

# Understanding Provider and Pharmacist Experiences and Perspectives toward Pediatric COVID-19 Vaccination

*Authors: AIM team: Michelle Fiscus, MD FAAP, Katy Gore, MPH, and Claire Hannan, MPH*

*Mathematica team: Alyssa Crawford, MSPH, CPH, Lindsay Glassman, PhD, MA, MPhil, Alex Kobrin, MA, and Isabel Musse, PhD, MS, with assistance from Emily Crabtree, MPH, Steven Hossen, Eleane Lema, Emmanuel Saint-Phard, MPH, Amanda Tran, Joe Zickafoose, MD, MS, John Kennedy, MA, and Colleen Fitts*

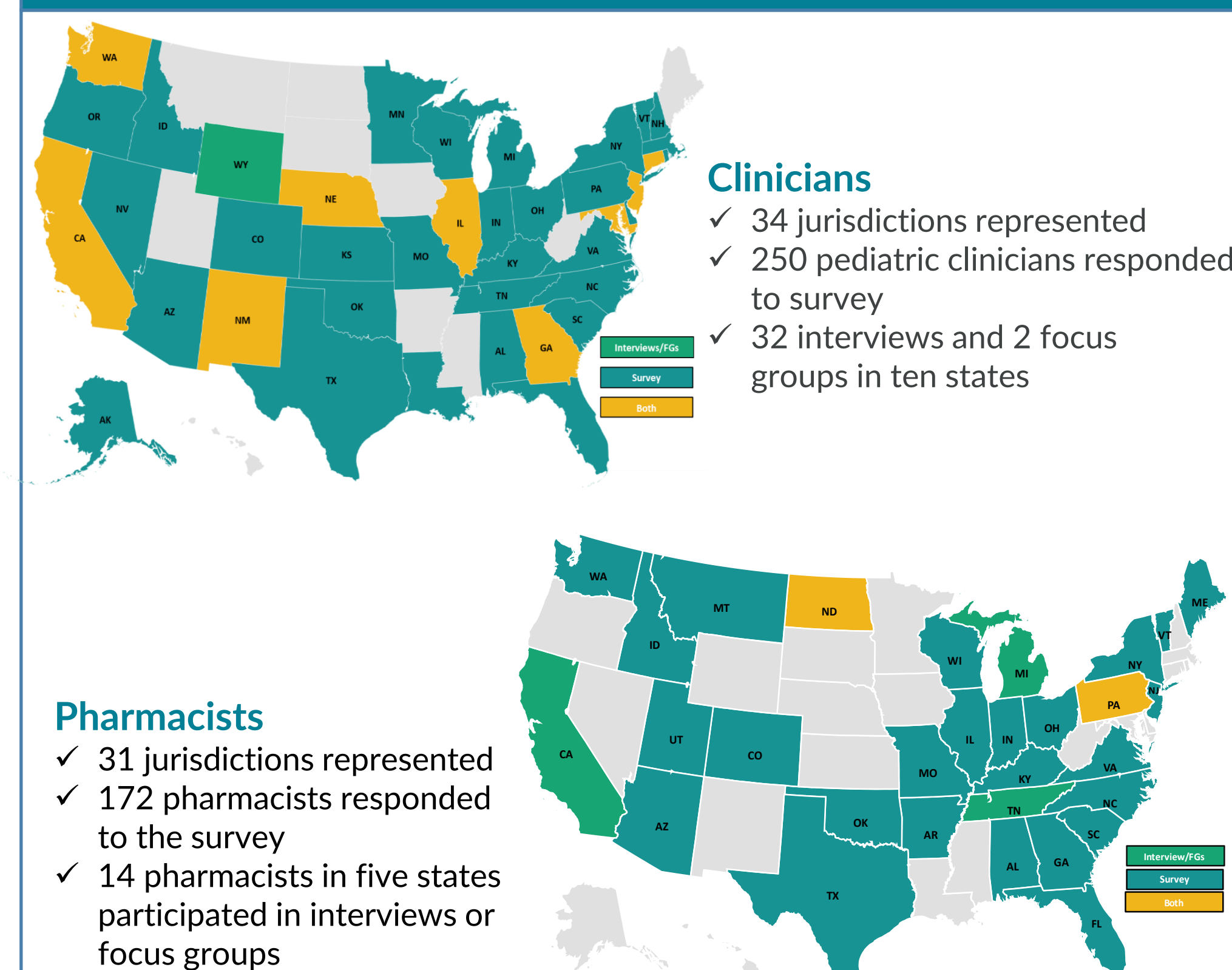
## Background

- AIM, in collaboration with Mathematica and CDC, collected information on clinician and pharmacist experiences and perspectives around:
  - Offering pediatric COVID-19 vaccines
  - The commercialization of COVID-19 vaccines and the potential impact upon their decision to offer pediatric COVID-19 vaccines and participate in the VFC program
- Collected data between June-September 2023, prior to commercialization
- Findings may inform immunization program decisions and practices to protect access to pediatric COVID-19 immunization services

