



Providing Operational Support to Help Pediatric Health Care Providers Vaccinate Children Against COVID-19

An Implementation Guide



Association of
Immunization
Managers

Overview

Over the course of the COVID-19 pandemic, the United States has seen diminished vaccine confidence and low COVID-19 vaccination coverage among children (Peck, 2022; Centers for Disease Control and Prevention, 2021). Differential access to services is a barrier to vaccine uptake. Parents' hesitancy about COVID-19 vaccines specifically and vaccines more broadly is another barrier to vaccine uptake (Alferi et al., 2021; Ruiz & Bell, 2022; Albers et al., 2022; Corben & Leask, 2016). Addressing these trends and barriers and increasing the uptake of COVID-19 vaccines for children is essential to protecting public health and advancing health equity.

The Association of Immunization Managers (AIM) identified five promising practices for improving the uptake of COVID-19 vaccination and advancing vaccine equity for children ages 6 months to 11 years.

This guide is one in a series of five guides and tip sheets about promising practices to improve children's uptake of COVID-19 vaccines. Implementation guides and tip sheets can be found on [AIM's website](#):



[Conducting Targeted Outreach to Medicaid Beneficiaries for COVID-19 Vaccines by Linking Immunization Information System and Medicaid Data](#)



[Connecting Opportunities to Vaccinate Children Against COVID-19 with the Chance to Address Basic Needs of Children and Families](#)



[Using Mobile Clinics to Vaccinate Children Against COVID-19 at Community-Based Locations](#)



[Vaccinating Children Against COVID-19 at Home](#)



[Providing Operational Support to Help Pediatric Health Care Providers Vaccinate Children Against COVID-19](#)

The information in these guides comes from participants in focus groups at the 2023 Great Lakes and Frontier/Southwest Vaccine Access Cooperative (VAC) meetings, interviews with immunization program managers and their partners, a literature review, input from AIM staff and [AIM's Legacy Council](#), and Centers for Disease Control and Prevention (CDC) project officers' review of COVID-19 immunization progress reports and suggestions on potential promising practices. Thank you to all who contributed to this work.

Key findings and lessons learned in these guides are largely based on pediatric vaccination strategies implemented during the COVID-19 public health emergency. Some of the practices were implemented with support that was linked to one-time emergency federal funds. Practices were also supported with a mix of state and local government funds and private and philanthropic funds that were available during the public health emergency.

As such, the practices may not be identically replicated moving forward, as the vaccination landscape has changed due to commercialization of COVID-19 vaccines and other factors. However, we anticipate that lessons learned during the public health emergency can inform strategies for COVID-19 vaccination after the public health emergency, vaccinations for all age groups, routine vaccinations, and future pandemic response. Therefore, this guide also provides strategies and tips to implement the practice in the post-pandemic environment.

Implementation context during the public health emergency (PHE) versus post-PHE

During the COVID-19 PHE, the federal government paid for all COVID-19 vaccines. Moving forward after the PHE, both the federal government (through the Vaccines for Children [VFC] program) and health insurance plans will pay for vaccines. Jurisdictions implementing the practices after the PHE will need to consider how to support providers in billing multiple insurers and managing different stocks of vaccines when insurers only pay for certain COVID-19 vaccines.

How to Use This Guide

This guide is comprised of three chapters that answer the “what,” “why,” and “how” of providing operational support to help pediatric health care providers vaccinate children against COVID-19. Across these chapters, you will find examples from the field, resources and tools, considerations, and lessons learned to help implement this promising practice in your own jurisdiction.

Table of Contents

Chapter 1: What?..... pg 5
Chapter 1 provides information on what the promising practice is and who implements it.

Chapter 2: Why? pg 7
Chapter 2 covers why immunization program managers might choose to implement steps to provide support to help pediatric providers vaccinate children against COVID-19.

Chapter 3: How? pg 10
Chapter 3 provides information on which steps and key considerations are needed to implement the promising practice as it pertains to the

- ✓ **feasibility** of the practice to start-up, scale, and sustain the practice over time,
- ✓ **costs** related to implementing the practice in the post-pandemic environment,
- ✓ **environmental factors** related to the policy, environment, and funding landscape.

