

We need **YOU** to clean the air in Maryland Schools!

- Maryland Law requires CO2 assessments.
- A Maryland Public Information Act (MPIA) request revealed that no CO2 data is available.
- This suggests CO2 has never been measured or recorded.

Maryland Code of Regulations

Title 14 - INDEPENDENT AGENCIES

Subtitle 39 - INTERAGENCY COMMISSION ON SCHOOL CONSTRUCTION

Each school facility shall be assessed at least once every 4 years.

— [Md. Code Regs. 14.39.07.17 - Academic Classroom Space](#)

F. Classroom Air Quality.

(1) Each general, science, and fine-arts classroom shall have an HVAC system that continuously moves air and is capable of maintaining a carbon dioxide level of not more than 1,200 parts per million.

(2) The air quality shall be measured at a work surface in the approximate center of the classroom.

— [Md. Code Regs. 14.39.07.07 - Facility Assessment](#)

Bad IAQ is the #1 teacher complaint about schools

PUBLIC SCHOOL FACILITIES AND TEACHING: WASHINGTON, DC AND CHICAGO

(2002)

Figure 2: How do teachers grade their school's facilities?

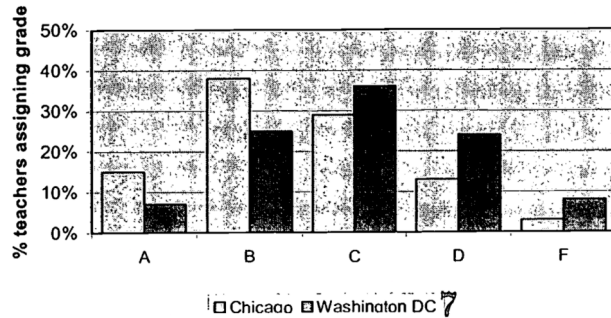
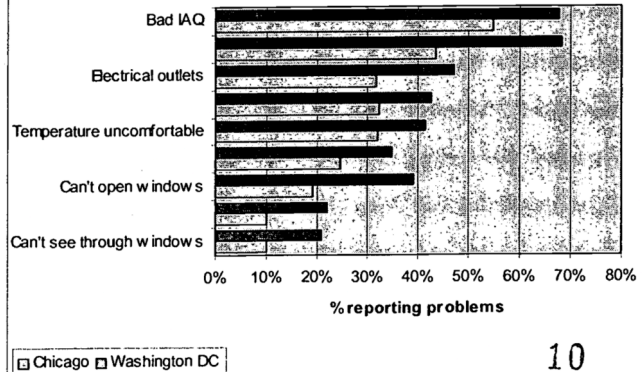


Figure 5: Teachers Find Many Problems with the Condition of their Schools



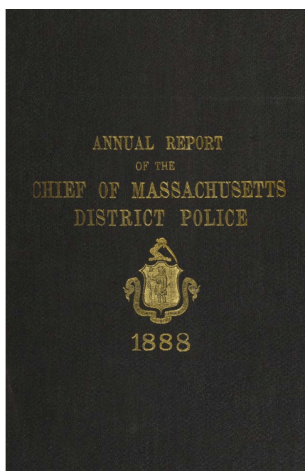
— [Twenty-First Century School Fund, Washington, DC.](#)

And O, the crowded national school! where so many children's epidemics have their origin, what a tale its air-test would tell! We should have parents saying, and saying rightly, "I will not send my child to that school, the air-test stands at 'Horrid.'" And the dormitories of our great boarding schools! Scarlet fever would be no more ascribed to contagion, but to its right cause, the air test standing at "Foul."

We should hear no longer of "Mysterious Dispensations," and of "Plague and Pestilence," being "in God's hands," when, so far as we know, He has put them into our own. The little air-test would both betray the cause of these "mysterious pestilences," and call upon us to remedy it.

— [Notes on Nursing by Florence Nightingale \(1859\)](#)

"And O, the crowded national school! Where so many children's epidemics have their origin, what a tale its air-test would tell!"



