

Subject: Please Extend the Mask Mandate in Connecticut Schools

To: PHtestimony@cga.ct.gov

Dear Members of the Public Health Committee,

In the next few months you may encounter spurious claims about the efficacy of school and other mask mandates, as opposed to optional masking, in preventing Covid-19. I have compiled below a very cursory survey of peer-reviewed academic journal articles and CDC guidance documents supporting the need for mask mandates, so that you will not be misled by ignorant or malicious claims. Some of these articles are behind paywalls, so please don't hesitate to reach out to me for a copy if you wish to read one in particular.

While I believe vaccination and testing requirements, provision of high-quality masks, and the option for schools to count remote learning days toward the year's 180 requirement are essential tools for controlling Covid-19 in our schools and state, the mask mandate is of unparalleled importance. There is simply no doubt that mask mandates are effective. Masking is an intervention that causes virtually no harm and comes at very little cost or effort. Please extend it for the healthy and safety of our students, our school staff, and our communities.

Cordially,  
Jill R. Kelly, Ph.D.  
resident of North Haven, CT

### **Research Supporting Mask Mandates in the Control of Covid-19**

**“Our results suggest that of the different physical distancing measures implemented by the government, mask mandates are the most important.”** Krishnamachari, et al., The role of mask mandates, stay at home orders and school closure in curbing the COVID-19 pandemic prior to vaccination, *American Journal of Infection Control*, 2021-08-01, Volume 49, Issue 8, Pages 1036-1042.

**“Overall, our analysis shows that the introduction of mask mandates at the state and county level is associated with a statistically significant and large decrease of cases, hospitalizations, and deaths.”** Adjodah, Dhaval, et al. "Association between COVID-19 outcomes and mask mandates, adherence, and attitudes." *PLoS ONE*, vol. 16, no. 6, 23 June 2021, p. e0252315. *Gale Academic OneFile*, link.gale.com/apps/doc/A666195061/AONE?u=29002&sid=summon&xid=86d7e987. Accessed 7 Feb. 2022.

**“The analysis shows that the mask mandate is consistently associated with lower infection rates in the short term, and its early adoption boosts the long-term efficacy.”** An, Bryan Y. Policy Design for COVID-19: Worldwide Evidence on the Efficacies of Early Mask Mandates and Other Policy Interventions, *Public administration review* 81(6), p. 1157, Nov., 2021, DOI: 10.1111/puar.13426.

**“COVID-19 incidence was 37% lower in schools that required teachers and staff members to use masks”** Gettings J, Czarnik M, Morris E, et al. Mask use and ventilation improvements to reduce COVID-19 incidence in elementary schools—Georgia, November 16–December 11, 2020. *MMWR*

Morb Mortal Wkly Rep. 2021;70(21):779-784. doi:[10.15585/mmwr.mm7021e1](https://doi.org/10.15585/mmwr.mm7021e1)PubMedGoogle ScholarCrossref

**“public mask requirements appear to correlate with lower COVID-19 rates.”** Guzman-Cottrill, J., Malani, A., Weber, D., Babcock, H., Haessler, S., Hayden, M., . . . Logan, L. (2021). Local, state and federal face mask mandates during the COVID-19 pandemic. *Infection Control & Hospital Epidemiology*, 42(4), 455-456. doi:10.1017/ice.2020.1403

**“we conclude that 20 d after becoming mandatory face masks have reduced the number of new infections by around 45%. As economic costs are close to zero compared to other public health measures, masks seem to be a cost-effective means to combat COVID-19.”** Mitze, T. *et al.* Face masks considerably reduce COVID-19 cases in Germany, *Proc. Natl Acad. Sci. USA* **117**, 32293–32301 (2020).

