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Is Deep Cleaning, Opening Windows or Mechanical Ventilation the Better Option for Classrooms?

As schools across the country open the doors to students once again, questions about ventilation and deep cleaning are resurfacing. Some believe the focus should be on clean surfaces while others say opening windows is sufficient. A lot of experts think mechanical ventilation for classrooms is the answer. All eyes are on how to reopen schools before summer and keep them open in the fall. Part of that is a debate on cleaning vs. ventilation to best keep schools safe for students and faculty.

Federal funding has provided schools with money and the opportunity to make buildings safer before reopening. However, there are a few parameters on how schools can spend the money. Options include filling budget holes, installing plexiglass, buying more PPE supplies, deep cleaning, improving building HVAC systems and installing IAQ upgrades.

“You really could do almost anything,” said Marguerite Roza, the director of the Edunomics Lab at Georgetown University in a New York Times article. The research center, established in 2012, focuses on education finance policy and practice. “There’s not a requirement that they reopen the schools under any amount of time.”

Deep Cleaning Schools is a Waste of Federal Resources

Many school districts are spending the available federal funding on deep cleaning projects to keep parents, students and faculty safe indoors. Unfortunately, as more and more studies continue to show, COVID-19 is

airborne. Cleaning the surfaces, rather than the air, is a mistake. And that's according to countless IAQ researchers and building environment experts.

Schools opting for deep cleaning are often also taking other precautions largely viewed as unnecessary. These include quarantining books and closing off outdoor playground areas.

Why Opening Classroom Windows Is A Start, But Not The Best Solution

Opening windows in classrooms helps, but it is not always the best available answer. Across the country, many schools have to consider freezing cold winters. Other schools have windows that can't open enough to improve ventilation or shouldn't remain open due to safety reasons.

"The ability to open a window does not necessarily benefit you or your students," said Gboyinde Onijala, a supervisor at the Montgomery County Public School District in Chevy Chase, Maryland. "While an open window does increase ventilation, it can also cause problems by allowing dust, pollen, and other irritants to enter the room."

Experts Favor Mechanical Ventilation For Healthy School Buildings

Epidemiologists, scientists and building safety experts alike all agree that mechanical ventilation is the best solution for healthier classrooms. Mechanical ventilation is a series of ducts and fans that work with the HVAC system to exhaust stale, polluted air and draw fresh clean air inside. Mechanical ventilation upgrades for classrooms are critical to safely reopen (and keep open!) school buildings.

Healthy buildings expert Joseph Allen previously stated that the "CDC gives lip service to ventilation in its report." That report was the Center for Disease Control's guidance for reopening schools. Mechanical ventilation and IAQ building upgrades were not as prominent compared to Allen's Harvard Healthy Buildings team's reopening suggestions.

Allen’s position is more so that in order to keep people safe, schools should shift their attention from surfaces to air quality. To make that shift and safely reopen schools, the answer is to instead invest in improved ventilation and filtration systems. In poorly ventilated indoor spaces, indoor pollutants including viral particles can build up in classrooms, cafeterias or hallways.