Department of Health & Human Services
DHHS
NEBRASKA

Division of Public Health

State of Nebraska
Pete Ricketts, Governor

November 25, 2015

Patrick O'Donnell, Clerk of the Legislature
State Capitol, Room 2018
P.O. Box 94604
Lincoln, NE 68509

Dear Mr. O'Donnell:

Nebraska Revised Statute §71-529 requires the Department of Health and Human Services, Division of Public Health to report on the activities of the statewide Immunization Program annually to the Legislature. Pursuant to this law, we are submitting our report for the time period of November 1, 2014 to October 31, 2015.

In addition to various successes in terms of increased rates of childhood vaccinations described here, we are also pleased to report that the Nebraska Immunization Program was the recipient of awards from the federal Centers for Disease Control and Prevention this year.

Please feel free to contact me if you have any questions.

Sincerely,

Courtney N. Phillips, MPA
Chief Executive Officer
Department of Health and Human Services

REPORT TO: Nebraska Legislature

REPORT DATE: November 25, 2015

STATUTE: 71-526 through 71-530

CONTACT PERSON: Sara Morgan, Immunization Program Manager, 402-471-2139

General Information

NEB. REV. STAT. §§ 71-526 through 71-530 constitutes the Childhood Vaccine Act, and as such authorizes the Department of Health and Human Services to administer a statewide comprehensive program. Activities conducted as part of this program may include:

- Actively seeking the participation of stakeholders to ensure that children are appropriately immunized;
- Providing information and education to the public and other stakeholders to maintain a high level of awareness and demand for immunization;
- Assisting stakeholders in improving the availability and delivery of immunizations to ensure the adequacy of the vaccine delivery system;
- Evaluating the effectiveness of these statewide efforts, measuring children's immunization status, identifying children at risk for deficiencies, and reporting annually to the Legislature;
- Recognizing persons who volunteer efforts towards achieving the goal of providing immunization to children;
- Providing for immunization of children who are not otherwise eligible for immunization coverage with Medicaid or private third-party payment;

This report provides a summary of the progress that has been made in carrying out the duties prescribed above for the period of November 1, 2014 to October 31, 2015.

Immunization Program Overview

The Immunization Program is funded by federal grants from the Centers for Disease Control and Prevention (CDC) to implement and maintain an immunization program for eligible Nebraska children from birth through 18 years of age. Eligible children include those that are Medicaid eligible, uninsured, underinsured (their insurance specifically excludes vaccine coverage), and/or American Indian/Alaska Native children. Program activities include:

- distributing publicly funded vaccines to participating providers (currently numbering approximately 300 public and private clinics)
- providing immunization training on vaccines and vaccine management
- conducting quality assurance procedures with enrolled providers
- maintaining and enhancing the Nebraska State Immunization Information System (NESIIS)
- conducting surveillance of vaccine preventable diseases
- participating in activities related to perinatal hepatitis B prevention
- assessing immunization coverage levels

In addition, the CDC provides funding to conduct similar program activities as they relate to eligible adults. The Adult Immunization Program (AIP) currently maintains approximately 35 enrolled public clinics to assist

in serving eligible adults. Eligible adults include persons 19 years of age and older who are uninsured or underinsured.

Total funding from the CDC to conduct the above activities is approximately $2.5 million each year, not including additional funding from smaller, project-specific grants. In addition to the federal funds, the program has approximately $370,000 in state general funds that can be used to purchase and distribute vaccines to eligible children.

Immunization Coverage Rates

There are a variety of mechanisms in place to monitor immunization coverage rates, at both the national and state level. Nationally, the National Immunization Survey (NIS) is a survey to monitor childhood, adolescent, and adult immunization coverage. The Behavioral Risk Factor Surveillance System (BRFSS), which is facilitated at the national level but administered at the state level, also routinely asks participants questions regarding immunization status. Finally, at the state level, two annual surveys are conducted to assess immunization status of children: one is the school survey which asks schools to report on enrolled children in kindergarten and seventh grade; the other is a survey of licensed child-care facilities asking for a report on children enrolled in care.

BRFSS questions are somewhat limited in number and scope, so they do not give a complete picture of immunizations in Nebraska. Therefore, the NIS, Nebraska school survey and Nebraska childcare facility survey are used for this report.

