David Rubin, MD, on keeping kids in school in the wake of Omicron

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In today’s COVID-19 Update, AMA Chief Experience Officer Todd Unger talks with David Rubin, MD, director of PolicyLab at Children's Hospital of Philadelphia and a professor of pediatrics at the Perelman School of Medicine at the University of Pennsylvania, about his team's nationally recognized COVID-19 forecasting model and how it informs new guidance for K-12 educational settings aimed at keeping kids in school.

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Speaker

- David Rubin, MD, director of PolicyLab, Children’s Hospital of Philadelphia

Transcript

Unger: Hello, this is the American Medical Association's COVID-19 Update video and podcast. Today we're talking with Dr. David Rubin, director of PolicyLab at Children's Hospital of Philadelphia and a professor of pediatrics at the Perelman School of Medicine at the University of Pennsylvania. He's going to be talking to us about new guidance on a K-12 educational settings, aimed at keeping kids in school. I'm Todd Unger, AMA's chief experience officer in Chicago.

Dr. Rubin, keeping kids in school. You're going to make a lot of the people that I work with very happy. A lot of parents out there. This has obviously been a huge problem. But before we dive in, I just want
to start with a little bit of background about a model on COVID-19, a forecasting model that you and your team developed. It got national attention and it's informed this whole discussion about kids in school. Why don't we just start with a little background on what that was?

**Dr. Rubin:** Well, even before the COVID pandemic, Todd, we at PolicyLab, particularly in my research area focused on the variation in outcomes we saw from kids who were receiving public programs around the country, including home visiting services, psychiatric services, et cetera. And when COVID began, if you remember, the early models focused on what was going to happen to us as a country. And still largely today when you Google COVID rates, you'll find national case curves from which to judge.

And we knew very early on given our experience with children and families that everything was local. And so we leveraged our expertise in modeling local area variation to examine the experience in what has now been over 820 counties across the country. And providing that local granular experience with very sophisticated forecasts that we redo each week. We've been able to get about two to three weeks out ahead of where the pandemic was going in very local communities across the country. And that's been very helpful for folks both at the local level but also at the regional and national level as well too.

**Unger:** I mean, honestly, you point out the exact problem, which is like we look at these U.S. case curves. But we know in each of these surges and especially now that it's kind of sweeping across the country at different rates and receding in some places, picking up in others. So having that kind of, we'll call it a three-week crystal ball is probably important. And I think it would be able to inform these issues of kind of around guidance for school.

So let's talk a little bit about, how this does inform remote versus in-person schooling. Obviously I think many people have come to the conclusion that in-person is preferred and better for kids learning. Talk to us about how your work then informs decisions and provides guidance to that.

**Dr. Rubin:** Well, those case incidents models and now we also include hospitalization models. They're really only one part of a larger picture. We have a big schools team that includes some of our best infectious disease experts, as well as public health experts within CHOP and at the university. But what we emphasize in our review is what the entirety of the data is showing us. And last year or particularly early in the COVID pandemic, it was like choosing between bad and worse. We had a highly virulent virus, an unvaccinated public. The risk within families and to individuals who taught in our schools and provided services in our schools was fairly substantial.

The first turning point happened when adults were offered vaccination in the country, that was a big turning point because the risk of serious illness was always lower in children. It was significant enough to warrant concern and significant strategies in these congregate settings of schools. But then by the fall, we were now offering all children five and above vaccination. So in the K-12 setting, by the time we hit January, which was a really anxiety-provoking moment because of the Omicron we had already
kind of passed the threshold of offering vaccination, which has been the best intervention to reduce severe disease.

Now, with Omicron, while that was a curve ball, I would say though that what we saw overall, even despite some higher rates of kids being in the hospitals because so many children were infected all at once. We had it as more than 25% in our own region just in the week between Christmas and New Year's. It was milder on average for most children. And the spectrum of illness we were seeing at CHOP was similar to what we see with other seasonal viruses during the wintertime.

And once we saw that shift, it wasn't just PolicyLab but our leadership at CHOP that decided to issue a statement that said, "Look, once we recognize that individuals have been offered vaccination and we're dealing with a variant that has a milder spectrum of illness for most and particularly those who are vaccinated, it's time to start hitting reset on the way we think about schools and return to policies that are more practical and simpler for schools that have been burdened throughout the pandemic."

**Unger:** A lot of the talks we've had over the past couple of weeks have kind of shifted to this new kind of paradigm at which this is consistent, which is are we entering kind of a new period of how to deal with this as a country? From eliminating risks, keeping infection rates down to something else. In your mind, what is the new goal?