## Methods

- Design**
  - Reviewed background research
  - Developed separate survey and interview/focus group data collection instruments and recruitment/sampling approaches for pediatric clinicians and pharmacists
- Recruitment**
  - Recruited pediatric clinicians through AAP's Section on Administration and Practice Management (SOAPM)
  - Recruited other clinicians identified through vaccineplanner.org via email and phone calls
  - Recruited pharmacists via email through state pharmacist associations
- Data collection**
  - Collected data through surveys and interviews/focus groups with clinicians and pharmacists between June 28, 2023, and September 12, 2023
  - Collected up to 300 survey responses and up to 30 participants for each set of interviews/focus groups
  - Respondents received Amazon e-gift cards
- Analysis**
  - Frequency/descriptive statistics of survey data
  - Thematic analysis of interview transcripts
  - Compared findings from each data source

## Recruitment



## Results

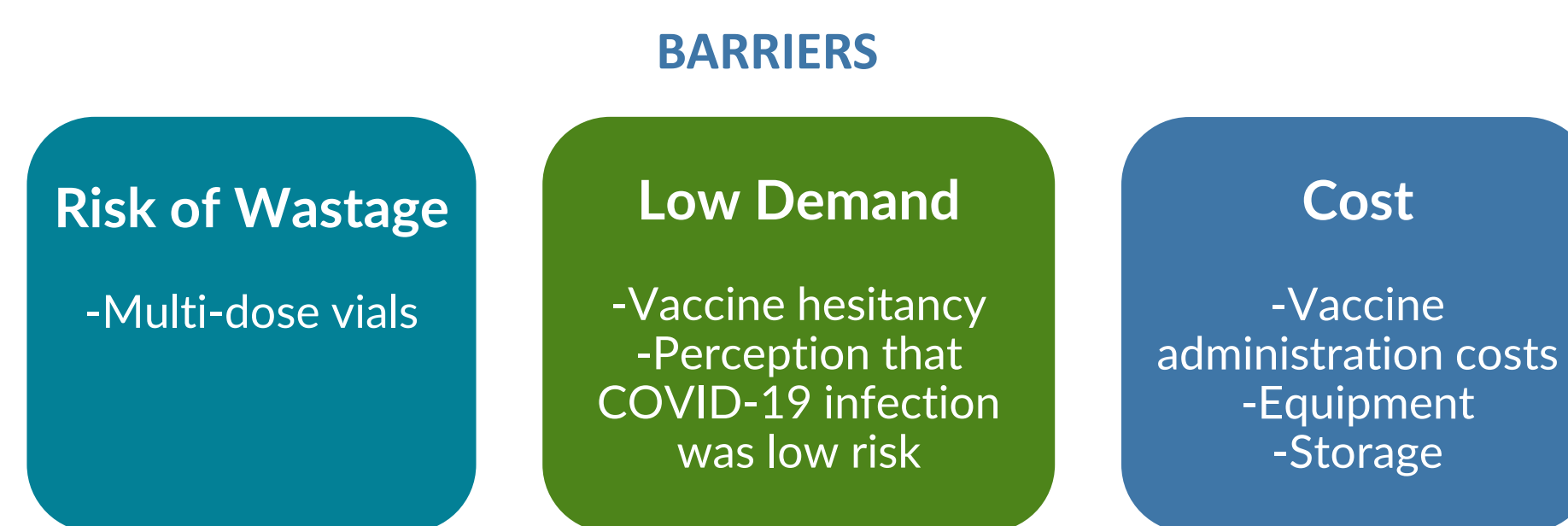
### Experiences with Pediatric COVID-19 Vaccination

