

# Experience with School Re-Opening in the U.S.

Benjamin Linas 1.29.2021

# We now have data from school reopening

- The fall and winter have been challenging, but the silver lining is that we now have data and lived experience
- Let's use the data that were so painful to amass.
- Empirical observation of school COVID rates is better data than previous modeling studies and ecologic analyses

# COVID-19 Cases and Transmission in 17 K–12 Schools — Wood County, Wisconsin, August 31–November 29, 2020

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# K-12 schools can have in-person learning with limited in-school COVID-19 spread

17 K-12 schools in rural Wisconsin opened and implemented measures to limit spread:

-  Used masks
-  Established groups of 11-20 students
-  Staff maintained 6 feet of distance, if possible
-  Quarantined after exposures

\* Weekly incidence of 34 to 1,189 per 100,000 persons in the community; 7-40% positive COVID-19 tests

Teachers reported more than 92% of students used masks



During 13 weeks of in-person learning

**7** of 4,876 students and

**0** of 654 staff

are known to have gotten COVID-19 at school

**No spread is known to have occurred to or from staff in school despite some times with high community spread\***

FIGURE 1. Cumulative number of community and school-associated\* COVID-19 cases and in-school transmission,† by week — Wood County, Wisconsin, August 31–November 29, 2020

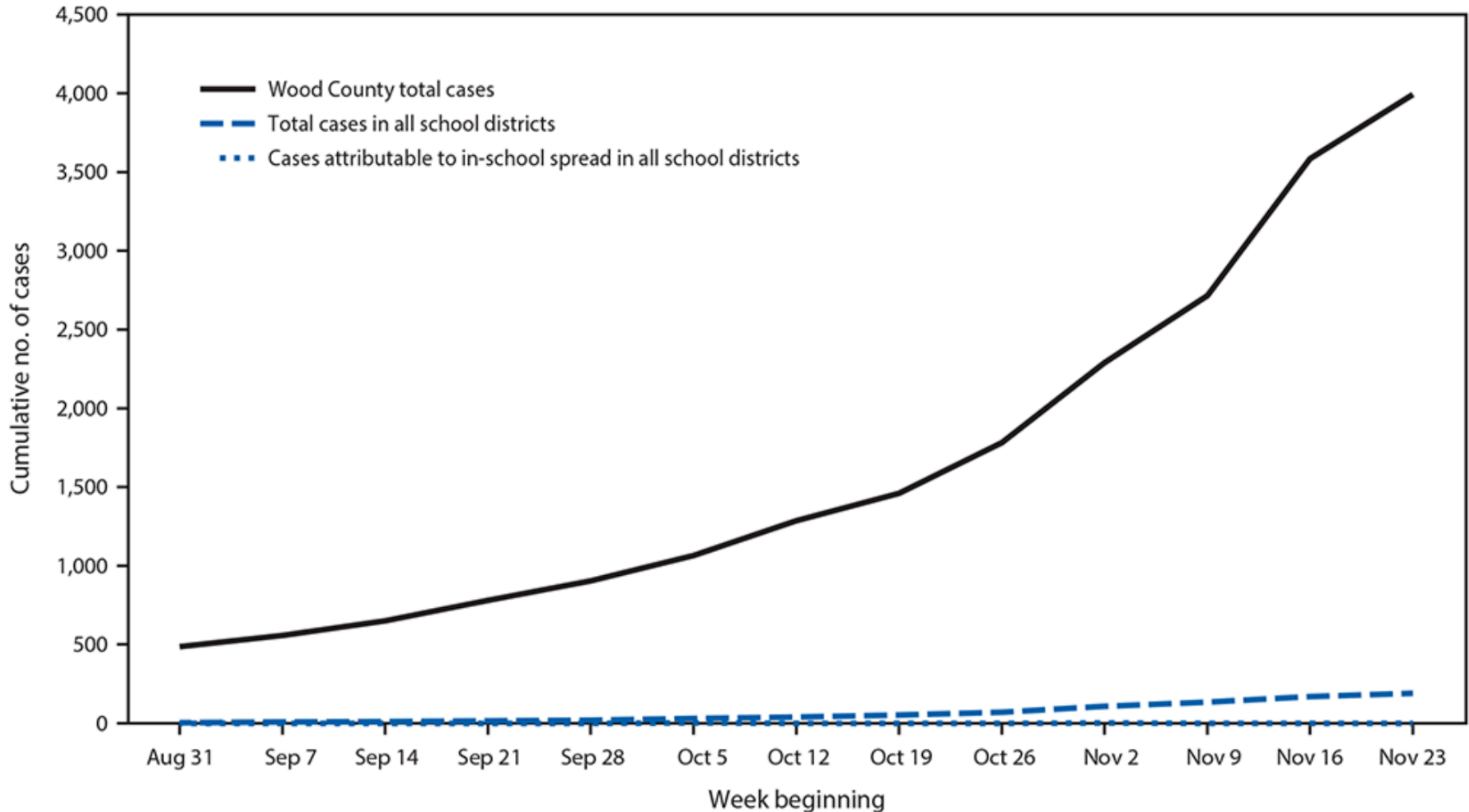
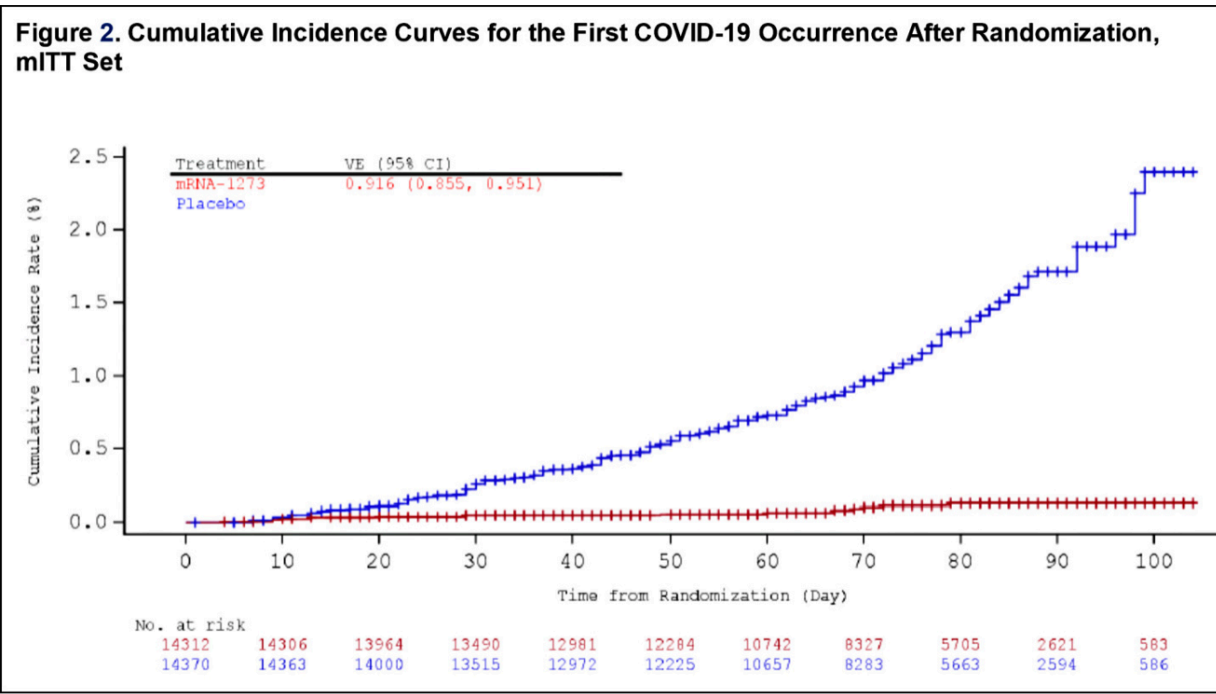
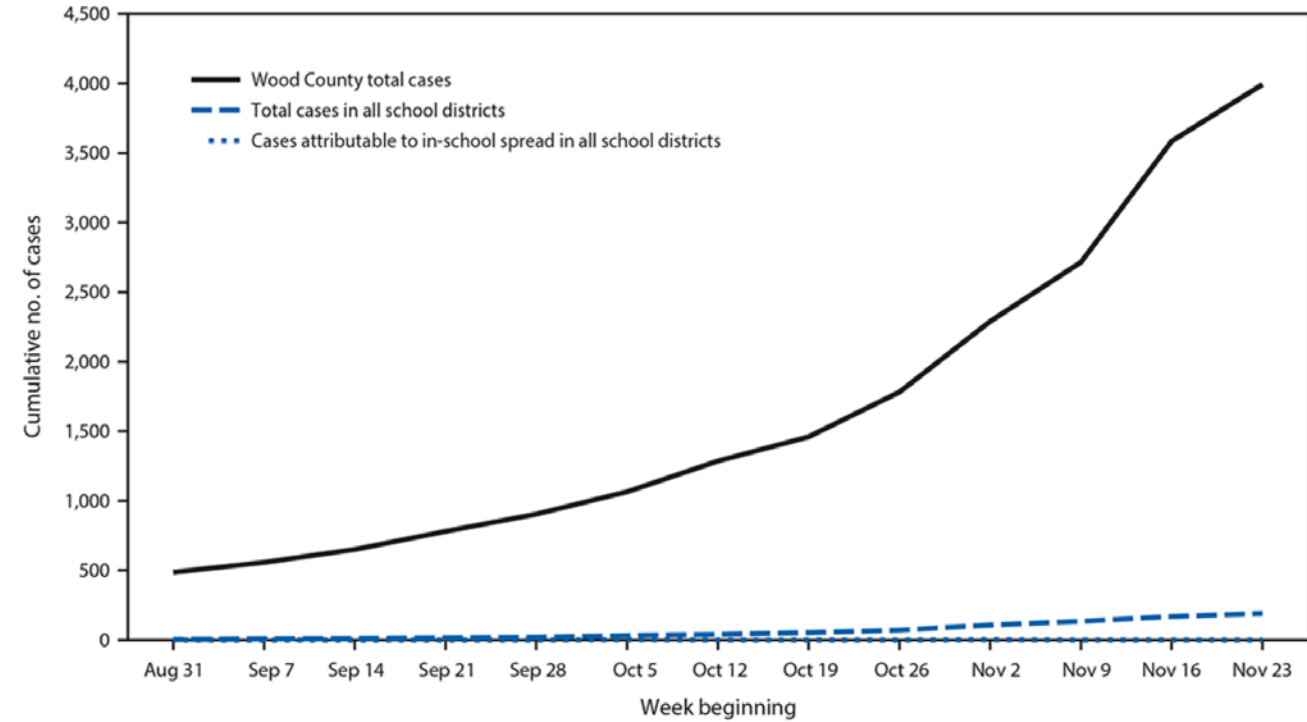