National Immunization Survey (NIS)

The CDC began collecting data in April 1994 to monitor childhood immunization coverage via the NIS. The survey is conducted in the format of list-assisted random-digit-dialing telephone calls followed by a mailed packet to children's immunization providers to verify responses. Survey data is available annually, and trend data is available as well.

Nebraska has consistently had very high coverage rates, and the 2014 NIS data maintains this standard. Looking at children aged 19-35 months, Nebraska had higher coverage rates compared to the U.S. as well as compared to the region it belongs to for most of the recommended vaccines (see Attachment 1).

The National Immunization Survey also releases teen specific information. As shown in Attachment 2, the 2013-2014 NIS-Teen data indicates that Nebraska consistently has very good coverage rates for the vaccines that are recommended for adolescents 13-17 years of age. In 2014, a revised adequate provider data (APD) definition was implemented and increased inclusion in the NIS-Teen sample. This change resulted in lower vaccination coverage estimates for Nebraska, and coverage estimates using the revised APD definition may not be directly comparable to those previously published.

Nebraska School Survey

Each year the Nebraska Immunization Program conducts a survey of Nebraska schools to obtain summary information related to kindergarten and seventh grade students' immunization status. This survey gathers information on the number of children within a school who have been vaccinated for DTaP (diphtheria, tetanus, and pertussis combined), MMR (measles, mumps, and rubella combined), varicella, and hepatitis B in the case of kindergarten aged children. School staff must report the number of seventh graders who have been vaccinated for TDaP (tetanus, diphtheria, and pertussis combined), MMR, varicella, and hepatitis B. In addition, schools report the number of children who have medical or religious exemption documentation, or are provisionally enrolled while completing vaccination requirements.

The school survey conducted for the 2014-2015 school year shows a 95% or higher coverage rate for both kindergartners and seventh graders for the vaccines mentioned above.

Nebraska Childcare Facility Survey

The survey for childcare facilities gathers information on pre-kindergarten aged children enrolled in a licensed childcare facility who have been vaccinated for the recommended childhood series. The full series recommended for children prior to age two includes ≥4 doses of DTP/DT/DTaP, ≥3 doses of poliovirus vaccine, ≥1 doses of measles-containing vaccine, full series of Hib (*Haemophilus influenzae* type B) vaccine (3 or 4 doses, depending on product type), ≥3 doses of hepatitis B vaccine, ≥1 dose of varicella vaccine, and ≥4 doses of pneumococcal conjugate vaccine (PCV).

The childcare facility survey conducted for the 2014-2015 year shows a 61% coverage rate for children enrolled in licensed programs.

Recognition of the Nebraska Immunization Program

The Nebraska DHHS Immunization Program recently received two Healthy People 2020 Target Awards from the CDC:

- **Childhood Influenza Immunization Coverage Award**: This award recognizes outstanding accomplishment in achieving significant influenza vaccination coverage among children age 6 months to 17 years during the 2014-2015 season.
- **Toddler Vaccination Coverage Award**: This award recognizes outstanding accomplishment in achieving significant coverage for 9 vaccinations among children age 19-35 months. These vaccines constitute the main childhood series, including MMR (Measles, Mumps, Rubella combined), Polio, and DTaP (Diptheria, Tetanus, and Pertussis combined) among others.

Advisory Committee

During 2014 the Nebraska Immunization Program pulled together a group of engaged stakeholders to create the Nebraska Immunization Advisory Committee (NIAC). The role of this committee is exclusively to make recommendations to the Nebraska Immunization Program on matters related to vaccine preventable diseases through immunization services. The NIAC met three times in 2014, has named co-chairs, a vice-chair, and a secretary; and also has finalized a charter. Topics of discussion thus far have included mandatory reporting to the state Immunization Information System (NESIIS), a program strategic plan, and activities related to increasing human papillomavirus (HPV) vaccination rates.

While the NIAC is new, there is a level of engagement and enthusiasm that will hopefully ensure a committed resource for the Immunization Program.