#### Clinicians

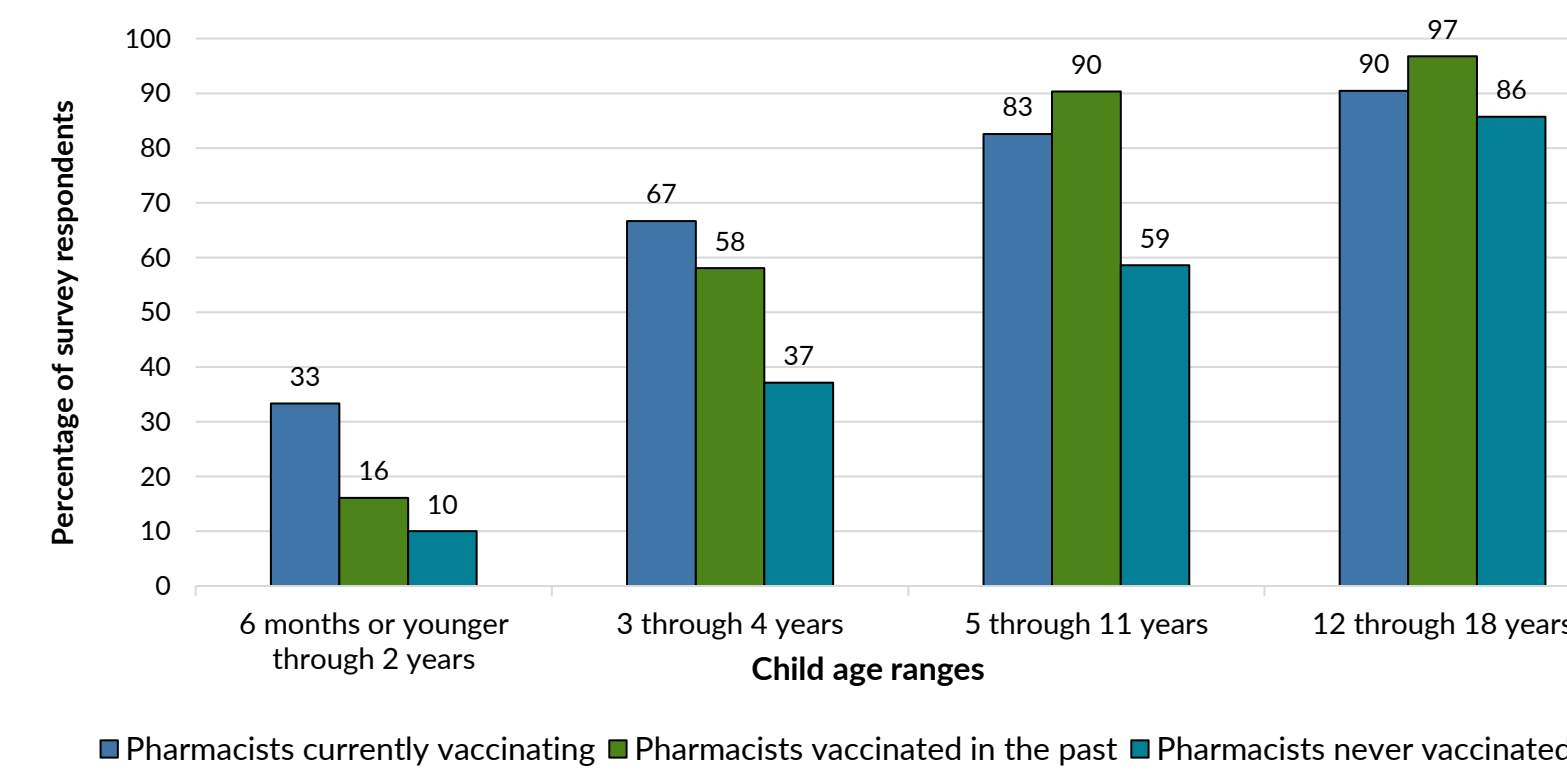
- Of clinicians surveyed:
  - 99% were providing routine vaccines
  - 83% offered pediatric COVID-19 vaccines at the time of data collection
    - 31% were only vaccinating some ages of children