Appendix pg 19
Tips for Providing Operational Support to Help Pediatric Health Care Providers Vaccinate Children Against COVID-19

References..... pg 21

About AIM

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 and affiliated territories. For more information on AIM, please visit www.immunizationmanagers.org/.

This publication was supported by the Centers for Disease Control and Prevention (CDC) Immunization Services Division (ISD)/Immunization Operations Services Branch (IOSB) of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling \$3 million, with 100 percent funded by Immunization Services Division (ISD)/Immunization Operations Services Branch (IOSB). The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement by, the CDC/ISD/IOSB or the U.S. Government.



Chapter 1: What?

This chapter provides an overview of the practice of providing operational support to help pediatric health care providers vaccinate children against COVID-19.

Summary of Chapter 1: What?

Overview of the promising practice	Provider support consists of local, state, or federal government agencies offering support, free or reduced-cost supplies, technical assistance, and/or additional staff to providers to facilitate COVID-19 vaccine administration to children.
Implementing organizations	Local and state government agencies and organizations can implement this practice in partnership with other organizations.

Overview of the promising practice

Provider support includes supporting vaccination administration through resources such as free or reduced-cost supplies, technical assistance, and/or additional staff. While these supports may be funded through local, state, or federal grants, the support can also be provided through partnerships with other organizations such as community-based organizations, foundations, and universities.

Implementing organizations

Implementing organizations primarily include local and state entities, such as community-based organizations (CBOs), universities, foundations, state immunization programs, and local and state departments of health. These programs or departments might receive federal funding by partnering with organizations that receive grants from federal agencies, such as the CDC.

Example from the Field

Colorado's COVID-19 Primary Care Vaccination Program Helps Providers Cover COVID-19 Vaccination-Related Expenses

Description: The COVID-19 Primary Care Vaccination Program provided grant funding to primary care practices enrolled as COVID-19 vaccination providers to cover costs related to acquiring and reporting on COVID-19 vaccinations.

Contacts: See the AIM [Immunization Program Directory](#)

Goal: To increase engagement and enrollment of primary care providers in Colorado's COVID-19 vaccination strategy by providing financial support to community-based organizations and health care service providers.

Approach: The COVID-19 Primary Care Vaccination Program gave out over \$60 million in grant funding to primary care practices that applied to enroll or were already enrolled as COVID-19 vaccination providers. The program was funded by the Colorado Department of Public Health and administered by the Colorado Health Institute. To receive funds, clinical sites had to receive approval from the Colorado Department of Public Health and Environment to be COVID-19 vaccine providers and order COVID-19 vaccination doses. Clinical sites that were not yet approved as enrolled COVID-19 vaccine providers before the start of the grant program were eligible for \$30,000 and clinical sites that were already enrolled as COVID-19 vaccine providers at the time of application were eligible for \$25,000. Practices could be compensated for expenses related to acquiring and reporting on COVID-19 vaccines, such as personnel, training and development, infrastructure, technology, supplies, and indirect costs. Available compensation for expenses depended on the size of the clinical site, with total funding available ranging from \$60,000 for sites with 1-3 providers, to \$120,000 for sites with 9+ providers.

Lessons learned:

- Form partnerships with state government departments and nonprofits, such as the Colorado Health Institute, to fund and administer COVID-19 vaccination programs.

Resource: The Colorado Department of Public Health and Environment held a [webinar](#) summarizing the program and its requirements and linking to the program application for providers.



Chapter 2: Why?

This chapter reviews the benefits of providing operational support to help providers vaccinate children in your jurisdiction.

Summary of Chapter 2: Why?

Why might my jurisdiction implement this promising practice?

Bolster providers' staff capacity to provide vaccine counseling and COVID-19 vaccinations.

Improve providers' ability to order, stock, and administer COVID-19 vaccines.

Improve health and reduce costs for families.

