

# **Illinois Proposal to Vaccinate More Children and Adults**

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# Illinois Proposal to Vaccinate More Children and Adults

## New Activities for IL Project Area (July 2009 - December 2011)

This proposal requests funds to assist 95 health jurisdictions in Illinois (excluding Chicago) to expand existing immunization services to:

- Increase vaccination coverage levels of underinsured adolescents susceptible to pertussis, meningococcal and varicella infections.
- Increasing vaccination coverage levels first-time parents susceptible to pertussis.
- Increase vaccination coverage levels of local health jurisdiction staff.

Funds will be utilized primarily to retain staff responsible for providing existing vaccination clinic services and where feasible and indicated, to expand clinic hours and clinic sites to include schools and other community-based sites.

### *Background, Need and Understanding*

Illinois is the fifth most populous state in the nation with 12,901,563 inhabitants (based on 2008 U.S. Census estimates). Illinois had 180,530 births reported in 2007, of which 134,276 were attributed to the Illinois project area, which excludes Chicago. Of these births, 12,015 (9%) occurred to teenagers, aged 19 years of under.

According to the most recent 2008 release of the National Immunization Survey of 19-35 month olds, Illinois ranked 15th in the nation on the 4:3:1:3:3:1<sup>1</sup> coverage. The reported varicella coverage level for 19-35 month olds in Illinois (excluding Chicago) was 90%; compared with the national average of 89%.

### *Impact on Illinois VFC Plus Initiative*

The Illinois Department of Public Health (IDPH) collaborates with 95 authorized local health jurisdictions to provide a full range of public health services to residents of the state's 102 counties. Almost 90 percent of the currently authorized local health jurisdictions were operating in 1994, when Illinois established the VFC *Plus* Program, which supplemented the federally funded VFC program to address underinsured children between the 0 and 18 years of age. The Illinois project has over 3,000 public and private health care providers enrolled in the Illinois (excluding Chicago) Vaccines for Children (VFC) program. During 2008, these providers received over 1.8 million doses of vaccine; collectively they administered over 180,000 doses of varicella-containing vaccine (VCV) to VFC-eligible children, over 65,000 doses of meningococcal conjugate and (MCV) and over 67,000 doses of Tdap to VFC-eligible children and adolescents aged 18 or younger.

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<sup>1</sup> 4 or more doses of DTaP, 3 or more doses of poliovirus vaccine, 1 or more doses of any MMR, 3 or more doses of Hib, 3 or more doses of hepatitis B vaccine and 1 or more doses of varicella vaccine.

VFC *Plus* services were created to bridge the gap in coverage created by uneven access to Federally Qualified Health Centers (FQHC) facilities by underinsured children; thereby ensuring vaccine availability to all children between 0 and 18 years of age served within the Illinois project area (excluding Chicago). VFC *Plus*-eligible children must be underinsured (have health insurance that does not pay for immunizations) and be unable to receive vaccinations at a Federally Qualified Health Center (FQHC).

Although children enrolled in the federally-funded VFC Program are eligible to receive all vaccines universally recommended by the Advisory Committee on Immunization Practices (ACIP), lack of sufficient state funding for the VFC *Plus* Program has necessitated a two-tiered service delivery system for underinsured children. IDPH has not been able to provide Hepatitis A, HPV, Influenza, Meningococcal, Pneumococcal, Rotavirus, Tdap, or Varicella vaccines to VFC providers for use with underinsured children. When receipt of one dose of varicella was added to kindergarten entry requirements in 2002, thousands of underinsured children were unable to comply with this requirement due to limited FQHC access.

IDPH helped facilitate some authorized health jurisdictions to acquire FQHC status to allow under-insured children to address the varicella school admission requirement. During 2008, 95 of the IDPH authorized health jurisdictions (excluding Chicago) provided over 400,000 doses of vaccine through the Vaccines For Children (VFC) initiative. This included receipt of over 33,000 doses of VCV, 14,000 doses of MCV and 18,000 doses of Tdap at over 130 sites in 2008; constituting 18%, 22% and 26% of the total VFC doses administered for these vaccines during 2008. IDPH 2009 population estimates indicate that approximately 52,000 underinsured children and adolescents remain without access to an FQHC for immunization services.

### *Impact on School Entry Requirements*

Based on data reported to the Illinois Board of Education for the 2008-2009 school year, a total of 2,321,644 students attended public or private schools in Illinois, excluding Chicago. Of these, 1,301,276 attended grades K-6 where entry requirements included varicella immunity as demonstrated by previous history of disease or receipt of at least one dose of varicella vaccine. A total of 1,273,169 students (98%) met the requirement. Students in kindergarten through grade 7 for the upcoming 2009-2010 year must show immunity to varicella from previous disease or receipt of one dose of varicella vaccination.

In 2007, the Advisory Committee on Immunization Policy (ACIP) recommended a second dose of varicella vaccination for children to sustain immunity. This two-dose recommendation has not been incorporated into Illinois school entry requirements and Illinois continues to have varicella outbreaks among school-aged populations. Retrospective record audits of 869 kindergarteners from 40 selected public and private Illinois schools were conducted as a validation procedure by the Immunization Program during the first quarter of 2009. Audits identified 68% of records reviewed for kindergarteners had records demonstrating receipt of two doses of VCV.

