

Good morning. I hope everyone had a great weekend.

Today's Briefing has two themes: vaccinations and the revised CDC guidance on safely opening schools.

Under COVID-19 News I review the CDC "Operational Strategies for K-12." Please see my comments. The next report is the one on the B.1.1.7 variant in the US followed by COVID-19 vaccine manufacturing and projection for the next few months. The next is a snapshot from the CDC tracker on vaccinations in the US. The last report is from Kaiser Family Foundation/Washington Post survey on acceptance of the vaccine by front line health care workers.

Under Journal Review I summarized the 3 MMWR articles referenced by the CDC on Friday supporting changing physical distancing in classrooms from 6 feet to 3 feet.

I hope everyone has a great week – as always, your comments and suggestions are welcomed.

Ed

## **COVID-19 News**

### **Operational Strategy for K-12 Schools through Phased Prevention**

March 19, 2021

- Key Points:
  1. Evidence suggests that many K-12 schools that have strictly implemented prevention strategies have been able to safely open for in-person instruction and remain open.
  2. CDC's K-12 operational strategy presents a pathway for schools to provide in-person instruction safely through consistent use of prevention strategies, including universal and correct use of masks and physical distancing.
  3. All schools should implement and layer prevention strategies and should prioritize universal and correct use of masks and physical distancing.
  4. Testing to identify individuals with SARS-CoV-2 infection and vaccination for teachers and staff provide additional layers of COVID-19 protection in schools.
- Regardless of the level of community transmission, it is critical that schools use and layer prevention strategies. Five key prevention strategies are essential to safe delivery of in-person instruction and help to prevent COVID-19 transmission in schools:
  1. Universal and correct use of masks
  2. Physical distancing
  3. Handwashing and respiratory etiquette
  4. Cleaning and maintaining healthy facilities
  5. Contact tracing in combination with isolation and quarantine
- Physical distancing

Core principle for physical distancing: Establish school policies and implement structural interventions to promote physical distance between people.

  - Between students in classrooms:

In elementary schools, students should be at least 3 feet apart.

- In middle schools and high schools, students should be at least 3 feet apart in areas of low, moderate, or substantial community transmission. In areas of high community transmission, middle and high school students should be 6 feet apart if cohorting is not possible.
- Removes recommendations for plastic shields or other barriers between desks [assumes universal masking]

Maintain 6 feet of distance in the following settings:

- Between adults (teachers and staff), and between adults and students, at all times in the school building. Several studies have found that transmission between staff is more common than transmission between students and staff, and among students, in schools.
- When masks cannot be worn, such as when eating.
- During activities when increased exhalation occurs, such as singing, shouting, band, or sports and exercise. Move these activities outdoors or to large, well-ventilated space, when possible.
- In common areas such as school lobbies and auditorium [in other words outside the classroom setting]

**Comment:** This updated guidance is supported by the study reviewed in the Daily Briefing last week from Massachusetts and three new studies published Friday in MMWR. The new studies looked at COVID-19 transmission in in-person school districts in Florida, Salt Lake City, and Springfield, Missouri. In all three studies, authors concluded that the majority of cases in the schools were not linked to in-school transmission. [See below] Despite the recent publications and science, Randi Weingarten, president of the American Federation of Teachers said the union is concerned that “this change has been driven by a lack of physical space rather than hard science on aerosol exposure and transmission.” Becky Pringle, president of the National Education Association, the nation’s largest teacher’s union, said it may be challenging for larger school districts to fall in line with the new guidance while also keeping up with other mitigation measures outlined by the CDC. “We are concerned that the CDC has changed one of the basic rules for how to ensure school safety without demonstrating certainty that the change is justified by the science and can be implemented in a manner that does not detract from the larger long-term needs of students.” I think the CDC has taken a measured approach based on the 4 recent publications and multiple prior publications that indicate schools can be opened safely if mitigation strategies are in place. There is no such thing as certainty in life.

#### **B.1.1.7 in US-CDC**

B.1.1.7 variant of SARS-CoV-2, first detected in the U.K., now accounts for 20% to 30% of SARS-CoV-2 infections in the U.S. The variant is about 50% more transmissible than older strains of the virus, and evidence suggests it is associated with increase in mortality.

**Comment:** Now the good news – the current authorized vaccines are just as effective against this variant as the older strains and may be effective in preventing asymptomatic disease. With vaccine production and distribution up [see below] we should be able to get out in front of this threat.

## Covid-19 Vaccine Manufacturing in U.S.

WSJ March 21, 2021

Vaccine makers are expected to produce 132 million doses this month, nearly tripling last month. The U.S. monthly output for the three authorized vaccines is expected to reach 132 million doses for March, nearly triple the 48 million in February, according to estimates by analysts at Evercore ISI. 121.4M doses have been administered out of the 156.7M doses distributed to date. The increased output should be enough to fully vaccinate 76 million people in the U.S. in March, another 75 million in April and then 89 million more in May!