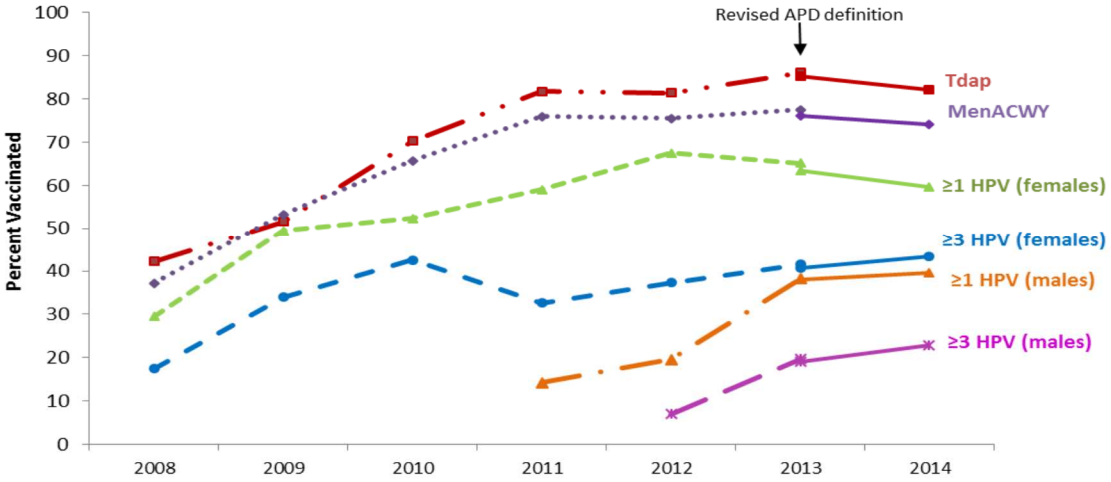
HPV

HPV vaccines offer the best protection against many forms of cancer (cervical, vulvar, vaginal, anal, and oropharyngeal) as well as genital warts and other pre- or non-cancerous lesions. The vaccine works best when girls and boys receive all three vaccine doses and have time to develop an immune response before being sexually active with another person. That's why HPV vaccination is recommended for preteen girls and boys at age 11 or 12 years. The President's Cancer Panel Annual Report released in February 2014 stated that increasing the rate of HPV vaccinations is one of the most profound opportunities in cancer prevention today.

Despite the cancer-prevention benefits, HPV vaccination rates have historically lagged behind other adolescent vaccines. The below graph compares Nebraska rates for HPV with Tdap (a vaccination required for entry into

7th grade) and MenACWY (a quadrivalent meningococcal vaccine). While all three vaccines could and should be administered to an adolescent presenting for a school physical, HPV clearly lags behind the other two vaccines.

Estimated Vaccination Coverage, Teens Aged 13-17 Years, NIS-Teen 2008 – 2014, Nebraska



NIS-Teen estimates from 2008-2013 connected with dashed lines are previously published estimates using the previous APD definition. NIS-Teen estimates from 2013-2014 connected with solid lines use the revised APD definition.

Because this is the case nationwide, CDC has focused many resources on increasing HPV rates and this has resulted in valuable partnerships and initiatives. These include the National HPV Roundtable, an American Academy of Pediatrics (AAP) initiative, a National Area Health Education Center initiative, and revision of the state's cancer plan.

National HPV Roundtable

The American Cancer Society (ACS) received a two year grant to convene a National HPV Vaccination Roundtable. This roundtable is a coalition of public, private, and voluntary organizations with expertise relevant to increasing HPV vaccination coverage in the United States; and its purpose is to reduce illness and death from HPV-associated cancers, through coordinated leadership, strategic planning, and advocacy. The NDHHS Immunization Program Manager is a member of the roundtable, and leads a provider education sub-group focused on identifying continuing education opportunities related to HPV for medical providers and their staff.

American Academy of Pediatrics

The AAP received a cooperative agreement from the CDC to create a sustainable infrastructure and partnerships to facilitate improvement of immunization rates. In the first 2 years of this 5-year cooperative agreement, the focus will be on improving HPV vaccination rates through the following 4 strategies:

1. Provide outreach and training to pediatric offices on immunization delivery issues;
2. Disseminate immunization educational materials to pediatricians;
3. Form strong partnerships to complement AAP expertise on immunization delivery topics, enhance spread of common messages, and avoid duplication of effort; and
4. Prioritize HPV vaccination efforts within the AAP structure.

The Nebraska chapter of the AAP was one of the states to receive funding for these initiatives.

Area Health Education Centers

The National AHEC Organization created a National Training Center (NTC) that received a 5-year cooperative agreement grant from the CDC beginning September 30, 2014, to develop and provide HPV-related training sessions to clinicians nationally. In addition to national and regional level efforts, Nebraska AHEC organizations will conduct the HPV outreach and education activities in order to increase awareness of the prevalence of HPV infections, associated cancers, and the CDC recommendations to administer the HPV vaccinations to 11 and 12 year old males and females as well as "catch-up" vaccinations for adolescents and young adults.

