

Examining Student Health Conditions: Insights from DC Public Schools



What is the issue?



REL Mid-Atlantic partnered with the District of Columbia Public Schools (DCPS) to better understand the prevalence of health conditions for students with varying background characteristics and the relationship between health conditions and education outcomes.

We focused on conditions that are likely to be chronic, highly prevalent, or associated with education outcomes, including asthma, attention-deficit/hyperactivity disorder, and food allergies.

We also examined whether students with those health conditions were supported through Section 504 plans and individualized education programs (IEPs). DCPS intends to use the findings to inform a plan for equitably supporting students with health conditions.

This study analyzed DCPS data from the 2018/19 school year. The full report can be accessed here: <https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=4623>



Why is this important?

Research has found that students with chronic health conditions are at higher risk for poor education outcomes, including absenteeism and low academic performance. Students of color and those from families with low incomes are more likely than their peers to have health conditions. These groups might also have more limited access to medical care and health information, making school support especially important.¹

What are the prevalence rates of students with health conditions in DCPS?

In the 2018/19 school year, more than a quarter of DCPS students reported a health condition.

This number is lower than prevalence rates from other data sources for the city, so further investigation might be warranted. These differences could reflect variation in how health conditions are measured across sources or could arise because other sources are based on samples, which can introduce sampling variability.²

What can schools do?



- ▶ Work with community partners, such as after school programs, school health centers, and local physicians, to develop data-sharing agreements and increase health condition screenings in the community.



- ▶ Encourage parents to report their children's health conditions to schools.

Asthma is the most prevalent health condition in DCPS, reported by 16 percent of students in DCPS, which is double the national average.

What can schools do?



▶ Organize support groups for students and families to help them understand and manage asthma by learning from each other.



▶ Provide families with asthma education, including inhaler techniques, common asthma triggers, and ways to avoid or decrease these triggers.³



▶ Evaluate possible asthma triggers within school buildings, such as dust, mold, and scented cleaning supplies.⁴

How do prevalence rates vary by student characteristics?

Students who are male, Black, or economically disadvantaged are more likely to have a reported health condition than other students, though prevalence varies by specific condition.

- A higher percentage of **Black students** and **economically disadvantaged** students have **asthma** compared to other race and ethnicity groups. More than 20 percent of Black students have asthma, compared to 7 percent of White students.
- **Food allergies** are most often reported among students who are **White** and **not economically disadvantaged**. About 6 percent of White students have food allergies, compared to 5 percent of Black students.

What can schools do?



▶ Provide an information session on differences between asthma and food allergies for school nurses in case disparities are related to misidentification of symptoms or under-diagnosis of food allergies among students of color. More training could improve identification of symptoms across different groups of students by clarifying differences between asthma and allergic reactions to food.⁵

How do students with health conditions receive support at school?

Among students with any health condition, 28 percent receive support through either a 504 plan or IEP, indicating that **most DCPS students with health conditions do not receive support through a 504 plan or IEP**.

The percentage of students who receive support through 504 plans or IEPs varies by health condition.

- Among **students with asthma and students with food allergies**, 24 and 19 percent, respectively, receive support through either a 504 plan or IEP.
- Among **students with ADHD**, 68 percent receive support through either a 504 plan or IEP.

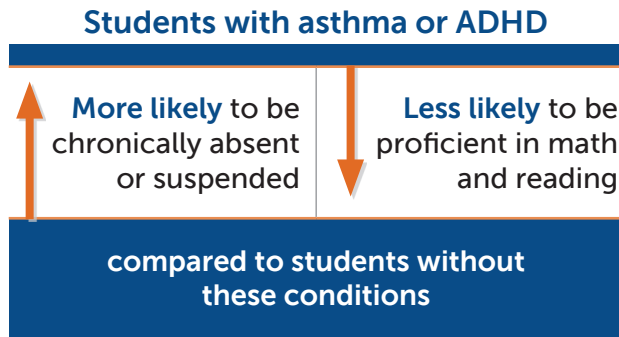
The study's data did not support an analysis of whether students with health conditions would be eligible for a 504 plan or IEP.

What can schools do?



▶ Provide families with information about 504 plans and IEPs to make them aware of these avenues for support for students with health conditions.⁶

How do education outcomes of students with reported health conditions compare to students without reported health conditions?



DCPS **students with asthma or ADHD** have worse educational outcomes than students without these conditions. **Students with food allergies** fare better or the same as students without food allergies.



Research suggests a positive association between receiving health-related support at school and academic achievement among students with health conditions.⁷ But this study was not able to examine the specific supports students with health conditions received or whether these supports were associated with condition severity.

What can DCPS do?



▶ Gather consistent, detailed student-level information on the supports students receive and the severity of their health conditions.



▶ These additional data would allow DCPS to investigate the types and quality of supports schools provide and whether differences are associated with health condition severity.

Citations

- ¹ Currie, J. (2005). Health disparities and gaps in school readiness. *The Future of Children*, 15(1), 117–138. <http://eric.ed.gov/?id=EJ795844>
- ² Child and Adolescent Health Measurement Initiative. (2018). *2017-2018 National Survey of Children's Health (NSCH) data query*. Data Resource Center for Child and Adolescent Health. www.childhealthdata.org
- ³ Cicutto L., Gleason M., Haas-Howard C., White M., Hollenbach J. P., Williams S., McGinn M., Villarreal M., Mitchell H., Cloutier M. M., Vinick C., Langton C., Shocks D. J., Stempel D. A., Szeffler S. J. (2020). Building Bridges for Asthma Care Program: A school-centered program connecting schools, families, and community health-care providers. *Journal of School Nursing*, 36(3), 168–180. <https://eric.ed.gov/?id=EJ1254269>
- ⁴ Clark, N. M., Shah, S., Dodge, J. A., Thomas, L. J., Andridge, R. R., & Little, R. J. (2010). An evaluation of asthma interventions for preteen students. *Journal of School Health*, 80, 80–87. <https://eric.ed.gov/?id=EJ874101>
- ⁵ Best, N. C., Oppewal, S., & Travers, D. (2018). Exploring school nurse interventions and health and education outcomes: An integrative review. *Journal of School Nursing*, 34(1), 14–27. <http://eric.ed.gov/?id=EJ1166558>
- ⁶ Jones, S. E., & Wheeler L. (2004). Asthma inhalers in schools: Rights of students with asthma to a free appropriate education. *American Journal of Public Health*. 94(7), 102–108
- ⁷ Barnard-Brak, L., & Lechtenberger, D. (2010). Student IEP participation and academic achievement across time. *Remedial and Special Education*, 31(5), 343–349. <http://eric.ed.gov/?id=EJ897719>