**Dr. Rubin:** Well, I think what really differs between last year and this year is that last year we had to be in an eliminate all risks type of strategy. Now we can accept that we can't eliminate risk. And the risk of doing that in terms of accepting that that there will always be some risk is is a lot smaller. With a virus that has a spectrum of illness that's more similar to what we see with other seasonal viruses.

Now the risk of keeping kids out of school, denying them activities, of teaching them to continue sort of behaviors in school that are more avoidant. All of the above are much greater risk in terms of mental health, in terms of learning and access to education than the virus itself.

**Unger:** So obviously, the game has changed as you pointed out before with vaccinations. And I think you hear pretty widespread agreement that in-person schooling if you can do that as best and possibly even during this kind of a surge, why do you think there's still so much pushback and debate, consternation around this particular topic? Is it not grounded on science? What's the issue here?

**Dr. Rubin:** Well, some of it is and some of it I think is a basis of recognizing just how much we've been traumatized over the last two years around needing to eliminate as much risk as possible in our families. And so it's very hard after two years in many ways of being trained to eliminate risk to kind of shift back to a strategy that's practical which is sick, stay home. If you're exposed, wear a mask at least during periods of high transmission. And move back to strategies that we were very familiar to us before the COVID pandemic.
And so some of it is, is helping to reset perceptions about the phase that we're in and recognizing the trauma we've been through. With that said, we also have to recognize there's some science to the basis, particularly in, let's say, larger urban areas of them moving a little bit more slowly. I mean, you often have these very large school districts with much older buildings, that have poor ventilation. And I suspect that some of the moves that those school districts may make pursuant to the guidance of their own health departments may occur a little bit more slowly and tolerate a higher threshold for exposure risk.

Meaning, they're going to need to see much greater rates of declining transmission to much lower levels, if you will, than other areas that can afford to take some risks as they move kids back to normal.

**Unger:** Again, back to what you talked about before, which is local being so important.

**Dr. Rubin:** Exactly. For local decisions. And look, we sort of say, "Look we're not a health authority," but I think Children's Hospital of Philadelphia, our policy, but our leadership I think it was time for other leaders outside of public health and CDC to recognize the moment we were in and to offer our own review of the data to help shape public perception as we move forward here to help folks move on. And to shift as quickly as Omicron has led us to shift in the way it's transpired across the United States.

**Unger:** To that end, PolicyLab and Children's Hospital of Philadelphia, which I love that acronym, CHOP. There's a marketer in there somewhere back there, have released new guidance that's designed to help communities and families best navigate this moment of uncertainty, transition, whatever you want to call that. Most importantly, keep kids in school and we can.

The first piece of guidance and this is one that continues to be talked about greatly is on the issue of masking. So let's talk about that. What is recommendation there? How do you see that changing anytime soon?

**Dr. Rubin:** Now, if you go back to our guidance from August, we widely recognize that at some point in the school year that schools were going to shift to more flexible mask optional policies that would align with public health recommendations. I still think schools are required for their school communities to inform them of what the public health recommendations are around masking but that returning decisions to individuals and families around the choice of whether to don them was going to be something that occurred during this year.

And I think what we said in our guidance was to encourage the use of indoor masking during a period of high transmission. And particularly while the hospitals were experiencing capacity challenges, that's now debating in some areas more quickly than others. And so we expect many schools to move into mask optional policies over the next few weeks.
I think that this is a moment that they have a window to do so. They're seeing very quickly declining transmission. They're seeing reduced hospitalizations and they're seeing evidence of the milder spectrum of illness for children in particular but for most individuals, particularly those who are vaccinated and boosted if eligible.

Unger: Well, the second recommendation at least part of it seems very intuitive. If you have symptoms, stay home. So that makes a lot of sense but I guess juxtaposed against that is the question of testing. And that's something that I think has been confusing because there's been a recommendation that if you have mild symptoms, you should be getting tested. How do you true-up the advice that people are getting on testing and symptoms?

Dr. Rubin: Well, again, it comes down to moving from an eliminate all exposure risk to just improved safety strategy and being practical about that. We have to recognize that tests over the last few weeks have been largely unavailable to many people outside of major testing programs. Now we run one of the larger testing programs in the country for school-based testing, a program called Project ACE-IT. We've actually performed over one million tests now through our region since last January among school staff and kids.

And so we follow these rates. And for a long time, we promoted assurance testing or weekly screening testing of particularly school staff, particularly among those who are unvaccinated, as well as testing in relationship to allowing kids who are exposed to remain in school. But as we begin to make this shift now and we recognize the moment has arrived to do so, it's not so clear why we need to chase asymptomatic or milder disease.

