

THE BROOKINGS INSTITUTION

WEBCAST

HOW SHOULD SCHOOLS PREPARE
FOR A CORONAVIRUS OUTBREAK?

Washington, D.C.

Wednesday, March 11, 2020

PARTICIPANTS:

MICHAEL HANSEN, Moderator
Herman and George R. Brown Chair, Senior Fellow, and Director,
Brown Center on Education Policy, The Brookings Institution

DANIEL A. DOMENECH
Executive Director, American Association of School Administrators

CAITLIN M. RIVERS
Assistant Professor, Department of Environmental Health and Engineering
Johns Hopkins University

* * * * *

P R O C E E D I N G S

MR. HANSEN: Welcome, everyone. I'm glad that you've joined us here at Brookings in our discussion on how schools can respond and prepare for a COVID-19 outbreak. I'm Mike Hansen, senior fellow and director of the Brown Center on Education Policy. And we are excited to have a useful conversation here today.

In the few months since the emergence of the coronavirus in Wuhan, China, late last year, over 120,000 cases of COVID-19 have been confirmed worldwide. Initially, impacts from the outbreak were mostly localized to China, though outbreaks have now begun to spread to other countries, prompting quarantines in public spaces, including schools, to prevent the spread of the virus.

We're now dealing with the arrival of the coronavirus here in the U.S. As of this morning, over 1,000 confirmed cases have been reported in the U.S. with the majority of states reporting at least one case. A number of colleges and universities have begun to shut down or are moving classes online to slow the transmission. And according to Ed Week's school closure tracker, more than 1,200 K-12 schools have now been closed for at least one day in response to the virus, affecting 850,000 students. Given recent evidence of community transmission in the U.S. and multiple locations throughout the country, it seems highly likely that what we've seen now is just the tip of the iceberg as far as impacting schools and students. And also, of course, just earlier today, the WHO declared this a global pandemic.

And so we have organized this event today to shed some light on how school leaders, teachers, and other educators can think strategically about responding to this real threat. This is a webcast-only event. It's unusual for us here at Brookings, but it's a format that we felt appropriate in light of the emerging threat here in D.C.

And though we do not have a live audience in this room with us today, we welcome questions from our webcast audience. We will be monitoring Twitter. Please send us questions using the hashtag #COVID19Edu or send them to our Brown Center Twitter handle @BrookingsEd or if you prefer email you can also shoot us an email at events@brookings.edu.

So I am joined today by Dr. Caitlin Rivers and Dan Domenech, and let me introduce them briefly, first starting with Dan. Dan is the current executive director of the American Association of School

Administrators. He has more than 36 years of experience in public education, 27 of those years were served as a school superintendent, including 7 years here in neighboring Fairfax County in Virginia.

Dr. Caitlin Rivers to my immediate left is a senior scholar at the Johns Hopkins Center for Health Security and assistant professor in the Department of Environmental Health and Engineering. Her research focuses on improving outbreak preparedness and response through the use of modeling and forecasting, data standards and data sharing, and public health policy.

Welcome to both of you and thank you for being here.

First off, I'm going to kick it to you, Caitlin, or, excuse me, Dr. Rivers. Many new studies have noted how COVID-19 has a relatively low impact among children, which is unusual for an infectious disease, from what I understand. Can you please talk about that and, more importantly, can you address whether closing schools is really something premature in this case or is it something that's very serious?

MS. RIVERS: Yeah, that's a really important question. We know from data, largely from China, that children are largely spared from this infection. So when they do get sick, they tend to have very mild symptoms and sometimes no symptoms at all. However, there is also new emerging data that children actually have the same attack rate as adults, which means they're just as likely to be infected. It's just, again, that they have very mild symptoms.

And so if you're only looking for people with symptoms, you're not going to find a lot of children. But if you look more generally at people who are at high risk, you will find infections in children.

This complicates our thinking around school closures. A lot of what we know about school closures comes from pandemic influenza and that symptom presentation is different for influenza. Kids do experience symptoms in a way they don't seem to for COVID. And so thinking about school closures we have to balance these different considerations.

Now, when people think about school closures, a lot of times they think immediately about the impact on children, which, of course, we care a great deal about. But children also have very high -- they're in contact a lot with other people, with their parents, with their grandparents, other vulnerable community members. So it's not just about the children, which children are very important, but it's also about thinking about how they can be a bridge to people who are more vulnerable. And that's the

context that we're really thinking about here with COVID.

MR. HANSEN: Okay, thank you. That's very helpful.

Now to Dan, what is your organization doing to help public schools respond to and address this public health emergency?

MR. DOMENECH: Well, we have established a relationship with the CDC going back to some years back when we had the infamous swine flu epidemic in the States. And at that point, the CDC actually asked us to be the recipients of data from school districts around the country who began to provide us information as to when they had an outbreak and how often and how many, and we then would feed that information to the CDC. So we were basically a source to provide them information.

We've offered to do the same thing for them in this particular case. And we're probably going to start doing that either the late part of this week or next week. But having established that relationship, as soon as this process began we were in contact with them, they were in contact with us. And they began to provide us -- they actually sent us the initial set of guidelines the week before they were made public. So we were able to get that information out to every superintendent in the country immediately, so that school districts could begin using those guidelines to make their plans as to how they were going to react when there was an incidence, either in their community or in the school. And we continue to cooperate with them in that endeavor in terms of being the receiver of information from districts in terms of what they're doing and then providing them with information from the CDC and other resources as they become available.

MR. HANSEN: Excellent, excellent. I'm glad to have both of you in the room, both very well equipped to engage in this conversation.