**Comment:** These numbers are very promising and great news. Our challenge by next month will not be supply but getting enough citizens to take the vaccine since 1 in 4 still are reluctant to be vaccinated. By late spring I expect the vaccines will be approved to vaccinate children 12 years old and up. Trials are just starting for younger children. There is much to celebrate this Spring!

## COVID-19 Vaccinations in the United States

Total Vaccine Doses		People Vaccinated	At Least One Dose	Fully Vaccinated
Delivered	156,734,555	Total	81,415,769	44,141,228
Administered	124,481,412	% of Total Population	24.5%	13.3%
<a href="#">Learn more about the distribution of vaccines.</a>		Population ≥ 18 Years of Age	81,210,318	44,081,287
		% of Population ≥ 18 Years of Age	31.5%	17.1%
		Population ≥ 65 Years of Age	37,617,778	22,882,148
		% of Population ≥ 65 Years of Age	68.8%	41.8%
		<a href="#">Read more about how these data are reported.</a>		

CDC | Data as of: Mar 21 2021 6:00am ET | Posted: Mar 21 2021 12:26PM ET

## KFF (Kaiser Family Foundation)/The Washington Post Frontline Health Care Workers Survey

Some 18% of U.S. healthcare workers say they do not plan on getting vaccinated against COVID-19, and another 12% have not yet decided whether they will get vaccinated, according to a survey from the Kaiser Family Foundation and the Washington Post. Respondents' main concerns include potential side effects and the vaccines' newness.

Among the other findings, from over 1300 frontline healthcare workers surveyed across the U.S. between February and March:

- When broken down by race, 18% of white respondents, 28% of Black respondents, and 11% of Hispanic respondents said they did not plan to get vaccinated.
- Overall, 48% of respondents were unvaccinated (had not received at least one dose).
- Some 57% of white healthcare workers reported receiving at least one dose — versus 39% of Black workers and 44% of Hispanic workers.
- Over half of Black respondents — and about a third of white and Hispanic respondents — said they were not confident that the vaccines had been appropriately tested for safety and effectiveness.

**Comment:** Perhaps I should not be surprised by this survey, but I am. These are frontline health care workers who have witnessed firsthand the devastation of this pandemic! In the general population 1 in 4 are still reluctant to take a COVID-19 vaccine. I may be an outlier, but I honestly believe we have a moral obligation to get vaccinated to promote not only our own health, but a duty to our community to stop this pandemic.

## Journal Review

### **Low SARS-CoV-2 Transmission in Elementary Schools — Salt Lake County, Utah, December 3, 2020–January 31, 2021**

MMWR published online MARCH 19, 2021

SARS-CoV-2 testing was offered to 1,041 school contacts of 51 index patients across 20 elementary schools in Salt Lake County, Utah. In a high community transmission setting, low school-associated transmission was observed with a 0.7% secondary attack rate. Mask adherence was high, but students' classroom seats were <6 ft apart and a median of 3 ft apart. In addition to implementation of multiple strategies to reduce in-school transmission, school-related activities that increase the risk for SARS-CoV-2 transmission, such as school-based team sports, were suspended. Although school-associated transmission was rare in this study, most cases did lead to household transmission, highlighting the importance of reducing school transmission to prevent infected children from transmitting SARS-CoV-2 to household members. The modified quarantine policy, allowing contacts to continue attending in-person school if both the index patient and the contact were wearing a mask, did not lead to additional school associated transmission and resulted in over 1,200 student in-person learning days saved. Among the five school associated cases, the contact or index patient often had poor mask compliance, or they sat near one another during lunch.

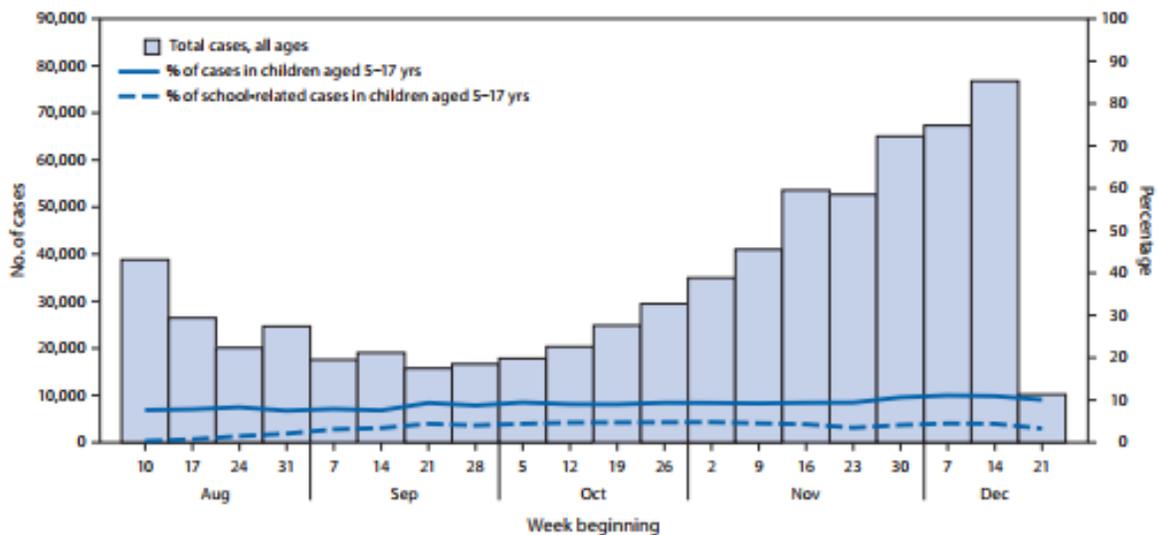
**Comment:** The findings here add to evidence that in-person elementary schools can be opened safely with minimal in-school transmission when recommended prevention strategies including mask use are implemented, even though maintaining  $\geq 6$  ft between students' seats might not be possible. Another important finding suggest that quarantine determinations based on mask use of the index patient and close contacts might be adequate for preventing additional school-associated transmission in schools implementing multiple critical prevention strategies. Genomics to differentiate school-associated from community transmission in a high incidence setting was not always available. Second, some infected contacts might have been missed because not all contacts received testing and the winter break mid-investigation might have interrupted additional school-associated transmission.

