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AAP News

COVID-19 town hall panelists field questions about school safety, virus mutations

by Trisha Koriath, Staff Writer

An AAP virtual town hall drew questions from pediatricians about the impact of COVID-19 on schools, including the **COVID-19 variants**, disruptions to learning on children's well-being and other impacts of the pandemic.

Anne R. Edwards, M.D., FAAP, AAP chief population health officer, led a Q&A discussion with panelists Yvonne A. Maldonado, M.D., FAAP, AAP Committee on Infectious Diseases chair; Arwa Nasir, M.B.B.S., M.Sc., M.P.H., FAAP, Committee on Psychosocial Aspects of Child and Family Health member; and Sonja O'Leary, M.D., FAAP, AAP Council on School Health chair-elect.

The panelists acknowledged that decisions about learning have been difficult and stressful for families, and there is not one right answer. Following are concerns they observed as families continue to navigate through a difficult school year.

Families and schools need help supporting children's emotional and behavioral health.

Communities are still looking at ways to keep schools safe from an infectious diseases perspective, but they also are starting to look at the psychosocial impact of not attending school in person has on children, Dr. Nasir said.

"The situation is anxiety provoking for everybody, and children are no exception," said Dr. Nasir. She pays particular attention to children already at risk and urges parents and schools to engage in developmentally appropriate communications with children.

"Children do get their cues for how safe they are or how much they need to worry from the adults around them," she said. "If they are having trouble sleeping, trouble eating, more trouble performing in school, this is when more attention and more referral or professional help might be needed."

Families in multigenerational households have unique concerns about in-person and remote learning.

Many families living in multigenerational households are "terrified" about sending their children to school because they are afraid they will bring the virus home, and older family members will become seriously ill or die, Dr. O'Leary said.

"It's a lot about engaging the community in conversations about the importance of going back to school but also understanding that if this (remote learning) is what's best for your family, it's what's best for your family, she said."

Children with learning problems need structure that in-person school provides.

Children with attention-deficit/hyperactivity disorder (ADHD) and other learning problems face more difficulties with remote learning and more barriers to learning supports and resources, said Dr. Nadir. "(At home, families should) make sure they maintain as much structure as possible. Getting them back to school is a good thing for them."

Higher disease transmission rates should not keep older children out of school.

Younger kids do have a lower rate of transmission than high school students, said Dr. O'Leary. "There really isn't a lot of child-to-child transmission in schools. Being in school is a much more structured environment than



being at home. And sometimes there's an increased risk of COVID (for teens) because they're hanging out with friends (when at home) or some of them are working. Some of them actually are working double shifts at places to support their families and that also puts them at risk," she said.

Schools need answers about routine testing of asymptomatic individuals.

Some schools, particularly private schools with more resources, have implemented surveillance testing. "Routine asymptomatic surveillance testing is not recommended for children and teachers at this time. ... There are areas that just don't have the resources to do testing," Dr. Maldonado said. "There are not a lot of outbreaks being seen in the pediatric school system."

Communities are concerned about the new variant.

Wearing a cloth face covering, maintaining physical distance, hand-washing and other precautions are effective protective measures against the new variant, Dr. Maldonado said. "That's really the best way to keep infections from spreading inside and out of school until we can start vaccinating children and older teens. ... I don't think this should affect school at all."

According to Dr. Maldonado, the SARS-CoV-2 virus is a large RNA virus. The virus is still mutating reasonably rapidly, and Dr. Maldonado suspects this is due to the level of transmission, which allows the virus more opportunities to replicate and mutate. Several mutations have occurred at the spike protein, which is where all of the effective immunity is directed.

"It's like hepatitis B in the sense that the antibody to the surface antigen is highly immunogenic. It's the same thing with this virus. The spike protein is highly immunogenic, and all of the vaccines so far are directed against that area," she said.

"These are probably selective pressure mutants - that is, you're seeing mutants across the entire genetic, the 30,000 base pairs, but where you're seeing a high incidence of new variance now is around the receptor binding domain, which is where the virus itself originally mutated from the bat strain to be able to attach to the human ACE2 protein on the surface primarily of respiratory and cardiac cells," she said.

"There's some evidence that they (the variants) may be more infectious, but not more virulent," Dr. Maldonado said.

There's a light at the end of the tunnel.

Pediatric clinical trials for the COVID-19 vaccine are underway, but they will look different than those involving adults, according to Dr. Maldonado. "They likely are going to be rather than tens of thousands of children more like thousands of children and doing what they call immunobridging studies, which means they may look for development of neutralizing antibody, which may be a surrogate for protection. We're hoping that those studies will be reviewed sometime by spring and maybe for approval sometime later this year."

Many states should be able to start offering the vaccine to the adult population, including teachers, this spring and summer.

"Hang on. It'll be OK. We'll get there," Dr. O'Leary said.

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