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Prepublication Release

# PEDIATRICS

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## **Incidence and Secondary Transmission of SARS-CoV-2 Infections in Schools**

Kanecia O. Zimmerman, MD; Ibukunoluwa C. Akinboyo, MD; M. Alan Brookhart, PhD;  
Angelique E. Boutzoukas, MD; Kathleen McGann, MD; Michael J. Smith, MD, MSCE;  
Gabriela Maradiaga Panayotti, MD; Sarah C. Armstrong, MD;  
Helen Bristow, MPH; Donna Parker, MPH; Sabrina Zadrozny, PhD;  
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for The ABC Science Collaborative

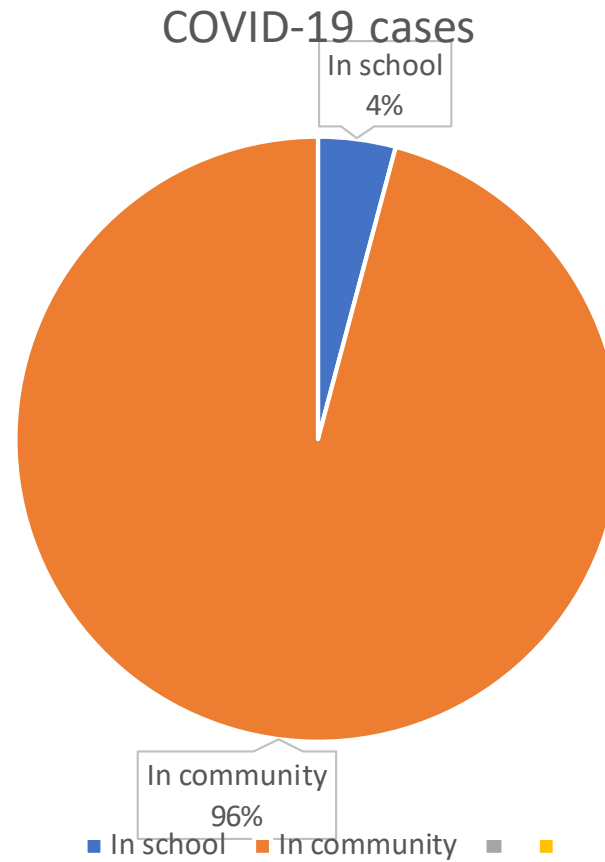
- 08/15/2020–10/23/2020
- 11 districts in N.C. open for in-person instruction for all 9 weeks of the first quarter and agreed to track incidence and secondary transmission of SARS-CoV-2.
- Local health department staff adjudicated secondary transmission.
- Superintendents met weekly with faculty to share lessons learned and develop prevention methods.