### *Planned Use of ARRA Vaccine*

ARRA direct assistance vaccine will be utilized upon receipt at IDPH authorized health jurisdictions, and continue through December 31, 2011, to promote and deliver vaccinations to underinsured children and adolescents against varicella, meningococcal and pertussis disease. Vaccine estimates on the number of doses necessary to address underinsured adolescent needs throughout the course of the ARRA funds are 50-57,000 doses of meningococcal vaccine; 6,000-8,000 doses of varicella vaccine; and 20,000-25,000 doses of pertussis-containing (Tdap) vaccine. Expanded availability of vaccines against meningococcal, pertussis and varicella disease for adolescents should reduce the incidence of new cases of these vaccine preventable diseases while actualizing a costs savings to the parents and guardians of children receiving vaccination services.

In addition, IDPH authorized health jurisdictions will also identify and promote pertussis (Tdap) vaccination to parents enrolled in WIC and family case management programming operated by the health jurisdiction to reduce the risk of pertussis infections in newborns. Parents between the ages of 15 to 25 years will be the primary focus of this initiative, as the majority of reported infant pertussis in Illinois has occurred in households where parents fell in this age range. Estimates of vaccine needed to address parental protection against pertussis infections (Tdap) is 30,000-35,000 doses for 2010. Expanded availability of immunization against pertussis to these at-risk parents should reduce the incidence of new cases among newborns.

ARRA-supplied vaccine will also be utilized to address selected vaccination needs of health jurisdiction staff. Estimates of vaccine needs to protect existing or new health department staff include 900-1,000 doses of MMR vaccine, 500-600 doses of Hepatitis B vaccine and 4,000-5,000 doses of pertussis-containing (Tdap) vaccine. Availability of these vaccines to susceptible staff should reduce the opportunity of infection of these vaccine preventable diseases; thereby reducing the possible spread of infection in the workplace and loss of workforce availability due to vaccine preventable disease-related illness.

### *Existing Tools for Monitoring Progress Successes*

Each health department receiving VFC vaccine is required to supply **vaccine accountability data** with each new vaccine order. This accountability is dose-specific and is reported within specified age ranges. Site-specific accountability data is maintained by IDPH warehouse staff. Accountability data reported by local health jurisdictions for 2008 revealed administration of 14,248 doses of meningococcal vaccine, 18,317 doses of Tdap and 5,965 doses of varicella vaccine; 2,654 (44%) of varicella administrations were for a second dose.

The IDPH **statewide immunization registry**, Illinois Comprehensive Automated Registry Exchange or I-CARE, is a web-based registry that houses immunization data on patients of all ages through Illinois (including Chicago). I-CARE was developed and marketed to private providers to capture their immunization information. I-CARE also houses data from the Cornerstone case management and registry system, a system all IDPH authorized public health agencies and Women, Infants and Children (WIC) clinics are required to utilize. Public Cornerstone immunization-related data, including Chicago's Global system data, is received and integrated into I-CARE daily. These downloads also include data from the Illinois Department

of Public Aid and data from the City of Chicago and Cook County Global billing systems. I-CARE currently holds immunization data on almost 3 million Illinois residents. In late May, I-CARE contained records of 2,995,766 persons aged 0-69 who had received one or more immunizations at public or private health care providers. Table 1 shows the proportion of the Illinois population with at least one vaccination record currently housed in I-CARE.

Table 1. Proportion of Illinois Population with Immunization Data Housed in I-CARE, May 2009

Age Ranges	< 5 years	5-13 yrs	14-17 yrs	18-24 yrs	25-44 yrs	45-64 yrs	> 65 yrs	Total
IL Census Estimates for 2008	894,368	1,558,919	725,973	1,311,479	3,596,343	3,239,173	1,575,308	<b>12,901,563</b>
% Records in I-CARE	62.95%	47.78%	56.34%	46.93%	10.48%	1.26%	2.90%	23.22%

I-CARE data will be utilized continually throughout the project period as an indicator of expected improvements in immunization coverage levels with ARRA targeted populations; site-specific data will be monitored quarterly to identify utilization trends and to validate routinely reported vaccine accountability data.

Data extracted from I-CARE showed less than one percent of the children and adolescents under age 19 years had a reported history of varicella immunity due to previous infection. The number and proportionate representation for children and adolescents aged five through 19 years, compared to the 2000 census (2,7728,957) for specific age ranges are shown in Table 2. Data maintained in I-CARE revealed that only five percent of children and adolescents aged 5 through 19 years had received two doses of varicella vaccine, 7.5% had been vaccinated against meningococcal disease and only 4% had received a dose of Tdap to prevent pertussis.

