## COVID-19 study finds lower prevalence in schools

Round 6 of the Schools Infection Survey (SIS) — a study jointly led by Public Health England (PHE), the London School of Hygiene and Tropical Medicine (LSHTM) and the Office for National Statistics (ONS) — was carried out in June 2021 across 141 primary and secondary schools within selected local authority areas in England.

The study looked at prevalence of COVID-19 infection among pupils and staff sampled in schools. The results from testing showed lower levels of current infection in pupils and secondary school staff than in the autumn term 2020.

The percentage of primary school pupils in school on the day of testing that tested positive was 0.27%, showing very little change from Round 5 (May 2021).

In secondary schools 0.42% of students tested positive, representing an increase from Round 5 but a significantly lower level than the autumn term 2020 (Round 1 and Round 2).

In secondary schools, 0.27% of staff tested positive for COVID-19 — infection was similar level to Round 4 (March 2021) and significantly lower than the autumn term 2020. For Round 6, the number of positive test results from primary school staff was too small to present due to statistical disclosure criteria.

SIS is not intended to be generalisable to England as a whole but does have good representation in the North West. Data for schools in the North West were compared to the wider community prevalence among children of comparable age taken from the <u>Coronavirus (COVID-19) Infection Survey (CIS)</u>. This analysis showed that the prevalence of infection among pupils in schools was consistently lower at all time periods of the study.

The study also found that antibody seroconversion rates (the incidence of SARS-CoV-2 antibody test results changing from negative to positive following natural infection) among primary and secondary school staff were at the lowest level recorded by the study for the academic year. Between Rounds 5 and 6, seroconversion rates for primary school staff was 0.8 per 1,000 person-weeks and for secondary school staff 1.9 per 1,000 person-weeks.

Dr Shamez Ladhani, Consultant Paediatrician at PHE and study lead, said:

Through this study we've closely monitored the risks of COVID-19 in schools.

Latest results show that infection and antibody positivity rates of children in school did not exceed those of the community. This is reassuring and confirms that schools are not hubs of infection.

Keeping community infection rates low remains critical for keeping children safe and schools open safely.

Thanks to all staff and pupils up and down the country for playing their part in keeping transmission of the virus in schools low.

Dr Patrick Nguipdop-Djomo, Assistant Professor of Epidemiology at LSHTM, and co-investigator of the study, said:

It is encouraging to see that the prevalence of COVID-19 infection in schools has remained lower than in the autumn term 2020, and the high vaccine uptake in school staff taking part in the study. This is a testament to the huge amount of work done in schools to prevent and reduce the risk of COVID-19 transmission.

Although the study is not designed to be representative of all schools in the country, SIS has also shown that infections in schools mostly reflect the patterns of infection observed in the local community, thus measures to reduce community transmission remain important.

The whole team working on SIS are grateful to the pupils, staff and parents taking part in this landmark study. With their collaboration and time we are able to better understand how best to respond to COVID-19 and protect the children and school staff.

Fiona Dawe, Deputy Director, Wider Surveillance Studies at the ONS, said:

It's really encouraging that our results today show infection rates in the summer term 2021 were lower than in the autumn term 2020.

As we have now completed the final round of testing, I would like to say thank you to all our incredible participants for taking part in the study throughout the school year, especially during such uncertain times.

This study wouldn't have been possible without them.

Round 6 also recorded COVID-19 vaccination uptake of staff at participating schools in the 14 local authorities. The study found that 92.93% of staff had received at least one vaccine dose by the end of June 2021, an increase from 86.60% at the end of May 2021, and from 62.94% at the end of March 2021. Of staff, 70.47% had received both doses, an increase from 43.13% at the end of May 2021, and up from 1.01% at the end of March 2021.

In a separate data release from Round 4 (March 2021) of <u>antibodies in primary</u> <u>and secondary school pupils</u>, antibody levels following natural infection were found to be lower in schools located in local authorities where community

infection rates have been relatively low throughout the pandemic than areas where infection rates have been higher. These findings support the suggestion that infection rates in school reflect those of the community.

Overall, the data suggest that adult vaccination (including in staff), and other 'school-gate' measures such as the rapid asymptomatic testing programme, excluding bubbles and measures to limit the likelihood of transmission within the school site (for example, social distancing), have contributed to reducing the risk of COVID-19 infection in schools.

## **Background**

Parental opinion on child vaccination recorded in Round 6 found there had been no significant change since Round 5 (May 2021); 40% of primary school parents and 54% of secondary school parents said 'Yes, definitely' they would want their child to have a COVID-19 vaccine; 3% of primary school parents and 6% of secondary school parents said they would 'Definitely not' want their child to have a vaccine.

Round 4 also measured conversion rates among pupils (the incidence of an oral fluid antibody test result changing from negative to positive). For all pupils combined, conversion rates were lower between Rounds 2 (December 2020) to 4 (March 2021) than between Round 1 (November 2020) to 2 (December 2020) at 5.7 per 1,000 person-weeks and 12.0 per 1,000 person-weeks respectively.

The closure of schools during the national lockdown from 5 January 2021 meant that the 3rd round of the COVID-19 Schools Infection Survey was cancelled.