# Mitigation in place

- Universal masking for all  $\geq 5$  years of age (except the adapted curriculum, during meals, and when sufficiently distanced outside)
- 6-foot distancing
- Wash hands (“3W’s”: wear a mask, wait 6 feet, wash hands)
- Daily symptom monitoring and temperature checks.

# Rare COVID-19 transmission in school



# Less COVID-19 Transmission than Community

“If secondary transmission were as common in schools as in the community, we would anticipate 800–900 secondary infections within schools; however, only 32 within-school SARS-CoV-2 transmissions occurred.”

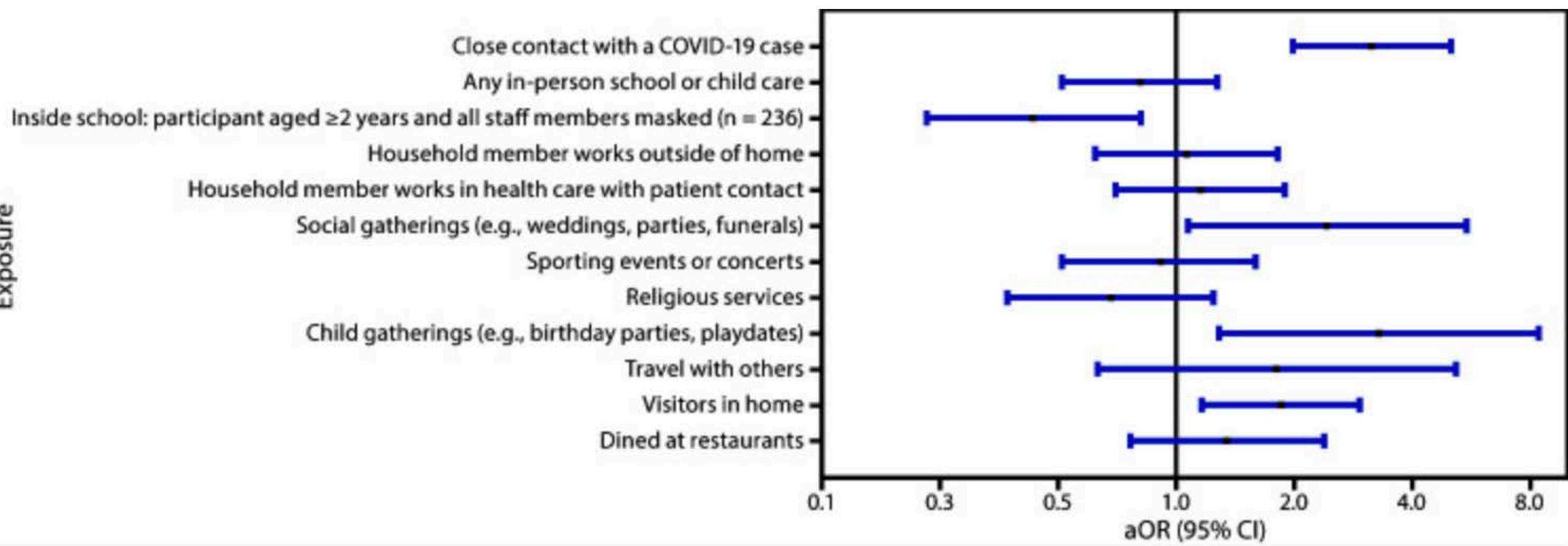
# **Factors Associated with Positive SARS-CoV-2 Test Results in Outpatient Health Facilities and Emergency Departments Among Children and Adolescents Aged <18 Years - Mississippi, September–November 2020**