#### Pharmacists

- Of pharmacists surveyed:
  - 75% of the surveyed provided at least some types of pediatric vaccines
  - Willingness to provide pediatric COVID-19 vaccination varied by patient age



#### What ages of children would pharmacists be willing to vaccinate against COVID-19 if permitted by law and pharmacy policy?



### VFC Participation

#### Clinicians

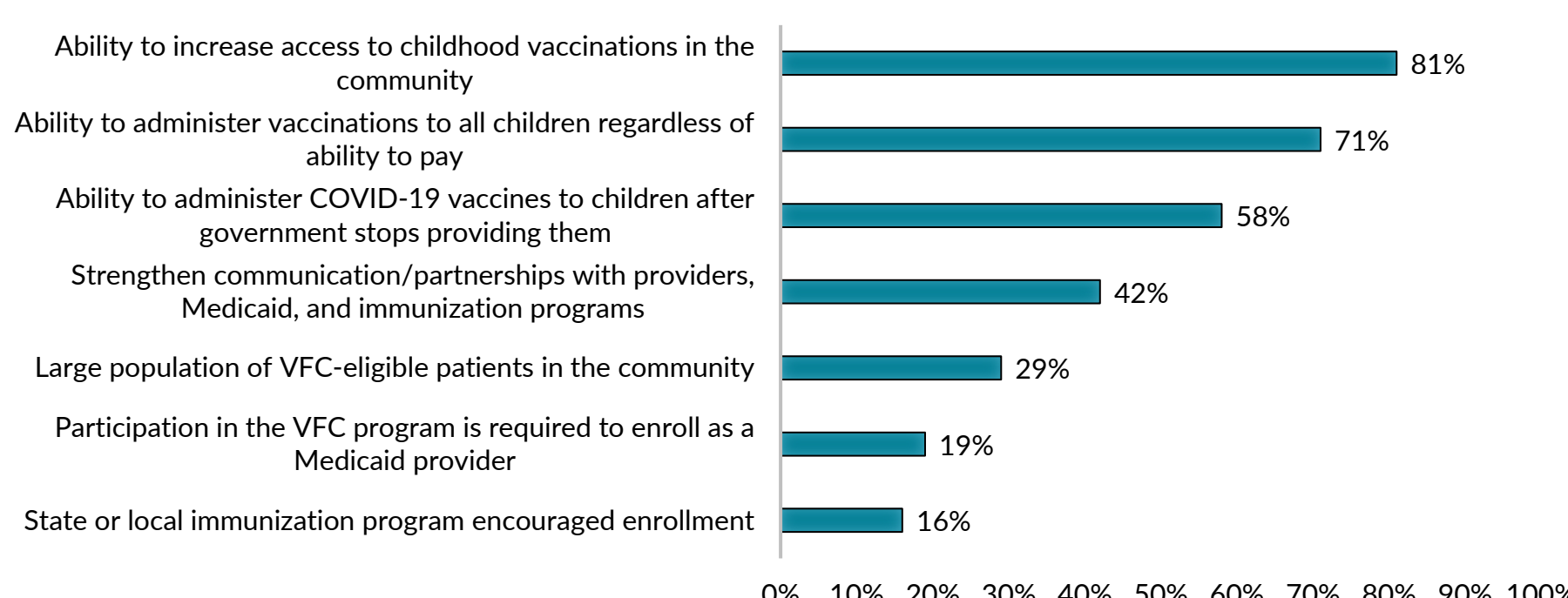
- Participation**
- 85% were participating in the VFC program, many for ten years or longer
  - Most providers are committed to remaining involved in the VFC program, but 17% had considered ending their participation