### **COVID-19 in Primary and Secondary School Settings During the First Semester of School Reopening — Florida, August–December 2020**

MMWR March 19, 2021

COVID-19 school-related disease incidence among Florida students was correlated with community incidence in the counties observed and was highest in smaller counties, districts without mask requirements, and those that reopened earliest after closure in March 2020. Incidence increased with the proportion of students receiving in-person instruction, however, fewer than 1% of registered students were identified as having school-related COVID-19. This report does not mention 3 feet versus 6 feet.

FIGURE. Weekly school-related COVID-19 cases reported among students, as a proportion of overall cases in children aged 5–17 years and in the general population — Florida, August–December 2020\*



**Comment:** Although COVID-19 can and does occur in school settings, the results of these analyses indicate that in Florida, most infections among school-aged children were not school-related, <1% of registered students were identified as having school-related COVID-19, and <11% of K–12 schools reported outbreaks. Success in preventing the introduction of SARS-CoV-2 into schools depends upon controlling community transmission and adhering to mitigation measures in schools, particularly masking, physical distancing, testing, and increasing room air ventilation. Household transmission and social gatherings pose a much higher risk for infection among school-aged children than does school attendance. They recommended school sports and other extracurricular activities in which masking and physical distancing are difficult or impossible to achieve should be postponed, particularly during periods of high community transmission. Sports-related outbreaks were larger on average than were nonsports-related outbreaks (mean = 6.0 cases versus 4.1 cases;  $p < 0.01$ ). The four largest sports-related outbreaks involved two wrestling events (58 and 27 cases) and two football events (18 and 17 cases). Most sports-related outbreaks involved high school grade levels. Data on the number of teachers and staff members statewide or by county were not available, rates of total school-related cases could not be calculated; instead, the number of student cases per 100,000 registered students was used. Second, screening testing was generally not done in most schools, therefore, asymptomatic infections might have been underestimated.

**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 published online March 19, 2021

Data on implemented mitigation strategies were reported for 55 schools, and 100% implemented a mask mandate. In addition, in at least some classrooms, 100% of schools spaced desks  $\geq 3$  ft apart, 27% spaced desks  $\geq 6$  ft apart, and 98% placed physical barriers between teachers and students. Ninety-eight percent had handwashing or hand sanitizing stations available at school entrances, and 100% had stations available in cafeterias or other dining areas, restrooms, and classrooms. Modifications to increase ventilation to prevent COVID-19 were reported by 98% of schools: 91% opened windows or doors, 87% used fans, 93% decreased occupancy in spaces where ventilation with outdoor air could not

be increased, and 5% replaced or updated heating, ventilation, and air conditioning systems. In 22 participating K–12 schools implementing multiple COVID-19 mitigation strategies, school-based SARS-CoV-2 secondary transmission was detected in only two of 102 tested close contacts of 37 persons with COVID-19. Among 21 tested student contacts participating in a modified quarantine, all SARS-CoV-2 test results were negative. In this 2-week pilot investigation in K–12 schools that had implemented multiple strategies to limit SARS-CoV-2 transmission, school-based secondary transmission involving 37 participating students, teachers, and staff members with COVID-19 was identified among only two (2%) of 102 tested school close contacts. In both instances of probable school based secondary transmission, each person with COVID-19 infected only one other person in the school environment. No outbreaks were identified in participating schools, despite the 2-week cumulative community incidence of 711 COVID-19 cases per 100,000 persons in St. Louis County. Springfield implemented a modified quarantine policy permitting student close contacts aged  $\leq 18$  years who had school-associated contact with a person with COVID-19 and met masking requirements during their exposure to continue in-person learning. In Springfield, 42 student contacts were permitted to continue in-person learning under the modified quarantine; among the 30 who were interviewed, 21 were tested, and none received a positive test result.

**Comment:** Schools implementing strategies including mask mandates, physical distancing, and increased ventilation had much lower SARS-CoV-2 transmission than in the community.