

SYNOPSIS

01/11/2021

Review of “Minimal transmission of SARS-CoV-2 from paediatric COVID-19 cases in primary schools, Norway, August to November 2020”

Article citation: Brandal LT, Ofitserova TS, Meijerink H, Rykkvin R, Lund HM, Hungnes O, et al. Minimal transmission of SARS-CoV-2 from paediatric COVID-19 cases in primary schools, Norway, August to November 2020. *Euro Surveill.* 2021;26(1):2002011. Available from: <https://doi.org/10.2807/1560-7917.ES.2020.26.1.2002011>

One-minute summary

- This study prospectively examined transmission of severe acute respiratory coronavirus 2 (SARS-CoV-2) from confirmed paediatric cases in Norwegian primary schools between August and November, 2020.
- The authors concluded that systematic tracing and testing of school contacts of paediatric COVID-19 cases demonstrated minimal child-to-child (0.9%, 2/234) and child-to-adult (1.7%, 1/58) transmission in primary schools.
- Infection prevention and control measures were implemented in all schools based on national guidelines; including strengthened hygiene measures, physical distancing and advice to stay home if symptomatic, even when experiencing mild symptoms. The use of face masks was not recommended in Norway schools at the time of the study.
- The results obtained during low to medium community transmission describe a potentially limited role of children in transmission of SARS-CoV-2 in school settings with infection prevention and control measures.

Additional information

- The study took place from August 28, 2020 to November 11, 2020 in Oslo and Viken counties. These two counties had the highest 14-day incidence of coronavirus disease 2019 (COVID-19) in Norway, ranging from 19.3 to 94.9 cases per 100,000 inhabitants in weeks 36 to 46, 2020.
- An index case was defined as a COVID-19 case aged 5–13 years, who had attended school within 48 hours before symptom-onset or sampling date. Contact tracing was performed on 13 index cases and public health officials identified child and adult school contacts (contacts of adult cases not traced). All consenting cases and contacts delivered two self-collected saliva samples; the first was collected as soon as possible after they were identified, and the second was

collected at the end of their 10-day quarantine period. Each saliva sample was analysed for SARS-CoV-2 using PCR.

- A primary case was defined as a school contact who tested positive for SARS-CoV-2 in the first saliva sample. A secondary case was defined as a school contact who tested positive only in the second saliva sample.
- Thirteen public health investigations involving contact tracing were included: eight in the age group 5–10 years old (grades 1–4) and five in the age group 11–13 years old (grades 5–7). A total of 13 index cases and 292 school contacts participated in the study. Four of the 13 index cases had attended school with mild symptoms; however, among these four index cases' contacts, only two primary cases and no secondary cases were identified. The remaining (nine) index cases were asymptomatic while attending school.
- Twelve of the 13 index cases were assessed by the study to be likely infected in their household. One index case did not have a household contact with COVID-19, but had visited a friend's household with adult cases.
- No secondary cases were identified from 234 child contacts or from 58 adult contacts.
- The median number of contacts per index case was 19 children (interquartile range (IQR): 16–21) and three adults (IQR: 2.5–6.5). The participation rate was 73% (234/319) (IQR: 63–89) among child contacts and 78% (58/74) (IQR: 67–100) among adult contacts.

PHO reviewer's comments

- Caution should be exercised in generalizing the findings from this study.
 - The study took place in two counties in one country.
 - The study sample size (234) is relatively small and the number of index cases (13) is small.
 - The study took place from 28 August to 11 November, 2020, when the second wave of the pandemic was occurring, but not yet at maximum case numbers. With greater case numbers, the transmission pressure would be anticipated to increase in school settings.
 - The study was conducted on children aged 5-13 years and thus, cannot be generalized to other school setting age groups.

Citation

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