

Coronavirus Disease 2019 (COVID-19)

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The Importance of Reopening America's Schools this Fall

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As families and policymakers make decisions about their children returning to school, it is important to consider the full spectrum of benefits and risks of both in-person and virtual learning options. Parents are understandably concerned about the safety of their children at school in the wake of COVID-19. The best available evidence indicates if children become infected, they are far less likely to suffer severe symptoms.^{[1],[2],[3]} Death rates among school-aged children are much lower than among adults. At the same time, the harms attributed to closed schools on the social, emotional, and behavioral health, economic well-being, and academic achievement of children, in both the short- and long-term, are well-known and significant. Further, the lack of in-person educational options disproportionately harms low-income and minority children and those living with disabilities. These students are far less likely to have access to private instruction and care and far more likely to rely on key school-supported resources like food programs, special education services, counseling, and after-school programs to meet basic developmental needs.^[4]

Aside from a child's home, no other setting has more influence on a child's health and well-being than their school. The in-person school environment does the following:

- provides educational instruction;
- supports the development of social and emotional skills;
- creates a safe environment for learning;
- addresses nutritional needs; and
- facilitates physical activity.

This paper discusses each of these critical functions, following a brief summary of current studies regarding COVID-19 and children.

COVID-19 and Children

The best available evidence indicates that COVID-19 poses relatively low risks to school-aged children. Children appear to be at lower risk for contracting COVID-19 compared to adults. To put this in perspective, according to the Centers for Disease Control and Prevention (CDC), as of July 17, 2020, the United States reported that children and adolescents under 18 years old account for under 7 percent of COVID-19 cases and less than 0.1 percent of COVID-19-related deaths.^[5] Although relatively rare, flu-related deaths in children occur every year. From 2004-2005 to 2018-2019, flu-related deaths in children reported to CDC during regular flu seasons ranged from 37 to 187 deaths. During the H1N1 pandemic (April 15, 2009 to October 2, 2010), 358 pediatric deaths were reported to CDC. So far in this pandemic, deaths of children are less than in each of the last five flu seasons, with only 64.[†] Additionally, some children with certain underlying medical conditions, however, are at increased risk of severe illness from COVID-19.*

Scientific studies suggest that COVID-19 transmission among children in schools may be low. International studies that have assessed how readily COVID-19 spreads in schools also reveal low rates of transmission when community transmission is low. Based on current data, the rate of infection among younger school children, and from students to teachers, has been low, especially if proper precautions are followed. There have also been few reports of children being the primary source of COVID-19 transmission among family members.^{[6],[7],[8]} This is consistent with data from both virus and antibody testing, suggesting that children are not the primary drivers of COVID-19 spread in schools or in the community.^{[9],[10],[11]} No studies are conclusive, but the available evidence provides reason to believe that in-person schooling is in the best interest of students, particularly in the context of appropriate mitigation measures similar to those implemented at essential workplaces.

Educational Instruction

Extended school closure is harmful to children. It can lead to severe learning loss, and the need for in-person instruction is particularly important for students with heightened behavioral needs.^{[12],[13]} Following the wave of school closures in March 2020 due to COVID-19, academic learning slowed for most children and stopped for some. A survey of 477 school districts by the University of Washington's Center on Reinventing Public Education found that, "far too many schools are leaving learning to chance."^[13] Just one in three school districts expected teachers to provide instruction, track student engagement, or monitor academic progress for all students, and wealthy school districts were twice as likely to have such expectations compared to low-income districts.^[13]

We also know that, for many students, long breaks from in-person education are harmful to student learning. For example, the effects of summer breaks from in-person schooling on academic progress, known as "summer slide," are also well-documented in the literature. According to the Northwest Evaluation Association, in the summer following third grade, students lose nearly 20 percent of their school-year gains in reading and 27 percent of their school-year gains in math.^[14] By the summer after seventh grade, students lose on average 39 percent of their school-year gains in reading and 50 percent of their school-year gains in math.^[14] This indicates that learning losses are large and become even more severe as a student progresses through school. The prospect of losing several months of schooling, compared to the few weeks of summer vacation, due to school closure likely only makes the learning loss even more severe.

