School-Located Vaccination Clinics for COVID-19 and Influenza

INSIGHTS FROM VIRTUAL ROUNDTABLE DISCUSSIONS WITH SCHOOL NURSES AND STATE IMMUNIZATION PROGRAM MANAGERS

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Roundtable Report





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The Association of Immunization Managers (AIM) and the National Association of School Nurses (NASN) contracted with Mathematica to conduct an environmental scan and virtual roundtables to assess the landscape of school-located vaccine clinics (SLVs) held in AIM and NASN member jurisdictions since August 2019. The goal of this work is to provide critical insights into how to strengthen and sustain SLVs to promote public health and respond to infectious disease threats.

We would also like to thank the state immunization program managers, staff, and school nurses who participated in the roundtables and provided valuable information and resources to help inform this report.



This report was prepared with a complementary report summarizing findings from the environmental scan and taken together, the reports describe various models of SLVs implemented, successes and challenges, and opportunities to continue supporting SLVs to promote influenza, COVID-19, and childhood vaccinations.

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Introduction

Using school-located vaccination clinics (SLVs) as part of an established strategy for increasing influenza vaccination rates in schools can have a positive impact on the health of a broader community. Because of the public health emergency, many communities are expanding their prior focus on influenza and other routine immunizations to include COVID-19 vaccines. SLVs provide opportunities to deliver each of these types of vaccines.

Mathematica contracted with the Association of Immunization Managers (AIM) and their partner, the National Association of School Nurses (NASN), to conduct five virtual roundtables with 30 school nurses and state-level immunization program manager participants. Participants included members of AIM, NASN, or contracted partners to an SLV. Participants represented a diversity of perspectives including elementary, middle, and high schools from urban and rural geographies. Participants had either experience or interest in planning and/or implementing a school-located vaccination clinic for influenza, COVID-19, or both. See Appendix A for more information on the methodology.

The objective of the roundtables was to build upon our findings from the environmental scan of SLV models to further explore key challenges and opportunities for planning and implementing SLVs. During the roundtables we solicited information about participants' experiences planning and implementing SLVs for COVID-19 and influenza, factors that influence SLV success, and resources to implement an SLV.

While COVID-19 vaccines have been a recent focus for SLVs, many districts have longer histories of providing influenza and

Focus group participants

We interviewed 15 immunization program managers and 15 school nurses from across the United States. The geographic representation included:

- Mid-Atlantic (3)
- Midwest (9)
- Mountain/Central (5)
- New England (3)
- Pacific (3)
- Southeast (7)

other required vaccines for staff and students through SLVs. For example, some participants shared that they host annual back-to-school clinics where students can receive required immunizations, or host annual influenza vaccine clinics for school staff and spouses. Several participants had extensive experience administering influenza vaccines in SLVs, including one SLV that began offering these in 2006. Participants felt that the influenza SLVs were successful overall. Some participants who offered influenza

vaccines in SLVs did so for school staff and spouses only and didn't offer these to parents or the broader community. A few participants shared that students were also invited to receive an annual influenza vaccine or had previously provided H1N1 vaccines for students. Participants who did not offer influenza vaccines to students expressed interest in doing so in the future, either as standalone SLVs or in conjunction with COVID-19 vaccines.

Because the public health emergency has shifted national attention and public health resources to mitigating COVID-19, much of the content shared by participants during the roundtables and summarized in this document focuses on SLVs that offered COVID-19 vaccines. Regardless, some of the insights that participants shared about providing influenza or COVID-19 vaccines at SLVs can generally inform strategies for implementing SLVs. This memo shares insights about these lessons learned, the impact participants hoped to achieve through SLVs, funding sources, and the importance of partners and the roles they play. We also surface some challenges related to data sharing, promoting SLVs, and vaccine hesitancy; and introduce supports SLV planners may consider for overcoming these challenges.