NDHHS Comprehensive Cancer Control Program

The Comprehensive Cancer Control (CCC) Program develops a state Cancer Plan which describes objectives, goals, and activities. The current plan covers the time period of 2011-2016, and the next plan (2017-2022) is currently in development. HPV vaccination has a place in the current plan under the screening section, however there are no specific activities or goals included to increase rates. The NDHHS Immunization Program Manager is serving on the prevention workgroup, and there has been good discussion around moving HPV vaccination to the prevention section and adding data, activities and goals to make that section more robust.

Nebraska State Laws

Current state laws in most cases assist the Nebraska Immunization Program in ensuring widespread vaccination of target populations, by requiring immunization and reporting to the state. However, Nebraska does allow exemptions to the immunization requirements in the form of medical and religious exemptions.

NEB. REV. STAT. §79-217 requires that schools ensure all students are protected against measles, mumps, rubella, poliomyelitis, diphtheria, pertussis, and tetanus by immunization prior to enrollment. Further, the school must ensure that every student entering the seventh grade has a booster immunization containing diphtheria and tetanus toxoids as well as an acellular pertussis vaccine.

NEB. REV. STAT. §71-1913.01 requires that licensed childcare programs obtain from the parent or guardian of enrolled children proof that the child is protected by age-appropriate immunization against measles, mumps, rubella, poliomyelitis, diphtheria, pertussis, tetanus, haemophilus influenzae type B, and invasive pneumococcal disease. This statute further allows parents to submit documentation of either a medical exemption or a personal belief exclusion.

NEB. REV. STAT. §§71-467 through 71-469 requires that certain health care facilities offer influenza, pneumococcal and TDaP vaccinations to all residents, inpatients and employees, although an employee may elect to not be vaccinated. Hospitals must also keep records of employee vaccinations and refusals.

NEB. REV. STAT. §85-902 requires that postsecondary educational institutions give newly enrolled students residing in on campus housing and their parent or guardian information on the risks associated with meningococcal disease, as well as a recommendation that each student receive a meningococcal vaccination. This statute further requires these institutions to request a confirmation that the information has been received and reviewed.

NEB. REV. STAT. §§71-539 through 71-544 provides for the exchange of immunization information between certain health care facilities and professionals.

Attachment 1

Estimated vaccination coverage with selected individual vaccines and a combined vaccine series* among children aged 19-35 months, by U.S. Department of Health and Human Services (HHS) region and state and local area – National Immunization Survey, United States, 2014†

	MMR (≥1 dose)		DTaP (≥4 doses)		Hep B (birth)§		HepA (≥2 doses)		Rotavirus¶		Combined vaccine series*	
	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
United States overall	**91.5**	**(±0.9)**	**84.2**	**(±1.2)**	**72.4**	**(±1.5)**	**57.5**	**(±1.6)****	**71.7**	**(±1.6)**	**71.6**	**(±1.5)**
HHS Region VII	**92.0**	**(±2.5)**	**83.5**	**(±3.6)**	**77.5**	**(±3.8)**	**52.9**	**(±4.7)**	**74.4**	**(±4.1)**	**73.2**	**(±4.1)**
Nebraska	96.0	(±2.9)	87.3	(±5.4)	79.2	(±7.1)	67.9	(±7.9)	79.6	(±6.8)	80.2	(±6.2)

Abbreviations: MMR = measles, mumps, and rubella vaccine; DTaP = diphtheria, tetanus toxoids, and acellular pertussis vaccine (includes children who might have been vaccinated with diphtheria and tetanus toxoids vaccine, or diphtheria, tetanus toxoids, and pertussis vaccine); Hep B = hepatitis B vaccine; Hep A = hepatitis A vaccine; CI = confidence interval; Hib = *Haemophilus influenzae* type b vaccine; PCV = pneumococcal conjugate vaccine.

* The combined (4:3:1:3*:3:1:4) vaccine series includes ≥4 doses of DTaP, ≥3 doses of poliovirus vaccine, ≥1 dose of measles-containing vaccine, full series of Hib vaccine (≥3 or ≥4 doses, depending on product type), ≥3 doses of He pB, ≥1 dose of varicella vaccine, and ≥4 doses of PCV.

