Epilogue: School-located Influenza Vaccination During the 2009–2010 Pandemic and Beyond

As the preceding articles indicate, school-located vaccination (SLV) shows great promise as a method to quickly and efficiently vaccinate large numbers of school-aged children against influenza. This approach can both relieve health care providers who lack sufficient capacity to effectively vaccinate their patients annually, in accordance with the 2008 recommendations of Advisory Committee on Immunization Practices (ACIP),¹ as well as provide a convenient option for parents and an opportunity for children without a medical home to be vaccinated. Importantly, SLV may be appropriate for routine vaccination against seasonal influenza, as well as during a public health emergency or pandemic.

The utility of SLV was demonstrated on a large scale in response to the 2009–2010 H1N1 influenza pandemic. In July 2009, intense efforts were underway to procure H1N1 vaccine and prepare for implementing a large-scale national vaccination program. At that time, the ACIP published recommendations that defined the highest-priority target groups to receive vaccine when it first became available, which included school-aged children.² Accordingly, public health units, educational institutions, and others in local communities joined together to hold SLV clinics throughout the United States, with several states implementing SLV statewide. Based on a National Association of County and City Health Officials survey of local health department officials that was conducted in the summer of 2010, an estimated 85% of local health departments held at least 1 H1N1 influenza SLV clinic in their jurisdiction (National Association of County and City Health Officials, unpublished data). The Centers for Disease Control and Prevention’s (CDC) National 2009 H1N1 Flu Survey is a nationally representative telephone-based survey designed to collect vaccination coverage from US households.³ This survey indicated that 37% of school-aged children 5- to 17-years-old received 2009 H1N1 influenza vaccination; approximately one-third of these children were vaccinated at school (CDC, unpublished data).

These accomplishments are impressive, given that most health departments had no recent experience with SLV, and the period between the ACIP recommendations for vaccine use in July 2009 and the availability of vaccine left little time for planning fall SLV clinics.² Local public health and education staff worked together to arrange the clinics, but uncertain vaccine quantities and delayed delivery dates often required repeated clinic day rescheduling. Creative staffing occurred, including widespread use of volunteers with little advance training. Legal concerns about liability in the school setting, the Family Educational Rights and Privacy Act,⁴ and parental consent had to be quickly explored and addressed.
Conversely, some factors facilitated H1N1 influenza-related SLV efforts in 2009–2010. Perhaps most importantly, vaccine was federally purchased and provided free of charge, and states received federal Public Health Emergency Response funds to aid with the costs of the H1N1 influenza vaccination program implementation. Also, the emergency nature of the vaccination program likely facilitated partnerships between public health, education, and other key stakeholders, such as health care providers. For example, the many school dismissals that were put into place because of local outbreaks of pandemic influenza may have motivated school nurses and other school staff to participate in SLV clinics to avoid student absenteeism and additional school dismissals. Also, more volunteers may have been available and willing to provide services, and parents may have been more likely to consent to vaccination fearing severe illness if their children were unvaccinated.

The experience gained and partnerships established while conducting H1N1 influenza SLV clinics will inform efforts to respond to future pandemics, as well as efforts to offer seasonal influenza vaccine to children at school on a routine basis. In addition to the general expertise developed while planning and implementing the H1N1 SLV clinics, the staff training programs, parental consent forms, clinic day protocols, and other documents and procedures developed specifically for the pandemic SLV clinics will be applicable to future SLV efforts. Sample SLV documents, protocols, and templates created by CDC and others are available on-line and can be adapted for local use. In fact, some health departments held seasonal influenza SLV clinics in 2010–2011 and were able to revise and use some of the materials they developed for the H1N1 pandemic response.

On the other hand, as discussed in several articles in this Supplement, securing long-term funding to create sustainable programs is an important challenge that was not relevant during the H1N1 response because of federal support. Those interested in offering SLV clinics for seasonal influenza must secure funding, as they have done in the past, by the use of a variety of approaches. For example, some have sought grants from government and private sources. Others have strategically used volunteers, or targeted schools with a high proportion of children eligible for federally funded Vaccines for Children vaccine. A few have sought reimbursement from parents, either through charging an out-of-pocket fee or by collecting health plan information and submitting claims for vaccine, its administration, or both. Evaluations of efforts to bill health plans are currently underway. Early results from 1 pilot project indicate that the total amount reimbursed from health plans was inadequate to cover the total cost of conducting the SLV clinics. Low vaccine administration fee reimbursement from the state Medicaid program, numerous private payer claim denials (eg, because the SLV clinic administrator is considered out-of-network), and the reluctance to bill parents for uncovered services, have been identified as contributing to this finding (A. Kempe, MD, MPH, unpublished data).

Under the Affordable Care Act, all health plans, excluding “grandfathered plans,” will be required to provide coverage for receipt of ACIP-recommended vaccines without any cost-sharing requirements, as long as the provider is “in-network.” Even though some barriers will likely be reduced as a result of the Affordable Care Act, significant challenges will continue to exist. However, with experience and refinement, efforts to bill health plans may eventually contribute to sustaining SLV programs.

Other key questions about SLV remain, and studies are underway to address them. These include the total cost of SLV, the degree to which it is cost-effective, and program features such as the timing of clinics and method for collecting consent forms that achieve the highest vaccination rates. The extent to which school staff are interested in participating in SLV in nonpandemic settings is also unknown. The partnership between public health and education is a natural one, with professionals from both fields viewing the health and well-being of children as well within their missions. However, with constant pressure on school administrators to demonstrate student achievement, planning and holding an SLV clinic may not be a high priority. In addition, with approximately one-third of schools having only a part-time school nurse and one-fourth having no school nurse at all, school nurses may be unable to provide assistance. Efforts are also underway to identify innovative ways to increase the efficiency of SLV. For example, some programs have considered providing an option for parents/guardians to consent to their child’s vaccination on-line, and others are working toward efficient use of state immunization registries to communicate vaccination information to students’ health care providers and access data needed to prepare insurance claims.

SLV appears to have been an effective method for vaccinating school-aged children against H1N1 influenza in 2009–2010, and it shows great promise as a supplement to seasonal influenza vaccination services received at the medical home. However, many challenges remain, especially those related to resources. Factors such as community need for alternative vaccination settings, the availability of adequate local resources, and local stakeholder support are key factors to consider before
deciding to implement a SLV program. CDC will continue to work with its partners to provide guidance on SLV and conduct relevant research, the results of which may be used to inform local decision-makers.

REFERENCES


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