Insights from Roundtable Participants

Desired Impacts of SLVs

Participants began each session by articulating the impacts they hoped their SLVs would have on the school population and broader community by offering COVID-19 and/or influenza vaccines. Most of the participants' desired impacts fell under one of four categories:

- 1. Increase vaccination rates among students and staff. Participants hoped to increase overall rates of vaccinations, particularly for COVID-19 and influenza, and to increase compliance with state health mandated requirements.
- 2. Improve population health outcomes. Participants hoped that SLVs would decrease the number of COVID cases in their schools and communities, decrease absenteeism among students, lessen the number of new cases in the community, and decrease COVID-19 variants.
- **3. Influence public perception of vaccines.** Through SLVs, many participants aimed to promote positive immunization messages, demonstrate that schools are supportive of vaccines, and increase confidence in the COVID-19 vaccine.
- 4. Increase access to and equity around vaccines. Participants shared that SLVs can be an opportunity to offer influenza, COVID-19, and routine childhood vaccines not only to students, but to qualifying family members, particularly those who face barriers to care such as a lack of health insurance or medical home.

Funding and Resources

Funding required to operate SLVs is primarily for administrative costs because the costs of obtaining vaccines are often covered by programs such as <u>Vaccines for Children</u> (VFC) through the Centers for Disease Control and Prevention (CDC). Although public health programs allow SLVs to obtain some vaccines at little to no cost, the funds needed to plan and operate an SLV often exceed districts' budgets. For this reason, states used federal, state, and local funding sources for SLVs and relied on partnerships to supplement school district resources. With the VFC program, CDC purchases vaccines directly from manufacturers and distributes them to grantees, such as state or local health departments. These agencies then distribute vaccines at no charge to eligible clinics. This allows SLVs to allocate funds from partners towards other components of operating SLVs.

In addition to CDC, the Federal Emergency Management Agency (FEMA) has supported SLVs by providing funds to local and state health departments to encourage COVID-19 vaccines. These funds can be used for engaging communities, disseminating information about COVID-19 vaccines and availability, and scheduling appointments. One participant used FEMA funding to support a mobile clinic partner who provided high school and middle school vaccines.

Direct and indirect funding for SLVs

- Local and state health departments
- Federal grants (CDC, FEMA)
- Pharmacy partners
- Hospital and health care systems
- School districts

Partners like pharmacies, hospital systems, and community-based organizations provided supplemental resources to school districts. While not all partners provided direct funding for SLVs, they contributed resources like clinical staff, scheduling support, parental consent support, and vaccine sourcing and storage, each of which reduced burden on school districts and their staff to plan for and provide these resources.

While some schools allocated portions of their budgets to pay staff to administer vaccines, not all schools were able to do so. Participants shared ways that schools operated SLVs while conserving their limited funds. For example, in some districts, health staff and community members volunteered their time to help implement the SLV and administer vaccines, reducing districts' overall costs for the events.

Participants also shared ideas about potential future funding sources as SLVs continue into the 2021-2022 school year. Two participants noted that grants and state-level funding, like the Epidemiology and Laboratory Capacity (ELC) grant in Nevada or the Meningococcal Conjugate Vaccines (MCV4) state funding in Indiana, could be used for

other SLVs. Several mentioned that they are not certain these same funding sources would also be available when the COVID-19 vaccine-eligible population expands to age 12 and younger.

SLVs Use Partners to Plan and Implement Clinics

Engaging with Community Partners to Administer Vaccines

Partnerships are crucial to SLV success, taking pressure off school nurses who face competing demands and often have limited capacity to single-handedly manage an SLV. Roundtable participants shared a variety of partnerships that lend support at different stages of the planning and implementation process. For example, local health departments (LHDs) were often mentioned as a partner that provides funding, staff, and data tracking on doses administered. The environmental scan and roundtables affirmed LHDs are historical partners for influenza SLVs; however, several participants who are nurses mentioned that staffing shortages in LHDs during the COVID-19 pandemic led to delays or challenges in implementing SLVs.

