

# Five Practices for Increasing COVID-19 Pediatric Vaccine Coverage Rates: Translating Lessons Learned During the Pandemic to the Current Environment

Authors: Katelyn Wells, PhD<sup>1</sup>, Michelle Fiscus, MD, FAAP,<sup>1</sup> Julia Donavant,<sup>1</sup> Emily Less, MPH,<sup>1</sup> Hilary Oliphant, MPH,<sup>2</sup> Alaya Koneru, MPH<sup>2</sup>  
 Author Affiliation: <sup>1</sup>Association of Immunization Managers; <sup>2</sup>Centers for Disease Control and Prevention

### Background

- In 2023, the Association of Immunization Managers (AIM) received supplemental funding from the Centers for Disease Control and Prevention (CDC) to identify promising practices used during the COVID-19 public health emergency to improve COVID-19 vaccination uptake among children ages 6 months to 11 years.
- As part of this work, AIM conducted feasibility, policy, and economic analyses of five prioritized practices, and created materials that equip AIM members, their staff, and partners to implement these five promising practices to improve pediatric COVID-19 immunization rates.
  - Implementation resources include implementation guides, tip sheets, and a technical report that can be found on AIM's website.

- Targeted outreach:** identify and reach out to un/under-vaccinated Medicaid beneficiaries via linking IIS and Medicaid data.
- Basic needs:** connect opportunities to vaccinate children with efforts to help families meet their basic needs, including food, diapers, period products, school supplies, and/or safety net program enrollment assistance.
- Mobile clinics:** provide vaccinations to children in convenient locations, such as parks, flea markets, churches, and supermarkets.
- At-home vaccination:** provide vaccinations to children in their homes to serve families that may encounter challenges in obtaining vaccinations for their children at clinics or community locations.
- Provider support:** support vaccine administration through resources such as free or reduced-cost supplies, technical assistance, and/or additional staff.

### Methods and Limitations

#### Methods

- AIM conducted feasibility, policy, and economic analyses to assess the five promising practices.
  - The feasibility analysis examined the potential for implementing and replicating the five practices in jurisdictions across the country.
  - The policy analysis examined how the policy landscape affected implementation of the five practices.
  - The economic analysis examined costs and benefits associated with implementation of the five practices.
- All analyses used different analytic methods but relied on the same data sources:
  - Information from the grey and white literature review
  - Internal documents and suggestions from CDC project officers' review of COVID-19 immunization progress reports
  - Information from AIM's regional Vaccine Access Cooperative (VAC) meetings
  - Virtual interviews with immunization program managers
- Promising practices were identified from these data sources and were scored and selected with input from AIM subject matter experts (SMEs).
- Analytic methods:
  - The feasibility analysis included data coding and theming in NVivo.
  - The policy analysis included data coding and theming in NVivo and Excel-based tools.
  - The economic analysis included data from the Bureau of Labor Statics (2022) and tested the sensitivity of the practices' benefit cost-ratios and rankings by varying key assumptions.

*\* Additional details on methodology are available in the technical report.*

#### Limitations

- We did not conduct systematic literature reviews for the five promising practices. Limitations for the literature reviews included:
  - Relied heavily on a small set of articles and on articles that were not specific to the pediatric population and COVID-19 vaccination
  - Did not reach data saturation
  - Did not gather information on or from every jurisdiction in the U.S.
- Findings reflect the vaccination landscape during the pandemic and cannot be identically replicated in the current environment.

### Results

**Feasibility key points** = Data indicate that the practice requires a high level of resources and is complex to implement. = Data indicate that the practice requires a low level of resources and is not complex to implement.