Charlotte V Hobbs, Lora M Martin, Sara S Kim, Brian M Kirmse, Lisa Haynie, Sarah McGraw, Paul Byers, Kathryn G Taylor, Manish M Patel, Brendan Flannery, CDC COVID-19 Response Team

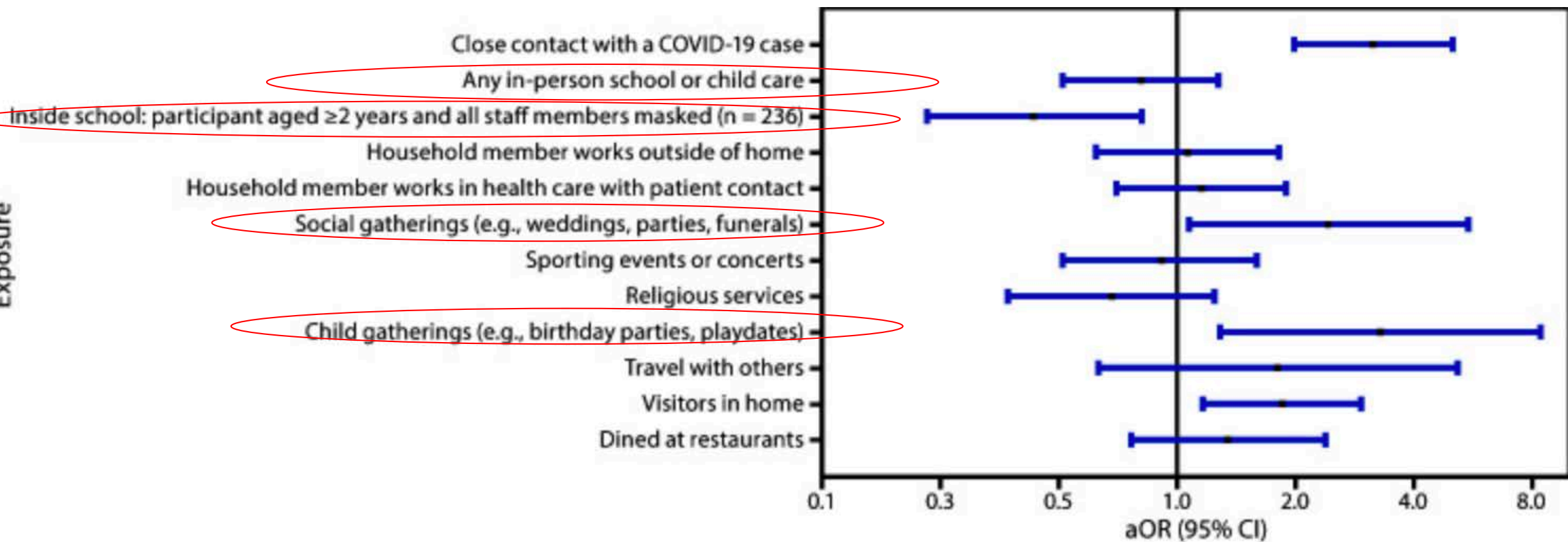
# Study design

- Case control study
- Children and adolescents <18 years
- 392 total students
- Cases = positive SARS-CoV-2 RNA
- Control = negative SARS-CoV-2 RNA

Exposure



Exposure



# Public Health Consensus

- CDC – “CDC recommends that K-12 schools be the last settings to close after all other mitigation measures have been employed and the first to reopen when they can do so safely”
- ECDC – “There is a general consensus that the decision to close schools to control the COVID-19 pandemic should be used as a last resort.
- ECDC - Educational staff and adults within the school setting are generally not seen to be at a higher risk of infection than other occupations, although educational roles that put one in contact with older children and/or many adults may be associated with a higher risk.
- MA DESE/DPH – “Districts and schools in communities designated gray, green, or yellow are expected to have students learning fully in-person, if feasible. A hybrid model should be used only if there is no other way to meet health and safety requirements. Parents and caregivers will continue to have the option to choose a district's remote learning program for their children.”