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Authors

Høeg, Tracy Beth
Prasad, Vinay
Porter, Todd

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Letter to the Editor

CONTACT TRACING POLICY FOR MASKED STUDENTS MAY BE AN IMPORTANT CONFOUNDING VARIABLE

The recent article by Boutzoukas et al¹ analyzed the association of universal vs partial vs optional school masking policies with secondary in-school infection and found an unexpectedly strong association between masking policies and secondary infections given recent studies.^{2,3} Unfortunately, it appears the authors have failed to consider at least 1 critically important confounding variable. The Centers for Disease Control and Prevention (CDC)⁴ state that “the close contact definition excludes students who were between 3 to 6 feet of an infected student if both the infected student and the exposed student(s) correctly and consistently wore well-fitting masks the entire time.” We are aware of numerous districts across the country where contact tracing during the period of the study¹ would not have correctly identified coronavirus disease 2019 cases truly transmitted in the school to have come from the school because a masked student transmitting to another masked student would not have been considered a close contact according to CDC policy. This would lead to in-school transmission cases in districts with mask mandates being overlooked by contact tracers and incorrectly considered community transmission, giving falsely low rates of secondary transmission in districts with mask requirements. Potentially related, Boutzoukas et al¹ found unexpectedly higher rates of primary infections (or community transmission) in the universal vs optional masking districts (125.6/1000 vs 38.9/1000), which could at least partially be due to the close contact policy mentioned previously; if secondary infections

were systematically and inappropriately considered primary infections in mask-mandate districts, this would have led to secondary infections being misclassified as primary infections coming from the community. This would have increased primary infection rates while lowering secondary infection rates in universal masking districts. The association observed by Boutzoukas et al¹ between masking and secondary transmission may alone have been attributable to different contact tracing policies and not because of masks at all. We worry that a policy that does not consider masked transmission in schools makes the study a self-fulfilling prophecy: the expected result is lower identified secondary transmission rates in masking districts simply because of this policy. If contact tracers discount the possibility of in-school transmission because a student was masked, as the CDC instructs, even if this only occurs in some schools, that would be sufficient to cloud the entire study's results.

Tracy Beth Høeg, MD, PhD,^{a,b}

^aFlorida Department of Health
XXX, FL

^bDepartment of Physical Medicine &
Rehabilitation
University of California-Davis
Davis, CA

Vinay Prasad, MD, MPH,^c

^cDepartment of Epidemiology and Biostatistics
University of California-
San Francisco
San Francisco, CA

Todd Porter, MD, MSPH, FAAP,^d

^dQuincy Medical Group
Quincy, IL

Email: tracybethhoeg@gmail.com

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Author Response

RE: Other Factors Potentially Contributing to the Number of Secondary Infections

We appreciate the interest in our paper. However, the commenters are confused about the meaning of some of the numbers we presented, perhaps because we were unclear in our original exposition. The numbers referenced (125.6/1000 per week vs 38.9/1000 per week) are sums of the individual districts' values for this variable and are not a calculation of aggregate primary infection rates by masking category. This summation is determined by both the individual infection rates in the districts and by the number of districts. Because there are more districts in the masking category, the sum of individual values is higher in the universal masking districts. To help the reader, we provide a different view of the data in this response. In this letter's Table 1, we provide data