

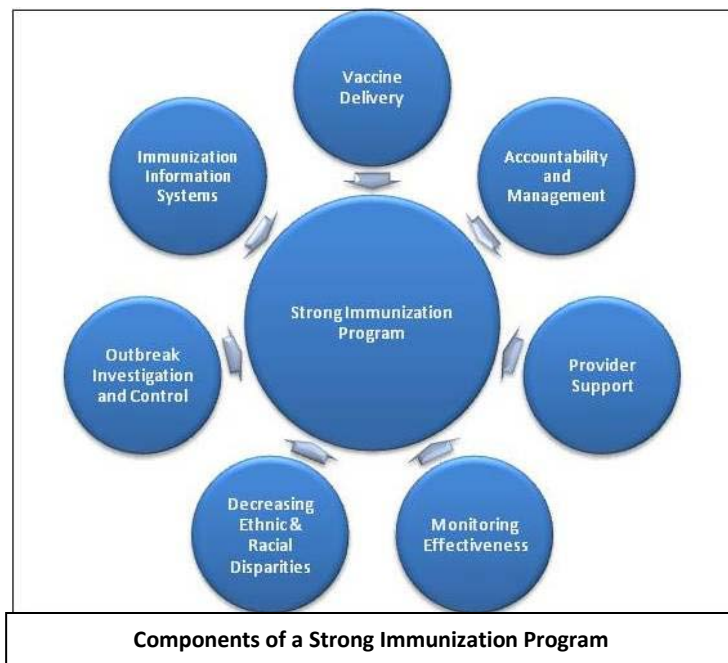
Immunization Infrastructure: The Role of Section 317

Immunization plays a vital role in the control and prevention of infectious disease. Current immunization recommendations target 17 vaccine-preventable diseases across the lifespan. The United States enjoys record high coverage for most childhood vaccines, which has resulted in a more than 90 percent decline in once common vaccine-preventable diseases (VPDs), such as diphtheria, polio, and measles.¹ The success of the United States' system for vaccinating the population reflects one of the most effective public and private sector collaborations. The foundation of this collaboration is a strong public health infrastructure at the federal, state and local levels.

New insurance expansions build upon the successes of the national immunization system by expanding access to immunization services through public and private health insurance reforms. However, more than just vaccines is needed to fully vaccinate a population. A comprehensive immunization program requires a robust infrastructure at the federal, state and local level that creates the foundation for vaccination activities – from establishing and implementing vaccine policy to monitoring the effectiveness, impact, coverage and safety of routinely-recommended vaccines. Public information and education is also an essential component of an effective program. It is imperative for the public's health that the infrastructure that supports the nation's immunization program remain intact even after implementation of insurance reform.

The federal Section 317 Immunization Program provides core funding for the nation's immunization programs and services, primarily through grants to 64 states, cities, and territories. This document outlines how this core funding is used for targeting vaccine to the appropriate recipients, ensuring accountability in the use of publicly purchased vaccine, strengthening immunization practices in both public and private sectors, and assessing the impact of immunization programs for children, adolescents and adults through surveillance for disease and vaccine uptake. These funds are also used to identify and eliminate racial and ethnic

disparities in vaccine uptake, investigate and control outbreaks, and strengthen immunization information systems (registries). These fundamental activities are core to the mission of public health and are critical to the future of the nation's immunization enterprise.



The Multifaceted Role of Section 317 in the Success of the U.S. Immunization Infrastructure

¹ JAMA. 2007;298(18):2155-2163

Vaccine Delivery

The public sector purchases and distributes more than 50 percent of pediatric vaccines and approximately one-third of adolescent vaccines routinely administered in the United States each year.² The majority of public sector vaccine is funded through the Vaccines for Children (VFC) Program, which provides vaccines for uninsured, Medicaid-eligible, and American Indian and Alaska Native children through the age of 18 years in their medical home; and underinsured children who receive their vaccines at Federally Qualified Health Centers and Rural Health Clinics.

Section 317 supports the national public sector vaccine delivery system that distributes vaccines directly to participating public and private providers, provides transparency in vaccine inventory for effective management of vaccine shortages and appropriately targeting vaccines for outbreak response, and provides a vaccine delivery and administration infrastructure for emergency response, such as pandemic influenza.

The public sector vaccine delivery system will continue to exist – and will grow – as Medicaid is expanded, making more children and adults eligible for publicly-funded vaccines.