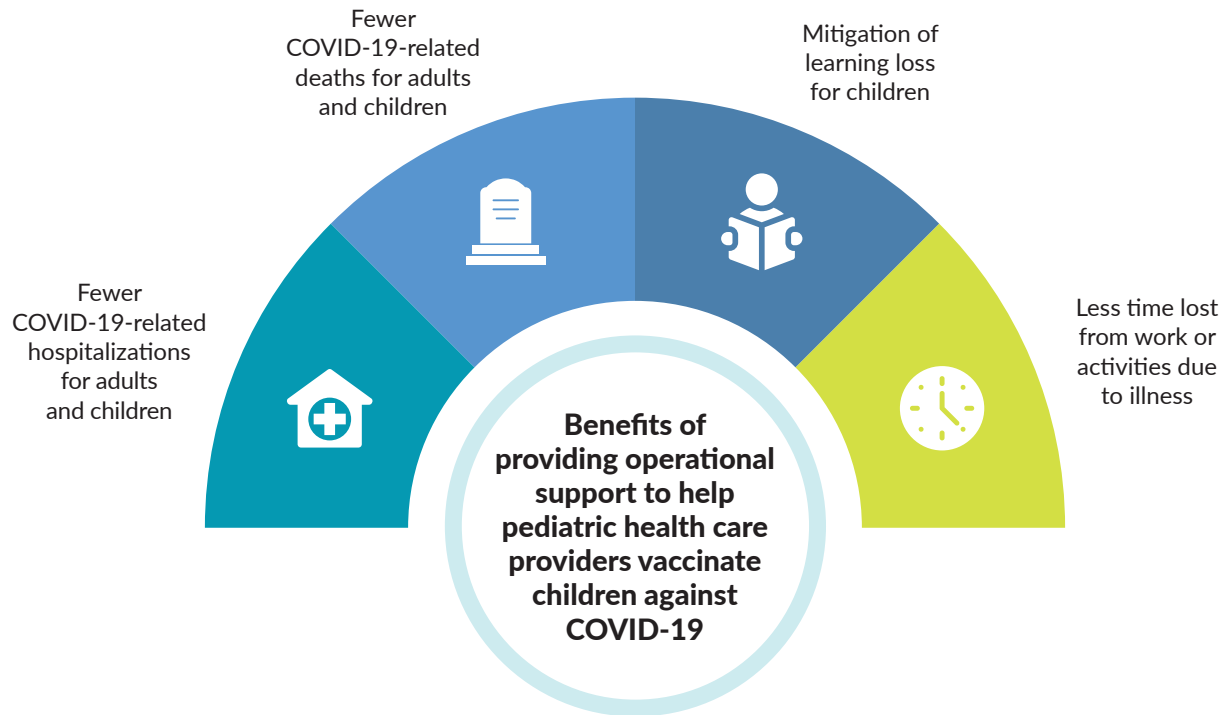
Why might my jurisdiction implement this promising practice?

Bolster providers' staff capacity to provide vaccine counseling and COVID-19 vaccinations. When medical practices are provided additional funding to offset the cost of providing COVID-19 vaccinations to children, practices can expand their provided services. This increases vaccine access, supports providers who may be experiencing burnout, and helps to ensure medical practices remain viable.

Improve providers' ability to order, stock, and administer COVID-19 vaccines. Provider support programs can fund initiatives to improve vaccination demand, staff time to implement and enhance workflows to learn about, order, and administer vaccines, and needed vaccine storage equipment. These investments in staff, workflows, and equipment can reduce the risk of vaccine loss and the financial burden of administering COVID-19 vaccines on providers.

Improve health and reduce costs for families. Implementing provider support programs can help jurisdictions save money by reducing sickness and death from COVID-19. See the figure below for an overview of the promising practice's benefits to families and communities.

Implementing provider supports can lead to better health and cost savings



Promising Practices to Improve Pediatric COVID-19 Immunization Rates Toolkit

Find more resources, including tip sheets and slide decks, to implement mobile clinics and other strategies to improve vaccination rates



Association of
Immunization
Managers

Example from the Field



California's KidsVaxGrant Program Encouraged Pediatricians and Other Vaccines for Children Providers to Give COVID-19 Vaccinations

Description: The KidsVaxGrant program provided infrastructure support for providers to offer COVID-19 vaccines and track vaccinations in the electronic health record.

Contacts: See the AIM [Immunization Program Directory](#)

Goal: To encourage VFC and other pediatric providers to enroll as COVID-19 vaccine providers and address low vaccination rates across California.