Caitlin, I want to return to what you just mentioned a moment ago about the prior studies and looking at influenza outbreaks previously. How do school closures impact the transmission of the virus within a region? And should we be treating and responding to the spread of coronavirus any differently than we would be responding to, say, a bad flu season?

MS. RIVERS: So a lot of the thinking around school closures does come out of pandemic influenza and we know for pan flu that children are really drivers of transmission. They're really

central to community spread of influenza. And so in a setting of a severe pandemic, school closures can be recommended.

Now, it's important to clarify, though, that the goal of school closures, there are a few possible goals. One is to prevent as many infections as possible. The evidence is not strong that school closures play a big role in preventing a lot of infections over the long term.

But there's a secondary goal which is also very important, and that's to spread out the number of infections that are happening at any one given time. So --

MR. HANSEN: So I've heard this referred to as flattening the curve.

MS. RIVERS: Flattening the curve.

MR. HANSEN: Okay.

MS. RIVERS: Yep, that's exactly right. And so, let's say just as a scenario to talk through that at the end of an outbreak we had 100 cases of something. Our first goal in public health is always going to be to reduce that number. Can we get it down to 90, 80, 50? But our second goal is to spread them out over time. So we would rather have 100 cases over 10 weeks than we would have them all at once because if we have them all at once, that's going to be a strain on our healthcare system.

We know that school closures or we think that school closures are not super effective at the first goal, reducing the overall number of infections. But they do seem to play an important role in the second goal, which is to flatten the curve and to reduce the number of people who are sick at any one time.

MR. HANSEN: Okay, thank you. And also, just to follow up a little bit on that, according to the Schools and Staffing Survey, roughly 30 percent of teachers are over age 50, so it seems like they would be a particularly high vulnerable population.

MS. RIVERS: Yeah, and that brings me to another really important point is that when we're thinking about ways to slow an epidemic, what we're discussing here today are community-level measures, school closures, but there are also personal-level measures. I hope you'll let me sneak this in here because it's so important.

MR. HANSEN: Sure.

MS. RIVERS: Community measures, we can debate how important they are and how well they work, but personal measures we know work very well and they are permanent. So at some point, you might close a school, you're going to have to reopen it, but you can always be very vigilant about washing your hands, using alcohol-based hand sanitizer after touching a high-touch surface, covering your cough like that. These actually do work. And for people who are in high-risk categories, like older adults, people who work in schools or in settings that have a lot of contact with other people, those measures are going to always be very important.

MR. HANSEN: Okay, excellent. Thank you.

And to Dan, what are the considerations that you have as a school leader when you're thinking about whether or not to close a school? What are the things that weigh most heavily on your mind?

MR. DOMENECH: Well, there are many, but going back to your point earlier about children in this particular case not necessarily getting the disease and having the same serious symptoms as the older folks, but they nevertheless are the carriers. So when you're talking about that in a school situation, the teachers will get sick. And as you pointed out, with a good percentage of that teaching population being above the age of 50, they're that at-risk group. So the closing of the school, not only is it for the safety of the students, but it's also for the safety of the staff and the people in the building, so that they don't contract the disease.

I mean, if you're a teacher, if you've been a teacher, and I currently -- I was a teacher and I have a daughter that's a teacher, I mean, that is a breeding ground for infections. I mean, every teacher is sick the better part of the year because some child is always coming ill to school. So that ability in the classroom for a disease to spread is very real and has a major effect.

So closing, the school closing, isn't just for the students, as important as it is to keep them safe, but it's also to, as you just mentioned, to prevent the spread of that disease and, hopefully, that flat line that you're talking about. But it's not an easy solution because there are a lot of factors that superintendents have to consider.

As a matter of fact, my understanding from CDC is that they will be coming out with

recommendations to schools as to when to close. And that's going to be very welcome by superintendents because it'll give them specific guidelines that they can go to the community and say, well, this is what the CDC recommends that we do. We have to close the school. Because they have the pressures from the community, they have pressures from working parents, they have pressures from families that are dependent on the school to feed the children breakfast or lunch, parents that have special ed children that are not going to be receiving those services in the home. So there are a lot of factors here that a superintendent has to consider and a lot of pressure to stay open, basically, as opposed to closing the schools.

MR. HANSEN: So can you elaborate on that point just a little bit further? So specifically, of course, many in the audience will know that there are -- over 50 percent of students receive free or reduced-price meal service through their public schools. But that's not the only public need or public service that students gain access to from their schools. Can you talk about how disadvantaged students in particular have been impacted by school closures in the past, whether the pandemic flu in 2009 or whether we're talking about natural disasters, snowstorms even?

MR. DOMENECH: Yeah.

MR. HANSEN: How do they impact those kids?

MR. DOMENECH: The unfortunate element that when something like this happens as it is happening now, the priority becomes the safety. The priority becomes how can we reduce the number of individuals that get infected and get the disease? And what are the things that we have to do?

And it seems at this particular point in time, without a vaccine and without any really known practices to treat the disease, that it's prevention and isolation is the best way to do it. So that's the only tool that we have and those are the things we have to do. When that becomes a priority then, the feeding, the education component, the providing the special services, unfortunately, take a back seat to that.

Now, I know for a fact that there are school districts that are trying to do that. For example, in terms of feeding, they're making arrangements for parents to be able to come to locations and pick up food to bring home to the children. There are schools that are now -- by the way, many of the

recent closings don't have to do with the fact that there has been an infection, but they're closing to allow the teachers the opportunity to develop programs, packets, that the kids will be able to take home if there is a closure. Right here, my old district, Fairfax County, is going to close on Monday to allow the teachers to do that.

