Observations from Listening Sessions with AIM Members

Lessons Learned from Pediatric COVID-19 Vaccine Roll-outs that May Inform Future Efforts

Although COVID-19 vaccinations for children ages 5-11 years have been available since October 2021, only 40% of U.S. children in that age group have received at least one dose of a COVID-19 vaccine as of May 11, 2023, according to the Centers for Disease Control and Prevention (CDC) COVID Data Tracker. The vaccination coverage rate among 5-11-year-olds is low – just over half the rate of vaccination among children ages 12-17 years. With the recent authorization and recommendation of vaccines for use in children ages 6 months through 4 years, the nation's public health programs are looking to understand the lessons of the vaccine roll-out for 5-11-year-olds and find innovative approaches to improving vaccination coverage of these and younger children.

To gather these lessons learned, prior to the availability of COVID-19 vaccines for children <5 years, immunization program (IP) managers (sometimes in addition to other key jurisdiction staff) from the 64 CDC-funded state, city, and territorial programs were invited to participate in a series of four facilitated listening sessions. In these sessions, lessons learned from the pediatric COVID-19 vaccine roll-out for children ages 5-11 were shared. A final summary session included CDC staff providing responses and input. These sessions were conducted by the Association for Immunization Managers (AIM). Sessions were held between January 10, 2022, and February 2, 2022, and included discussions of barriers for provider participation, parental decision-making, and innovative strategies to increase rates of COVID-19 vaccine participation in their vaccination programs. Sessions averaged 71 attendees, representing an average of 29 jurisdictions (45%).

AIM Association of Immunization Managers

Published 2023

Immunization Program Focus

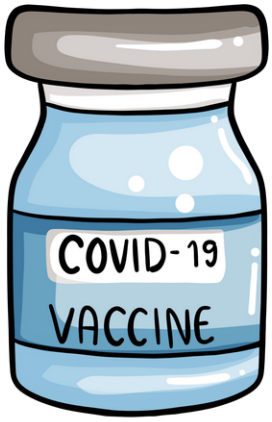
IP managers shared several barriers and provided possible solutions for their peers to implement in their pediatric COVID-19 vaccination program:

Provider Participation in the COVID-19 Vaccination Program

Many session participants reported barriers to pediatric medical provider participation in the COVID-19 vaccination program, even if those providers were already enrolled in the Vaccines for Children (VFC) program. Pediatric practices are largely understaffed and may feel unable to provide vaccination services outside of regular business hours. There are also administrative, logistical, and financial concerns contributing to the reluctance of VFC providers to participate in COVID-19 vaccination efforts. See below for specific barriers and solutions.

Barrier	Possible Solution
✖ The large vaccine minimum order size and multidose vials can possibly contribute to wastage concerns.	✚ Single or two-dose vials for the pediatric population are in the works, but in the meantime, pediatricians need to be able to acquire vaccines in small quantities. Some IPs have been successful in contracting with third parties to break down large quantities of vaccines to provide pediatricians with quantities they find more acceptable.
✖ Providers are reluctant to add one more responsibility into an office routine that is already demanding. 	✚ Developing tools that help providers normalize COVID-19 vaccination into their routine vaccinations at well-child visits. This could help reduce the amount of time needed for vaccinations outside of regular office visits. ✚ Expanding staffing during vaccination clinics by encouraging providers to partner with local pharmacists, public health, and individuals authorized to provide COVID-19 vaccinations through the PREP Act.
✖ Reporting of vaccinations to electronic medical systems and the Immunization Information System (IIS) sometimes requires staff to separately enter data for each administered vaccine into two or more systems.	✚ Communicating to providers that they may be able to automatically report administered vaccines from their electronic health record (EHR) via IIS HL7 messaging, alleviating the burden of manual entry and reducing administration errors. ✚ Streamlining reporting to the IIS and Vaccinefinder.org to eliminate duplicate reporting.

✖ In many instances, enrollment for the COVID-19 vaccination program is separate from the VFC program enrollment requirement, resulting in an increased administrative burden for providers.	✚ At the jurisdiction level, enroll providers into both the program at the same time, as feasible, to reduce administrative burden and significantly increase the number of COVID-19 vaccine providers.
✖ Annual re-enrollment in the VFC program coincides with re-enrollment in the COVID-19 vaccine program, which requires very similar information.	✚ To reduce administrative burden, jurisdictions may be able to combine COVID-19 vaccination and VFC program re-enrollment processes, for example, by auto-populating info from one application form to the other.
✖ VFC providers deciding not to provide COVID-19 vaccinations for undisclosed reasons.	✚ Conducting targeted outreach to individual providers, especially those operating in pediatric COVID-19 "vaccine deserts" where there are limited or no pediatric providers participating in the COVID-19 vaccination effort. ✚ Encouraging associations such as the national AAP, local AAP chapters, AAFP and other providers of childhood immunizations to promote the message that pediatricians are essential to the success of childhood vaccination efforts. ✚ Fostering IP and AAP partnerships to provide collaborative provider outreach and activities, such as joint webinars promoting participation in VFC and COVID-19 vaccination programs. ✚ Assisting providers in understanding how to run a reminder/recall program to bring vaccine-eligible patients into the office. ✚ Sending out universal reminder/recall on the behalf of providers.
✖ Practices may not have storage space within existing vaccine refrigerator or freezer units.	✚ Providing funding for providers to purchase additional storage equipment. • *From CDC: The COVID-19 supplemental funding has been extended. Awardees should work with their CDC Project Officer to identify funds for equipment and related needs.*



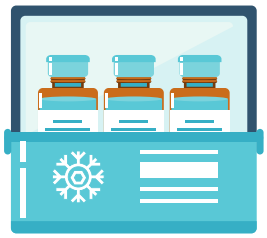
Parental Decisions to Vaccinate Their Children

IP managers report several barriers to parents getting their children vaccinated. Barriers include inequitable access to vaccination sites, as well as parental fears around vaccine safety and efficacy. Most (69%) session participants listed vaccine hesitancy as the largest COVID-19 vaccination barrier.