Table 2. 5-19 Year Olds with Varicella, Meningococcal and Pertussis (Tdap) Vaccinations Reported in I-CARE, Percent 2008 Census Estimates, May 2009

Age Group	Number 1 dose Varicella / %	Number 2 dose Varicella / %	Number Meningococcal / %	Number Pertussis (Tdap) / %
5-9 Years	380,909 / 80%	113,937 / 15%	n/a	n/a
10-14	107,940 / 26%	18,966 / 4.5%	18,938 / 4.5%	25,457 / 6%
15-19	27,814 / 6%	5,128 / 1%	34,632 / 7.5%	44,674 / 9.5%
<b>TOTALS</b>	<b>516,663 / 19%</b>	<b>138,031 / 5%</b>	<b>53,570 / 3%</b>	<b>70,131 / 4%</b>

Immunization staff routinely conducts **retrospective immunization record assessments** at over 50 schools in Illinois, excluding Chicago, to determine the percentage of kindergartners who were age-appropriately immunized by two years of age. The schools selected for assessment are representative of the Illinois population with many located within the identified “pocket of need” areas. The following number of records are assessed at each school: 25 kindergartners, 25 pre-kindergarten program children (if school had a pre-K program), and 25 fifth grade students. The visits are also an opportunity to validate the reliability of school-reported vaccination data on compliance with the pre-kindergarten, kindergarten and 5<sup>th</sup> grade hepatitis B requirements. Although a second dose of varicella vaccine is not currently required in Illinois for school, retrospective record audits of 1,106 kindergartners from 48 selected public and private Illinois schools were conducted during the first quarter of 2009 as a validation of ISBE-reported school

coverage levels. Audits identified 71% of records reviewed for kindergarteners had records demonstrating receipt of two doses of VCV. Audits of 405 records of kindergarteners from the proposed four-county area revealed an average of 79% of kindergarteners with two doses of VCV.

IDPH and each of its 95 authorized health departments utilize **I-NEDSS**, a web-based system for reporting communicable diseases, including cases of pertussis, meningococcal disease and varicella. Secured access to I-NEDSS is available to authorized staff at public health departments, infection control and lab-based staff at hospitals and to infectious disease practitioners throughout Illinois. Analysis of 2008 I-NEDSS data shows the impact adolescents play on community-based outbreaks of meningococcal, pertussis and varicella disease:

- Of the 88 cases of invasive disease caused by *N. meningitidis* reported in 2008, 59 cases (67%) were reported among downstate IL residents. Fifteen of these cases (25%) were between the ages of 17 and 22; six cases (10%) were under 12 years of age.
- The Illinois project area, excluding Chicago, reported 549 (87%) of the state's reported 628 cases of pertussis in 2008. Of these reported pertussis cases occurring among downstate Illinois residents, 29% occurred in 5-9 year olds, 29% occurred in 10-14 year olds and 6% occurred in 15-19 year olds.
- Of the varicella cases reported within I-NEDSS with onsets occurring in 2008, 75% were school-aged. The number of chickenpox cases reported in Illinois in the first year of case-based reporting (March 2008-March 2009) was 1,787 cases (excluding City of Chicago); 230 (13%) of these cases were outbreak-related. Sixty-six percent of the outbreak-related cases were 5-9 years of age, 22% were 10-14 years of age and 7% occurred in children and infants four years of age or younger.

### *ARRA Grants to IDPH Authorized Health Jurisdictions*

The Immunization Program will negotiate \$1,972,500 in grant agreements<sup>2</sup> among the 95 local health departments which demonstrated vaccine delivery to VFC-qualified infants, children and adolescents during 2008. These grants will allow these IDPH authorized local health departments to expand immunization services to address specific susceptible populations within their communities; thereby reducing the opportunity for incidence of these vaccine-preventable diseases. Grant funds will be used to add or sustain existing staff and resources needed to provide additional immunization services, focusing primarily on the underinsured adolescent population needs. Funds may be utilized to support nurses and other staff who address patient tracking and outreach efforts to collaborate schools and other community clinic sites within the health department's jurisdiction. It is expected that these health departments will identify local approaches to:

1. Identify, promote and deliver local strategies to increase existing immunization clinic service opportunities and immunization coverage levels for:
  - A. Underinsured adolescents by ensuring routine availability of:
    1. meningococcal vaccine for adolescents aged 11 through 18 years,
    2. a second dose of varicella vaccine for adolescents without a history of varicella disease, and
    3. Tdap for adolescents aged 10-18 years.
  - B. First-time parents who are likely to be susceptible to pertussis.
  - C. Local health department staff who have routine public contact and exposure to vaccine preventable diseases like hepatitis B, measles, mumps, rubella and pertussis
2. Utilize a reminder/recall services to ensure series completion, where applicable.
3. Ensure that all data on immunizations provided is recorded into Global, Cornerstone, or Illinois Comprehensive Automated Immunization Registry Exchange (I-CARE) registry systems.
4. Evaluate the effectiveness of local strategies to increase adult and adolescent immunization levels for these targeted populations.
5. Prepare and submit progress reports, as identified by the IDPH following guidance from OMB, HHS, and CDC on reporting compliance requirements under Section 1512 of the American Recovery and Reinvestment Act of 2009, Public Law 111-5. These progress reports, provided throughout the project period, will summarize activities initiated to improve vaccination coverage levels among these targeted populations and will detail hours of immunization services provided monthly and data on vaccine doses administered.

Local health departments which will be recipients of ARRA funds, along with the proposed grant amount for each agency are shown in Table 3.