Approach: Pediatric providers outside large health systems could apply for \$10,000 grants to support their practice in providing COVID-19 vaccinations to children. Guidelines allowed grant recipients to use funds in a variety of ways to best serve the recipient's practice, such as funding staff, vaccine storage equipment, and expanded office hours. The department partnered with Physicians for Healthy California to administer the grant program and created an application that allowed Physicians for Healthy California to verify providers' enrollment as COVID-19 vaccine providers. Providers could use the application to log their plans for their grant funds and associated costs before funds were spent. About \$45 million was available for KidsVaxGrant and CalVaxGrant, an earlier iteration of the grant program.

Lessons learned:

- Reduce the administrative burden of applying and reporting for the grants to increase providers' uptake of similar grant programs.
- Leverage relationships with existing partner networks, professional organizations, and physician representatives to promote and improve uptake of provider support programs.
- Seek financial support from the state and logistical support from partners to help run the program.

Resources: The program developed informational sheets that describe the impact of their program: [KidsVaxGrant - Impact](#).



Chapter 3: How?

This chapter describes ways jurisdictions can provide operational support to help pediatric providers vaccinate children against COVID-19. The chapter also details considerations for implementation and some examples.

Summary of Chapter 3: How?

Step 1: Provide provider support	Jurisdictions can offer funding to providers, which they can use for staffing, technology and infrastructure, supplies and equipment, and/or administrative tasks.
Step 2: Provide equipment	Jurisdictions can purchase equipment or partner with organizations to provide equipment to reduce providers' costs for new equipment.
Step 3: Provide hands-on assistance	Jurisdictions can offer direct assistance with staffing and data entry to assist providers during periods of high vaccine demand.
Steps 4: Provide technical assistance as needed	Jurisdictions can help providers through non-financial assistance as needed, such as synthesizing and disseminating guidance or training providers and staff on new processes.
Step 5: Determine key considerations for implementation	
Feasibility	This practice requires substantial upfront resources when funds are being disbursed to providers but can be implemented with the support of partners and can have a lasting impact without the need to sustain funding for the practice.
Costs	Consider administrative and actual costs upfront.
Environmental factors	Policies authorizing funding, changing vaccination guidelines, and perceived patient demand for vaccines can affect the types of support needed or available to providers.
Other resources to implement this practice	See the list of existing resources to support implementation of this practice.

Step 1: Provide provider support

Jurisdictions can support providers by offering funding or partnering with organizations that offer funding in the form of grants supported by state or federal funds. Offering funding to providers allows them to use the resources to best meet their practices' unique needs. Jurisdictions can allow providers to spend grant funding on any of or all of the following categories described in the table below (Colorado Department of Public Health and Environment [CDPHE], n.d.; Mississippi State Department of Health, n.d.). Jurisdictions may note that funds used during the public health emergency may have been tied to emergency federal funding that is no longer available. As such, jurisdictions may need to identify new funding sources.

Staffing <ul style="list-style-type: none">• Hiring new staff• Paying staff overtime	Technology and Infrastructure <ul style="list-style-type: none">• Development of procedures• Information technology upgrades• Modifications for interoperability
Supplies and Equipment <ul style="list-style-type: none">• Vaccine storage• Vaccine handling equipment	Administrative Tasks or Overhead Vaccine Ordering <ul style="list-style-type: none">• Outreach and scheduling• Marketing or promoting services• Reporting• Costs related to providing vaccinations in non-clinical locations (e.g., mileage, internet access, tents, utilities, and medical waste disposal)

Jurisdictions that choose to provide resources to providers may also choose the schedule of when to pay providers. Options include one or more of the following:

- When providers order vaccines
- As a lump sum upon approval of grant application (CDPHE, n.d.)

Step 2: Provide equipment

Jurisdictions can purchase equipment or partner with organizations to provide equipment for providers to help them comply with storage and handling requirements. Equipment such as digital data logger thermometers, vaccine refrigerators, and portable refrigerators/freezers allow providers to capture and track vaccine temperatures and properly store vaccines, reducing the risk of vaccine waste. For example, prior to the COVID-19 pandemic, the [Massachusetts Department of Public Health provided digital data logger thermometers](#) to pediatric providers. The Department of Public Health researched temperature data loggers, tested loggers, and surveyed providers about their preferences before selecting a vendor. After selecting a vendor, pediatric sites pilot tested the loggers before they were rolled out to almost 500 providers. The Maine immunization program also gave pediatric providers digital data logger thermometers (see the Example from the Field box about Maine below).