In 1888, the [Massachusetts Chief of Police](#) wrote:

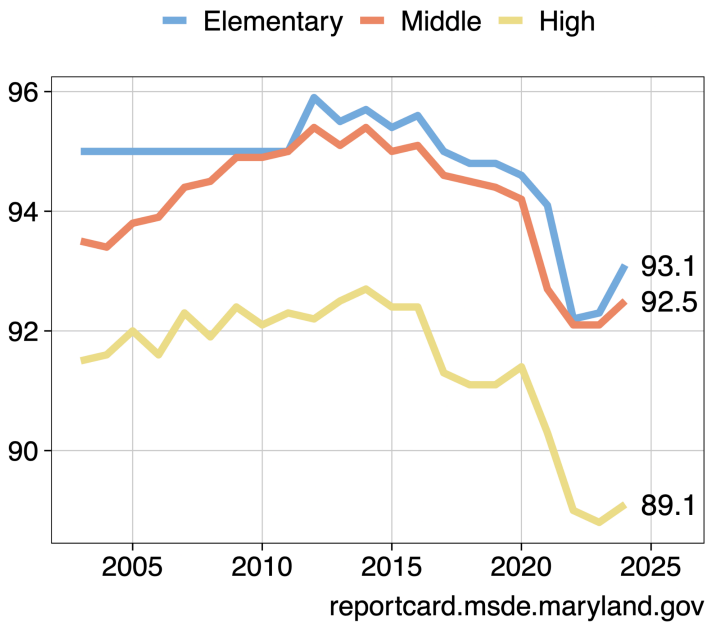
"Every public building and every school-house shall be ventilated in such a proper manner that the air shall not become so exhausted as to be injurious to the health of the persons present therein."

"the purity or impurity of air is determined by the proportions of carbonic acid gas found present therein"

"The provisions of this section and the preceding section shall be enforced by the inspection department of the district police force."

In 2025, who is responsible for enforcement?

Attendance for all Maryland schools is down 2.3–3.3 percentage points since 2015

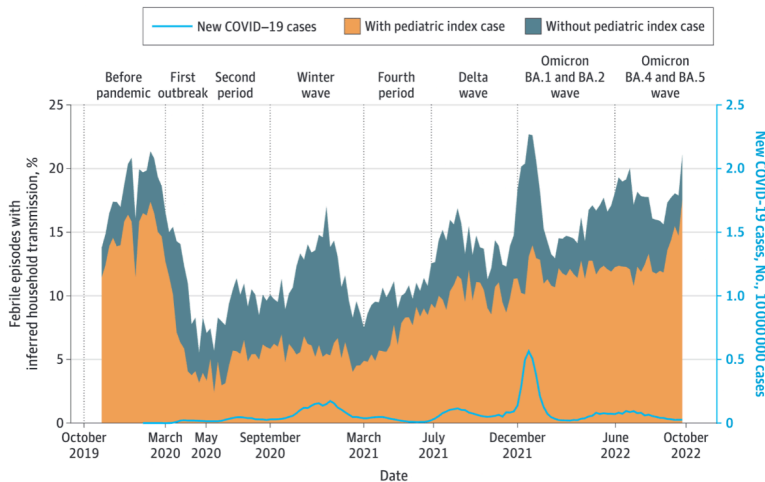


Long COVID is common, affecting up to 10% to 20% of children with a history of COVID-19.

With almost 6 million US children potentially affected, this is higher than the number of children with asthma, the most common chronic health problem in children.

— [Long COVID in Young Children, School-Aged Children, and Teens](#)

70% of COVID transmission originates from children



"Among 38 787 transmissions in 166 170 households with adults and children, a median (IQR) **70.4% (61.4%-77.6%) had a pediatric index case**; proportions fluctuated weekly from 36.9% to 84.6%."

"A pediatric index case was 0.6 to 0.8 times less frequent during typical school breaks."