There are a lot of districts that can do online instruction, but even that is limited. There are families that don't have wireless access at home, so those youngsters are not going to be able to avail themselves of that opportunity.

So superintendents and educators will do everything that they can to provide for the needs of the children, but it's not going to be equitable. It's not going to be available to all of the children as it would be if they were attending school.

MR. HANSEN: Okay, thank you. You mentioned just a moment ago, Dan, but I think this is a question for both of you, is that you mentioned that CDC has currently offered two sets of guidance for schools facing the threat of COVID-19. One set recommends vigilance, preventive measures like hand-washing and the like; another set recommends more aggressive measures with responses like school closures.

Can you talk a little bit about what are the triggering events that shift you from being in preventive state versus taking an aggressive response? Is it community transmission in your general metropolitan area, for example? Is it a member of the community or student body who is somehow affected or if they have an infected household member, what is the thing that trips -- you know, flips you into one situation or the other?

MS. RIVERS: Yeah, so starting from the very beginning, I think that even school districts that are not currently facing the decision about whether or not should close, should be using this time to think about how they could mitigate the impacts of closure, how they can provide services to their students, how they can go forward with e-learning, that kind of thing. Beyond that, the evidence is less clear.

I think it would be appropriate if there was a confirmed case in the immediate school community, like a faculty member or a student. That to me would be a trigger to close. But thinking

outside of that scenario when there's community spread, we don't have a clear recommendation on what number of cases would trigger a closure. And some of that is also going to be context-dependent based on what's happening in the community and what kind of services are in place. If we could keep schools open another three days, would that put us in a better spot in terms of supporting students? So there's some wiggle room there.

MR. HANSEN: Okay. Dan.

MR. DOMENECH: So the closures that have taken place to date basically follow different levels. The first one would be not that a student or a staff member has acquired the disease, but that they have come in contact on the outside with somebody that has. So it's not in the school, but a school person has come in contact with that. That has precipitated closures, not necessarily for two weeks, but for a period of time. So they close the school down and there's the cleansing process that takes place.

The next level becomes where somebody in the school, a staff person in school, actually has acquired the illness. In that case they definitely close the school and usually for that two-week period. We saw that and we're seeing that primarily in the state of Washington, where the majority of the school closures have already taken place in that state. And certainly, when it is a teacher or a student, then absolutely that triggers the closing of the schools.

So those are the levels that have been used to date. And again, I did mention that there are closures now that are taking place not necessarily because there has been a disease that has been ratified, but rather to allow staff to come to school and prepare for either the online instruction of kids or to develop packets to send home with the kids for a period of time that they're going to be home if there is a closure.

MR. HANSEN: Mm-hmm, okay. Dr. Rivers, can you speak to whether there's any evidence of the efficacy of closing down for a day or two for deep cleaning, as Dan just mentioned?

MS. RIVERS: We don't have a great understanding of how much that would help, partly because it hasn't been well characterized how long the virus can live on surfaces. My sense is that routine environmental cleaning, like cleaning at the end of the day, is a really important measure as are

hand hygiene measures. I don't know that there's any clear evidence one way or the other about sort of this deeper environmental cleaning.

MR. HANSEN: Okay. Kind of related to this question, if we're shutting schools down, how long would/should they be closed? Or should they be -- whether it's just a couple of days, a couple of weeks, are we talking even longer than two or three weeks? What does this look like from -- and what are these considerations from your perspective, Dan? And also, from an epidemiology perspective, Dr. Rivers?

MR. DOMENECH: At this point, it's been two weeks. It's been -- I'm not aware of any district that has shut down or a school that has shut down for greater than that two-week period. And again, maybe that's -- that seems to be the guideline that's being used.

It'll be interesting, hopefully, if the CDC does come out with specific recommendations for schools, if that's included, that they should close. These are the triggers for when to close and for this length of time. But right now, it's been two weeks at most, in some cases just a couple of days.

MS. RIVERS: I think we have to think, when answering that question, think about what the goals are. So if the goal is to prevent as many infections as possible, if we're only optimizing on that decision point, the longer, the better. But there are a lot of other factors that come into place and a lot of dimensions to health and wellbeing. And so the most common recommendation that I hear is to start with two weeks and to reevaluate.

I know for Asian countries that have experienced community transmission, some of them have already been closed for many weeks and some of them are planning to stay closed for a month or more longer. So I think we have to keep that possibility in the back of our minds, but things are unfolding really quickly here.

And so I think two weeks is a great starting period and then we can reassess.

MR. HANSEN: Okay. On this question, should there be some level of coordination among neighboring schools or districts? What should essentially a radius be? If a school or a district is closing, should that automatically trigger a neighboring school or district to start closing, or I guess can you speak to that question?

MR. DOMENECH: Well, bear in mind that the size of school districts varies tremendously around the country. There are 13,650 school districts in America and only about 100 school districts have above 25,000 students. Actually, it's probably a little bit more.

The median-sized school district in this country is only 2,200 students. So take right here as an example, you have Fairfax County with 190,000 schools. That's a lot of students, a lot of neighborhoods, you know, a big community. Should a Fairfax County close the entire district because of a school within that community has a situation? Probably not. That's a decision that they will have to make, but in all probability no.

But if you're a community where you only have one or two elementary schools and it's a fairly small community, that may be a factor because you're a small community. And if it appears in one school, it's only a matter of time before it appears in others. So in a situation like that, the entire district might close.

For example, the North Shore district in the Seattle area, they have about I think 34,000 students, and they made a decision to close down the entire district for two weeks. So it's going to be dependent on the location. And a lot of the decisions will be dependent on the location, the community, and a lot of these other factors. It can't just be one rule applies to all.

MR. HANSEN: Okay.

