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EDITORIAL

Resuming In-Person Learning: Safe and Imperative

During the darkest days of the COVID-19 pandemic, cities and health care systems focused on managing the highest-risk and critically ill populations. Because children and adolescents were among the least likely to have serious illness, they were not at the forefront of concern early in the pandemic. However, it is becoming increasingly clear that they must be at the center of our recovery.

Across the United States, we are beginning to see sharp increases in urgent mental health visits. Between 2019 and 2020, the proportion of emergency department visits for children aged 5 to 11 and 12 to 17 years that were mental health–related increased approximately 24% and 31%, respectively (1). Although we knew that remote learning can adversely affect social development (2), we now know that students learning remotely may have at least the same risk for SARS-CoV-2 infection as students attending school in person (3). One of the most powerful tools we have to support children's and adolescents' mental health is in-person learning. There is no replacement for the opportunities it offers to foster social development and education. The American Academy of Pediatrics advocates that "students [be] physically present in school," and the evidence shows substantial benefit of in-person learning (4). Unfortunately, as we near the end of May 2021, about 40% of students enrolled in U.S. public schools still have not yet been offered a return to full-time, in-person education (5).

The evidence is now compelling: Our schools can reopen safely.

Bilinski and colleagues' model (6) builds on the individual experiences of other cities; the authors conclude that schools are not a primary driver of community transmission and that, with appropriate mitigation, it is safe to resume in-person education. Specifically, they find that rigorous mitigation efforts (masking, cohorting, distancing, and testing) can reduce risk for transmission up to 5-fold in elementary schools and up to 10-fold in high schools compared with low mitigation efforts. The model also estimates the effects of such interventions as teacher vaccination and weekly testing, and the results suggest that schools can reopen safely. If schools can reopen for in-person learning, then they must, to avert the mental health and educational crisis that is at our doorstep.

New York City reopened public schools to in-person learning in the fall of 2020. Our experience before the vaccine became available is consistent with Bilinski and colleagues' findings. Transmission in schools was uncommon, and COVID-19 incidence among both students and teachers was similar to or less than community incidence (7). This important point is often underappreciated. Our data showed that for both teachers and students, risk for contracting COVID-19 outside the school setting was equal to if not greater than risk within school. Other studies of the risk for transmission in schools have observed that some cases believed to be linked to school transmission turned out to have different viral genotypes, indicating community rather than school transmission (8). Transmission may be lower in schools than outside them because preventive measures, such as mask wearing and social distancing, may not be as strictly enforced outside schools.

Bilinski and colleagues also examined screening for asymptomatic infection, and our experience in New York City offers lessons that may be applicable for others implementing school screening programs. In New York City, we created a central "situation room" for our public schools that housed data from all of the screening tests done in schools to enable immediate response with rapid implementation of contact tracing and quarantine for teachers and students. We have performed more than 1 million tests in our program, necessitating a central decision-making body. Our experience supports setting up "situation rooms" or the equivalent to ensure rapid and standardized responses to positive test results.

Looking ahead, several important factors will affect continued reopening of schools. Two thirds of all cases in the United States are currently the B.1.1.7 variant (9). It is possible, if not inevitable, that other variants will arise, creating additional challenges for any public environment where people will be coming into contact with one another. A key finding from Bilinski and colleagues' model is that preventive measures can allow schools to safely reopen even with moderate community spread. Another important factor in reopening schools is the availability of vaccination not only to school staff and teachers but also to students aged 12 to 15 years as of May 2021 and hopefully to younger children over coming months. Vaccination will provide an additional layer of protection on top of the preventive measures examined in Bilinski and colleagues' model.

As we enter the recovery phase of the COVID-19 pandemic, it is crucial to support our children and adolescents who have suffered from lack of educational opportunities and social interaction. Data show that schools can be reopened safely with preventive measures. We must do everything we can to reopen our schools to ensure that young people emerge from this pandemic healthy.

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References

1. **Leeb RT, Bitsko RH, Radhakrishnan L, et al.** Mental health–related emergency department visits among children aged <18 years during

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the COVID-19 pandemic–United States, January 1-October 17, 2020. MMWR Morb Mortal Wkly Rep. 2020;69:1675-1680. [PMID: 33180751] doi:10.15585/mmwr.mm6945a3

2. **Verlenden JV, Pampati S, Rasberry CN, et al.** Association of children's mode of school instruction with child and parent experiences and well-being during the COVID-19 pandemic–COVID experiences survey, United States, October 8-November 13, 2020. MMWR Morb Mortal Wkly Rep. 2021;70:369-376. [PMID: 33735164] doi:10.15585/mmwr.mm7011a1

3. **Dawson P, Worrell MC, Malone S, et al.** Pilot investigation of SARS-CoV-2 secondary transmission in kindergarten through grade 12 schools implementing mitigation strategies–St. Louis County and city of Springfield, Missouri, December 2020. MMWR Morb Mortal Wkly Rep. 2021;70:449-455. [PMID: 33764961] doi:10.15585/mmwr.mm7012e4

4. **American Academy of Pediatrics.** COVID-19 guidance for safe schools. Updated 25 March 2021. Accessed at https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/covid-19-planning-considerations-return-to-in-person-education-in-schools on 23 May 2021.

5. K-12 school reopening trends. Burbio. 19 April 2021. Accessed at https://info.burbio.com/school-tracker-update-apr-19 on 23 May 2021.

6. **Bilinski A, Salomon JA, Giardina J, et al.** Passing the test: a model-based analysis of safe school-reopening strategies. Ann Intern Med. 8 June 2021. [Epub ahead of print]. doi:10.7326/M21-0600

7. **Varma JK, Thamkittikasem J, Whittemore K, et al.** COVID-19 infections among students and staff in New York City public schools. Pediatrics. 2021; 147. [PMID: 33688033] doi:10.1542/peds.2021-050605

8. **Hershow RB, Wu K, Lewis NM, et al.** Low SARS-CoV-2 transmission in elementary schools – Salt Lake County, Utah, December 3, 2020–January 31, 2021. MMWR Morb Mortal Wkly Rep. 2021;70:442-448. [PMID: 33764967] doi:10.15585/mmwr.mm7012e3

9. **Centers for Disease Control and Prevention.** COVID data tracker. 2021. Accessed at https://covid.cdc.gov/covid-data-tracker/#variant-proportions on 23 May 2021.