

## Program Report Card: Immunization Program (DPH)

**Quality of Life Result:** All Connecticut (CT) residents are healthy across the life span.

**Contribution to the Result:** The Immunization Program (IP): 1) makes selected vaccines available to the residents of CT; 2) educates medical personnel and the public on the importance of vaccinations; 3) conducts surveillance for vaccine-preventable diseases to evaluate the impact of vaccination efforts and to identify groups still at risk of vaccine-preventable disease; and 4) works with providers to assure that all children in their practice are immunized according to schedule.

**Total Program Funding:** \$32,156,399      **State Funding\*:** \$9,127,820      **Federal Funding:** \$29,025,208      **Other Funding:** ARRA \$3,131,191

**Est. FY 2011 Funding:** \$29,025,208      **State Funding\*:** \$9,127,820      **Federal Funding:** \$29,025,208      **Other Funding:** None

**Partners:** Health care providers; day care centers; K-12 school administrators and nurses; state higher education institutions; children from birth to 18 and their parents; DPH epidemiology and laboratory programs; pharmaceutical companies, Centers for Disease Control and Prevention (CDC); CT Chapter of the American Academy of Pediatricians, Commission on Children, local and state government and health officials.

**Performance Measure (PM) 1:** Impact of Vaccines on Annual Disease Burden (U.S. and CT)

Disease	20th Century Annual Morbidity	Reported Cases 2008 (U.S. - CT)	
Small pox	48,164	0	0
Diphtheria	175,885	0	0
Measles	503,282	140	0
Mumps	152,209	454	0
Pertussis	147,271	13,278	55
Polio	16,316	0	0
Rubella	47,745	16	1
Tetanus	1,314	19	0
Haemophilus			
Influenza	20,000	193	0
Varicella	4,085,120	30,386	857

Sources: CDC, Impact of vaccines universally recommended for children-United States, 1990-1998. MMWR 1999; 48(12): 243-8 CDC. Summary of Notifiable Diseases - United States, 2008. MMWR 2010; 57(54)

**Story behind the baseline:** Vaccine-preventable diseases (VPD) have a costly impact on society, resulting in doctor's visits, hospitalizations, premature deaths, and missed time from work.

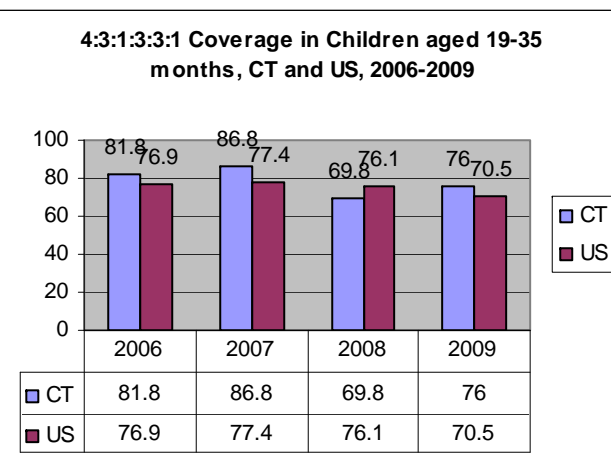
The diseases identified in PM1 often resulted in serious illness or death before the introduction of vaccines. The table for PM1, shows the comparison of 20<sup>th</sup> century annual morbidity of VPD and the impact of vaccines on the reduction of annual disease burden in the U.S. and CT for 2008. Cases of VPD have decreased dramatically both nationally and in CT. The number of pertussis cases is likely due in part to waning immunity and varicella cases can be attributed to the fact that the varicella vaccine is relatively new.

Approximately 625 health care providers are enrolled in the CT Vaccines for Children (VFC) program and receive childhood and adolescent vaccines on a monthly basis. The VFC program is a federally funded program that supplies vaccines to participating providers at no cost for administration for eligible children and adolescents from six weeks to 18 years of age. Eligible children include those who receive Medicaid, lack health insurance, have American Indian or Alaska Native ethnicities, and who have insurance that does not cover vaccination but are served in a Federally Qualified Health Center or Rural Health Clinic.

For every dollar spent on vaccines, society saves up to \$24 in medical and societal costs. Today, for each birth cohort of children immunized, 14 million cases of VPD are prevented and 33,000 VPD-related deaths are averted.

**Proposed actions to turn the curve:** The IP will continue to 1) provide free vaccine to immunization providers throughout the State to ensure access to immunizations; 2) work with daycare centers, schools and colleges to ensure children and adolescents meet immunization requirements and enforce immunization regulations, and 3) provide education for immunization providers, parents, and the general public to keep immunization coverage high and disease incidence low.