Step 3: Provide hands-on assistance

Offer hands-on assistance coordinating additional staff, organizing vaccination events, or assisting with data entry. Staffing shortages and data-reporting requirements might hinder providers' ability to provide vaccinations, especially during periods of high vaccine demand. Jurisdictions can help providers by coordinating additional staff or vaccination events and/or assisting with data entry. The Example from the Field box below shares how the Maine immunization program assisted providers with COVID-19 vaccination data entry.

Step 4: Provide technical assistance as needed

In addition to financial assistance, provide guidance on proper vaccine storage, handling, and administration, especially when official guidance is frequently updated. Providers might express confusion or opt out of providing COVID-19 vaccines because of the complexity of changing guidelines, formulations, storage requirements, and the shift from federally provided vaccines to those purchased through the commercial market. Providers might feel they do not have time to understand or keep up with complex guidelines. Jurisdictions can alleviate this burden by synthesizing and disseminating guidance on vaccine storage and handling, schedules, and dosing (see the Example from the Field box about Maine below) and providing training on proper vaccine storage and handling.

Example from the Field



The Maine Immunization Program Supported Providers During the Pandemic

Description: The Maine immunization program used CDC funding that was available during the pandemic to provide equipment, data entry support, and technical assistance to providers during the COVID-19 pandemic.

Contacts: See the AIM [Immunization Program Directory](#)

Goal: To support providers to meet vaccine storage requirements, enter data into the immunization information system in a timely manner, and understand COVID-19 vaccination recommendations.

Approach: During the pandemic, the Maine immunization program helped providers, including pediatric and other VFC providers, meet vaccine storage requirements by giving out digital data logger thermometers. Immunization program staff conducted research to determine digital data logger thermometers that had capabilities to support uploading data via Bluetooth and could work for long-term use. These loggers were shipped directly to providers. Each month, Maine immunization program staff visited providers to check that they were adhering to storage and handling requirements and answered questions about the loggers and requirements. The Maine immunization program also helped providers meet data entry requirements. To do this, Maine immunization program staff assisted several provider organizations for at least three weeks by entering data into the immunization information system. Finally, the Maine immunization program offered technical assistance to providers, which included synthesizing and disseminating changing CDC recommendations.

Lessons learned:

- Conduct research to determine which digital data logger thermometers have data uploading capabilities.
- Conduct monthly site visits to ensure providers are correctly using digital data logger thermometers.

Resource: The program developed [a PowerPoint slide deck](#) on best practices for installing and using digital data logger thermometers.

Step 5: Determine key considerations for implementation

When jurisdictions are planning to provide operational support to help pediatric health care providers vaccinate children against COVID-19, it is important to consider the: feasibility of the practice to start up, scale, and sustain the practice over time, costs related to implementing the practice in the post-pandemic environment, and environmental factors which include the policy, environment, and funding landscape.

Feasibility

The provider support practice can require substantial upfront resources when funds are being disbursed to providers (start-up) but can have a lasting impact without the need to sustain funding for the practice. For example, the California Department of Public Health, in partnership with Physicians for Healthy California, administered one-time grants of \$10,000 to providers serving pediatric populations who

enrolled in the federal government’s COVID-19 Vaccination Program (see Example from the Field box about California above). Interviewees reported that, after the grant money was disbursed, the county ended the program and providers who participated could continue providing COVID-19 vaccinations at no additional cost to the state. The figure below summarizes the level of resources and complexity required to start up, sustain, and scale the practices, and includes information on how the practice can advance vaccine equity.

	Start up	Scale	Sustain	
Practice 5: Provider support	⊖	⊖	☑	<ul style="list-style-type: none"> • Resources: 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. • Complexity: Can be complex depending on how many providers a jurisdiction is aiming to support and how. • Equity: This practice can advance equity by catering support to providers serving medically underserved communities.

⊖ = Qualitative analysis of literature, interview, and focus group data indicate that the practice requires a high level of resources and is complex to implement.