State Example: North Carolina

North Carolina is developing provider vaccine ordering functionality in the North Carolina immunization registry. Providers input vaccine orders into the registry and the system evaluates orders against specific guidelines – the approved orders are transferred to the CDC. This automation improves the efficiency and accountability of vaccine distribution.

Accountability and Management of Public Sector Vaccine Investments

Public health plays a critical role in vaccine accountability and assurance that publicly purchased vaccines are handled and used appropriately. States conduct compliance site visits in at least 50% of public and private VFC provider settings to assure vaccine accountability and appropriate vaccine storage and handling. Improvements in vaccine practices that result from these assessment visits impact both publicly and privately insured patients since most health care providers see a mix of insured patients. This will be particularly important to provide accountability and assurance with the expansion of Medicaid and the mandate that private plans cover immunization services.

State Example: New York City

New York City uses its Citywide Immunization Registry (CIR) to link doses administered by providers with doses distributed for VFC. Providers place their orders for VFC vaccine and then they must account for those doses through reports to the CIR before they can be approved for ordering more VFC vaccine. This system has enabled the city to increase accountability for the use of the VFC vaccines.

Provider Support

² Biologics Surveillance Data, 2008. This represents a national summary of self-reported distribution data by the vaccine manufacturers and includes VFC, Section 317, and state funded vaccine purchase. The data are an estimate of the annual national distribution and does not equal administration. Reported data may be incomplete and include possible over-reporting or under-reporting of distribution data and may not reflect all vaccines or manufacturers. Data do not include influenza vaccine doses.

Section 317 grantees work closely with the private sector to ensure they have the tools they need for a successful vaccination program. Examples of assistance include providing materials about the benefits of vaccines and risks of vaccine preventable diseases, providing training and information on correct storage and handling procedures for each of the vaccines, and providing resources such as reminder and recall notices to patients about immunizations through an immunization information system.

State Examples: Maryland, California, Wyoming and Pennsylvania

Maryland offers a *“Practice Makes Perfect”* program to provide free vaccine administration, storage, and handling training to immunization professionals in private providers’ offices, with a special emphasis on influenza vaccine.

California has an online *“EZ-IZ”* one-stop shop for immunization training and resources. The site has free online immunization training, print materials, videos on proper documentation of vaccines, education strategies for patients and parents, and information on vaccine safety and vaccine order status.

Wyoming provides regular newsletters and webinars for providers to keep them apprised of the latest developments in immunizations. For example, the December 2010 newsletter topics included what to expect in the outreach visits to providers offices, temperature recording guidelines, where to access the latest information on flu data in Wyoming, and tips on ensuring HIPAA Compliance.

In Pennsylvania, the state health department contracts with the American Academy of Pediatrics and PA Family Physicians Group to train medical assistants, nurses and physicians on proper administration techniques and storage and handling of vaccinations.

Monitoring Effectiveness

Continuous monitoring of both long-standing and new vaccines to ensure effectiveness is an important part of surveillance. When a new vaccine is added to the recommendation list by the Advisory Committee for Immunization Practices (ACIP), state public health agencies monitor the impact of the new vaccine by looking at uptake rates and reduction in incidence of disease through various surveillance systems.

Program Example

Before pneumococcal conjugate vaccine became available for children, pneumococcus (an infection caused by a bacterial called *Streptococcus pneumonia* that can lead to different types of pneumococcal disease) caused 63,000 cases of invasive pneumococcal disease and 6,100 deaths in the U.S. each year. Many children who developed pneumococcal meningitis also developed long-term complications such as deafness or seizures. Since the vaccine was introduced, the incidence of invasive pneumococcal disease in children has been reduced by 75%. Pneumococcal conjugate vaccine also reduces spread of pneumococcus from children to adults. In 2003 alone, there were 30,000 fewer cases of invasive pneumococcal disease caused by strains included in the vaccine, including 20,000 fewer cases in children and adults too old to receive the vaccine. State and territorial health departments worked closely with the federal government to monitor vaccine uptake and disease trends.

Decreasing Ethnic and Racial Disparities

State and local public health agencies monitor and identify groups of underserved children, adolescents and adults for coverage of vaccine preventable diseases. Various techniques used include review of National Immunization Survey coverage data, retrospective analysis of school immunization surveys, provider coverage assessments, review of immunization information systems data, review of Medicare billing, and cluster surveys. Once populations with low coverage are identified, public health works to increase vaccination levels by launching targeted education campaigns, identifying partners such as WIC and schools, and conducting targeted surveys to better understand why a population may have lower rates.