**Performance Measure (PM) 2:** Immunization Coverage of Children 19-35 months of Age



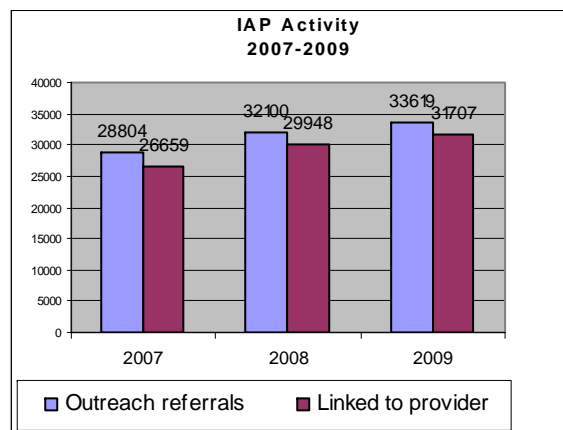
**Story behind the baseline:** Vaccine coverage for all recommended vaccines among children 19-35 months of age is measured by the National Immunization Survey (NIS). The NIS helps to track the progress toward increasing and maintaining vaccination coverage levels for universally recommended vaccines among children 19-35 months of age at 90%. The 4:3:1:3:3:1 series which was used from 2006-2008 stands for four or more doses of diphtheria and tetanus toxoids and pertussis vaccines, three or more doses of polio virus vaccines, one or more doses of measles, mumps and rubella vaccine, three or more Hemophilus Influenzae type b vaccine, three or more doses of Hepatitis B vaccine, one or more doses of varicella (chicken pox) unadjusted for history of varicella illness.

The graph shows NIS coverage for the recommended series for CT and the US. The threshold established for this measure is to keep the incidence of fully immunized children in this age group at least 80% and above national coverage levels by at least 3-percentage points. CT surpassed national coverage levels in 2006 (by 4.9%) and 2007 (by 9.4%), but did not meet the established threshold in 2008 (below US by 6.3%) due to a national shortage of Hib vaccine that disproportionately affected CT due to the type of Hib vaccine that CT was using at the time. In 2009, the CDC changed the series to 4:3:1:X: 3:1 to allow standardized comparison among states due to the Hib vaccine shortage in 2008. In 2009, CT again surpassed the national coverage level by 5.5%.

#### **Proposed actions to turn the curve:**

Connecticut will continue to provide vaccines to immunization providers throughout the State. The IP will continue to 1) work with daycare centers, schools and colleges to have children and adolescents meet immunization requirements and enforce immunization regulations, and 2) provide education for immunization providers, parents, and the general public in order to keep immunization coverage high and disease incidence low.

**Performance Measure (PM) 3:** Children referred for outreach and linked to a provider of immunizations.



**Story behind the baseline:** Children who are behind on their immunizations are referred to Immunization Action Plan (IAP) coordinators—contracted by DPH with federal CDC funds—working in selected areas of need throughout the state. The IAP funded sites are responsible for increasing immunization levels among pre-school children in their service areas by engaging in activities designed to improve vaccine delivery, tracking and outreach referral, education and assessment. Federal funding was initially provided in 1992 to 12 local health departments in large urban centers in the State felt to be at high need for immunization improvement.

These 12 sites were selected based on the percentage of unvaccinated children, recipients of WIC less than 24 months of age, and distribution of all public sector vaccine given to children less than 24 months of age. It was with these sites that structured initiatives and linkages were formed to implement effective strategies for working with state partners, clinical networks, community health centers, and advocacy groups interested in improving childhood immunization rates in CT. Eleven sites remain federally funded today.

All IAP sites serve a high percentage of Medicaid and WIC populations, and funding has been provided for each grantee agency to hire culturally appropriate IAP coordinators and bilingual outreach workers. The coordinators collaborate with DSS, WIC and other organizations to find these children and refer them to immunization providers so the children can receive the immunizations according to the recommended immunization schedule.

The graph shows that a large number of children (~30,000) are referred to outreach. These children are either referred from the immunization registry because they do not have an immunization provider in the registry or are referred by immunization providers because children have missed immunization appointments. The graph also shows that IAP coordinators are very successful in tracking and returning children to care for their immunizations—93% of children referred were returned to care in 2007 (26,659 children) and 2008 (29,948 children), and 94% of children in 2009 (31,707 children). Once children are returned to care they are not only being brought up-to date on their immunizations but providers have an opportunity to provide other needed health care.

**Proposed actions to turn the curve:** The DPH will continue to maintain the IAP program and work in collaboration with the IAP coordinators by providing them with data from the immunization registry and with other assistance so they can find children behind on their immunizations and refer them back to their medical homes. Using ARRA funds, the IP is also developing a web-based immunization registry that will assist IAP coordinators, outreach workers and immunization providers in tracking children and keeping them up-to-date on their immunizations.

State Funding\* refers to the funding received from an assessment on Insurance companies to purchase vaccines.