† Children in the 2014 National Immunization Survey were born January 2011-May 2013.

§ Hep B administered from birth through age 3 days.

¶ Either ≥2 or ≥3 doses of rotavirus vaccine, depending on product type received (≥2 doses for Rotarix [RV1] or ≥3 doses for RotaTeq [RV5]).

** Statistically significant increase in coverage compared with 2013 estimates from the National Immunization Survey ($p<0.05$).

Attachment 2

Estimated vaccination coverage* with selected vaccines and doses among adolescents aged 13–17 years†, for Nebraska -- National Immunization Survey–Teen (NIS-Teen), 2013-2014

			Females			Males		
	≥1 Tdap[§]	≥1 MenACWY[¶]	≥1 HPV[**]	≥2 HPV[††]	≥3 HPV[§§]	≥1 HPV[**]	≥2 HPV[††]	≥3 HPV[§§]
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
United States overall								
2013 (Original)	86.0(±0.9)	77.8(±1.1)	57.3(±1.9)	47.7(±2.0)	37.6(±1.9)	34.6(±1.9)	23.5(±1.7)	13.9(±1.4)
2013 (Revised)	84.7(±1.0)	76.6(±1.1)	56.7(±1.9)	46.9(±1.9)	36.8(±1.9)	33.6(±1.8)	22.6(±1.6)	13.4(±1.3)
2014	87.6(±0.9)***	79.3(±1.1)***	60.0(±1.9)***	50.3(±1.9)***	39.7(±1.9)***	41.7(±1.8)***	31.4(±1.7)***	21.6(±1.6)***
HHS Region VII								
2013 (Original)	82.4(±2.9)	62.5(±3.7)	49.7(±5.6)	41.7(±5.4)	31.7(±4.9)	26.0(±4.4)	16.6(±3.5)	9.4(±2.7)
2013 (Revised)	81.5(±2.8)	61.7(±3.6)	48.7(±5.5)	40.8(±5.3)	30.9(±4.8)	26.2(±4.3)	17.0(±3.5)	9.5(±2.7)
2014	82.1(±2.8)	65.4(±3.6)	49.8(±5.2)	40.6(±5.0)	31.6(±4.6)	31.0(±4.7)	23.8(±4.3)***	16.3(±3.5)***
Nebraska								
2013 (Original)	86.1(±4.7)	77.5(±5.2)	65.1(±9.2)	55.3(±9.3)	41.5(±9.1)	38.2(±8.7)	26.4(±7.8)	19.7(±7.2)
2013 (Revised)	85.2(±4.8)	76.2(±5.4)	63.5(±9.2)	54.4(±9.2)	40.8(±8.9)	38.0(±8.6)	25.8(±7.7)	19.1(±7.1)
2014	82.2(±5.4)	74.1(±5.8)	59.6(±9.1)	51.2(±9.4)	43.3(±9.5)	39.5(±9.1)	31.0(±8.8)	22.8(±7.8)

Abbreviations: CI = confidence interval; Tdap = tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis; MenACWY = meningococcal conjugate; HPV = human papillomavirus vaccine; NA = not available (estimate not reported because unweighted sample size for the denominator was <30 or (95%CI half width / estimate) > 0.6)

* Estimates with 95% CI half-widths >10 might not be reliable. Revised NIS-Teen 2013 estimates were calculated by retrospectively applying the revised adequate provider data definition implemented in 2014 to 2013 NIS-Teen data and as a result differ from those previously published (original estimates).

† Adolescents in the 2014 NIS-Teen were born January 1996 through February 2002.

§ ≥1 dose Tdap vaccine on or after age 10 years.

¶ ≥1 dose of MenACWY or meningococcal-unknown type vaccine.

** ≥1 dose of HPV vaccine, either quadrivalent (4vHPV) or bivalent (2vHPV). For ≥1, ≥2, and ≥3 dose measures, separate percentages are reported among females only and among males only.

†† ≥2 doses of HPV vaccine, either quadrivalent (4vHPV) or bivalent (2vHPV).

§§ ≥3 doses of HPV vaccine, either quadrivalent (4vHPV) or bivalent (2vHPV).

*** Statistically significant (p<0.05) percentage point increase from revised 2013 estimates.

††† Statistically significant (p<0.05) percentage point decrease from revised 2013 estimates.