Disparities in educational outcomes caused by school closures are a particular concern for low-income and minority students and students with disabilities. Many low-income families do not have the capacity to facilitate distance learning (e.g. limited or no computer access, limited or no internet access), and may have to rely on school-based services that support their child's academic success. A study by researchers at Brown and Harvard Universities assessed how 800,000 students used Zearn, an online math program, both before and after schools closed in March 2020.^[15] Data showed that through late April, student progress in math decreased by about half, with the negative impact more pronounced in low-income zip codes.^[15] Persistent achievement gaps that already existed before COVID-19, such as disparities across income levels and races, can worsen and cause serious, hard-to-repair damage to children's education outcomes.^{[15],[16]} Finally, remote learning makes absorbing information more difficult for students with disabilities, developmental delays, or other cognitive disabilities. In particular, students who are deaf, hard of hearing, have low vision, are blind, or have other learning disorders (e.g., attention deficit hyperactivity disorder (ADHD)) and other physical and mental disabilities have had significant difficulties with remote learning.^[17]

Social and Emotional Skill Development

Schools play a critical role in supporting the whole child, not just their academic achievement. In addition to a structure for learning, schools provide a stable and secure environment for developing social skills and peer relationships. Social interaction at school among children in grades PK-12 is particularly important for the development of language, communication, social, emotional, and interpersonal skills.^[18]

Extended school closures are harmful to children's development of social and emotional skills. Important social interactions that facilitate the development of critical social and emotional skills are greatly curtailed or limited when students are not physically in school. In an in-person school environment, children more easily learn how to develop and maintain friendships, how to behave in groups, and how to interact and form relationships with people outside of their family. In school, students are also able to access support systems needed to recognize and manage emotions, set and achieve positive goals, appreciate others' perspectives, and make responsible decisions. This helps reinforce children's feelings of school connectedness, or their belief that teachers and other adults at school care about them and their well-being. Such routine in-person contacts provide opportunities to facilitate social-emotional development that are difficult, if not impossible, to replicate through distance learning.^{[18],[19],[20]}

Additionally, extended closures can be harmful to children's mental health and can increase the likelihood that children engage in unhealthy behaviors. An environment where students feel safe and connected, such as a school, is associated with lower levels of depression, thoughts about suicide, social anxiety, and sexual activity, as well as higher levels of self-esteem and more adaptive use of free time^{[19],[20]} A longitudinal study of 476 adolescents over 3 years starting in the 6th grade found school connectedness to be especially protective for those who had lower connectedness in other areas of their lives, such as home, and to reduce their likelihood of substance use.^[20]

Further, a review of studies conducted on pandemics found a strong association between length of quarantine and Post Traumatic Stress Disorder symptoms, avoidance behavior, and anger. Another review published this year found that post-traumatic stress scores of children and parents in quarantine were four times higher than those not quarantined.^{[21],[22]}

In-person schooling provides children with access to a variety of mental health and social services, including speech language therapy, and physical or occupational therapy to help the physical, psychological, and academic well-being of the child.^{[23],[24],[25],[26]} Further, school counselors are trained in the mental health needs of children and youth and can recognize signs of trauma that primary caregivers are less able to see because they themselves are experiencing the same family stresses. School counselors can then coordinate with teachers to implement interventions to offer children a reassuring environment for regaining the sense of order, security, and normalcy.

Without in-person schooling, many children can lose access to these important services. For example, we know that, even outside the context of school closures, children often do not receive the mental health treatment they need. Among children ages 9-17, it is estimated that 21 percent, or more than 14 million children, experience some type of mental health condition.^[27] Yet only 16 percent of those with a condition receive any treatment.^[23] Of those, 70-80 percent received such care in a school setting.^[23] School closures can be particularly damaging for the 7.4 million American children suffering from a serious emotional disturbance. For those individuals who have a diagnosable mental, behavioral or emotional condition that substantially interferes with or limits their social functioning, schools play an integral role in linking them to care and necessary support services.