While we were in high transmission, we were asking people to mask. And that was a fairly strong mitigation layer and has remained a strong mitigation layer. But as the rates come down, we're seeing fewer and fewer individuals who are positive in that testing. And we're sort of accepting and making that transition to the understanding that we can't eliminate all risks. And we have to start treating this like other seasonal infections for which we know we don't routinely track milder illness or asymptomatic carrier states.

And once we do so, you can recognize that the strategy becomes pretty simple. During a period of high transmission, continue your masking as that comes down as your school switches to mask optional policies, those who are exposed may be asked to wear a mask for a week and follow their symptoms. But besides that, besides encouraging individuals to get vaccinated and get boosted when eligible, which is the real intervention here. We're going to get these schools back to normal.

And there may be some moments where milder illness like for a child in daycare can help get that kid back into daycare sooner after they have a cold and recognizing if they don't have COVID illness. But for the most part, we can think about testing now moving back towards those who are most symptomatic or in need of seeking care.
Unger: And so just under the kind of circumstances you outline then, that kind of required testing for asymptomatic students is we’re moving past that?

Dr. Rubin: I do. I do think that schools can retain the ability to offer tests to their school care community, particularly for those who want to opt-in. Like let’s say you’re an individual or a student who had a chronic health condition for which that weekly assurance testing reduces anxiety or can help you plan around family members who may have other health conditions in terms of initiating earlier treatment decisions.

But that’s a much different footing than requiring all students or requiring all staff to have to submit to weekly testing. And I think that it kind of balances both sides, the needs for some people who make the choice to be informed and need to be informed based on their own risk or their family’s risk. And those who are willing to now take that next step towards normal.

Unger: And you mentioned to masking too and you have a term that I’m interested in finding out what does it mean mask to stay policy? What is that?

Dr. Rubin: Well, that’s really just saying if you’re someone who is truly exposed, let’s say, from a household member at another event to someone who has COVID. Mask to stay really says particularly during a mask optional period that we just ask you to ask up for a week while you’re in school just to kind of prevent transmission to other individuals while case incidence is high. We don’t require necessarily the testing. So test to stay is one level above that where you would offer testing to those individuals.

And so mask to stay is a more equitable solution because we recognized even in our own testing program that not all schools were equipped with the tests nor had the staff. Sometimes they would be equipped with tests but did not have the staff or the capability to be able to provide the testing scale to allow, let’s say, test to stay solutions or assurance testing solutions. So from an equity perspective, we’re recognizing that the risk has gone low enough now that we don’t need to require those and create a system of the haves and the have-nots in terms of who has access to education.

Unger: All right, well, lastly and this is something that the AMA has obviously been strongly urging. And you mentioned as the key to everything here, vaccination boosters. Are you still encountering a lot of parents who are hesitant to vaccinate and boost their children? And is there anything, any advice you can give to pediatricians out there to say to these parents?

Dr. Rubin: Well, I think a lot of those conversations have been most helpful at this point in the pediatrician’s office and certainly my own experience in my own office. I will say back in the fall I was concerned because there was a Kaiser poll that had showed that a third of parents were going to immediately vaccinate their children, a third were going to wait and a third were not going to do it. They were unpersuadable.
It was that middle third we tried I to encourage them even before Omicron, we knew this winter surge was coming. Don't let anyone fool you. I mean, the rates from the upper Midwest were fairly high moving through the fall. There was a predestination here with some level of a high seasonal transmission over the holiday season on the East Coast and in other areas out west. However, what I would say is now that we're on the other side of this, some people may perceive that Omicron has sort of naturally inoculated individuals. And I think I would be careful with that conclusion.

The spike protein, the virulence of this virus is very different than the earlier forms and the vaccinations protect against illness with the more severe forms of COVID. And recognizing there’s still some uncertainty around future virus, particularly coming off some of those older lineages, like the Delta virus, I’m still strongly encouraging, as are my colleagues, are children to get vaccinated. We will do so as the infants arrive because still in our hospital why we’ve seen less severe disease. When we walk through our intensive care unit, the unfortunate stories we see are among those who are unvaccinated.

Unger: Well, I think that's a great message. Dr. Rubin, for physicians who want to get more information on your forecasting model and COVID-19 school will guidance, where should they look?

Dr. Rubin: They can come to our website, www.policylab.chop.edu.

Unger: Excellent. Dr. Rubin, thanks so much for being here and all the work that you and your team are doing. That's it for today's COVID-19 Update. For resources on COVID-19, visit ama-assn.org/COVID-19. Thanks for joining us today and please take care.

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