Tseng Y-J, Olson KL, Bloch D, Mandl KD. **Smart Thermometer-Based Participatory Surveillance to Discern the Role of Children in Household Viral Transmission During the COVID-19 Pandemic.** JAMA Netw Open. 2023;6: e2316190. doi:10.1001/jamanetworkopen.2023.16190

Poor ventilation indoors causes poor initiative, task orientation, and more:

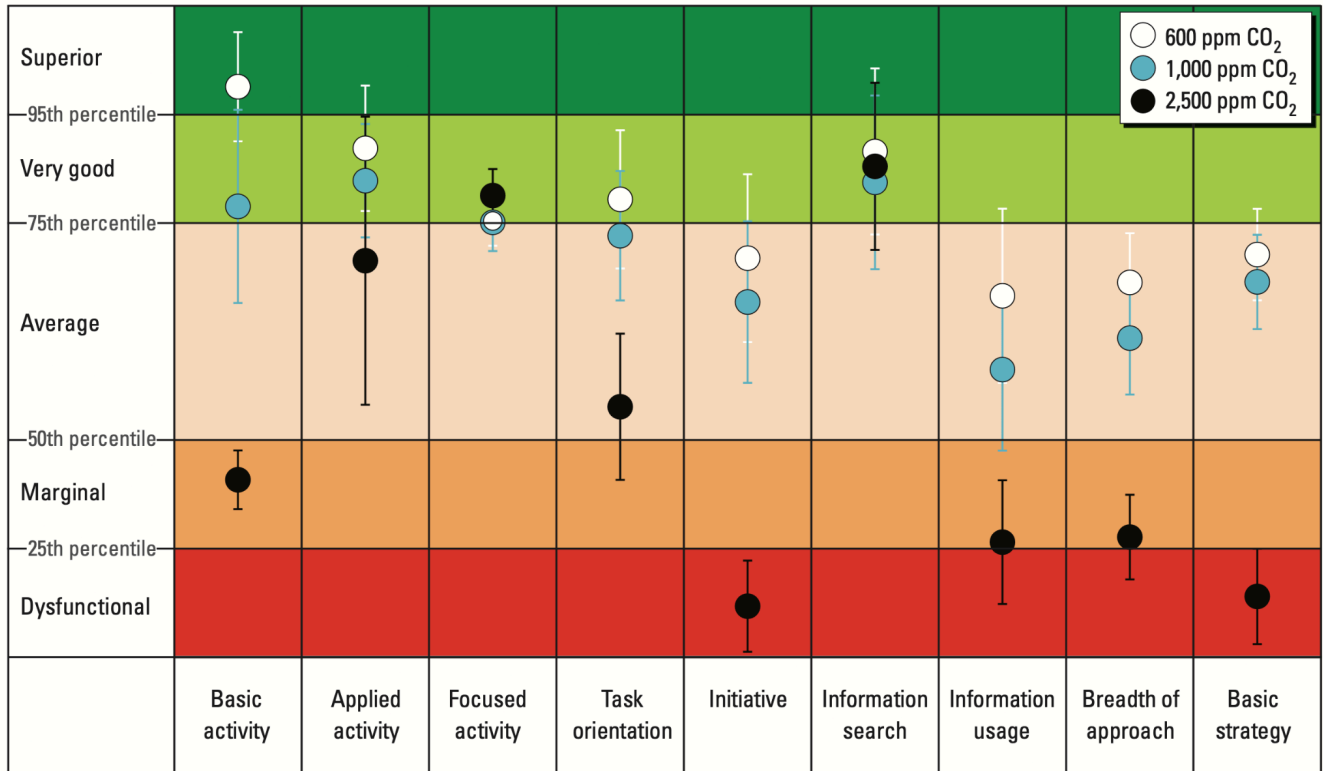
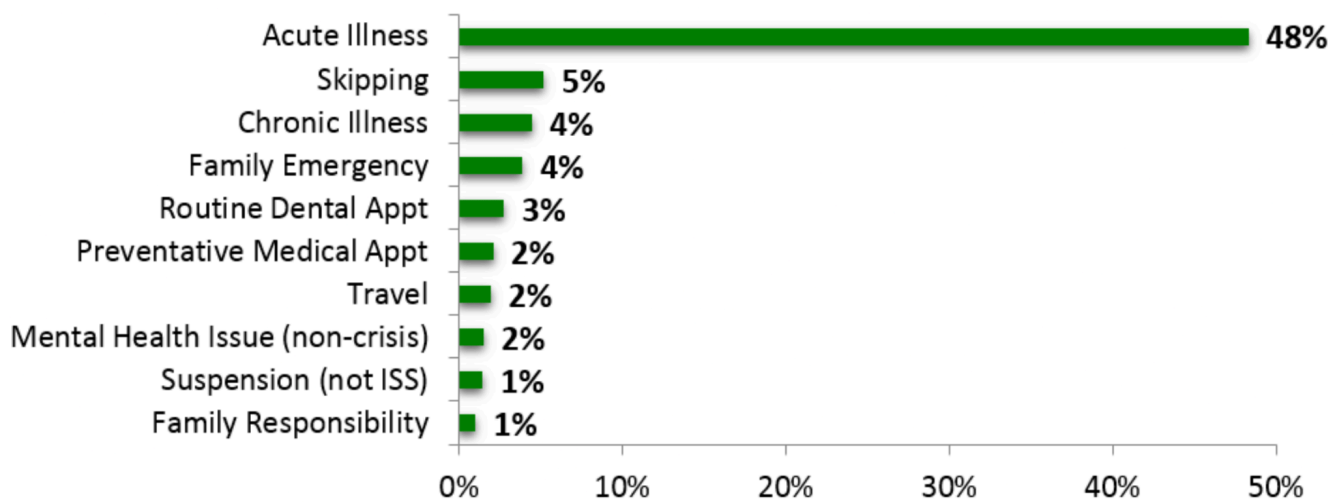