☑ = Qualitative analysis of literature, interview, and focus group data indicate that the practice requires a low level of resources and is not complex to implement.

Key Partners to Consider When Implementing this Practice

The key to implementing this practice is to identify and engage entities that can help with the planning, promotion, and/or execution of the practice

- Community-based organizations
- [Local departments of health](#)
- Local chapters of professional medical organizations (e.g., [American Academy of Pediatrics](#))

During the public health emergency, resources for this practice may have been linked to one-time emergency federal funds, which may limit or preclude replication of this practice in the future. To feasibly implement this practice in the post-PHE environment, jurisdictions may partner with other organizations, such as community-based organizations, universities, or foundations that can help support the provision of resources or free or reduced cost supplies. Local partners can also provide insight into the focus population’s preferred language and any needs for language translation. Partners may be able to help support the development and dissemination of guidance in the languages and at the reading levels preferred by the target population.

Costs

The COVID-19 public health emergency greatly affected the cost of implementing practices such as providing operational support to help pediatric health care providers vaccinate children against COVID-19. For example, during the COVID-19 pandemic, the federal government paid for most or all COVID-19 vaccines, jurisdictions experienced high staff turnover and increased labor costs, and some needed to make new investments in vaccine infrastructure to meet urgent need and high demand for vaccines. During the COVID-19 PHE, government funding was available that offered a large number of allowances and flexibilities for spending.

In the post-PHE environment, jurisdictions will have less of this type of government funding and will likely need to find new ways to fund practice implementation. For example, a jurisdiction that implemented a practice during the public health emergency only using government funding might, moving forward, implement the practice with a mix of government funding, philanthropic funding, and in-kind donations.

Cost categories

Below are categories of costs immunization program managers may consider as they are calculating the cost of the promising practice for their own jurisdiction. This does not include the cost of vaccine, staff time for vaccine administration, and vaccine storage and handling, as we assume providers would absorb these costs.

1. Program administration
2. Grants
3. Developing request for applications (RFA) and managing grants
4. Outreach

The tables that follow provide considerations and factors that affect cost for each category.

Program administration

Costs may include: salaries for program director/or managers to oversee and report on the program

Considerations	Factors that affect cost
<ul style="list-style-type: none">? How many managers will you need based on the size of your program?? What is the current demand for qualified staff?	<ul style="list-style-type: none">• Hourly rates for staff time will vary by jurisdiction.• The Bureau of Labor Statistics estimates the salary of a manager in the United States to be approximately \$62.50/hour, or \$93.75/hour when accounting for fringe benefits (BLS, 2022). Rates may be higher during periods of increased demand.

Grants

Costs may include: the number of grants, award amount per grant

Considerations	Factors that affect cost
? What funds are available for disbursement?	<ul style="list-style-type: none">• The number of providers that receive awards.• The amount of funds awarded per grant.

Developing request for applications (RFA) and managing grants

Costs may include: developing the RFA, recruiting providers, reviewing applications, and managing the grant after award

Considerations	Factors that affect cost
? What is your jurisdiction's current capacity for developing RFAs?	<ul style="list-style-type: none">• The number of providers that are recruited will vary by jurisdiction.
? What is your jurisdiction's current capacity for reviewing applications and managing grants?	<ul style="list-style-type: none">• Access to pre-existing or boilerplate RFA language that can be adapted for future grants can save costs.• Experience of staff in reviewing applications and managing grants.

Outreach

Costs may include: costs of advertising or promoting the grant opportunity

Considerations	Factors that affect cost
? Does your jurisdiction currently have enough staff to conduct outreach?	<ul style="list-style-type: none">• Cost of advertising the grant opportunity will vary by method and jurisdiction.
? If not, are there partnerships your jurisdiction could leverage to support outreach efforts?	

How much would it cost to implement this practice in your jurisdiction?

AIM has hypothetical examples available for jurisdictions to use as a starting point to calculate the potential costs to implement this practice. Actual expenses for your immunization program will vary widely based on program specifics and if/how you engage with vaccine purchase and administration. Find the examples and the detailed technical economic analysis in the Evaluation of Five Promising Practices Used During the COVID-19 Public Health Emergency to Improve Pediatric COVID-19 Immunization Rates technical report (available in the [Promising Practices to Improve Pediatric COVID-19 Immunization Rates Toolkit](#)).

