

January 30, 2021

Chair Dembrow and members of the committee,

Covid-19 looks like it will be with us for a long time. Whenever we return to school we will be dealing with:

- Unvaccinated students and teachers
- The possibility of a new variant that doesn't respond as well to vaccines
- Family members of students and educators who either are not vaccinated or for whom vaccine isn't as effective. (Moderna appears to have only 85% efficacy in people over 65.)

Practicing CDL and LIPI (primarily distance learning with some in person for those who are most in need) until teachers are vaccinated makes sense - Teachers are have the highest likelihood of contracting and spreading the disease. During this time we can implement preparation for the most safe return.

I would like to expand on two issues as Dr. Corsi talked about in his testimony that reflect conclusions from some of the most current research (1):

- **Leakage rates around masks are typically in the range of 20-80%** when fit reasonably well to the user's face, resulting in effective filtration efficiencies that are much lower than the material filtration efficiency. (Because of leakage even surgical procedure masks can be grossly inefficient.)
- Use of masks and ventilation simultaneously are synergistic (providing multiplicative reductions) and together can provide greatly reduced aerosol transmission infection probability. (Ventilation at the rate of 5 air exchanges seems to be a good compromise between efficacy and efficiency. This is rarely possible with school HVAC systems. **It can be achieved using appropriate portable air filtration systems.**)

Considering this information, I urge the committee to use whatever legislative power you have to prioritize funding for portable HEPA air filtration in classrooms. This will save lives.

Thank you,
Carol Greenough, Ph.D.
Tualatin, Oregon

(1) Strategies to minimize SARS-CoV-2 transmission in classroom settings: Combined impacts of ventilation and mask effective filtration efficiency. Department of Chemistry and Mechanical Engineering, University of Washington

https://www.medrxiv.org/content/10.1101/2020.12.31.20249101v1?fbclid=IwAR0P_oeBF_Bi4p_SpbokkxDG3YMdNWOC4jZeInsE8wBex3ImcPwFBRvOyCk