- Reported Benefits**
- Ability to provide equitable access to vaccines for all patients
  - Not having to pay for VFC vaccines up front
  - Accountability for vaccine record-keeping

- Reported Barriers**
- Vaccine inventory and administration reporting requirements
  - Financial burden of purchasing private vaccine stock\*

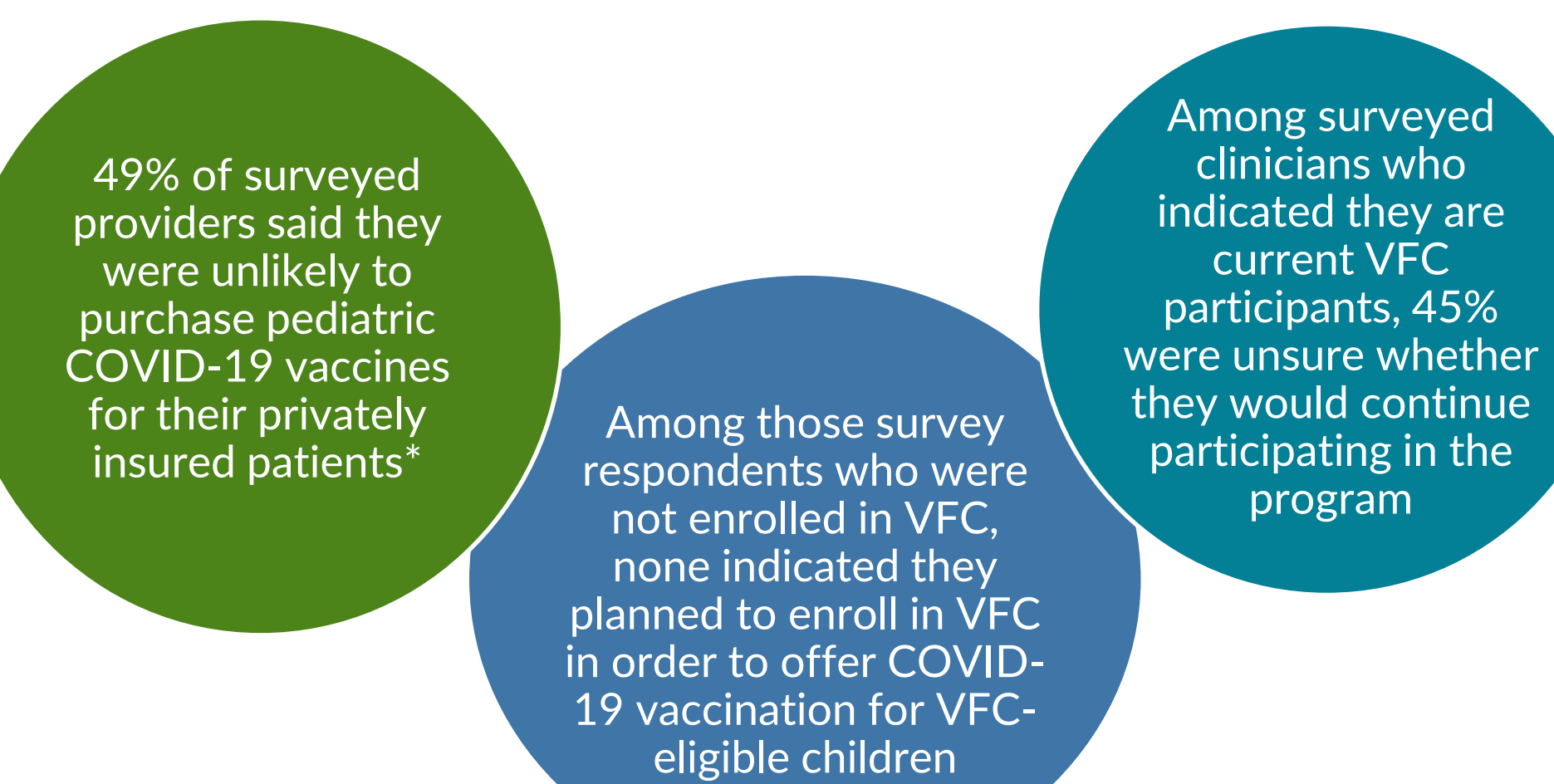
#### Pharmacists

- 14% pharmacists had participated in the VFC program.
- These pharmacist were more likely to partner with other providers, such as community-based health centers, other pharmacies, and school-based clinics, as compared with non-participants.
- 25% of other pharmacies had considered enrolling in the VFC program, citing the following reasons:



### Potential Impact of Commercialization

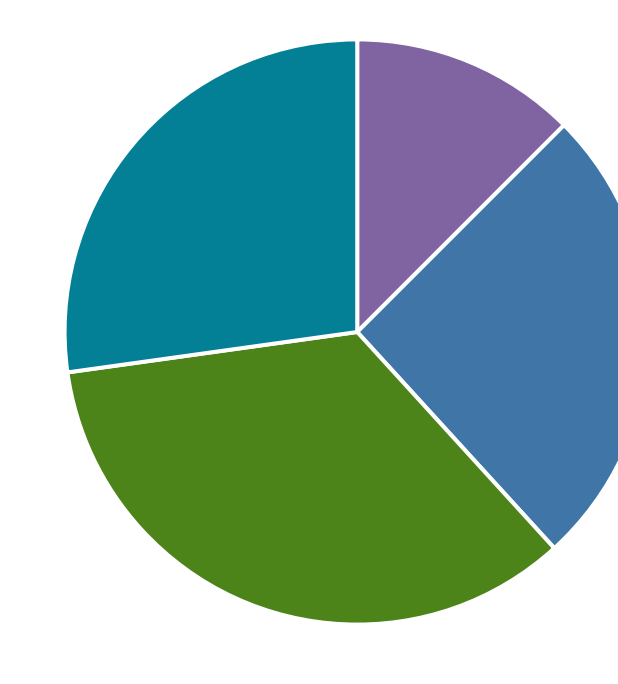
#### Clinicians



#### Pharmacists

Pharmacists' likelihood of purchasing pediatric COVID-19 vaccines after the federal government stops providing the vaccines at no cost

- Very likely (13%)
- Somewhat likely (26%)
- Somewhat unlikely (35%)
- Very unlikely (27%)



Source: Pharmacist Pediatric Vaccination Survey, fielded by AIM and Mathematica in August and September 2023, prior to the commercialization of COVID-19 vaccines (172 total responses). This figure includes 149 respondents who provided an answer to this question; not include 13 who selected "not applicable."

## Conclusions

- Both pediatricians and pharmacists were key partners in the rollout of pediatric COVID-19 vaccines.
- Post-commercialization, some barriers have been addressed, but challenges remain—including low demand and financial concerns.
- Local, state, and federal agencies and their partners have an opportunity to collaborate to educate providers and pharmacists to protect children's access to COVID-19 and other vaccination services.

### Education is key to:

- Helping providers and pharmacists find viable ways to vaccinate children against COVID-19 including through participation in the VFC program
- Driving demand for pediatric COVID-19 vaccination

## Limitations

This report is based on data collected in August and September 2023, before and during the commercialization of COVID-19 vaccines. Some of the results therefore reflect previous guidance and processes and may no longer be relevant. The opinions and experiences of clinical and pharmacy staff that volunteered to participate might differ from those who were unable or unwilling to contribute their perspectives. Recruitment was limited to those who are active in AAP. The sample (particularly for interviews and focus groups) slightly overrepresents VFC program providers and underrepresents non-VFC and former VFC program providers, compared to national VFC program participation trends. The virtual data collection methods might have also been biased against those who do not engage frequently with such technology.