In some cases, pharmacy partners stepped in to provide staffing, storage, and data collection support. For example, as part of a Delaware SLV that partnered with Rite Aid, school staff served as the intermediary between the pharmacy and families, but Rite Aid scheduled appointments through Signup Genius, administered vaccines, and managed vaccine records. Several participants shared that pharmacies provided crucial staffing and administrative support, such as leading the scheduling and parental consent efforts through electronic platforms; managing vaccine logistics such as sourcing and storage; and collecting, monitoring, and uploading data to Immunization Information Services (IIS) on doses administered.

Health care partners such as pediatric hospitals, federally qualified health centers (FQHCs), and a mobile vaccine provider were mentioned as valuable sources of support, given their ability to administer vaccine doses on site. In Michigan, when the health department was no longer able to support an SLV because of the school district's restrictions on communicating about vaccines, the state's immunization program manager was able to send an FQHC partner into the district instead. One participant shared that a health system partner used its billing service to bill insurance for supplies and administration fees, which smoothed reimbursement for SLV costs not covered by the vaccine funding source. Another participant shared that they contracted directly with a mobile clinic and paid them administrative fees, so the partner did not need to collect insurance information from SLV participants.

State immunization programs can bolster school districts' connections with local health departments and other partners. State immunization programs are also a valuable source of support for SLVs, although the type and scale of support that immunization programs provide varies by state. For example, Rhode Island takes a state-level approach to planning, advertising,

and implementing SLVs across its 31 school districts, reducing the need for each district to develop an SLV from the ground up. The state immunization program provides templates for messaging materials that individual districts and their <u>contracted partner</u> can personalize and share with families. A participant from <u>Maryland</u> shared that all SLVs are run by local health departments, and the state provides extra support as needed, such as vaccine supply, additional funding, or clinical support staff through a contract with a partner organization.

Participants also discussed a variety of other potential partners. Some SLVs choose partners based on the unique needs of their populations. For example, tribal health organizations partnered with the state immunization program in Alaska to support vaccine distribution, and the National Guard provided SLV staffing support in Wisconsin when availability among local public health personnel was limited. One participant noted that "partners" can also include families and communities, and that asking for community support of SLVs can be fruitful. "Sometimes just jumping in and giving something a try has great value. Making an ask to folks around you who could support this effort can build more bridges in your community. You might learn that you have partners who've just been waiting to be asked if they can support an effort."

Leveraging Partnerships to Manage Vaccine Supply, Storage, and Distribution

Partners provided vaccine sourcing and logistics, but school health staff needed to be flexible and innovative in managing supply. School districts often relied on a variety of partners for vaccine sourcing, distribution, and storage. Partnerships are important because few school districts have the capacity to accept, store, and redistribute vaccine shipments. Local hospitals, local and state health departments, and pharmacies were frequently mentioned partners in this logistical support role. Among SLVs that collaborated with pharmacies, many shared that pharmacies managed most or all stages of vaccine storage. At least one local health department had cold storage at the facility and brought portable coolers to the SLV. In Alaska, the immunization program manager helped set up a "hub and spoke" model to get vaccines out to providers, working with tribal partners to distribute vaccine doses in villages and rural areas.

While partners often coordinate vaccine sourcing and logistics, participants shared that school nurses actively participate in managing the supply of vaccines during SLVs. For

example, staff at one SLV in Wisconsin partnered with local pharmacies to provide COVID-19 vaccines for staff. They had all staff scheduled for a first dose but had to cancel appointments when the vaccine did not arrive. Nurses worked with pharmacy staff to develop a list of people—generally staff, spouses, relatives, or friends— to call when the vaccine did arrive. Some nurses and school staff also used Google docs as a centralized location to share information about vaccine availability.

