

NEBRASKA

Good Life. Great Mission.

DEPT. OF HEALTH AND HUMAN SERVICES



Pete Ricketts, Governor

December 7, 2018

Patrick J. O'Donnell
Clerk of the Legislature
State Capitol, Room 2018
Lincoln, NE 68509-4604

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, 2017 to October 31, 2018.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Bo Botelho".

Bo Botelho
Interim Chief Executive Officer
Department of Health and Human Services

Helping People Live Better Lives

REPORT TO: Nebraska Legislature

REPORT DATE: November 9, 2018

STATUTE: 71-526 through 71-530

CONTACT PERSON: Rebecca Martinez, RN, BSN, 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 (DHHS) 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, 2017 to October 31, 2018.

Immunization Program Overview

The Immunization Program is funded by federal funds 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 279 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 \$2.4 million each year. This total does not include previously awarded additional funding from smaller, project-specific grants and no additional funding of this type was awarded during this report period. In addition to the federal funds, the program has approximately \$286,143 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 and adolescent 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 a survey of licensed child care facilities asking for a report on children enrolled in care; the other is the school survey which asks schools to report on enrolled children in kindergarten and seventh grade.

BRFSS questions are somewhat limited in number and scope, so they do not give a complete picture of immunizations in Nebraska. The NIS, Nebraska child care survey, and the Nebraska school 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 high coverage rates, and the 2017 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 all of the recommended vaccines (see Attachment 1).

The National Immunization Survey also releases teen specific information. As shown in Attachment 2, the 2016-2017 NIS-Teen data indicates that for adolescents 13-17 years of age Nebraska consistently has very good coverage rates and is noted for significantly increasing HPV series completion rates. Nebraska has higher coverage rates than the U.S. for all teen recommended vaccines with the exception of meningococcal vaccination where Nebraska is slightly lower. Nebraska has higher coverage rates than the region it belongs to for all teen recommended vaccines.

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 doses in the vaccine series and have time to develop an immune response before being exposed to the common virus, most contact occurs through sexually activity with another person. That's why HPV vaccination is recommended for preteen girls and boys at age 11 or 12 years but can be given as early as

age 9. 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. Attachment 3 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, though is trending upwards. A focus of both the CDC and the Nebraska Immunization Program is to strongly recommend all adolescent vaccines when first eligible to avoid missed opportunities to vaccinate. This focus also extends to highly encouraging the scheduling of the follow-up HPV vaccination appointment prior to leaving the office along with implementing a reminder-recall process for all patients who are not up to date.

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.

Nebraska Child Care Survey

Each year the Nebraska Immunization Program conducts a survey of licensed child care programs in Nebraska to obtain the age-appropriate immunization status of children in their care. This survey gathers information on who has been vaccinated for DTaP (diphtheria, tetanus, and pertussis), polio, MMR (measles, mumps, and rubella combined), varicella, Hib (haemophilus influenzae type b), hepatitis B, and pneumococcal disease. In addition, programs submit parental, medical or religious exemption documentation.

The child care survey conducted for 2017 shows that by 19-72 months of age, immunization coverage rates vary between 81% - 96% depending upon the vaccine. Promotion of on-time vaccination remains a priority and collective coverage results were shared with all child care programs in 2018 along with education reinforcing the importance of immunization (see Attachment 4).

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), polio, 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), 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 2017-2018 school year shows a 95% or higher coverage rate for both kindergartners and seventh graders for each of the vaccines mentioned above.

Nebraska Immunization Advisory Committee

The role of the Nebraska Immunization Advisory Committee (NIAC) 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 this past year, and has an organizational structure that has been formalized in a finalized charter. Topics of discussion thus far have included reporting to the state Immunization Information System (NESIIS), provider education outreach efforts including specific outreach to

Long Term Care facilities to increase influenza vaccination rates, efforts to increase parental vaccine acceptance, vaccine preventable disease statistics and response, current immunization coverage rates, and activities related to increasing human papillomavirus (HPV) vaccination rates.

The NIAC remains an engaged, enthusiastic, committed resource for the Immunization Program.

