

BRIEF REPORT

SARS-CoV-2 Positivity rates are lower in school compared with local rates in Brooklyn, New York

The World Health Organization (WHO) classified the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) outbreak as a pandemic in March 2020. In-person school instruction in the United States (U.S.) was closed to reduce social interaction and potentially minimise infectious disease transmission.¹ New York City (NYC) re-opened public and private school in September 2020 with preventive measures. However, few reports have addressed the contribution of school safety protocols to rates of infection in private schools and their communities. In this study, incidental infection data were analysed from a representative private school located in high prevalence area in Brooklyn, N.Y. and corresponding local and regional community-based testing (September 2020 to April 2021). School prevalence was low, while community and regional prevalence for SARS-CoV-2 was high, suggesting low infection risks in private school settings.

For safety purposes, the NYC department of health and mental hygiene (DOHMH) set up a programme for weekly COVID-19 screening in all schools to monitor coronavirus disease-19 (COVID-19) infection rates. COVID-19 infection data were collected from a representative reopened private school in Brooklyn, N.Y., in the Homecrest neighborhood (microcluster red zone) and from the corresponding local and regional areas (September 2020 to April 2021). Data were collected from the school principal using

deidentified data and from the NYC Health COVID-19 data website <https://www1.nyc.gov/site/doh/covid/covid-19-data.page>.² Prevalence data were compared from testing done in school to community prevalence estimates determined from statistical models. Data shown in Figure 1 are the percent of people given a molecular test (RT-PCR) who tested positive for SARS-CoV-2 in either the school, local, Brooklyn or N.Y.C. Population numbers for school, local, Brooklyn and NYC are 701, 83,119, 2.59 million and 8.419 million, respectively, for 2019. SARS-CoV-2 prevalence in schools was lower than prevalence in the corresponding local or general community for all months (Figure 1).

The findings of this study suggest that in this community, children might have a limited role in virus transmission. Results of this study are consistent with prior studies that demonstrated COVID-19 infection rates in schools were low. Varma et al., reported that people associated with NYC public schools had an overall burden of COVID-19 infections that was no higher than the burden in the general community and that COVID-19 transmission within public schools was uncommon.³ However, Ismail et al. reported that SARS-CoV-2 infections and outbreaks were uncommon in education settings in England, and that there was an association with low COVID-19 infection incidence in the corresponding region.⁴ In the current study, in-person SARS-CoV-2 prevalence was low while

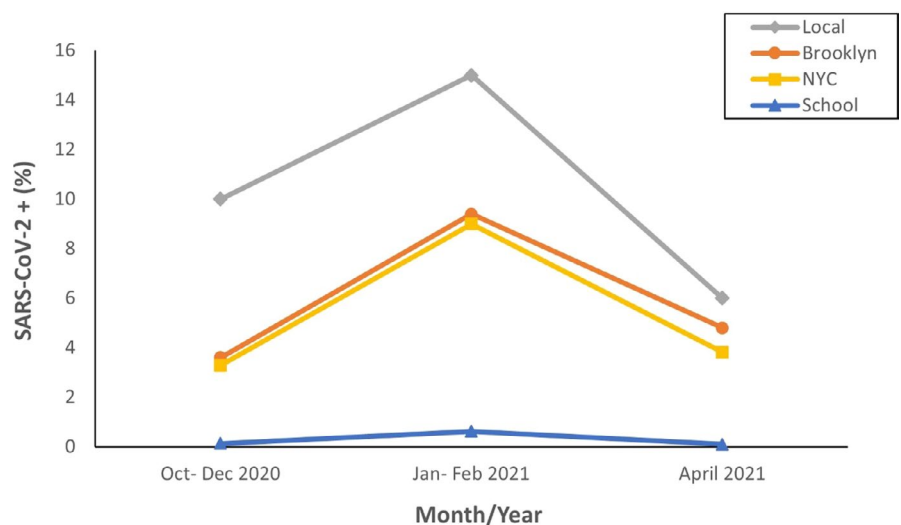


FIGURE 1 Percent of people given a molecular test (RT-PCR) who tested positive for SARS-CoV-2. School: triangle; NYC: square; Brooklyn: circle; Local: diamond

community prevalence was high. Even though this school might not be representative of other schools in different areas, strict COVID-19 protocols and guidelines in this school might have contributed to preventing further cases. The CDC recommends schools continue to use the current COVID-19 prevention strategies for the 2020–2021 school year.⁵

KEYWORDS


Brooklyn, New York, coronavirus disease-19, severe acute respiratory syndrome coronavirus 2

CONFLICT OF INTEREST

The authors have no conflict of interest to disclose.

FUNDING INFORMATION

The authors have no funding to disclose.

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