Variation in the number of COVID-19 vaccine doses per vial was another factor for school nurses to consider when planning for and distributing vaccine doses during SLVs. Several participants shared that this was a logistical and scheduling challenge, making it difficult to predict the exact number of attendees who could receive a dose during a session. To avoid wasting doses, school nurses often made phone calls, relied on personal connections, or used social media groups to recruit patients if they had extra doses. Our environmental scan noted that allowing walk-ins is one-way SLVs promote equity and school nurses can also use this approach to mitigate waste during SLVs.

Partners Provided Tools and Supported School Staff in Obtaining Parent or Guardian Consent

SLVs implemented with partners, especially pharmacies, appreciated that partners handled the patient registration and consent process with electronic or online platforms. Participants found it helpful when consent forms could be completed and shared electronically, for example, through apps like VaxCare or writeable PDFs that parents could sign and return directly to schools or their partners. PrepMod was also mentioned as a helpful clinic management system for parent consent, scheduling, and data tracking and sharing with IIS. Other participants shared that it is helpful when partners allow parents to give consent by phone. Among SLVs that handled parental consent without a partner, several found it useful to collect consent for both COVID-19 doses on the same form, reducing back-and-forth with parents and increasing completion of the series.

Participants who had experience administering influenza vaccines through SLVs shared that it is helpful to have iPads available for parents to complete consent forms onsite.

Forgoing additional documentation and offering support for completing forms onsite smoothed the consent process for some participants. Regardless of who oversaw parental consent for vaccines, SLV participation was improved when proof of ID was not required in addition to consent, as this could be a deterrent for some families.

Participants also shared that onsite paper consent was easier to obtain when there was a large area for families to fill out paperwork, allowing for physical distancing, and SLV staff on hand to assist with forms. This insight built upon the findings of the environmental scan, which showed that allowing people to fill out paper forms can

encourage access and equity. Some participants shared that parents were more likely to fill out paper forms correctly than electronic forms, but the paper form was more time consuming for both families and SLV staff. Most participants agreed that electronic consent was most efficient, whether given onsite or in advance of the SLV appointment. One participant used iPads to collect electronic consent on site and staff helped families use the iPad if needed.

SLV Operating Hours

Participants identified benefits and challenges both with hosting SLVs while school is in session, as well as operating while school is out of session. Regarding SLVs during the school day, some participants mentioned that teachers and school administration may view pulling students out of class as disruptive during the school day. Others noted that teachers and school administration were concerned about managing children who were crying after they received a vaccine, though one participant noted that the influence of peers helps some children stay resilient. Another participant noted vaccine providers could simply monitor children for side effects of the COVID-19 vaccine rather than asking children if they are experiencing symptoms, because asking children about side effects such as nausea or headache can prompt some students to report these symptoms when they may not be experiencing them. To help facilitate SLVs while school is in session, school nurses suggested coordinating with teachers and administration to establish expectations around when students will be taken out of class. Another participant shared that offering vaccines for students on school days when the students' classes were all virtual was an opportunity for parents to come with students. Many participants emphasized the importance of gaining buy-in from school administration and staff to host a successful SLV, especially during the school day.

Hosting SLVs in conjunction with school events encourages participation.

Some participants also observed challenges and strategies for encouraging SLV participation when school is not in session. Participants noted that it can be challenging for some students and families to have the

time and transportation required to participate in SLVs outside of school hours. One suggested that it can be helpful to offer parents the option of receiving a COVID-19 vaccine at the same time as students, to reduce the number of vaccine appointments for the family. Offering vaccines at pop-up clinics can also be a strategy for increasing SLV participation. Pop-up clinics were often successful at large events or back to school events like registration day, and the environmental scan showed that walk-in and pop-up SLVs increased vaccine access and promoted equity because it removed digital literacy and internet access barriers for some populations. However, participants shared that at times, pop-up clinics found it challenging to predict vaccine supplies and doses when

they offered walk-in appointments. When SLVs asked people to register in advance, vaccination count estimates were usually more accurate.