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<sup>2</sup> The funding algorithm utilized for the local health department grants utilizes an initial rate, based on the jurisdiction population, combined with an increment, based on the number of doses of pediatric VFC-related vaccine distributed during 2008.

**Table 3. Distribution of ARRA Funds to 93 IDPH Authorized Local Health Jurisdictions**

Health Jurisdiction / City / ARRA Stimulus Funding Level	Health Jurisdiction / City / ARRA Stimulus Funding Level
1. Adams CHD / Quincy / \$29,500	49. Lawrence CHD / Lawrenceville / \$16,500
2. Bond CHD / Greenville / \$15,500	50. Lee CHD / Dixon / \$21,000
3. Boone CHD / Belvidere / \$19,500	51. Livingston CHD / Pontiac / \$17,000
4. Brown CHD / Mt. Sterling / \$11,000	52. Logan CHD / Lincoln / \$19,000
5. Bureau CHD / Princeton / \$19,000	53. Macon CHD / Decatur / \$30,000
6. Calhoun CHD / Hardin / \$11,000	54. Macoupin CHD / Carlinville / \$19,500
7. Carroll CHD / Mt. Carroll / \$13,500	55. Madison CHD / Wood River / \$30,000
8. Cass CHD / Virginia / \$15,500	56. Marion CHD / Salem / \$20,500
9. Champaign CHD / Champaign / \$23,000	57. Marshall CHD / Peoria / \$13,500
10. Christian CHD / Taylorville / \$16,000	58. Mason CHD / Havana / \$14,500
11. Clark CHD / Martinsville / \$14,500	59. McDonough CHD / Macomb / \$16,000
12. Clay CHD / Flora / \$14,500	60. McHenry CHD / Woodstock / \$34,000
13. Clinton CHD / Carlyle / \$17,000	61. McLean CHD / Bloomington / \$33,000
14. Coles CHD / Charleston / \$20,500	62. Menard CHD / Petersburg / \$13,000
15. Cook CHD / Oak Park / \$43,000	63. Mercer CHD / Aledo / \$14,500
16. Crawford CHD / Robinson / \$19,000	64. Monroe CHD / Chester / \$20,500
17. Cumberland CHD / Toledo / \$14,000	65. Montgomery CHD / Hillsboro / \$18,000
18. DeKalb CHD / DeKalb / \$28,500	66. Morgan CHD / Jacksonville / \$22,000
19. DeWitt-Piatt CHD / Clinton / \$17,000	67. Moultrie CHD / Sullivan / \$13,500
20. Douglas CHD / Tuscola / \$14,500	68. Ogle CHD / Oregon / \$21,500
21. DuPage CHD / Wheaton / \$46,000	69. Oak Park / Oak Park / \$17,500
22. East Side Health / E. St. Louis / \$19,000	70. Peoria CCHD / Peoria / \$33,000
23. Edgar CHD / Paris / \$13,500	71. Perry CHD / Pinckneyville / \$17,000
24. Edwards Cnty Nurses Assoc. / \$12,000	72. Pike CHD / Pittsfield / \$14,500
25. Effingham CHD / Effingham / \$21,000	73. Putnam CHD / Princeton / \$11,000
26. Egyptian CHD / Eldorado / \$19,500	74. Richland County Nurses / \$16,500
27. Evanston HD / Evanston / \$17,500	75. Rock Island CHD / R.I. / \$23,000
28. Fayette CHD / Vandalia / \$21,000	76. St. Clair CHD / Belleville / \$28,000
29. Ford-Iroquois CHD / Watseka / \$20,500	77. Sangamon CHD / Springfield / \$25,000
30. Fr'n-Wm'son CHD / Marion / \$27,000	78. Schuyler CHD / Rushville / \$11,000
31. Fulton CHD / Canton / \$16,000	79. Scott CHD / Winchester / \$ 12,000
32. Greene CHD / Carrollton / \$16,500	80. Shelby CHD / Shelbyville / \$19,000
33. Grundy CHD / Morris / \$18,000	81. Skokie HD / Skokie / \$19,500
34. Hamilton CHD / McLeansboro / \$12,000	82. Southern 7 HD / Ullin / \$21,500
35. Hancock CHD/ Carthage / \$17,000	83. Stark CHD / Wyoming / \$10,000
36. Henderson CHD / Gladstone / \$11,000	84. Stephenson CHD / Freeport / \$19,500
37. Henry CHD / Kewanee / \$21,500	85. Stickney HD / Burbank / \$17,000
38. Jackson CHD / Murphysboro / \$20,500	86. Tazewell CHD / Tremont / \$29,000
39. Jasper CHD / Newton / \$13,000	87. Vermilion CHD / Danville / \$19,500
40. Jefferson CHD / Mt. Vernon / \$20,000	88. Wabash CHD / Mt. Carmel / \$16,000
41. Jersey CHD / Jerseyville / \$19,000	89. Warren CHD / Monmouth / \$13,500
42. JoDaviess CHD / Galena / \$17,000	90. Washington CHD / Nashville / \$13,500
43. Kane CHD / Aurora / \$ / \$37,000	91. Wayne CHD / Fairfield / \$16,500
44. Kankakee CHD / Kankakee / \$24,000	92. Whiteside CHD / Morrison / \$28,500
45. Kendall CHD / Yorkville / \$21,500	93. Will CHD / Joliet / \$46,000
46. Knox CHD / Galesburg / \$20,500	94. Winnebago CHD / Rockford / \$32,000
47. Lake CHD / Waukegan / \$60,000	95. Woodford CHD / Eureka / \$18,000
48. LaSalle CHD / Ottawa / \$25,000	