State Example: Michigan

The Michigan Department of Health publishes an annual Michigan Critical Health Indicators report that describes Michigan's health and well-being. One of the measures is immunization rates for the adult flu vaccine. Findings from the 2009 report included some significant health disparities that exist among adults 65 years and older who received the flu vaccine in the past year. In 2009, 71% of white/non-Hispanic MI residents received their flu vaccine, while only 56% of black/non-Hispanic and 49.9% of other/multiracial/non-Hispanic Michigan residents 65 years and older received their flu vaccine. Further, flu vaccination rates are higher among white/non-Hispanic adults who graduated high school or less (68.9%) than black/non-Hispanic adults (54%) of the same educational background.

Outbreak Investigation and Control

In every state, providers and health care facilities are required to report on the occurrence of various vaccine preventable diseases; federal, state and local public health systems must be well coordinated to identify a disease outbreak (as compared to an isolated case) and prepared to respond to it. This requires conducting staff training and case investigations, providing laboratory testing guidelines, assuring laboratory capacity and enhanced and active surveillance for disease. Systems must be in place to quickly communicate with the provider community and the public about an outbreak and procedures for controlling the outbreak.

State Example: California and Texas

In 2010, California experienced the largest outbreak of pertussis (whooping cough) since the 1950s. The California State Department of Health closely monitored the disease through its various surveillance systems. They worked with the local health departments and the hospitals to determine the spread of the disease. The highest death rate was in Hispanic infants under the age of six months. Of the 10 deaths reported, 9 were Hispanic infants, one was a white infant. This information helped them target their mitigation efforts. They promoted the use of Tetanus, Diphtheria and Pertussi (Tdap) vaccine, provided clinician and public information about the disease. They are currently evaluating the community vaccination campaigns for effectiveness.

The Texas Department of Health conducts Tdap vaccination campaigns at birthing hospitals, OB/GYNs and pediatrician offices in order to target parents, grandparents and caregivers of newborn infants. Vaccinating the caregivers of infants provides a "cocoon" of protection against pertussis (whooping cough), helping to reduce infant mortality.

Immunization Information Systems

Immunization information systems (IIS) are confidential, computerized systems that record vaccines administered by providers in a state or city. The goal of immunization information systems is to generate data to support clinical decision-making by providers and to support immunization program efforts to provide strong leadership, sound decisions, effective priorities, and strong program accountability. Many IIS also have functions and features that support immunization programs, such as vaccine inventory management, adverse event reporting, as well as interoperability with other health information systems, such as Electronic Medical Records (EMR).

With the anticipated increase in access to immunization services through health insurance reforms, IIS are even more critical to managing immunization information to reduce both redundant and insufficient vaccination across the lifespan.

State Examples: Michigan and Louisiana

The Michigan Care Improvement Registry is a multifaceted system that integrates other public health data including: vital records, lead, the Early Periodic Screening, Diagnosis and Treatment information, WIC, Medicaid, Newborn Screening, and Body Mass Index data. The system maintains a record on each child that includes information from all of these areas, resulting in a useful tool for providers as they develop treatment programs for their patients. The registry now allows providers to order their vaccines through the system, provides school and daycare assessments of immunization status, and can generate regional immunization rates. The Michigan Department of Health is currently working to integrate this system into Electronic Health Records and the Michigan Health Information Network.

The Louisiana Department of Health is expanding current reporting capabilities in its IIS to measure the outcomes of immunization initiatives and technical solutions. Enhanced reports provide users with more accurate assessment measures to evaluate coverage and target interventions for providers or practices. This enhanced functionality includes detailed breakdown of progress toward coverage measures, diagnostic reports, and missing immunizations listings.

Summary

All of the items mentioned above are critical parts of a successful immunization program and they are all supported by federal Section 317 funds. While new expansions for public and private insurance provide the opportunity for increased immunization coverage, it does not provide resources for the underlying support structure to truly ensure the effective, safe and timely vaccination of all those members of our community needing and deserving protection from an array of infectious diseases. It is imperative to, at a minimum, maintain and, ideally increase the Section 317 budget in order to continue to provide a comprehensive program to educate and inform the public, monitor vaccine effectiveness, account for the use of federal and state dollars, decrease ethnic and racial disparities, have strong outbreak investigation and improve tracking systems and continue to provide the necessary support to the providers.