Damage to Children's Education—and Their Health—Could Last a Lifetime

The fallout from COVID-19 is expected to have a long-lasting impact.

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Before the pandemic, 16-year-old Na'ryen Cayou had everything he needed. He had his own room. A partial scholarship to a boys' prep school. A spot playing trombone in the marching band, performing in parades all over New Orleans.

Then COVID-19 blew through the Big Easy like a hurricane, washing away nearly everything that helped him feel safe and secure. Schools shut down. His mom lost her job and couldn't make the rent. Their landlord evicted them.

Na'ryen and his mom now live with his grandmother. His mom sleeps on one couch; he sleeps on the other. He spent half the school year in virtual learning rather than in class with friends. Although he has struggled with math and chemistry, his mother, Nakia Lewis, said there's no money for a tutor.

"He went through a real deep depression," said Lewis, 45, a single mother with two older daughters living on their own. "This is nothing anyone could have prepared them for."

As Americans crowd into restaurants, line up at movie theaters and pack their bags for summer travel, people are understandably eager to put the pandemic behind them. Yet kids like Na'ryen won't rebound quickly. Some won't recover at all.

After more than a year of isolation, widespread financial insecurity and the loss of an unprecedented amount of classroom time, experts say many of the youngest Americans have fallen behind socially, academically and emotionally in ways that could harm their physical and mental health for years or even decades.

"This could affect a whole generation for the rest of their lives," said Dr. Jack Shonkoff, a pediatrician and director of the Center for the Developing Child at Harvard University. "All kids will be affected. Some will get through this and be fine. They will learn from it and grow. But lots of kids are going to be in big trouble."

Many kids will go back to school this fall without having mastered the previous year's curriculum.

Some kids have disappeared from school altogether, and educators worry that more students will drop out. Between school closures and reduced instructional time, the average U.S. child has lost the equivalent of five to nine months of learning during the pandemic, according to a report from McKinsey & Co.

Educational losses have been even greater for some minorities. Black and Hispanic students — whose parents are more likely to have lost jobs and whose schools were less likely to reopen for in-person instruction — missed six to 12 months of learning, according to the McKinsey report.

Missing educational opportunities doesn't just deprive kids of better careers; it can also cost them years of life. In study after study, researchers have found that people with less education die younger than those with more.

Schools across the country were closed for an average of 54 days in spring 2020, and many provided little to no virtual instruction, said Dr. Dimitri Christakis, director of the Center for Child Health, Behavior and Development at the Seattle Children's Research Institute. A study he co-authored found the learning that kids missed during that time could shorten an elementary school boy's life by eight months and a girl's by more than five months.

The total loss of life would be even larger when factoring in the loss of instructional time in the school year that just ended, Christakis said. "We've interrupted children's education, and it's going to have a significant impact on their health and longevity," he said. "The effects will linger a very long time."

Assaulted on All Sides

The double hit from the pandemic, which has impoverished millions of children and deprived them of classroom time, will be too much for some to overcome.

"Living in poverty, even as a child, has health consequences for decades to come," said Dr. Hilary Seligman, a professor at the University of California-San Francisco. "Children in poverty will have higher risk of obesity, cardiovascular disease and diabetes."

A growing body of research shows that poverty reshapes the way children's brains develop, altering both the structure of the brain and the chemicals that transmit signals. These changes can alter how children react to stress and reduce their long-term health and educational achievements.

"Adversity literally shapes the developing brain," said Shonkoff, of Harvard. "It affects your memory, your ability to organize information, to control impulses."

Chronic stress in children can lead to persistent inflammation that damages the immune system, raises blood sugar and accelerates hardening of the arteries. The heart disease that kills someone in midlife can actually begin in childhood, Shonkoff said

"What happens to children early on doesn't just affect early language and school readiness, but

the early foundations of lifelong health," he said.

More Kids Going Hungry

The pandemic has deprived millions of children of school-related services that normally blunt the harm caused by poverty.

From March to May 2020, students missed more than 1.1 billion free or reduced-price meals that would have been provided in school.

Children who experience even occasional "food insecurity" suffer two to four times as many health problems as other kids at the same income level, said Dr. Deborah Frank, director of the Grow Clinic for Children at Boston Medical Center.

Kids who don't consistently eat nutritious meals are more likely to develop anemia, more likely to be hospitalized and more susceptible to lead poisoning, Frank said. They also are more likely to behave aggressively and suffer from hyperactivity, depression and anxiety.

The consequences of food insecurity last well into adulthood, she said, increasing the risk of substance abuse, arrest and suicidal thoughts. "There's going to be educational and emotional fallout that won't disappear right away," Frank said. "These kids have endured a year and a half of deprivation. You can't sweep all that under the rug."