Some participants hope to encourage SLV participants to receive COVID-19 and influenza vaccines at the same time but noted concerns about the logistics of registering and documenting vaccines in separate systems. For example, one participant shared that SLVs can provide influenza and COVID-19 vaccines in the same location, but when registration and documentation systems for the two vaccines are different, providing both vaccines at the same clinic proves difficult. One participant shared that they thought the electronic registration system they use for gaining consent for and reporting doses of COVID-19 vaccinations cannot be used for influenza vaccines. This requires training staff on two separate systems, which is time-consuming and adds a logistical barrier for SLVs that would like to administer more than one type of vaccine.

Data Sharing and Reporting Vaccines Administered

For school nurses, having complete immunization records can be helpful for promoting the health of individual students in the school community, tracking student compliance with state immunization regulations, and monitoring the broader vaccination efforts to combat COVID-19 and influenza. Data sharing and interoperability between provider health record systems, school record systems, and IIS is a challenge for monitoring immunization records and reporting vaccines administered at SLVs. Some participants noted their school record system was not linked to IIS, so they were unable to view immunization records or report vaccines administered at SLVs using school systems. At least one participant noted that parents are not required to share their child's vaccination records with the school, adding a layer of complexity for nurses to track students eligible for vaccines. Another participant shared that new state legislation prevents schools from asking people if they are vaccinated.

Participants shared tools and strategies that ease data sharing challenges. In Missouri, one SLV encouraged students and families to voluntarily upload vaccine records to a website so they could be shared with the state IIS 'Show Me Vax'. Schools can incentivize families to do this with messaging about future benefits, such as, "If we do have a big outbreak and you've shared your vaccine record, you won't be forced to isolate." Another strategy that SLVs use to access vaccine records and report vaccines administered is to partner with vaccine providers, such as pharmacies, who are authorized to access and report into the state-run IIS.

Local and state-level health departments are also common partners for SLVs to report vaccines administered. One participant from Montana shared that they partnered with a 'data champion' at the public health department who kept track of vaccinations and who provided data on a weekly basis to the district's superintendent and health officer. This

not only supported busy school health staff, but also allowed for easier access to up-to-date vaccination rates which the district shared on social media. The participants felt that this partnership showed the community that the school district is a trusted source that tries to give out "good data." Finally, one state immunization program manager noted they met with the state IIS vendor to better integrate immunization record sharing between schools and the IIS. The state IIS system now displays vaccine administration data entered by schools in a different color until it has been sent to a provider's office for verification. This allows the data to be reported and visible but does not count towards a student's complete immunization record until it is provider verified.

Champions Encourage Participation in SLVs and Increase Vaccine Confidence

Participants reported greater SLV participation when is it promoted by a trusted source who shares information about the SLV and the vaccines offered. These 'champions' can both share information about the SLV and ask people to come to the clinic, while also making available factual, reliable information about vaccines and vaccination in general. Champions include parents and family, community members, school nurses and staff, and peers.

Parents and other family members were often mentioned as important SLV champions. For example, one participant shared that a group of parent champions posted information about vaccines and SLVs on Twitter and Facebook and helped to promote Facebook live events where community members could ask questions about vaccines. In other cases, family members who reached out to the school with questions went on to serve as the 'family voice' that informed the district's messaging approach and materials, particularly to community members who spoke languages other than English.

Community members are also champions and played a role in promoting SLVs. In Missouri, community support via social media was helpful to vaccine distribution. Someone in the community started a COVID-19 vaccine Facebook page, and every night, they advertised where you could get a vaccine and shared links to sign up. This support expanded beyond promoting the SLVs to posts at the end of the day about pharmacies with extra doses, sometimes offering to transport or reserve appointments for those in at-risk groups.

