

With more kids eligible for vaccines, is the pandemic in a new phase?

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Many parents celebrated the news last week when the U.S. Food and Drug Administration (FDA) authorized the Pfizer-BioNTech COVID-19 vaccine for children ages five to 11, a decision that was endorsed today by a Centers for Disease Control and Prevention (CDC) advisory group and Director Rochelle Walensky. This sets the stage for a vaccine rollout

to that age group to start imminently.

While most children don't get severely sick with COVID-19 when infected, schoolchildren have had a significant role to play in viral transmission, and the associated risks have driven [school closures](#) and other social disruptions during the last year and a half. Getting this group—a demographic that includes 28 million people in the United States—vaccinated could signal a new phase of the pandemic.

But how quickly will parents get their children vaccinated, and will this alter the trajectory of the pandemic? Penn Today spoke with experts in epidemiology, [vaccine](#) acceptance and misinformation, and pediatric medicine about what this authorization holds for the weeks and months ahead.

Uncertain uptake

During the last 20 months, it's become clear that COVID-19 poses the greatest threat to older adults and those with conditions that impair the immune system. "But kids are still at risk," says Melanie Kornides, an assistant professor at the School of Nursing, whose scholarship focuses on vaccine misinformation. "They are at risk not only for asymptomatic or mild infection, but we have also seen kids being hospitalized, and we have even seen some kids die. Preventing that is one big reason why getting the vaccine to this group is so important."

Communicating that message to parents is the role of public health officials and pediatricians, Kornides says, and they have a daunting task ahead. According to [a recent survey by the Kaiser Family Foundation](#), only about a third of parents are eager to get their 5- to 11-year-olds vaccinated. Roughly another third are strongly hesitant, with the remainder taking a "wait-and-see" approach.

Kornides says having such a large group on the fence at this early stage is unsurprising.

"Parents are always a little more hesitant with their children when it comes to vaccines," she says. "We've seen this with the HPV vaccine, with the varicella vaccine. I'm a parent; I'm protective; I understand. It's going to take a lot more reassurance from pediatricians and social support from people in their communities—from other parents, from school—that, yes, this is safe, this has been tested."

What's known and what's not

Data from the Pfizer-BioNTech clinical trial showed the vaccine—one-third of the dose of the adult vaccine but otherwise identical—to be 91% effective at preventing infection with SARS-CoV-2. None of the 3,100 children who received the vaccine in the trial had [serious side effects](#), though mild side effects like headache, fever, and arm soreness were common. The FDA advisory committee that met last week voted 17-0, with one abstention, to authorize the vaccine, affirming their belief that the potential benefits outweigh any known or potential risks.

Yet an often-cited concern about these vaccines in children is the risk of myocarditis, or heart inflammation, a side effect that has been more often seen in male children and adolescents. No cases were seen in the Pfizer-BioNTech 5- to 11-year-old clinical trial, but the group size was small enough that rare side effects may not have emerged.

Michael Levy, an associate professor in the Department of Biostatistics, Epidemiology, and Informatics in the Perelman School of Medicine, says that the vaccine trials were not designed to evaluate an impact on transmission, instead focusing on how effective the inoculations were at protecting individuals. Still, "a 91% efficacy against confirmed COVID illness is huge," he says, "and, although we don't know the exact numbers

for the vaccine's efficacy against infection nor transmission, there is reason to hope that they will be significant. Even so, the vaccine's effect on the larger pandemic can be diminished by unequal distribution or uptake."

Tangible impacts

One environment that is likely to see changes is the schools where children of this age spend their days. David Rubin, director of the PolicyLab at the Children's Hospital of Philadelphia (CHOP) and a professor of pediatrics at the Perelman School of Medicine, see this latest vaccine authorization "as an inflection point in terms of how we are thinking about school policy."

Since early in the pandemic, PolicyLab has been [offering guidance](#) to schools on COVID-related policies, such as reopening, masking, distancing, and quarantining.

"We've already been trying to build in more flexibility," Rubin says. For example, guidance has encouraged some schools to move from strict quarantines for close contacts of confirmed COVID cases to doing what's called test to stay. With that policy, instead of students quarantining at home for up to two weeks, missing significant classroom time, they can take repeated tests over a period of several days, staying in school as long as they wear a mask, remain without symptoms, and test negative.

Even with this decision on vaccines, school policies are unlikely to change immediately, especially given the upcoming holiday season, as larger gatherings may lead to upticks in infection rates of both COVID-19 and other seasonal respiratory illnesses. "As we move into the new year, however, we are likely to see declining rates," Rubin says.

And as winter turns to spring, he predicts more substantive changes. If infection rates decline, many schools are likely to shift toward mask-optional policies that allow families to choose whether to have their children mask at [school](#). Some schools and districts with particularly low rates of infection may also modify their quarantine policies, Rubin says, perhaps simply requiring asymptomatic close contacts of confirmed COVID cases to wear a mask indoors for a period of time. Such modifications will likely require permission from public health departments, which is already happening in many areas of the country.

As more of the population gains access to vaccines, an effort CHOP is facilitating through its clinics in the region, Rubin says it's time to think about what a return to normal will look like.

"It's a good time to be thinking about these endpoints, even as we maintain some patience through the holidays," he says. Expanding vaccine eligibility is a way to get there. "This is a really important milestone."

Provided by University of Pennsylvania

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