Kids at the Breaking Point

Young people are already showing signs of strain.

The proportion of emergency room visits related to mental health among kids 12 to 17 increased 31% from 2019 to 2020, according to the Centers for Disease Control and Prevention.

Although overall suicide deaths haven't increased during the pandemic, as many feared, teens are making more attempts. ERs treated 50% more adolescent girls and 4% more boys for suspected suicide attempts in February and March 2021 than in those months the year before.

Diagnoses of obsessive-compulsive disorder have soared 41% among girls 12 to 18, according to a June report from Epic Health Research Network. Diagnoses of eating disorders have jumped 38% among girls and 5% among boys.

Many children separated from their peers during the pandemic have been depressed and anxious, said Dr. Lisa Tuchman, chief of adolescent and young adult medicine at Children's National Hospital in Washington, D.C.

"Mental illness thrives in isolation," Tuchman said. "The longer the behaviors and thoughts persist, the more entrenched they become and the harder they are to interrupt."

Falling Behind in School

The loss of educational opportunities has been far more extensive than many realize. Although the majority of students were back in classrooms by the end of the last school year, most spent a large part of the year in virtual learning.

And while some students thrive in virtual classes, studies generally find they provide an inferior education to in-person instruction, partly because students are less engaged. Just 60% of students consistently participated in distance learning, recent surveys found.

Test scores show students have fallen behind in math and reading. And those scores likely underestimate the damage, given that some of the most vulnerable kids weren't able to report to school for the exams.

An estimated 3 million marginalized students — including those who are homeless or in foster care — received no instruction during the past school year, either because they had no computer or internet access, had to leave school to work or faced other challenges, according to Bellwether Education Partners, a nonprofit that focuses on disadvantaged students.

Less-educated students can expect to earn less after they leave school.

Lost educational time will cost the average child $61,000 to $82,000 in lifetime earnings, McKinsey concluded. Lifetime earning losses are predicted to be twice as great for Black and Hispanic students as for whites.

"Many of the teens I see have given up on school and are working instead," said Dr. Sara Bode, a pediatrician at Nationwide Children's Hospital in Columbus, Ohio. "It's helping their families in the short term, but what does it mean for their future?"

Learning From Katrina

Experience with natural disasters and teacher strikes suggests that even relatively short interruptions in education can set children back years, said McKinsey analyst Jimmy Sarakatsannis, co-author of a 2020 report, "COVID-19 and Student Learning in the United States: The Hurt Could Last a Lifetime."

When Hurricane Katrina devastated New Orleans in 2005, for example, it disrupted the education of 187,000 Louisiana public school students.

Katrina left 80% of the city under water. Although New Orleans students missed an average of five weeks of learning, children wound up two years behind peers not affected by the hurricane, said Douglas Harris, professor and chair of economics at Tulane University.

Na'ryen Cayou was just 2 months old when Katrina submerged his house, leaving the family homeless. He contracted whooping cough in an emergency shelter, the first of four moves in eight months. His sister, O're'ion Lewis, then 4, didn't attend school at all that year. When she finally began prekindergarten at age 5, the other kids "were already ahead of her," mom Nakia Lewis said. For a time, teachers even mislabeled O're'ion as having dyslexia. It took five years — from

prekindergarten until fourth grade — before she finally caught up with her peers, Lewis said.

It will be years before researchers know how far behind the pandemic will have left American kids.

After Katrina, 14% to 20% of students never returned to school, according to the McKinsey report. “As kids fall further behind, they feel hopeless; they don’t engage,” said Sarakatsannis, one of its authors.

Under normal circumstances, high school students who miss more than 10 days of school are 36% more likely to drop out. Based on the number of absences during the pandemic, dropout rates could increase by 2% to 9%, with up to 1.1 million kids quitting school, Sarakatsannis said.

Communities need to find ways to repair the damage children have suffered, said Dr. Gabrielle Shapiro, chair of the American Psychiatric Association’s Council on Children, Adolescents and their Families. “How we behave as a society now will determine the depth of the impact on the younger generation.”

Nakia Lewis is hoping for better days.

O’re’ion is now 20 and studying nursing at community college. Although her classes were virtual last year, she expects to attend class in person in the fall.

Lewis recently landed a job as a manager at a Shoney’s restaurant and is looking for an affordable home. She looks forward to reclaiming her furniture, which went into storage — at $375 a month — when she was evicted.

She said she’s relieved that Na’ryen’s mood has improved. He found a summer job working part time at a food market and will begin marching band practice this summer.

“He is happy and I’m happy for him,” Lewis said. “Now I just have to worry about everything else.”

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