## Acknowledgements

The project described was supported by cooperative agreement number IP17-1703 from the Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services (HHS). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of, nor an endorsement, by CDC, HHS, or the U.S. Government. This report was also reviewed, revised, and includes SME input from CDC staff.

## 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, please visit [www.immunizationmanagers.org](http://www.immunizationmanagers.org) or contact AIM at [info@immunizationmanagers.org](mailto:info@immunizationmanagers.org)

## References

Allen, J. K., Cavus, B., Robinson, M., Rothwell, T., Wright, J. H., and W. Wertz. "Expansion of Community Pharmacist Role in Public Vaccine Delivery: Opportunities and Needs." *Journal of the American Pharmacists Association*, vol. 62, no. 3, 2022, pp. 324-325. <https://doi.org/10.1016/j.jacph.2022.01.002>

Centers for Disease Control and Prevention. "Child Vaccines: How to Find Out More." <https://www.cdc.gov/vaccines/imz/downloads/pdf/child-vaccines-how-to-find-out-more.pdf>, 2022. Accessed September 25, 2023.

Centers for Disease Control and Prevention. "COVID-19 Vaccination Coverage and Vaccine Confidence Among Children." <https://www.cdc.gov/media/releases/2022/s1109-covid-19-vaccination-coverage.html>, 2022.

Centers for Disease Control and Prevention. "COVID-19 Vaccine Confidence." <https://www.cdc.gov/media/releases/2022/s0815-covid-19-vaccine-confidence.html>, 2022.

Centers for Disease Control and Prevention. "The VFC Program: An Update." <https://www.cdc.gov/vaccines/imz/downloads/pdf/2023-08-vfc-program-update.pdf>, 2023.

Centers for Disease Control and Prevention. "Vaccine Coverage and Confidence Among Children." <https://www.cdc.gov/media/releases/2022/s1109-covid-19-vaccination-coverage.html>, 2022.

Centers for Disease Control and Prevention. "Vaccine Coverage and Confidence Among Children." <https://www.cdc.gov/media/releases/2022/s1109-covid-19-vaccination-coverage.html>, 2022.

Centers for Disease Control and Prevention. "Vaccine Coverage and Confidence Among Children." <https://www.cdc.gov/media/releases/2022/s1109-covid-19-vaccination-coverage.html>, 2022.

Centers for Disease Control and Prevention. "Vaccine Coverage and Confidence Among Children." <https://www.cdc.gov/media/releases/2022/s1109-covid-19-vaccination-coverage.html>, 2022.

Centers for Disease Control and Prevention. "Vaccine Coverage and Confidence Among Children." <https://www.cdc.gov/media/releases/2022/s1109-covid-19-vaccination-coverage.html>, 2022.

Centers for Disease Control and Prevention. "Vaccine Coverage and Confidence Among Children." <https://www.cdc.gov/media/releases/2022/s1109-covid-19-vaccination-coverage.html>, 2022.

Centers for Disease Control and Prevention. "Vaccine Coverage and Confidence Among Children." <https://www.cdc.gov/media/releases/2022/s1109-covid-19-vaccination-coverage.html>, 2022.

Centers for Disease Control and Prevention. "Vaccine Coverage and Confidence Among Children." <https://www.cdc.gov/media/releases/2022/s1109-covid-19-vaccination-coverage.html>, 2022.

Centers for Disease Control and Prevention. "Vaccine Coverage and Confidence Among Children." <https://www.cdc.gov/media/releases/2022/s1109-covid-19-vaccination-coverage.html>, 2022.

\*The VFC program allowed a one-time grace period (recently extended through August 31, 2025) to give providers extra time to purchase private vaccine stock in accordance with the program's requirements. Given the timing and wording of this survey, it is unclear how the requirement to purchase private stock COVID-19 vaccines will impact VFC program participation.