MS. RIVERS: I think one other factor, just to add to that, is the relationship between schools. Are there faculty members that split their time between schools? Are there special programs where students are moving back and forth? Those will influence the decision, too.

MR. HANSEN: Well, that's excellent, excellent insight. Thank you.

Schools are also community gathering spaces. Of course, some of these things are related to schools, for example, attending a sporting event, going to a school play. Some of these are also -- some schools are also serving a public function. For example, it's primary season and many schools are being used as polling places.

Would you advise schools to clamp down on these external public-facing events? And would the trigger for taking those steps be different from a trigger for closing the school down?

MR. DOMENECH: Well, they already are. For example, you know, trips, end-of-senior-year trips, I mean, those are just about cancelled across the country. Certainly travel outside of the country, those things have been postponed. We're seeing now a lot of schools that are eliminating athletic events or conducting athletic events only in the gymnasium, like we are here without an audience, without an audience in the stands. So those measures are already being taken.

A lot of things are being impacted above and beyond the closing the schools. And a lot of those things are being done as preventive measures without the school being closed, simply as a way of preventing their kids from getting infected or bringing people from outside that may bring infection with them. You know, that's affecting everybody right now, travel, in terms of travel. Everybody's cancelling conventions, cancelling trips, by way of preventing going to an area that has the infection or bringing an infection to an area. So that's happening.

Community meetings in the school, the same thing would be, you know, you -- I think the norm right now is to not have large groups meeting anywhere in order to avoid infection.

MS. RIVERS: Yeah, I agree, I think that's appropriate. I think leisure and non-essential activities we should be slowing down on when they relate to getting large groups together. But things like polling, that's going to be a different situation because that's such a critical part -- going to the polls rather is such an important part of our democracy. CDC has published guidance on how polling places can kind of conduct disinfection and reduce risk of transmission in those settings. So it's going to vary based on the event and what the trade-offs are. But in general, I do think we should be slowing down on those kinds of public activities.

MR. HANSEN: Okay. Still staying within the school, across this country 25 percent of schools report not employing a school nurse, at least based on 2018 data. Are schools prepared to identify or help a student who maybe -- or a staff member who may have come with this infection, are schools prepared from your perspective, Dan, and then also, Dr. Rivers, from the healthcare perspective?

MR. DOMENECH: Not only are they not prepared, but they're not allowed. Even nurses are restricted very often in terms of what they can do in the school other than to identify a particular issue, but then refer to the proper health authorities in terms of what has to happen.

So I think right now one of the elements in the guidance that we provided to schools is how important it is for them to cooperate, collaborate, and work with the health agencies because they're going to need that kind of support. Without the nurse and even with the nurse in the building, there's not the capacity in the building to react to someone that contracts the disease. So to be able to cooperate, collaborate, and then have somebody from the outside come in, that's necessary. Because the other thing, if you call an ambulance and have the individual taken to perhaps the hospital or just have them go home if they're not in a critical situation at that point.

MS. RIVERS: I think that's a really important point and I think that's a lesson that we're -- I'm sure you're already working on this, but maybe the broader public can take on board after this event is how we can better prepare schools to engage in a public health situation. But thinking through, working with what we have, which it sounds like there's really not great capacity at the school level, having clear procedures for identifying children who aren't feeling well and making sure that they are sent home instead of remaining in the classroom and being separated from the rest of the school community while they're waiting to be picked up are some steps that school administrators can take even if they don't have a nurse or another health resource available.

MR. HANSEN: Okay, thank you. I just want to offer a reminder for those in the audience that we are monitoring Twitter, so please send your questions using #COVID19Edu or send them to our Brown Center Twitter handle @BrookingsEd or, if you prefer email, questions can go to events@brookings.edu. We'll be taking audience questions here soon.

Now, let's go to some questions about digital learning. Twelve states have policies in place for e-learning days. And many schools have adopted this capacity in order to be able to go online in cases of snow events or similar types of unforeseen events.

Dan, how do you see this playing out? What are the constraints that districts and schools face in trying to move instruction online en masse?

MR. DOMENECH: Well, there's some real concerns here, even with districts that have developed a capacity to provide it. Bear in mind that unlike the university level where we're already seeing a lot of universities shutting down and saying they're just providing virtual instruction for the time

being, in a K-12 situation that's not going to be applicable for kindergarten youngsters, first-graders, second-graders, young children, even at the elementary level. Most schools may be able to do that with the older students, the middle school to high school students, providing that they have the resources; providing that every student has a laptop that they can take home. And even there, providing that they have connectivity in the home.

So to say that online instruction, even with the districts that have that capacity, is going to provide the same level of instruction as happens in a school, that's not possible. It's going to be very difficult to have a youngster sitting by the computer for a five-, six-, or seven-hour school day, you know, with a teacher, engaging in activities. But those that can will be doing it and those that can't are getting ready to do it, like Fairfax County is. And there are other districts that have that capacity.

But in general, that is not going to be the equivalent for the students being in school.

MR. HANSEN: So I'm hearing you say that this is really more of a limited stopgap --

MR. DOMENECH: Yes.

MR. HANSEN: -- rather than, you know, we're not trading out instructional days for in-school days.

MR. DOMENECH: No, that may happen perhaps some years ahead of us at this point. But at this point, it will be better than nothing, but it will not be a replacement for being in school.

MR. HANSEN: Now, on this question, just to push it a little bit further, how do you -- what is your sense of how this e-learning is happening and does it impact teachers? So, for example, are teachers the ones who are leading a virtual classroom through some web-conferencing software or are students using, say, a third-party provider, like Khan Academy?