For children with intellectual or physical disabilities, nearly all therapies and services are received through schools. These vital services are difficult to provide through distance learning models. As a result, more children with disabilities have received few to no services while schools have been closed.

Safety

Extended school closures deprive children who live in unsafe homes and neighborhoods of an important layer of protection from neglect as well as physical, sexual, and emotional maltreatment and abuse. A 2018 Department of Health and Human Services report found that teachers and other educational staff were responsible for more than one-fifth of all reported child abuse cases—more than any other category of reporter.^[28] During the COVID-19 school closures, however, there has been a sharp decline in reports of suspected maltreatment, but tragically a notable increase in evidence of abuse when children are seen for services. For example, the Washington, D.C. Child and Family Services Agency recorded a 62 percent decrease in child abuse reporting calls between mid-March and April 2020 compared to the same time period in 2019, but saw more severe presentation of child abuse cases in emergency rooms.^[29] Children who live in a home or neighborhood where neglect, violence, or abuse occur, but who are not physically in school, are deprived of access to trained school professionals who can readily identify the signs of trauma and provide needed support and guidance.^{[30],[31],[32],[33],[34]}

Nutrition

Extended school closures can be harmful to the nutritional health of children. Schools are essential to meeting the nutritional needs of children with many consuming up to half their daily calories at school. Nationwide more than 30 million children participate in the National School Lunch Program and nearly 15 million participate in the School Breakfast Program.^{[35],[36]} For children from low-income families, school meals are an especially critical source of affordable, healthy foods. While schools have implemented strategies to continue meal services throughout periods of school closures, it is difficult to maintain this type of school nutrition program over the long-term. This is a particularly severe problem for the estimated 11 million food-insecure children, living in the United States.

Physical Activity

When schools are closed, children lose access to important opportunities for physical activity. Many children may not be sufficiently physically active outside of the context of in-school physical education (PE) and other school-based activities. Beyond PE, with schools closed, children may not have sufficient opportunities to participate in organized and safe physical activity. They also lose access to other school-based physical activities, including recess, classroom engagements, and after school programs.

The loss of opportunities for physical activity from school closures, especially when coupled with potentially diminished nutrition, can be particularly harmful to children. Physical inactivity and poor nutrition among children are major risk factors

for childhood obesity and other chronic health conditions. Over 75 percent of children and adolescents in the United States do not meet the daily physical activity level recommendations (60 minutes or more), and nearly half exceed 2 hours per day in sedentary behavior. Current models estimate that childhood obesity rate may increase by 2.4 percent if school closures continue to December 2020.^{[37],[38],[39]}



Conclusion

Schools are an important part of the infrastructure of our communities, as they provide safe, supportive learning environments for students, employ teachers and other staff, and enable parents, guardians, and caregivers to work. Schools also provide critical services that help meet the needs of children and families, especially those who are disadvantaged, through supporting the development of social and emotional skills, creating a safe environment for learning, identifying and addressing neglect and abuse, fulfilling nutritional needs, and facilitating physical activity. School closure disrupts the delivery of in-person instruction and critical services to children and families, which has negative individual and societal ramifications. The best available evidence from countries that have opened schools indicates that COVID-19 poses low risks to school-aged children, at least in areas with low community transmission, and suggests that children are unlikely to be major drivers of the spread of the virus. Reopening schools creates opportunity to invest in the education, well-being, and future of one of America's greatest assets—our children—while taking every precaution to protect students, teachers, staff and all their families.













*Some children have developed multisystem inflammatory syndrome (MIS-C) after exposure to SARS-CoV-2 (the virus that causes COVID-19). (<https://www.cdc.gov/mis-c/cases/index.html>) In one targeted surveillance study for MIS-C associated with SARS-CoV-2, however, the majority of children who were hospitalized with COVID-related MIS-C (70 percent) had recovered by the end date of the study period. (Feldstein LR et al.. Multisystem Inflammatory Syndrome in US Children and Adolescents. *N Engl J Med*. 2020;10.1056/NEJMoa2021680)


†CDC COVID Data Tracker. Available at <https://www.cdc.gov/covid-data-tracker/>. Accessed on July 21, 2020.

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