School nurses can also serve as champions, because for many, nurses are a trusted source that can encourage vaccinations. One participant even noted that vaccine events where the school nurse was not involved had lower participation rates. As representatives of the school, nurses are well positioned to craft and deliver messages that may motivate students to get vaccinated. For example, one shared messaging around sports is a good motivator for many students who do not want to miss games.

Nurse champions have also led events on social media, such as a Facebook live session on vaccines, worked with a strong parent pro-vaccine group, and partnered with an active immunization coalition. Nearly all participants noted that school administration support was important to approving an SLV as well as promoting the SLV in the community. Finally, several school nurse participants shared that fellow students could serve as peer champions who encourage students to get vaccinated, and that this strategy has worked well for other public health initiatives to stop teen and adolescent smoking and vaping. School nurses expressed interest in pursuing peer champions further as a strategy for increasing student vaccination rates at the high school level.

SLVs Used a Range of Outreach Strategies and Communication Platforms to Reach Target Populations

As vaccine availability has increased throughout the COVID-19 public health emergency, SLVs have remained flexible and adaptive in their outreach strategies to engage staff, students, parents, and community members. As more people have become fully vaccinated, some SLVs have shifted outreach strategies to better reach those who remain unvaccinated or express hesitancy. Participants shared various reasons for vaccine hesitancy in their districts. One participant shared that their community felt vaccinations should be separate from schools. Another shared that very few people are showing up to their SLVs, despite incentives such as \$50 and backpacks for students. The participant attributed this hesitancy to parents' fear of not being able to control their child's health decisions, more so than concerns about vaccines themselves.

Participants offered outreach suggestions for SLVs that are uncertain about how to best engage their communities. Participants recommended that school nurses and staff take an active approach to engaging families in SLVs, noting that when schools did not actively work to engage families, SLVs reported lower participation. Several participants recommended that SLVs avoid low-touch outreach approaches when possible, such as only sending consent forms home in students' backpack to promote the clinic. These can be easily misplaced, and when they do reach parents, traditional consent forms can be confusing for parents with low levels of literacy and/or health literacy or those whose first language is not English. Instead, roundtable participants suggest a more active approach which reinforced the environmental scan findings that school nurses are trusted members of the community and well-positioned to be successful with personal outreach. Participants shared that successful outreach strategies include personalized, direct outreach to students and families through phone calls or conversations with parents, videos that explain the vaccine and consent process, and educational materials provided in languages other than English, such as those available through the CDC and VaxCare.

Sharing information with families is a key tenet of both increasing vaccine confidence and increasing SLV participation. One school nurse explained that they "pushed out information to families from various sources on an ongoing basis about vaccines. We always tried to make sure that people understood the truths, not the misconceptions." Another SLV used the community's 2-1-1 system to share information with callers who had questions about vaccines or appointments. One way state immunization programs can support school districts' SLV outreach is by sharing promotional materials, such as flyers and posters, and vaccine campaign information. For example, Alaska's state immunization program provided 'Sleeves up for Summer' campaign materials about COVID-19 to SLVs and reported the campaign's progress meeting vaccination goals online for the public to review. The state is now adapting these materials to 'Sleeves up for School' and focusing on capacity building for schools.

Opportunities to Support SLVs

As districts prepare to host SLVs for staff, students, or their broader communities during the 2021-2022 school year, participants anticipated challenges ranging from finding time and buy-in from stakeholders to host clinics, clearly communicating with their communities, and staying abreast of rapidly evolving health guidelines. Participants also voiced suggestions for addressing these challenges and sustaining the use of SLVs.

Some participants expressed concerns about having time to plan clinics, account for all the logistical details for COVID-19 vaccine administration, predicating the number of doses in a vial, recording vaccines administered, and gaining parent or guardian consent. The environmental scan and roundtables show the promise of working with partners to efficiently plan and implement SLVs. Because participants highlighted the crucial role of partnerships in implementing SLVs, AIM may consider facilitating relationships between partners—such as pharmacies— immunization program managers, and school nurses. Additionally, participants said resources like checklists outlining roles and responsibilities for school nurses and their partners could be useful.