MR. DOMENECH: Well, for most school districts it's the teachers, and you see that happening right now in the districts that are allowing -- are closing now for days to allow the teachers to get ready for it. That's a question that's being asked for school districts that don't have the capacity. Can they just go out then and hire a company to come in and do it? That's providing they have the resources to do that. And that's providing that the companies that are doing online learning now have the capacity to offer their services on a wider scale than they do right now. But it is a resource that some school

districts, I'm sure, will try to avail themselves of.

Again, there's going to be a cost involved here. The reality is that there's going to be a cost involved with a lot of the things that we're doing. And the questions that a lot of school districts are going to be asking is where's that money going to come from? Because we have a limited budget right now. You know, questions like what happens when teachers -- if these things go on long enough, what happens if we go past the number of days in terms of attendance requirements, you know, by states? Teachers that have already taken their sick days and don't have any. There are a lot of issues that are going to be a result of the kind of things that we're doing, which will be solved because the districts, again, and teachers will do whatever they have to do to confront the current situation.

MR. HANSEN: Okay, thank you. So that's a nice segue to do a little plug for a piece that we have coming up on the Brown Center Chalkboard. One of our nonresident senior fellows, Doug Harris, has written a piece about using any federal economic stimulus in response to the coronavirus to help support school services. Particularly he named summer school, but I think this would be an excellent use of funds, as well.

So, Dr. Rivers, let's take a look towards the future now. What do you -- from your perspective as an expert in the field, what are the likely trajectories for the virus for community transmission? Can you speak to the likelihood of this being a seasonal thing? I know this has been talked about in the news. And might we be dealing with another crisis in the fall?

MS. RIVERS: So to start, I don't think that this virus is going to fizzle out in the near future. I think it's something that we're going to have to take concerted measures to fight against. But we don't yet know whether or not it's seasonal because it's only been around for really a few months, and so we don't have a clear sense of how the weather will impact transmission. But we have to start with the assumption that the weather is not going to help us at all just because we need to make sure that we are prepared for the worse case. And then if we do get a break, that's great. But, again, I don't think that we should be proceeding with that assumption.

It's also unknown whether this is a virus that we're going to have to live with for -- permanently, more or less, or at least until we get a vaccine. Again, my sense is that we should proceed

with the assumption that we will. And if that does not come to pass, then great. But I think that we should take this as seriously as we can because I am concerned about it, and I think that's where we need to start.

MR. HANSEN: So you mentioned a vaccine. What do you think are realistic timelines before one is developed?

MS. RIVERS: Twelve to eighteen months is what's commonly kind of forecasted. We know making a vaccine is very hard. And so I think closer to the longer end of that time, the 18 months, feels right to me.

MR. HANSEN: And once and assuming a vaccine is developed, should we prioritize children to get it? Should this be something that we require schools to have along with the other schedule of vaccines? Should we even be requiring a flu vaccine? In most places it's not required.

MS. RIVERS: I'm a huge proponent of flu vaccine. Whether or not it needs to be mandatory I think is more of a policy, a political decision. But from a public health standpoint, the data evidence is very clear that flu vaccines do help. That's true of any vaccine really. And I expect it to also be true of the coronavirus vaccine.

The good news is that we have a lot of time to weigh these policy decisions of how many doses will be available. When will they be available? Who should get them first? We have time to think of how we want to handle those issues.

MR. HANSEN: Okay, thank you. Dan, did you want to pile onto the question of vaccines, requiring them?

MR. DOMENECH: Well, that is not good news. I mean, if we're talking about a vaccine in a 12-, 18-month period of time, that means that everything that schools are doing now, we have to begin to consider the fact that this is going to be part of the next school year, as well.

MR. HANSEN: Yes.

MR. DOMENECH: So you may be closing two weeks now and two weeks, you know, and so this is a whole different situation as far as preparation and planning; that this is for the long haul, not necessarily just for a couple of months at this particular point in time. So all of these factors that

we've been talking about -- online learning and providing for students, the needs of students -- this might very well accelerate. It might bring us into the future much faster than we anticipated if schools are forced by this kind of situation to develop the kind of online programs and practices that they will need when students are not going to be able to be in attendance.

It may also force a lot of the school districts that have laws, for example, that regulate the number of days that students have to be physically present in school if that's not going to be possible to adhere to that. So there's a lot of preparation and a lot of things that are going to have to happen from training teachers to acquiring the necessary equipment to training the students themselves in terms of using what's available. There's a lot of work here, a lot of concerns I know that our administrators are going to have on how to deal with this in the future.

MS. RIVERS: I will just clarify that I expect by fall things will have settled down. I think we will have much better strategies in place for reducing transmission. We'll have a sense of how we can proceed best. So I don't think this period of intense uncertainty and feeling of crisis is going to extend through the fall. But there is an open question of whether this is a virus that's something that's going to become part of our winter seasonal respiratory panel.

And so I think regardless of how the next few weeks or months unfold, I think that the points you raised about what can we be doing to prepare for these kinds of scenarios and reduce infection throughout the year are really important.

MR. HANSEN: And, Dan, you also brought up a point about absences. I know many school districts or many states have adopted measures of student absence as part of their new accountability, school accountability metrics.

Also, we are coming into spring testing season very soon. Many schools do feel pressure to perform well on these tests. Is this something that you feel is also a competing pressure here?

MR. DOMENECH: Very disruptive. For example, the students that are planning to go to college and need to take the ACTs and the SATs exams, well, those will undoubtedly be cancelled for as long as this is going on. So they're not going to be able to have those results to submit to the universities

that they're interested in, so that's going to create a whole issue with college admission and that entire process.