### *ARRA Grants to IDPH Partners and Collaborators*

IDPH is requesting support to address completion of modifications to the varicella module within the I-NEDSS case-reporting system. The IDPH I-NEDSS varicella reporting module currently collects only demographic-related morbidity information, but will be upgraded in late 2009 to allow extended data collection on individual cases, clusters and reporting of outbreaks and associated contacts identified during follow-up. The expanded I-NEDSS varicella module will also provide documentation for confirmatory laboratory testing, clinical descriptions and documentation of the history of previous disease and/or varicella vaccination. An estimated \$34,000 will be utilized for I-NEDSS developers (Rose International) to complete these modifications and to develop report templates for IDPH and ARRA recipients to utilize to address morbidity-related performance measures.

Contractual support is also being requested for the Illinois Maternal and Child Health Coalition (\$30,000) to increase private provider enrollment in I-CARE in the Chicago metropolitan area by continuing provider meetings and surveys/focus groups to solicit feedback on ICARE functionality and address modifications to meet providers' needs. The Child Health Coalition will also provide site-based I-CARE training to Chicago-area providers enrolling as I-CARE providers. The Illinois Maternal and Child Health Coalition sponsors the Chicago Area Immunization Campaign, which recruits health care providers and organizations to facilitate the achievement of 90% immunization compliance rates for children under two.

IDPH is also requesting support to cover administrative agency charges (\$7,475 based on the rate of \$231.57 / hr for a total of 35 hours) needed to update and improve the public website operated by IDPH to address informational updates on content for vaccine preventable disease pages, VFC program pages and I-CARE pages.

In addition, IDPH has collaborated with the Illinois Chapter of the American Academy of Pediatrics (ICAAP) for several years in a series of initiatives to achieve increased immunization coverage levels among infants and children. ICAAP will expand their website to include new messaging promoting childhood and adolescent vaccination against meningococcal, pertussis and varicella disease.

## Current IL Project Area Activities that will be expanded with ARRA Funds

This proposal requests funds to assist 95 health jurisdictions in Illinois (excluding Chicago) to expand existing immunization services to:

- Increase population-based vaccination coverage levels against influenza and pneumococcal infections as documented in the IDPH I-CARE registry.
- Increase population-based vaccination coverage levels against varicella zoster among persons 60 years and older as documented in the IDPH I-CARE registry.
- Increase population-based vaccination coverage levels against hepatitis B for persons aged 22 and older as documented in the IDPH I-CARE registry.

During 2008, local health department staff provided over 400,000 vaccinations to VFC-enrolled children. IDPH provided a total of 91,440 doses of **influenza vaccine** to local health departments for use with VFC-eligible children and adolescents during the 2008-2009 influenza season. In addition, most health departments continued to procure influenza vaccine for staff and community-based influenza immunization clinics through group purchasing of vaccine facilitated by the Illinois Public Health Association (over 130,000 doses acquired annually) and/or the Northern Illinois Public Health Coalition. Over 80 percent of Illinois health jurisdictions provide community-based influenza immunization clinics annually.

During the last two years, most local health jurisdictions have ensured that influenza vaccinations, even those offered at community-based clinics outside health department facilities, are documented in the I-CARE immunization registry. Documented receipt of influenza vaccine, by age groups, is provided in Table 4.

Table 4. Influenza Vaccination – I-CARE vaccination coverage levels for selected age ranges for receipt during 2008-2009 influenza season, May 2009

Ages	0-4	5-9	10-14	15-19	20-24	25-49	50-59	60+	TOTAL
<b>I-CARE Population May 2009</b>	563,022	744,881	408,817	456,951	358,555	376,973	40,829	45,738	2,995,766
<b>1 Dose</b>	77,563	48,741	10,695	3,252	278	1,224	842	2,120	144,715
<b>% I-CARE Population</b>	13.78%	6.54%	2.62%	0.71%	0.08%	0.32%	2.06%	4.64%	4.83%
<b>2 Doses</b>	20,829	2,324	44	8	3	2	0	0	23,210
<b>% I-CARE Population</b>	3.70%	0.31%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.77%

In conjunction with annual influenza vaccination services, many local health departments also administer **pneumococcal vaccine** to persons 65 and older and those with certain underlying and chronic conditions which include diabetes, chronic heart disease, asthma or who have compromised immune systems. Recent H1N1 prevention strategies include ensuring these at-risk

persons have current pneumococcal vaccination to reduce occurrence of pneumococcal and H1N1 influenza infections. Data on the patients who received pneumococcal polysaccharide vaccine within the last 5 years, as documented in I-CARE, is presented in Table 5.