Barrier	Possible Solution
✖ Gaps in coverage due to issues with access for hard-to-reach populations. Most states have COVID-19 vaccine deserts.	✚ Identifying vaccine deserts within jurisdictions. ✚ Incentivizing providers in these areas to improve participation in the COVID-19 vaccination program.
✖ Parents of younger children tend to be more hesitant about getting their children vaccinated than are parents of older children.	✚ Using trusted messengers (pediatricians, childcare/preschool teachers, parents, teens, religious leaders) to conduct outreach to parents about the safety and efficacy of COVID-19 vaccines. ✚ Partnering with Special Supplemental Nutrition Programs for Women, Infants, and Children (WIC) to provide vaccinations during visits for services. ✚ Working with pharmacies to encourage vaccination of the under 5-year-old age group. ✚ Working with Medicaid programs to provide adequate reimbursement for vaccine administration. ✚ *From CDC: We encourage broad collaboration with local and national child-focused partners, such as Head Start.*
✖ Parents are concerned they may not be able to adequately assess if their child is in pain after vaccination.	✚ Encouraging providers to normalize COVID-19 vaccination discussion within routine vaccination discussions, including educating parents on management of discomfort or pain. • *From CDC, resources: Recognizing Potential Side Effects in Young Children After COVID-19 Vaccination*
✖ Some parents believe there is no need for vaccination if their child has already had the COVID-19 infection.	✚ Providing talking points to providers on making the case for vaccination after infection. • *From CDC, resources: 6 Things to Know about COVID-19 Vaccination for Children*

Stakeholder Focus

IP managers shared several other barriers and provided stakeholder suggestions to assist with implementation of the COVID-19 vaccination program for children ages 6 months through 4 years.

Barrier	Possible Solution
✖ Fixed vaccine allocations can lead to situations where a vaccine is not available when it is needed. 	✚ CDC can explore opportunities to restructure the allocation of scarce resources and allow jurisdictions to order additional vaccine supply if demand warrants it. • *From CDC: This restructuring was done during the COVID-19 response via allocation transfers and out-of-cycle requests. Allocations were managed by HHS/ASPR.*
✖ The politicization of the COVID-19 vaccination program threatens public opinion of the vaccine.	✚ National, state, and local leaders should come out in public support of pediatric COVID-19 vaccination and routine vaccination efforts.
✖ The importance of v-safe participation (v-safe is a personalized/confidential health check-in via text messages to share with CDC how you are feeling after getting COVID-19 vaccine) is not always widely promoted to providers and parents.	✚ Providers should post and share information regarding v-safe and encourage individuals to enroll in the program.
✖ Gaps in coverage due to issues with access for historically marginalized and medically underserved communities.	✚ Providers and other trusted messengers should tailor multi-language media campaigns and toolkits to promote the importance of vaccination, discuss side effects and vaccine safety, and combat misinformation. • Programs should continue to be intentional about increasing vaccine access.
✖ Many states have more restrictive age limits for vaccination by pharmacists than allowed by the PREP Act. Many chain and community pharmacies are reluctant to direct resources toward vaccination of young children in this uncertain environment.	✚ Decision makers should explore making it easier for pharmacists to enroll in the VFC program and be able to collect payment from Medicaid. ✚ Vaccinating pharmacists should refer children to their healthcare provider, stressing the importance of well care and routine vaccinations as required by the PREP Act.

Innovative Strategies to Improve COVID-19 Vaccination Rates

Several IP managers shared innovative strategies they have used to improve COVID-19 vaccination coverage rates among children. These strategies have included methods for making children more comfortable with the immunization experience, expanding access to vaccinations in historically marginalized and medically underserved communities, making the scheduling process more user-friendly, and working with partners to improve vaccine confidence.

Some of these efforts include:

- Use Geographic Information System (GIS) mapping to identify gaps in access to vaccination and working with AAP and pharmacies to fill those gaps.
- Use of therapy dogs to ease fear of vaccination, especially for children with special healthcare needs.
- Use of child life specialists (health care professionals who help children and families navigate health challenges) to provide distractions to make the vaccination process less frightening.
- Ensuring every county has at least one pediatric provider (e.g., pediatric offices, local health departments) and one pharmacy that can provide vaccination for children.
- Develop a centralized scheduling tool which shows all pediatric vaccination locations and appointments.
- Hold mass vaccination events that are convenient for families, such as at zoos and sports arenas.
- Partner with community organizations, e.g., Black Caucus, to help communicate messages and build trust in vaccines and the vaccination process.

The pediatric COVID-19 listening session project was conducted in partnership with the Centers for Disease Control and Prevention as part of the COVID-19 response. No federal funds were used to support this project. The contents are those of the author(s) and do not necessarily represent the official view(s) of, nor an endorsement, by CDC/HHS, or the U.S. Government.