	Start up	Scale	Sustain	
Practice 1: Targeted outreach				<ul style="list-style-type: none"> <li><b>Resources:</b> High level to start up, but relatively low level to scale and sustain. For example, a jurisdiction will require a high level of resources to establish technological infrastructure but fewer resources to maintain it.</li> <li><b>Complexity:</b> Establishing technology infrastructure can be complex. For example, jurisdictions may need to establish data sharing agreements with multiple partners and make several upgrades to their technological functionalities.</li> </ul>
Practice 2: Basic needs				<ul style="list-style-type: none"> <li><b>Resources:</b> Low level to start up, scale, and sustain because jurisdictions can partner with organizations that donate basic needs resources, or with existing vaccine programs.</li> <li><b>Complexity:</b> Not complex if a jurisdiction works with partners to implement.</li> </ul>
Practice 3: Mobile clinics				<ul style="list-style-type: none"> <li><b>Resources:</b> High levels to start up, scale, and sustain. As mobile clinics are implemented in more locations and for longer periods of time, more resources (like staff and equipment) are needed.</li> <li><b>Complexity:</b> The level of complexity can remain high as mobile clinics are implemented in more locations and for longer periods of time.</li> </ul>
Practice 4: At-home vaccination				<ul style="list-style-type: none"> <li><b>Resources:</b> High levels to start up, scale, and sustain. The level of resources (such as staff and equipment) needed remains relatively constant, even as more vaccinations at home are given over time.</li> <li><b>Complexity:</b> The level of complexity of the practice does not change as vaccinations are administered in more homes over time.</li> </ul>
Practice 5: Provider support				<ul style="list-style-type: none"> <li><b>Resources:</b> High level to start up and scale because this is a one-time investment for a jurisdiction; there is no additional burden on jurisdictions or providers to sustain the practice.</li> <li><b>Complexity:</b> Can be complex depending on how many providers a jurisdiction is aiming to support and how.</li> </ul>

#### Policy key points

We identified key factors and policies affecting implementation. Major takeaways:

- Organized groups who engage in the vaccine ecosystem can have a strong influence on practice implementation
- Implementation of the targeted outreach practice depends most heavily on federal and state policymaker decisions on funding, data reporting, and data sharing

#### Economic key points

For 3 of 5 promising practices, the benefits outweighed the costs (benefit-cost ratio >1). Ranked by highest cost-benefit ratio:

- 1) Mobile clinics:** highest cost-benefit ratio, but moderate-to-high implementation cost
- 2) Basic needs:** use of community-based locations provides a cost benefit by reaches a greater population
- 3) Targeted outreach:** lowest-cost of the five practice

#### Implementation challenges DURING the COVID-19 public health emergency

- Difficulties hiring and retaining qualified staff
- Complex and evolving guidelines for administering COVID-19 vaccines
- Managing reporting requirements that were new for COVID-19 vaccines

#### Implementation challenges AFTER the COVID-19 public health emergency

- Less government and non-governmental funding
- Low engagement from partners
- Complexities arising from the commercialization of COVID-19 vaccines
- Less vaccine demand

### Promising Practice Implementation

#### Implementation resources

These implementation guides are comprised of chapters that answer the "what," "why," and "how" of implementing these promising practices.

Across these chapters, you will find:

- examples from the field,
- resources and tools,
- considerations for implementation (feasibility, cost, and environmental factors), and
- lessons learned to help implement this promising practice in your own jurisdiction.



Promising Practices to Improve Pediatric COVID-19 Immunization Rates Toolkit

Explore AIM's latest toolkit that features five promising practices that programs can implement to improve immunization rates.




#### Considerations

- Use the implementation guides to:
  - brainstorm and inform future plans,
  - provide the basis for action plans, MOUs, contracts, grant activities, or other proposals to raise or spend funds,
  - obtain buy-in and support from leadership or community partners, and
  - provide information or justification to media or legislators in support of potential activities.
- Re-engage partnerships formed during the pandemic and expand strategies to other vaccines and ages groups.
- Overcome budget and staffing cuts by building on partnerships formed during pandemic (coalitions, basic needs community organizations, and other health department agencies).

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### About

The Association of Immunization Managers (AIM) is a nonprofit membership association comprised of the directors of the 64 federally funded state, territorial, and local public health immunization programs. AIM is dedicated to working with its partners nationwide to reduce, eliminate, or eradicate vaccine-preventable diseases. AIM also works to ensure the success of its members by providing support in their programming interests. Since 1999, AIM has enabled collaboration among immunization managers to effectively control vaccine-preventable diseases and improve immunization coverage in the United States. For more information on AIM, please visit [www.immunizationmanagers.org/](http://www.immunizationmanagers.org/).

Questions? Contact AIM at [info@immunizationmanagers.org](mailto:info@immunizationmanagers.org).