Table 5. Pneumococcal polysaccharide vaccine – I-CARE vaccination coverage levels among selected age ranges for vaccine receipt within last 5 years, May 2009

Ages	10-14	15-19	20-24	25-49	50-59	60+	TOTAL
<b>I-CARE Population May 2009</b>	408,817	456,951	358,555	376,973	40,829	45,738	1,687,863
<b>Pneumo</b>	203	190	111	699	902	5,103	7,208
<b>% I-CARE Population</b>	0.05%	0.04%	0.03%	0.19%	2.21%	11.16%	0.24%

Several local health jurisdictions also stock varicella zoster vaccine for persons 60 and older. **Zoster coverage levels** for this population, as documented in I-CARE, were very low, with only 1,091 persons (2.39% of I-CARE population aged 60 or older) having documented receipt of the zoster vaccine. Zoster coverage levels will be monitored throughout the course of the ARRA stimulus period to identify utilization changes.

As a result of the hepatitis B vaccination requirement for fifth grade school entry established in 1997, approximately 90% of persons between the ages of 17 and 22 currently residing in Illinois have been vaccinated against hepatitis B. In addition, local health department STD clinics have provided **hepatitis B vaccination** services to almost 30 percent of their eligible population since 2001. Hepatitis B immunization coverage levels, as reported within I-CARE, for persons currently aged 20 and older are presented in Table 6.

Table 6. Hepatitis B Vaccination (HBV) – I-CARE vaccination coverage levels among selected age ranges for receipt of one dose and completion of Hepatitis B series, May 2009

Ages	20-24	25-49	50-59	60+	TOTAL
<b>I-CARE Population, May 2009</b>	358,555	376,973	40,829	45,738	822,095
<b>1 Dose HBV</b>	197,565	97,866	15,412	10,637	321,480
<b>% I-CARE Population</b>	55%	26%	38%	23%	39%
<b>3 Doses HBV</b>	140,687	56,852	11,836	8,555	217,930
<b>% I-CARE Population</b>	39%	15%	29%	19%	27%

The Immunization Program will negotiate grant agreements with each of the 95 local health departments that demonstrated vaccine delivery during 2008 to support staff responsible for addressing community-based immunization needs and documenting vaccinations provided within I-CARE/Cornerstone. All vaccinations, whether supplied by CDC, IDPH or directly procured by the local health agency, will be documented in the Illinois registry system.

In addition, IDPH is in the process of surveying local health departments to assess workforce immunization levels and identify employees who are susceptible to common vaccine preventable diseases that are readily transmitted through public exposures (hepatitis B, measles, mumps, rubella, and pertussis.) Estimates of vaccine needs to protect existing or new health department staff include 900-1,000 doses of MMR vaccine, 500-600 doses of Hepatitis B vaccine and 4,000-5,000 doses of pertussis-containing (Tdap) vaccine. Availability of these vaccines to susceptible staff through this new initiative should reduce the opportunity of infection of these vaccine preventable diseases; thereby reducing the possible spread of infection in the workplace and loss of workforce availability due to VPD-related illness. Vaccination of susceptible health department employees should allow the health departments to reduce the opportunity of workplace acquired and/or transmitted vaccine preventable disease and reduce employee absences directly due to vaccine preventable diseases. As with all vaccinations administered in conjunction with ARRA funds, ALL health jurisdiction vaccinations administered to employees will be recorded into Global, Cornerstone or I-CARE systems. Registry-wide data, as well as site-specific data, will be evaluated through I-CARE ad hoc reporting.

## **Illinois Collaborations and Capacity for Administration of ARRA Vaccine**

IDPH has a long history of collaborating with the 95 local health agencies, which are certified or authorized to act on behalf of IDPH to develop and administer programs and services that are aimed at maintaining a healthy community. IDPH has collaborated with the key staff from local health departments to address vaccine preventable disease prevention by:

- Establishing a vaccine reimbursement program that began in the 1970s and continues today in the form of the Vaccines For Children program
- Conducting informational meetings or conference calls to allow a forum for delivering guidance and allowing discussion during disease outbreaks
- Providing routine orientation, training, guidance and assistance to investigate local cases of vaccine preventable diseases and to plan to address possible pandemics
- Providing guidance and monitoring selected local health departments receiving VFC-AFIX grants to ensure that VFC-AFIX visits performed adhere to CDC and IDPH recommended protocols and to assure timely submission of VFC-AFIX visit documentation,
- Providing guidance and monitoring selected local health departments receiving funds to support outreach clinics and perinatal hepatitis B prevention initiatives.

Local health departments, which are the “back-bone” of public health in Illinois, are funded from a combination of sources including local fee-for-service systems, local tax support, state funding from IDPH or other state agencies, federal sources and non-governmental grant sources. The Illinois Department of Public Health awards Local Health Department Development Grants to newly formed local health departments and provides Local Health Protection Grants to certified public health agencies. These health protection grants are awarded in amounts determined by a need-based formula that includes a county's population, per capita income and assessed property value. In return, local health agencies are required to provide a full range of public health services to residents including, but not limited to, infectious disease prevention and control, food protection, potable water supply and private sewage disposal.