Figure 2. Impact of CO₂ on human decision-making performance. Error bars indicate 1 SD.

Satish U, Mendell MJ, Shekhar K, Hotchi T, Sullivan D, Streufert S, et al. **Is CO₂ an indoor pollutant? Direct effects of low-to-moderate CO₂ concentrations on human decision-making performance.** *Environ Health Perspect.* 2012;120: 1671–1677. doi:10.1289/ehp.1104789

Acute Illness is the #1 Reason for School Absence



— The Central Texas Absence Reasons Study (June 2015)

"An increase of 100 ppm CO₂ was associated with a reduced annual attendance of 0.2% (0.04, 0.4) roughly equivalent to 1 half day of school per annum, assuming schools are open on 190 days per year"

Gaihre S, Semple S, Miller J, Fielding S, Turner S. **Classroom carbon dioxide concentration, school attendance, and educational attainment.** J Sch Health. 2014;84: 569–574. doi:10.1111/josh.12183

The evidence is overwhelming

An official website of the United States government [Here's how you know](#)



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Evidence from Scientific Literature about Improved Academic Performance

On this page:

- [Good Physical Conditions Can Reduce Absenteeism, Improve Test Scores and Improve Teacher Retention Rates](#)
- [Adequate Outdoor Air Ventilation Can Improve Ability to Perform, Raise Test Scores and Reduce Homeborne Transmission of Infection](#)
- [Dampness and Mold Conditions Exacerbate Asthma Symptoms and Absenteeism](#)
- [HVAC Maintenance and Good Housekeeping Improve Health and Performance](#)
- [Related Resources](#)

Good Physical Conditions Can Reduce Absenteeism, Improve Test Scores and Improve Teacher Retention Rates

- Studies that measure school conditions using an index of several variables consistently show improved scores on standardized tests as school conditions improve.^{5, 9, 12, 24}
- On the other hand, schools with major unmet repair needs and fewer custodial workers per square foot have higher absentee rates and higher dropout rates.⁶

Proactive Maintenance in Schools

Schools without a major maintenance backlog have a higher average daily attendance, or ADA, by an average of 4 to 5 students per 1,000 and a lower annual dropout rate by 10 to 13 students per 1,000.⁶



Ventilation and

— [United States Environmental Protection Agency](#)