Life-saving vaccines have had a significant impact on the health and well-being of the entire nation. Today, children, adolescents, and adults can receive immunizations to protect against 17 infectious diseases once common in the United States. Immunizations are one of the most successful and cost effective public health interventions in history. This accomplishment has been made possible, in large part, through a robust private-public partnership.

At first glance, vaccination appears to be a simple process: A manufacturer develops a vaccine and healthcare providers give it to their patients. However, the system is much more complex. At every step, public health works jointly with primary care providers to enhance and sustain a system that ensures safe and effective vaccines are available and accessible to the public.

Imagine a scenario where healthcare providers have vaccines, but are without information and training on how to store or handle them, do not have a seamless process for determining which vaccines should be given and to whom, and do not have the resources to respond to disease outbreaks or ensure access to life-saving vaccines. Without the important contributions of public health, our nation could not fully realize the significant benefits of this important intervention, leaving our communities vulnerable to preventable diseases.

A comprehensive and effective immunization program requires a robust infrastructure at the federal, state, and local levels that strengthens immunization practices in both the public and private sectors, assesses the impact of immunization programs through disease surveillance, provides credible evidence-based information to healthcare consumers, supports outbreak investigation and control, and monitors vaccine coverage, effectiveness, and safety. A strong public health and primary care partnership is vital to achieving national immunization coverage targets and low incidence of vaccine-preventable diseases.

**Primary Care and Public Health Partnerships**

**Interventions at the Intersection of Public Health and Primary Care**
- Assess Vaccine Effectiveness and Safety
- Ensure Quality of Immunization Services
- Coordinate Outbreak Response
- Disseminate Vaccine Communications
- Improve Access
- Ensure Evidence-Based Practice

**Public Health**
- Policy development and leadership
- Population assessment and data tracking
- Health equity
- Education to the community, providers, and policymakers

**Primary Care**
- Patient assessment
- Disease management
- Quality improvement
- Care coordination and linkages to community services

**Improved Immunization Rates and Outcomes**
Specific public health activities that strengthen and improve primary care immunization outcomes include the following:

**Vaccine Effectiveness and Safety**

After a vaccine is licensed in the United States, public health experts review epidemiologic data to ensure that vaccines are working properly and are safe. The Vaccine Adverse Event Reporting System (VAERS) is a national database that collects information about adverse events that occur in U.S. licensed vaccines. This system can assist in identifying patterns of vaccine safety concerns. Safety is also assessed through special studies done by the CDC, FDA, or vaccine manufacturers. If a study or the VAERS system identifies a problem, public health will issue measures to respond. This system is in place to protect the public and ensure that primary care providers offer safe and effective vaccines to their patients.

**Ensure Quality of Immunization Services**

Quality assurance is very important for vaccine delivery. Vaccines must be stored at correct temperatures and safely handled to ensure the best protection. State and local public health experts provide training and technical assistance to support primary care provider vaccination programs. They will often conduct clinical office visits to ensure appropriate vaccine storage and handling practices, and identify opportunities to improve vaccination coverage among patients.

During vaccine shortages or supply interruptions, public health may provide temporary changes in vaccine schedules or offer guidance on how to prioritize the vaccine for high-risk patients. In addition, public health experts will assist primary care providers when there is an administration error or when a vaccine has been exposed to temperature conditions that are outside the recommended range.

**Outbreak Response**

Much of the response to emerging disease outbreaks is carried out by public health agencies at the local and state level. However, public health works closely with primary care providers to collect the epidemiological information necessary to detect outbreaks, guide response strategies, and identify transmission patterns. This data drives the public health response, which may include issuing quarantine or isolation guidance, implementing targeted mass vaccination clinics, or canceling high-risk public events. At every step, public health works closely with primary care to increase provider awareness of disease patterns and improve public awareness of disease transmission and risk reduction.

**Communicate Which Vaccines Are Needed, the Benefits and Risks**

Due to vaccines’ overwhelming success, some parents are choosing not to vaccinate their children because of the perception that immunizations are no longer needed. Other individuals are not aware of the benefits of life-saving vaccinations. Therefore, public health communication specialists use evidence-based, targeted strategies to create materials and tools, including print, audio, video, or social media resources, to improve public awareness about the risks and benefits of vaccine in forms that resonate with the local audience. Primary care providers use this information to convey the importance of vaccination to their patients during routine medical visits. State and local health departments work to
educate networks of primary care providers to ensure they have the necessary information to help their patients make informed decisions regarding vaccination.

Access to Immunization Services
Public health routinely works with primary care providers to ensure adequate access to vaccines. One such program, the Vaccines for Children (VFC) program\(^1\), provides vaccines at no cost to eligible children and adolescents. Through this program, vaccinations are primarily administered by primary care providers; however, public health recruits and enrolls providers to become VFC vaccinators, supplies vaccines for eligible patients, and generally oversees the program.

Although immunizations are most often provided in the medical home, an increasing number of nontraditional venues, such as schools, pharmacies, or employers, have started to offer vaccines. Public health is partnering with these organizations and institutions to improve access to safe and effective vaccinations.

Finally, public health plays a critical role in building relationships with vaccine providers to offer outreach on proper vaccine storage and handling, support the effective use of immunization information systems, and provide strategies to improve vaccination coverage through resource materials, trainings, and visits to clinical sites.

Evidence-Based Immunization Policy
In the United States, primary care providers look to public health for guidance regarding which vaccines to give to their patients. This guidance is based on careful review of epidemiologic data and recommendations made by the Advisory Committee on Immunization Practices (ACIP). ACIP, comprised of medical and public health experts, advises CDC on national vaccine policies, including appropriate route, dose, and frequency of vaccine administration. Once adopted by CDC, these recommendations establish the standard of vaccination practice.

In some cases, state and territorial health agencies have local advisory committees that provide additional guidance or may generate regional policies, such as school vaccination requirements, which can significantly impact health within their jurisdiction.

The Benefit of Primary Care and Public Health Integration
Achieving high national vaccination rates cannot be done with vaccines alone—a strong support system also needs to be in place. Traditionally, public health and primary care have worked independently to provide healthcare services to individuals, families, and the community. However, as evidenced by immunization partnerships, the collaboration and integration of public health and primary care leverages and strengthens the capabilities of each entity to deliver critical services. Primary care benefits from public health’s role in policy, population health, health equity, and education; while public health benefits from primary care’s ability to provide individual patient assessment, disease management, care coordination, and quality improvement. Only by working together to create an integrated system that leverages the complementary strengths of public health and primary care will our healthcare system truly achieve the capacity to deliver superior services to care for our communities and the nation.

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* Morbidity and Mortality Weekly Report. “Notes from the Field: Pertussis—California, January-June 2010.” Available at [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5926a5.htm?s_cid=mm5926a5_e%0d%0a](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5926a5.htm)? Accessed 3-20-2013.


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\(^1\) Children through 18 years of age who meet at least one of the following criteria are eligible to receive VFC vaccines: (1) Medicaid eligible; (2) uninsured; (3) American Indian or Alaska Native; or (4) underinsured, defined as a child who has health insurance, but the coverage does not include vaccines or a child whose insurance covers only selected vaccines (VFC-eligible for non-covered vaccines only). Underinsured children are eligible to receive VFC vaccine only through a federally qualified health center, rural health clinic, or under an approved deputization agreement.