In addition to receipt of general IDPH Health Protection Grants, most local health departments received grants within the past decade for immunization-related services aimed at improving infant immunization coverage levels. All local health departments initiated steps to remove barriers to vaccination, including integrating vaccination services into other health-related services accessed by the population including providing childhood vaccinations in WIC clinics and offering hepatitis B vaccination in STD clinics. Local health departments will be encouraged to explore the feasibility of administering Tdap to young parents attending WIC clinics with this ARRA initiative. Immunization-related ARRA grants are expected to be utilized primarily to retain selected existing nursing and ancillary staff or to hire additional part-time nursing staff who will deliver immunization-related services routinely to the local health jurisdiction's population.

Many local health department staff involved with vaccination clinics and/or communicable disease control initiatives have collaborated with local schools and colleges in the past five years to address mumps, measles, pertussis varicella, and more recently H1N1 outbreaks within these

facilities. This previous collaboration will be useful as local health departments undertake initiatives to promote Tdap, second-dose varicella and meningococcal vaccination initiatives entailed in this grant. IDPH will continue to benefit from its collaboration with the State Board of Education (ISBE). This partnership not only provides IDPH with useful annual enrollment indicators of selected vaccine coverage levels, but also presents a recognized forum (isbe.net) through which IDPH can address all school administrators to advocate for vaccine preventable disease prevention of through vaccination.

IDPH will also continue to collaborate with the Illinois Chapter of the American Academy of Pediatrics, the Illinois Maternal and Child Health Coalition, and the Chicago Area Immunization Campaign to promote childhood and adolescent vaccination and to emphasize the continued reality of low coverage levels against meningococcal, pertussis and varicella disease among adolescents and young adults.

## Operational Plan to Assess Illinois ARRA Progress

**By October 1, 2009, Immunization Program Staff will comply with ARRA reporting requirements as outlined in ARRA FOA Section VI.3 and VI.4 and Appendix A.**

Karen McMahon, the IDPH Immunization Section Chief, will facilitate development of a detailed plan for meeting the **Recovery Act and OMB tracking and reporting requirements** as outlined in FOA Section VI.3 Reporting Requirements and Section VI.4 Terms and Conditions, and reporting on performance measures outlined in FOA Appendix A. This plan is described and entered as a SMART objective within eGrATIS. Ms. McMahon will acquire information necessary to track and report on ARRA quarterly reporting requirements and OMB-related reporting required for public access via Recovery.gov and will ensure compliance with requirements established by the Federal Accountability and Transparency Act.

In addition to vaccine accountability data that will be collected routinely by IDPH with each local health jurisdiction vaccine order, each health jurisdiction receiving ARRA funds will ensure that all ARRA-supplied vaccinations are either reported either directly into the IDPH I-CARE registry or documented in the Cornerstone or Global systems which are uploaded daily into I-CARE.

The overarching Objective and Outcome Measure from ARRA support within the Illinois project will be to **Increase I-CARE reported coverage levels by December 31, 2011, to the following proportions, for the age groups and vaccines specified in Table 7.**

Table 7. Comparison of current (May 2009) age-based population immunization coverage levels within I-CARE to coverage levels expected by 12/31/2011 for ARRA-funded vaccine

Vaccine →	1 dose Varicella		2 doses Varicella		Meningococcal		Pertussis (Tdap)	
	May 2009	Dec 2011	May 2009	Dec 2011	May 2009	Dec 011	May 2009	Dec 2011
<b>5-9 Years</b>	80%	85%	15%	25%	n/a	n/a		n/a
<b>10-14 Years</b>	26%	30%	4.5%	15%	4.5%	10%	6%	10%
<b>15-19 Years</b>	6%	10%	1%	5%	7.5%	15%	9.5%	15%
<b>20-24 Years</b>	n/a	n/a	n/a	n/a	n/a	n/a	1%	5%

To accomplish this objective, the following activities will be deployed within the prescribed time-frames to expand immunization services offered at 93 IDOH authorized health jurisdictions through 2011.

1. By August 14, 2009, hold a series of information conference calls with local health jurisdiction administrators to ensure intent and expected use of ARRA supplemental funds is known by prospective grantees.  
**Outcome Measure:** Content of call(s) and jurisdictions participating will be included in July 1, 2009 through September 30, 2009 quarterly report.