Environmental factors

Jurisdictions working to reduce operational barriers to support pediatric health care providers in vaccinating children against COVID-19 will need to navigate environmental factors, including policies and funding, which can help or challenge the implementation of the practice. The table below provides examples of factors that organizations may consider in implementing this promising practice.

Policy or environmental factor	Questions for implementers to consider	Example(s) of policy or environmental factor affecting the practice	Action steps
Policies related to federal and state funding to support pediatric health care providers in vaccine administration	<ul style="list-style-type: none"> • What federal and state funding opportunities can we leverage to cover overhead costs or the cost of supplies associated with providing COVID-19 vaccinations to children? • How can we create and promote opportunities for providers to use state or federal funding to support their COVID-19 vaccination efforts for children? 	<ul style="list-style-type: none"> • The Colorado Department of Public Health & Environment funded the COVID-19 Primary Care Vaccination Program, which provided over \$60 million in grant funding to primary care practices that applied to enroll as a COVID-19 vaccination provider to cover expenses related to acquiring, administering, and reporting on COVID-19 vaccines. 	<ul style="list-style-type: none"> ○ Engage state lawmakers through education to support pediatric health care providers in vaccine administration (see AIM's Immunization Program Policy Resource Guide).
Changing COVID-19 vaccination recommendations	<ul style="list-style-type: none"> • How can we develop processes to track and effectively communicate the CDC recommendations on COVID-19 vaccinations for children? • What supports can we provide so providers are not overwhelmed by changing recommendations? 	<ul style="list-style-type: none"> • The Michigan Department of Health and Human Services' education team synthesized federal and state recommendations and shared them with providers. 	<ul style="list-style-type: none"> ○ Develop processes to track and efficiently communicate the CDC's recommendations on COVID-19 vaccinations for children. ○ Consult this webpage from the CDC on training and education for providers. It contains resources that you can use to support providers in understanding COVID-19 vaccination guidelines.
Providers' perceptions of their patient populations' demand for COVID-19 vaccines, which can affect their interest and willingness to seek support	<ul style="list-style-type: none"> • What are providers' perceptions of their patient populations' demand for COVID-19 vaccines in our jurisdiction? • How can we support providers in seeing COVID-19 vaccination for children as a priority and in obtaining operational support to administer vaccines? 	<ul style="list-style-type: none"> • The California Department of Health indicated that some providers were not interested in obtaining support to vaccinate children against COVID-19 because of perceived low demand for COVID-19 vaccination for children. Providers believed that families thought the vaccine was unnecessary, ineffective, or unsafe. 	<ul style="list-style-type: none"> ○ Consult this webpage from the CDC, which contains resources that providers can share with COVID-19 vaccine recipients who want more information about the vaccines.

Other resources to implement this practice

Below are resources for providing operational support to help pediatric health care providers vaccinate children against COVID-19:

AIM

- **[Promising Practices to Improve Pediatric COVID-19 Immunization Rates Toolkit](#)**: In this toolkit, find more resources, including tip sheets and slide decks, to implement five promising strategies to improve vaccination rates.
- **[COVID-19 Resource Guide](#)**: This guide compiles existing communications messaging and materials that you can use to support immunization program outreach.
- **[Evaluation of Five Promising Practices Used During the COVID-19 Public Health Emergency to Improve Pediatric COVID-19 Immunization Rates Technical Report](#)** (available in the [Promising Practices to Improve Pediatric COVID-19 Immunization Rates Toolkit](#)): This technical report includes detailed information about this study, including feasibility, policy, and costs analyses of each practice.
- **[Immunization Program Policy Toolkit](#)**: This toolkit is designed to equip immunization programs with the tools and information necessary to appropriately and effectively engage with elected officials.

CDC

- **[Provider Education Resources](#)**: This page contains job aids and toolkits for clinician offices.
- **[VFC Operations Guide](#)**: This guide reflects VFC program policies, processes, and requirements.
- **[VFC Vaccine Price List](#)**: This website provides vaccine contract prices and lists the private sector vaccine prices for general information.