Students that are also looking for scholarships, you know, based on either their academic performance or their athletic performance. And if their teams are not allowed, you know, to play and they can't show their athletic prowess to get a scholarship, those are going to be issues that are going to affect students directly, parents in terms of their plans for their students that are planning to go on to college. So there's going to be a lot of disruption that we can anticipate between now and the end of the school year and possibly going into next year.

MR. HANSEN: Excellent. Can you speak to the school practices, so specifically should schools be thinking about maybe rescheduling their normal spring testing, their annual testing for standardized tests?

MR. DOMENECH: Well, that's a state matter.

MR. HANSEN: Yeah?

MR. DOMENECH: Because it's the state that requires those tests. So the states may very well have to postpone those tests and then determine a later date to administer those tests. But when is that going to be if this continues? So these are issues that are pending and I'm sure those responsible, they're beginning to think about this and coming up, hopefully, with recommendations as to what's going to happen. But that's a major concern at this time of the year.

MR. HANSEN: So how do you see it likely playing out for many schools or districts that do have to go into a long-term closure? Do you suggest or would you suppose that this would be a two- or three-week closure and then we add on days at the end of the school year as we do like for a snowstorm?

MR. DOMENECH: Yeah.

MR. HANSEN: Or would this be just lost learning time into the ether?

MR. DOMENECH: Well, using the weather formula, the snowstorm, for example, in areas where they do have snow, build snow days into their calendar. For example, again, here in this area, all the districts -- Montgomery County, Fairfax County, Prince George's -- they all have calendars

that have built those days in. Those days can be applied to this because, fortunately for our area, we haven't had much snow this year, so they have all of those snow days available that they might be able to use, so that may not be a problem for them.

In situations where districts don't have that, well, then they have to consider are they going to extend the calendar into the latter part of June, maybe even July? But very often what we've seen in the past, what state Departments of Education do is that they provide for exemptions. And in this particular case, it's a serious --

MR. HANSEN: A pretty clear exemption, yeah.

MR. DOMENECH: It's pretty clear. So it may be that Departments of Education at the state level will waive these requirements for districts that had extended closures.

MR. HANSEN: Okay, thank you. I'm going to remind the -- we're about to go to the last question, so I'm going to remind the audience one more time that we are accepting questions on Twitter via #COVID19Edu or through the Brown Center Twitter handle @BrookingsEd or email to events@brookings.edu.

And the final question to both of you, what recommendations do you have for state or district leaders in responding to the impending outbreak or the potential future outbreak on the horizon? And open to either of you for any ground that we haven't covered yet.

MS. RIVERS: Yeah, I know there are some difficult decisions ahead. Your local Public Health Department, which I'm sure every school district is already in close contact with, but they can help you to work through some of these decisions.

Enable your faculty and your students to do hand hygiene, to take time to wash their hands, especially before eating, or another good time would be when entering the classroom. That's really important.

And I think it's important, too, to recognize that we're all going through this together. And so these questions that we're talking about and that families are talking around the dinner table, the whole country is really having these discussions. And so we'll work through it together.

MR. HANSEN: Okay. I appreciate your optimism.

MR. DOMENECH: And I can tell you that as school administrators, the safety and welfare of the students is always first. So whatever decisions are made are going to be made based on what's best for our student population, what's best for our staff and our employees in the schools. So whatever safety measures need to be taken, they will be taken with the understanding that it's going to be inconvenient for folks, with the understanding that there are issues that are, in some cases, creating problems for the families.

But the overall picture is if this is the best procedure to follow, if this is the best thing to do to prevent the spread of this particular disease, then we're going to do it. And there won't be any question about the decision being made.

MR. HANSEN: Thank you both. We have a pile of questions here I'm trying to get through. I'll try to get through some of these as quickly as we can.

Here's a question for you, Dr. Rivers, from a participant in Durham, North Carolina. Should parents with immunocompromised children keep them home from schools? And at what point would you probably not wait for the school closure? At what point would you have them stay home?

MS. RIVERS: Yeah, this is a difficult question. I myself have a child with a congenital heart defect, actually, so I understand the kind of thinking that families are doing. I think this is a place where your physician is going to be most helpful because they are going to understand the nuances of kind of your child's condition and how that interacts with susceptibility to viral infections. So I would have those conversations with your pediatrician or with your specialist now.

MR. HANSEN: Okay, thank you. To Dan, some schools have indicated that certain students are being targeted if they have a family member or in quarantine or fall into a specific ethnic group. I understand Asian racial profiling has been happening. What do you recommend regarding a safe or accurate message to all K-12 schools so that all students are welcomed and feel accommodated in school?

MR. DOMENECH: Well, you know, bullying, unfortunately, has become an issue and a problem in many of our schools. So there's been extensive training already for staff in terms of how to deal with bullying and how to treat it, and this is just a manifestation of that same process. So teachers

will begin to implement and talk to those students in terms of the right approach and not targeting a particular group of individuals because of what's going on right now.

But it's an interesting factor, you know, because I think all of us, you know, if we happen to be in a room and somebody starts to cough or sneeze, you know, we all kind of stand back and look and say what? But that's definitely something that we're hearing about that is happening. And I think educators are taking immediate steps to make sure that that's corrected and working with the students and saying this is not the right thing to do, this is not the right behavior, as they would with any other type of bullying situation.

MR. HANSEN: Thank you. Do you recommend -- this is a question from Sarah (phonetic). Do you recommend including specific provisions in a school's closure plan to include pandemics or COVID-19 information? How about school enrollment contacts in a private school setting?

So to Dan, most of your network, we're talking about public schools, private schools, or even those in home schools, for example. They are sort of living out of that network. How are they staying connected?