2. By September 30, 2009, ensure that grants to local health jurisdictions (Table 3) are executed and ARRA-supported initiatives have begun. IDPH reporting guidelines and report templates / tools will be included with executed grants. These reports will collect information on the number and types of venues where vaccines are administered. (ARRA-funded vaccine used by local health jurisdictions will be documented in vaccine accountability data required of IDPH VFC sites and will include number of doses administered by vaccine type, vaccine dose and patient age range.)  
**Outcome Measure:** Grants will be executed on or before September 30, 2009. Participating local health jurisdictions will be notified of ARRA grants (See Appendix A) as soon as CDC releases ARRA vaccine. Jurisdictions will place new 2009 orders for meningococcal, pertussis (Tdap) and varicella vaccines accordingly following this initial notification.
3. By September 15, 2009, develop a database to house, analyze and evaluate data reported from 95 health jurisdictions throughout the ARRA project.  
**Outcome Measure:** IDPH will be able to comply with OMB, HHS and CDC-issued reporting requirements and any additional reporting required within Illinois to address use of ARRA funds.
4. By October 5, 2009, ensure that local health jurisdictions have submitted preliminary first quarter (July 1, 2009 through September 30, 2009) data on immunizations administered. Quarterly reporting from jurisdictions will be continued throughout 2011. Existing IDPH staff will be utilized as needed to ensure that reports from health jurisdictions are timely and provide information requested in compliance with grant guidance and established agreement deliverables.  
**Outcome Measure:** Documentation on Statewide (excluding Chicago) expanded services will be monitored and trends towards accomplishing utilization of all ARRA-funded vaccine will be tracked.
5. By December 31, 2009, ensure that grants to the Illinois Maternal and Child Health Coalition to support ARRA-related services are executed. IDPH reporting guidelines and report templates / tools will be included with executed grants.  
**Outcome Measure:** Grant will be executed on or before December 31, 2009 for calendar year 2010. Illinois Maternal and Child Health Coalition will submit documentation of grant deliverables in quarterly progress reports throughout 2010.
6. By December 31, 2009, create, test and deploy the expanded varicella module within the IDPH I-NEDSS system and new report templates within the Business Objects universe to allow local health jurisdictions to better examine vaccination histories associated with vaccine-preventable disease cases.  
**Outcome Measure:** IDPH I-NEDSS application will be in compliance with CDC guidelines for varicella reporting and IDPH authorized health jurisdictions will have improved tools to monitor vaccine effectiveness on VPDs.

7. By March 31, 2010, ensure that changes to the IDPH public website that promote recommended immunizations, advise the public about prevention and control of vaccine-preventable diseases and offer private providers more information about the benefits of enrolling in the VFC program and the I-CARE immunization registry.  
**Outcome Measure:** Public internet pages for the general public and private providers will be updated and will support and promote vaccination strategies Illinois has identified for ARRA-supplied vaccine.

## **Proposal to Vaccinate More Children and Adults Budget Narrative and Justification**

<b>A. CONTRACTUAL</b>	<b>TOTAL</b>	<b><u>\$2,036,500</u></b>
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<b>Local Health Department Grants</b>		<b>\$1,972,500</b>
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These 95 local health departments (See Table 3, Page 8) will utilize ARRA-funded vaccine to expand immunization services to address specific susceptible populations within their communities; thereby reducing the opportunity for incidence of these vaccine-preventable diseases. Grant funds will be used to add or sustain existing staff and resources needed to provide additional immunization services, focusing primarily on the underinsured adolescent population needs. Funds may be utilized to support nurses and other staff who address patient tracking and outreach efforts to collaborate with schools and other community clinic sites within the health department's jurisdiction. It is expected that these health departments will identify local approaches to identify, promote and deliver strategies to increase existing immunization clinic service opportunities and immunization coverage levels for:

- A. Underinsured adolescents by ensuring routine availability of:
  - 1. meningococcal vaccine for adolescents aged 11 through 18 years,
  - 2. a second dose of varicella vaccine for adolescents without a history of varicella disease, and
  - 3. Tdap for adolescents aged 10-18 years.
- B. Young parents who are likely to be susceptible to pertussis.
- C. Local health department staff who have routine public contact and exposure to vaccine preventable diseases like hepatitis B, measles, mumps, rubella and pertussis

Grantees will also document all immunizations provided within one of the recognized immunization registry systems. Grantee progress will be evaluated by agency-specific coverage levels reported in I-CARE and by quarterly progress reports submitted by the Grantee in compliance with guidance from IDPH, OMB, HHS, and CDC on reporting as required under Section 1512 of the American Recovery and Reinvestment Act of 2009, Public Law 111-5.

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<b>Illinois Maternal and Child Health Coalition</b>		<b>\$30,000</b>
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This grant is requested to allow the Illinois Maternal and Child Health Coalition to increase I-CARE private provider enrollment in the Chicago metropolitan area through provider meetings and surveys/focus groups to solicit feedback on ICARE functionality and address modifications to meet providers' needs. The Illinois Maternal and Child Health Coalition sponsors the Chicago Area Immunization Campaign, which recruits health care providers and organizations to facilitate the achievement of 90% immunization compliance rates for children under two.

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<b>Rose International</b>		<b>\$34,000</b>
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Funds are being requested to support the development and deployment of the extended modules of the I-NEDSS varicella component. Currently, varicella reporting allows demographic-based

reporting on each case. Availability of these funds to address developing and deploying additional screens to document expanded data collected on the patient's history of previous illness and/or varicella vaccination and provide information on patient epidemiological risk factors, contacts, lab results and severity of illness will be an essential component to evaluating progress on this proposal. Following a competitive process in 2008, Rose International is the current recipient of a three-year contract to address expansions and modification to the IDPH I-NEDSS application.

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**B. OTHER**

**\$7,475**

IDPH is also requesting to cover administrative agency charges (\$7,475 based on the rate of \$231.57 / hr for a total of 35 hours) needed to update and improve the public website operated by IDPH to address informational updates on content for vaccine preventable disease pages, VFC program pages and I-CARE pages.

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**TOTAL ILLINOIS ARRA Stimulus Proposal**

**\$2,043,975**