Other

- **[Centers for Medicare & Medicaid Services Toolkit of Vaccine Coverage and Administration for Medicaid and Children's Health Insurance Program Individuals](#)**: This vaccine toolkit equips states with the tools necessary to meet the needs of people with Medicaid and the Children's Health Insurance Program (CHIP) coverage. The kit helps states understand coverage, cost-sharing, and payment for vaccines, including vaccines administered as part of the Inflation Reduction Act (IRA) under Medicaid, CHIP, and the Basic Health Program (BHP).

Appendix: Tips for Providing Operational Support to Help Pediatric Health Care Providers Vaccinate Children Against COVID-19



When implementing programs that support providers, jurisdictions can consider different types of support strategies, such as offering operational assistance, equipment, hands-on assistance, or other technical assistance.



Provide provider support

- Develop relationships with partners who can provide resources to support providers.
- Offer funding to providers to allow them to use the resources to best meet their practices' unique needs.



Provide equipment

- Purchase equipment or partner with organizations to provide equipment for providers to help them comply with storage and handling requirements.



Provide hands-on assistance during periods of high vaccine demand

- Coordinate additional staff to assist providers.
- Organize vaccination events to help providers meet high demand in their communities.
- Provide staff to assist with data entry.

During the COVID-19 public health emergency (PHE), government funding was available that offered a large number of allowances and flexibilities for spending. In the post-PHE environment, jurisdictions will have less of this type of government funding and will likely need to find new ways to fund practice implementation. For example, a jurisdiction that implemented a practice during the public health emergency only using government funding might, moving forward, implement the practice with a mix of government funding, philanthropic funding, and in-kind donations.



Provide technical assistance as needed

- Synthesize and disseminate guidance to keep providers up to date on vaccine storage and handling requirements and formulations, especially when official guidance is frequently updated.
- Train providers, especially those who are new to vaccinating or vaccinating children, on proper storage, handling, administration, and workflows.



Consider the cost and feasibility to start up, scale, and sustain the practice

- Understand expenses will vary widely based on jurisdiction specifics and use of existing staff, infrastructure, funding support, and partnerships.
- Mitigate costs by forming partnerships with organizations, such as community-based organizations, foundations, and universities, to help support the provision of resources or free or reduced cost supplies.

References

- Albers, A. N., Thaker, J., & Newcomer, S. R. (2022). Barriers to and facilitators of early childhood immunization in rural areas of the United States: A systematic review of the literature. *Preventive Medicine Reports*, 27. <https://pubmed.ncbi.nlm.nih.gov/35656229/>
- Alferi, N. L., Kusma, J. D., Heard-Garris, N., Davis, M. M., Golbeck, E., Barrera, L., & Macy, M. L. (2021). Parental COVID-19 vaccine hesitancy for children: vulnerability in an urban hotspot. *BMC Public Health*, 21. <https://link.springer.com/article/10.1186/s12889-021-11725-5>
- Centers for Disease Control and Prevention. (2021). *COVID-19 vaccination coverage and vaccine confidence among children*. <https://www.cdc.gov/vaccines/imz-managers/coverage/covidvaxview/interactive/children.html>
- Colorado Department of Public Health and Environment. (n.d.). *Program guidelines*. https://drive.google.com/file/d/1-flrbfmEQpA-G3_A5Js2G-M-STDTqOU6/view
- Corben, P., & Leask, J. (2016). To close the childhood immunization gap, we need a richer understanding of parents' decision-making. *Human Vaccines and Immunotherapeutics*, 12(12). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5215493/>
- Mississippi State Department of Health. (n.d.). *COVID-19 Community Vaccination Program*. https://web.archive.org/web/20230505134431/https://msdh.ms.gov/msdhsite/_static/resources/14907.pdf
- Peck, J. L. (2022). Responding to increasing parental vaccine hesitancy. *Contemporary Pediatrics*. <https://www.contemporarypediatrics.com/view/responding-to-increasing-parental-vaccine-hesitancy>
- Ruiz, J. B., & Bell, R. A. (2022). Parental COVID-19 vaccine hesitancy in the United States. *Public Health Reports*, 137(6). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9574308/>
- U.S. Bureau of Labor Statistics. (2022). *May 2021 national occupational employment and wage estimates: United States*. https://www.bls.gov/oes/2021/may/oes_nat.htm