MR. DOMENECH: Well, we make sure, for example, that we provide the information that we're sharing with the private sector. As a matter of fact, I've had conversations now with a number of heads of private schools in terms of sharing information with them and we're happy to do that. But I think in every community the superintendent is very much aware of the nonpublic schools in their area and tend, as a matter of fact, to share information pertaining to schools and school safety with all of them.

So generally, that's the rule. If there are exceptions to that, then those schools should reach out to the public school sector and say can you share that information with us, as they're doing right now with us.

MR. HANSEN: Okay, excellent. Dr. Rivers, can schools or public health authorities require students, faculty, and staff to be quarantined after international or domestic travel? In particular, what about students traveling over the Spring Break vacation, for example, to areas that may have more exposure to the virus?

MS. RIVERS: Those decisions largely rest with the local Health Department, and so the

guidance varies based on the destination and the circumstances of the risk that is assessed on a case-by-case basis. But it's not usually the school's decision, although they might have different criteria for who can participate in school activities or attend. Whether or not you actually have to be quarantined at home is a Health Department decision.

MR. HANSEN: And still with Dr. Rivers, how can schools address anxiety with the mental health aspect that some students may be experiencing with regards to the outbreak?

MS. RIVERS: That's a really important question. It's outside my expertise, so I can't offer specific guidance, but I know the CDC coronavirus website does have resources available for that exact topic.

MR. HANSEN: Thank you. You certainly have a cool head even though you have a much clearer perspective on things that are happening and perhaps even shocking for some of us, Dan, if I may say so.

So Jeff from Tennessee writes a follow-up question for you, Dan. Thoughts on strategies, what are your thoughts on strategies to address issues of equities in an acute setting, like an extended school closure, acknowledging that the digital divide won't be solved in the next couple of weeks? Like what can we do given this divide?

MR. DOMENECH: Exactly, and that's the issue that we've been talking about. And, again, even for systems that have the capacity to provide that online, recognizing that there will be students in the community who don't have access, what those districts are doing is preparing packets of information. For example, the Mount Olive School District in New Jersey closed for a couple of days earlier this week to allow the teachers to do exactly that, so that they're preparing packets of information so that if there is a closure for those students that don't have access, they can have the old paper and pencil, traditional paper and pencil, to work with.

But this is, again, where the equity factor kind of, unfortunately, begins to take a back seat to the immediate concern of isolating these students. And by virtue of that, not being able to provide the same level of services that you would in a school environment.

MR. HANSEN: Okay, thank you. Here's a question from Brian in Spain, so we have an

international participant. Do you think the coronavirus will encourage more investment of technology in education? So education is historically an area where -- that has been slow to adopt new technologies. And my kids go to the same kind of classroom learning environment that is, you know, probably 75 percent similar to the learning environment that I experienced 35 years ago when I started school.

So is this something that's going to be a catalyst for the future, Dan? And are you hopeful for the future, Dr. Rivers?

MR. DOMENECH: Well, yes, I think so. I think I made mention of the fact before that if this online environment continues that it will accelerate this process. And by the way, I think many of us in education will acknowledge that here we are, you know, like one-fifth of the way into the 21st century and, by and large, most education is still in the 20th century; that we really haven't moved as quickly in terms of the technology. And a lot of that has to happen for the lack of resources, the ability not to have the money that, you know, we can purchase a computer for every child and to have the software and the resources available to offer it.

So this may very well be a catalyst that by virtue of the need to provide these services and districts begin to do it, thinking down the line this may happen again, that districts will have the ability to do that. And by virtue of that, then states may begin to say, you know what, seat time requirements perhaps is not the thing anymore. You know, because education, virtual education can be provided -- viral. Well, in this case --

MS. RIVERS: Upper mind.

MR. DOMENECH: -- can be provided to students so that it's not necessary that students be in school all of the time, that they can take courses from home and be as effective as coming to school. So, yes, it could be a catalyst.

MR. HANSEN: Okay, thank you. Dr. Rivers, did you want to add anything to that?

MS. RIVERS: Well, I can't say much about technology and education, but I will point out that the same tools that we are recommending to limit transmission of coronavirus are also helpful for influenza and RSV and all of the other illnesses that are spread person-to-person. And so I do hope that people take from this experience that doing things like staying home when you're sick, washing your

hands, avoiding crowds if there's something going around are really useful tools that we should all be relying on.

MR. DOMENECH: And by the way, let me add that if there are students in the audience, they may not be very happy with the fact that if virtual education becomes a reality that there'll be no escaping school, even if you're sick.

MR. HANSEN: Thank you for that. Dr. Rivers, what can child care centers do to prevent the spread of germs? Is there anything in particular that they need to be concerned about beyond schools given that they have especially young kids?

MS. RIVERS: Well, again, we see that, thankfully, children seem to experience very mild illness and so I think it's great that child care centers are thinking about what they can do for their infection control. Very valuable, but also just want to offer that, what reassurance I'm able to for parents.

No matter how young the kids are, having them wash their hands, helping them wash their hands before they eat, environmental decontamination, clear policies for identifying and sending home kids who aren't feeling well, those are all going to help with infection control. And I know child care centers, this is something that they deal with regularly, so I'm sure just a reinforcement of what they're already doing will be helpful.

MR. HANSEN: Okay. Dan, what can we be doing to train our teachers? This is a question from John in Illinois. Can we do anything at this point to train them for more online instruction? And what advice do you have on expanding online resources given the short time window that we're talking about? And should this be something that we're making investments in for the future?

MR. DOMENECH: Well, right now we see that already that a lot of districts are closing schools, not because of an infection, but because they want those teachers to have the opportunity to either be trained and prepare the materials necessary for the online instruction. So that's already taking place.

