the North West.

The latest findings from Imperial are published today at the same time as the government's official weekly R rate. The R rate published by Imperial has been estimated based on a cohort of 150,000 volunteers within a specific timeframe. The weekly official government R rate is produced by SAGE and uses

many data sources and models to produce a consensus view in the scientific community of the likely R number over a longer timeframe.

This is one of several studies that feed into government decision-making and policies on tackling the spread of COVID-19 in England. The Prime Minister this week announced further measures to keep coronavirus cases low. From Monday we are introducing the rule of 6 in law. Individuals must only meet socially in groups of up to 6 people in any settings indoors or outdoors, including your home, restaurants and pubs. There are some exemptions including organised sports, weddings and funerals. It is important to continue to keep your distance from others outside your household.

Professor Paul Elliott, director of the programme at Imperial from the School of Public Health, said:

> Our large and robust dataset clearly shows a concerning trend in coronavirus infections, where cases are growing quickly across England and are no longer concentrated in key workers. What we are seeing is evidence of an epidemic in the community and not a result of increased testing capacity. This is a critical time and it's vital that the public, our health system and policymakers are aware of the situation as we cannot afford complacency.

Kelly Beaver, Managing Director of Public Affairs at Ipsos MORI said:

> Each and every participant in our study has contributed immensely to the national effort in tracking COVID-19 across England. I would like to thank all those who have taken part for their invaluable contribution. By participating in the study they have helped to provide timely data to government on the rise in case numbers and allowed ministers to adopt measures to combat that rise.

The Real-time Assessment of Community Transmission (REACT-1) programme is the largest, most significant piece of research looking at how the virus is spreading across the country.

The study was commissioned by DHSC and carried out by a world-class team of scientists, clinicians and researchers at Imperial College London, Imperial College Healthcare NHS Trust and Ipsos MORI. It is one of many pieces of research that feeds into government decision making on keeping the country safe from COVID-19.

The latest findings cover the period between 22 August and 7 September 2020, testing over 150,000 people.

Overall prevalence of infection in the community was 0.13%, or 13 people per 10,000.

Out of 152,909 swab results, 136 were positive.

Prevalence doubled every 7.7 days.

Reproduction number R was estimated to be 1.7.

Prevalence of infection was highest in Yorkshire and the Humber and the North West at 0.17% followed by 0.16% in the North East.

There were no significant differences between the prevalence of infection for key workers and non-key workers.

Recent contact with a known COVID-19 case (confirmed or tested) was associated with a higher prevalence at 2.74% than for no contact with a COVID-19 case at 0.08%.

Black, Asian, mixed and other ethnicity was associated with higher prevalence of infection at 0.20%, 0.20%, 0.16% and 0.23% respectively compared with white ethnicity at 0.08%.

The highest rates of infection were at 0.25% in young adults aged 18 to 24 years, up from 0.08% from 24 July to 11 August. However, the prevalence of infection increased at all ages from 18 to 64 years between July and August 2020.

65% of participants who tested positive did not report any symptoms at the time of swabbing or in the previous 7 days.

The prevalence was highest among those who reported classic COVID-19 symptoms (high temperature, new continuous cough, loss of smell or taste) at 0.68%.

Randomly selected people over the age of 5 from across England volunteered to provide nose and throat swabs. These were tested for antigens indicating the presence of the virus to show whether someone is currently infected with COVID-19.

In line with government guidance those with positive test results and their household were asked to self-isolate and they were contacted by NHS Test and Trace to provide details of their contacts.

The report was commissioned by DHSC and carried out by a world-class team of scientists, clinicians and researchers at Imperial College London, Imperial College Healthcare NHS Trust and Ipsos MORI.

Read more information on the REal-time Assessment of Community Transmission (REACT) programme of work.

This study falls under pillar 4 of the COVID-19 National Testing Programme, which focuses on mass surveillance in the general population. This is the second study which looks at a representative cross section of the whole population.