Participants felt strongly that a lack of cooperation or support from school administration and district staff can hinder SLV implementation and buy-in from these groups is essential to approve an SLV. One participant also said that some pediatricians can be resistant to the concept of SLVs, but that sentiment was not universally shared. However, the environmental scan and roundtable discussions were not able to explore in great depth the views or role of these stakeholder groups in facilitating or hindering SLVs. AIM could pursue advocacy efforts with these groups to reiterate the value SLVs bring to mass vaccination campaigns for influenza and COVID-19 and in broadening vaccine access to marginalized populations. Additional research that engages these stakeholders may provide insights on how to build and maintain these strategic relationships and better tailor advocacy and SLV messaging to these groups. Participants

also suggested video resources that explain how an SLV works in action would be useful to "sell" the concept to school administration.

Several participants expressed challenges in communicating clearly with parents and community members about vaccinations. These participants shared that having access to video resources to educate parents or guardians about vaccines or used to help parental understanding during the consent process would be useful. Plain language flyers and infographics could also be useful. Participants noted that current consent forms can be confusing for parents who do not speak English as a first language, who have limited literacy or health literacy levels, or who have limited time. Several participants also said they needed support identifying and tailoring messages to increase vaccine confidence to a multitude of target populations. AIM has an opportunity to create multi-media resources, provide support to states and schools seeking to develop multi-media content, or collect existing multi-media resources and share these with schools. AIM may also consider further research to understand vaccine hesitancy among communities most vulnerable to influenza and COVID-19 and make that information available to immunization managers and school nurses.

Several participants said that lack of staff time and resources is a challenge in implementing many of the steps required to launch an SLV. As one solution, participants shared that nursing students are a valuable resource in developing and testing innovative SLV strategies, specifically for engaging community members, parents, and staff. Nursing programs may encourage or require practicums, and AIM could explore engaging universities or facilitating partnerships with nursing schools to support SLV planning and implementation.

Finally, to help clarify health guidelines for both SLV staff and those receiving vaccines, participants expressed interest in having more guidance on strategies to administer multiple types of vaccines within the same clinic. This supports the environmental scan finding that concurrent influenza and COVID-19 vaccines are a future opportunity for SLVs. Resources could address perceived barriers including different platforms for scheduling COVID-19 and influenza vaccines and obtaining consent; lack of public understanding or trust in the safety of receiving multiple vaccines at the same time; and finding SLV partners with staff trained in administering more than one type of vaccination. Resources to clarify vaccine guidelines and to support SLV setup, administration, and public messaging around joint vaccination clinics may be useful.

APPENDIX A Data Collection and Recruitment Methods

Mathematica conducted five virtual roundtables with 30 total participants, including school nurses and immunization program managers. Participants included members of the Association of Immunization Managers (AIM), the National Association of School Nurses (NASN), or contracted partners to an SLV. Participants represented 24 states, and within them, a diversity of perspectives including elementary, middle, and high schools from urban and rural geographies. Participants had either experience or interest in planning and/or implementing a school-located vaccination clinic for influenza, COVID-19, or both. Mathematica, AIM, and NASN recruited participants through either direct or listsery email outreach.

Mathematica conducted roundtables to augment insights from the environmental scan and to gain a greater depth of information about the factors that influence successful SLV implementation. Mathematica staff facilitated five ninety-minute sessions and each included between 4 and 10 participants for a total of 30 participants across the sessions. Fifteen were immunization program managers and 15 were school nurses. Moderators led the virtual roundtables via Webex and incorporated interactive activities through MURAL, a virtual whiteboard platform where participants can collaborate in real time, to elicit information about participants' experiences planning and implementing SLVs for influenza and/or COVID-19, the resources needed to implement an SLV, and the factors that influence SLV success.