Now, the resources, again, it goes to the ability of school districts to have the resources to get into the technology to the level that they would like to. Unfortunately, you know, school districts today, better than half of the school districts today are operating on budgets that are less than what they

had in 2008, the last time we had this kind of freefall in the economy. So school districts are, unfortunately, not given the level of resources that they require in order to do this kind of 21st century online instruction that we talk about.

MR. HANSEN: Yeah, and there is a critique for that traditional teacher training programs also are not really providing that level of instruction for their teachers as they're training either. So it's a key vulnerability I would argue.

Taylor from Pennsylvania asks a question and kind of expresses a familiar parent guilt that I've felt about keeping your kids home from school even if they don't show signs of being sick. They say what if we decide to keep our kid at home for their own health? Should we -- and the school does not excuse their absence. What do we do in this sort of situation?

MR. DOMENECH: Well, again, the situation right now is that if you're absent from school and you're not sick, it's an unexcused absence.

MR. HANSEN: Yep.

MR. DOMENECH: And that's the rule, that's the regulation. And unless that were to change, there's nothing you can do about it. So that's the prevailing conduct that is taking place right now. So parents who would keep their youngsters at home even though they're not ill for a safety factor, well, we can all understand that and we can all say, well, that's a parent's right to do that. But from the perspective of the schools, they're not going to have any choice other than to mark the student's absence without an excuse.

Now, what is the impact of that in the long term? Well, if the parent feels that at least that's going to keep the child healthy, they'll do it. But, and this is one of the things, by the way, that is an issue that's come up, is that students that have a perfect attendance record and they're waiting for, you know, that reward at the end of the year for having that perfect attendance record, and how they won't have it because they're out of school, that's a concern.

But these are the issues that are going to have to be worked out between regulations that stand in the way of what may be a better practice.

MR. HANSEN: Thank you. So no alleviation of the absence guilt, unfortunately, not

currently.

I think Lysa from California writes is there any federal guidance regarding services for children with disabilities in the event of a school closure? You did bring this up earlier, Dan. Are districts required to provide related services under IDEA in the event of a long-term school closure?

MR. DOMENECH: Well, here's the situation. How do you do that? Are you going to send the special educator to the home of the student? Well, that, again, violates the whole purpose of isolation. Are you going to bring that student into the school to provide that student? Again, this is contrary to that.

So this is a tough area for which there may be some districts that can come up with solutions, but, in general, that's going to be a major concern and a major problem.

MR. HANSEN: A question from New York, a very international city. Specific advice for schools in major international cities that require parents who travel frequently internationally for the jobs, any additional recommendations in their cases? Dr. Rivers?

MS. RIVERS: Yeah, I would just go back to the basics. At the first sign of illness, that would be a great time to stay home, stay out of the community, hand-washing, social distancing. I know everybody is almost tired of hearing about it at this point, but these are the tools that we have and they really do work.

In the case of a particular high-risk exposure, if you have reason to believe that you have come into contact with someone with COVID-19 or you've returned from an area that has community transmission, that would be a time to call your local Health Department just to figure out what the local guidance and next steps are.

MR. HANSEN: Okay. So if you are in a household with parents traveling internationally, et cetera, perhaps be a little more vigilant out of caution for the potential to spread it to others. I guess I'm hearing that. Is that right?

MS. RIVERS: I don't think that there -- unless you have returned from an area that currently has a Level 3 travel guidance from CDC, which I would want to double-check on this, but I believe it's parts of South Korea, Italy, China, and Iran, travel from one of those countries, you would want

to contact your local Health Department. Other regions I think it's more, again, about just being vigilant.

MR. DOMENECH: And that's an interesting point because right now New York City, for example, has the largest student population of any district in the country, over a million students, had not closed even though New York is becoming kind of the hub. You know, the New Rochelle area that's been closed off by the governor because so many cases appear there. But the city schools are not closed and they haven't given any indications that they would at some point because, again, you're affecting a million students. They may do a school-by-school situation if that begins to develop, but they're right in the hub of the question that's being asked.

MR. HANSEN: Dr. Rivers, you're in the healthcare industry. How do we balance the risk of keeping schools open versus closing schools and the realities of daily life without parents' flexibility because they have -- on their jobs because they need to be there possibly because they're working in the healthcare industry or if they are providing some other service that they can't just walk away from that?

MS. RIVERS: Yeah, that's a really central question and that's what makes the decision around school closures so complex and so difficult to really work through because there are a lot of unintended consequences for children who receive services, for parents who are not able to stay home or for whom it is difficult or taxing for them to stay home. No clear recommendations because these are going to vary a lot from family to family and district to district. But I think it is really important to highlight these considerations so that people are -- districts and decision makers are able to really think through all of the different scenarios.

MR. HANSEN: Excellent. And Dan, do you have any final comments or, Dr. Rivers, do you have any final comments?

MR. DOMENECH: Well, to that point, you know, one of the things that we advise districts to do and have been doing it is early on send to parents the possibility of these things happen and to allow them to begin planning accordingly. If child care is a major issue, and a school district isn't going to be able to provide for that, then parents need to know that in advance so that they can begin to make any appropriate plans.

MR. HANSEN: Okay, excellent. Well, I appreciate both of you for being here and

participating on the panel. We appreciate the audience for your participation and listening in. And we are glad to prepare this and present this important, informative panel to you, so thank you for being here.

* * * * *

CERTIFICATE OF NOTARY PUBLIC

I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

Carleton J. Anderson, III

(Signature and Seal on File)

Notary Public in and for the Commonwealth of Virginia

Commission No. 351998

Expires: November 30, 2020