Centers for Disease Control and Prevention. Science brief: community use of masks to control the spread of SARS-CoV-2. May 7, 2021. Accessed October 26, 2021.  
<https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/masking-science-sars-cov2.html>

### Human Studies of Masking and SARS-CoV-2 Transmission

- **A large, well-designed cluster-randomized trial in Bangladesh in late 2020 found that surgical or cloth mask distribution, role-modeling, and active mask promotion tripled mask use to 42.3% in intervention villages compared to 13.3% in comparison villages. In villages receiving mask interventions, symptomatic seroprevalence of SARS-CoV-2 was reduced by approximately 9% relative to comparison villages. In villages randomized to receive surgical masks, symptomatic seroprevalence of SARS-CoV-2 was significantly lower (relative reduction 11.1% overall). The results of this study show that even modest increases in community use of masks can effectively reduce symptomatic SARS-CoV-2 infections (COVID-19).<sup>37</sup>**
- **A study of an outbreak aboard the USS Theodore Roosevelt, an environment notable for congregate living quarters and close working environments, found that use of face coverings on-board was associated with a 70% reduced risk of infection.<sup>38</sup>**
- **In a study of 124 Beijing households with  $\geq 1$  laboratory-confirmed case of SARS-CoV-2 infection, mask use by the index patient and family contacts before the index patient developed symptoms reduced secondary transmission within the households by 79%.<sup>39</sup>**
- **A study examining SARS-CoV-2 secondary attack rates among eight public K-12 school districts in Massachusetts (70 schools with >33,000 enrolled students) during the 2020–21 school year found an unadjusted secondary attack rate of 11.7% for unmasked versus 1.7% for masked interactions.<sup>40</sup>**
- **A retrospective case-control study from Thailand documented that, among more than 1,000 persons interviewed as part of contact tracing investigations, those who reported having always worn a mask during high-risk exposures experienced a greater than 70% reduced risk of acquiring infection compared with persons who did not wear masks under these circumstances.<sup>41</sup>**

- During July 15–August 31, 2021, when Delta was the predominant strain circulating in the U.S., about one in five K–12 public non-charter schools open for in-person learning in Maricopa and Pima Counties, Arizona, experienced a school-associated outbreak. Outbreaks were three and a half times more likely (adjusted odds ratio 3.5, 95% confidence interval 1.8-6.6) in schools without mask mandates.<sup>42</sup>
- In a nationwide analysis of data collected during July 1-September 4, 2021, U.S. counties without school mask requirements experienced larger increases in pediatric COVID-19 case rates (18.53 per 100,000 per day more cases) after the start of school compared with counties with school mask requirements.<sup>43</sup>
- An investigation of a high-exposure event in the U.S., in which 2 symptomatically ill hair stylists interacted for an average of 15 minutes with each of 139 clients during an 8-day period, found that none of the 67 clients who subsequently consented to an interview and testing developed infection. The stylists and all clients universally wore masks in the salon as required by local ordinance and company policy at the time.<sup>44</sup>
- Investigations involving infected passengers aboard flights longer than 10 hours strongly suggest that masking prevented in-flight transmissions, as demonstrated by the absence of infection developing in other passengers and crew in the 14 days following exposure.<sup>45, 46</sup>

At least ten studies have confirmed the benefit of universal masking in community level analyses: in a unified hospital system,<sup>47</sup> a German city,<sup>48</sup> two U.S. states,<sup>49, 50</sup> a panel of 15 U.S. states and Washington, D.C.,<sup>51, 52</sup> as well as both Canada<sup>53</sup> and the U.S.<sup>54-56</sup> nationally. Each analysis demonstrated that, following directives from organizational and political leadership for universal masking, new infections fell significantly. Two of these studies<sup>51, 52</sup> and an additional analysis of data from 200 countries that included the U.S.<sup>56</sup> also demonstrated reductions in mortality. Another 10-site study showed reductions in hospitalization growth rates following mask mandate implementation.<sup>54</sup> A separate series of cross-sectional surveys in the U.S. suggested that a 10% increase in self-reported mask wearing tripled the likelihood of stopping community transmission.<sup>57</sup> An economic analysis using U.S. data found that, given these effects, increasing universal masking by 15% could prevent the need for lockdowns and reduce associated losses of up to \$1 trillion or about 5% of gross domestic product.<sup>52</sup>

<sup>52</sup> Centers for Disease Control and Prevention. Science brief: community use of masks to control the spread of SARS-CoV-2. May 7, 2021. Accessed October 26, 2021.

<https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/masking-science-sars-cov2.html>

Centers for Disease Control and Prevention. Science brief: transmission of SARS-CoV-2 in K-12 schools and early care and education programs—updated. July 9, 2021. Accessed October 26, 2021. [https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/transmission\\_k\\_12\\_schools.html](https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/transmission_k_12_schools.html)