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Jonathan Garcia
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501 North Dixon Street
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RE: School air quality

Dear Mr. Garcia,

Thank you for reaching out for clarity and additional guidance related to school air quality and ventilation in Oregon's classrooms. Improved indoor air quality is associated with improved productivity and better learning and health outcomes, regardless of COVID-19. Improvements on those conditions can provide benefits extending beyond mitigating infectious disease transmission.

Please see responses to your questions listed below.

1. What does Oregon Health Authority (OHA) consider to be the acceptable air quality standard in classrooms?

Airflow and circulation are part of [the recommended layered health and safety measures for schools](#) to reduce spread. The layered safety measures are general recommendations, but not requirements for schools. Airflow, ventilation, HEPA filters and increased circulation are all practices that will reduce the spread of viruses.

In the [Communicable Disease Guidance for Schools](#), an OHA and Oregon Department of Education (ODE) collaborative product updated Summer 2022, we state, "schools should ensure effective ventilation and improve indoor air quality by increasing the amount of fresh outside air that is introduced into the system, exhaust air from indoors to the outdoors, and clean the air that is recirculating indoors with effective filtration methods (e.g., HEPA filters" (p.6)). The guide also includes a link to the [Center for Disease Control and Prevention: Ventilation in Schools and Childcare Programs](#) with suggestions for how schools can implement the recommendations.

2. Does OHA have a specific air change per hour recommendation for schools?

OHA promotes best practices that aim to reduce infectious disease transmission by reducing airborne virus-containing particles. The number of air changes is only one layer that schools can apply to that end. Other layers include wearing a mask, and proper hand hygiene. Temperature and humidity also play a role in the survival time of the virus in air. OHA recommends a range

of 3-6 air changes per hour along with implementation of other best practices for public indoor spaces. These multiple measures can considerably reduce particles in the air, some of which can contain viruses. You can find more information here: [COVID-19 Public Health Recommendations: Indoor air considerations for smaller spaces](#).

3. Does OHA consider classrooms with a recorded air exchange of less than 3 per hour unsafe? If so, what does OHA recommend schools do to address this issue?


Schools are encouraged to follow best practices as part of a layered mitigation approach to reduce any virus in the air. The number of air changes for an indoor location is one tool in the toolkit to help reduce the risk of COVID transmission and other airborne virus circulation. OHA recommends following layered mitigation practices including masking, opening doors/windows when possible, using fans in windows to blow potentially contaminated air out, and pull new air in through other open windows, as well as using air purifiers.

It is conceivable that not all institutions are able to achieve 3-6 of air changes per hour. Having a lower number of air changes does not mean an automatically increased risk of disease transmission. This depends on the other layers mentioned above, community transmission rates, vaccination status, previous infection, and others. Building administrators can consider all the aforementioned tools when working to reduce the risk of COVID transmission indoors.

4. Based on the steps we've outlined above for improving air quality in schools, are there additional steps we should take to enhance the air quality in schools?

Please see the resources listed above for best practices related to improving air quality in indoor spaces, including schools. OHA appreciates the steps that Portland Public Schools has taken to improve indoor air quality in schools.

Sincerely,



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Public Health Director

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<http://www.oregon.gov/OHA>