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 through 71-1913.03 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. The statute allows the department to specify other reportable diseases, therefore varicella and hepatitis B documentation is also requested. 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, overall and by U.S. Department of Health and Human Services (HHS) region, state and local area – National Immunization Survey-Child, United States, 2017†

National, HHS region, state, and local area	Vaccine/Vaccine series											
	MMR (≥1 dose)		DTaP (≥4 doses) [§]		Hep B (birth dose) [¶]		HepA (≥2 doses)		Rotavirus**		Combined 7-vaccine series	
	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
US National	91.5	(90.6-92.3)	83.2	(82.0-84.3)	73.6	(72.0-75.2) ^{††}	59.7	(58.2-61.3)	73.2	(71.6-74.7)	70.4	(68.9-71.9)
HHS REGION VII	89.1	(85.7-91.7) ^{§§}	80.2	(76.4-83.6)	79.5	(75.9-82.7)	56.2	(51.9-60.3)	75.8	(71.9-79.4)	72.2	(68.1-75.9)
Nebraska	93.7	(89.1-96.4)	86.4	(80.7-90.7)	83.1	(76.6-88.1)	68.3	(61.2-74.6)	78.7	(72.4-83.9)	77.9	(71.4-83.2)

Abbreviations: CI = confidence interval; DTaP = diphtheria, tetanus toxoids and acellular pertussis vaccine; HepA = hepatitis A vaccine; HepB = hepatitis B vaccine; Hib = *Haemophilus influenzae* type b vaccine; MMR = measles, mumps, and rubella vaccine; PCV = pneumococcal conjugate vaccine.

* The combined seven-vaccine series (4:3:1:3*:3:1:4) 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 HepB, ≥1 dose of varicella vaccine, and ≥4 doses of PCV.

† Children in the 2017 National Immunization Survey were born January 2014-May 2016.

§ Includes children who might have been vaccinated with diphtheria and tetanus toxoids vaccine, or diphtheria, tetanus toxoids and pertussis vaccine.

¶ One dose HepB 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 to 2016 (p<0.05).

§§ Statistically significant decrease in coverage compared to 2016 (p<0.05).

¶¶ No comparison was made to coverage in 2016; Travis County was not sampled in 2016 and "rest of state" is not comparable between the two years.

*** Children from Guam (n=440 total, 266 with adequate provider data) were excluded from the national estimates.

Attachment 2

Estimated vaccination coverage* with selected vaccines and doses among adolescents aged 13–17 years¹ United States, HHS Region VII and Nebraska – National Immunization Survey–Teen (NIS-Teen), United States, 2016–2017

	Females and Males				Females		Males		Females and Males	
	≥1 Tdap ^b	≥1 MenACWY ^c	≥1 HPV ^d	% (95% CI)	HPV UTD ^e	% (95% CI)	≥1 HPV ^d	% (95% CI)	HPV UTD ^e	% (95% CI)
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Series 4 Point "2014" Value: 79.3										
2017	88.0(±0.9)	82.2(±1.0)	60.4(±1.2)	43.4(±1.3)	65.1(±1.7)	49.5(±1.9)	56.0(±1.7)	37.5(±1.7)	90.9(±0.7)	85.6(±1.0)
	88.7(±0.9)	85.1(±0.9) ***	65.5(±1.2) ***	48.6(±1.3) ***	68.6(±1.7) ***	53.1(±1.9) ***	62.6(±1.6) ***	44.3(±1.7) ***	92.1(±0.7) ***	88.6(±0.9) ***
HHS REGION VII										
2016	86.2(±2.4)	70.8(±3.3)	55.3(±3.5)	39.3(±3.4)	60.7(±4.9)	43.7(±5.0)	50.2(±4.9)	35.2(±4.7)	89.6(±2.2)	79.7(±3.3)
2017	86.8(±2.6)	77.3(±3.0) ***	61.5(±3.4) ***	44.2(±3.4)	66.2(±4.7)	50.5(±4.9)	57.0(±4.8)	38.2(±4.6)	90.7(±2.0)	83.9(±2.9)
Nebraska										
2016	86.8(±4.6)	80.2(±5.1)	63.7(±6.3)	45.9(±6.6)	69.4(±9.0)	50.6(±9.5)	58.3(±8.8)	41.3(±9.1)	89.7(±4.2)	86.7(±5.2)
2017	92.3(±3.8)	84.8(±4.8)	71.0(±5.9)	58.3(±6.3) ***	72.0(±8.7)	61.4(±9.4)	70.0(±7.9)	55.3(±8.5) ***	93.4(±3.6)	93.0(±4.0)

Abbreviations: HHS = U.S. Department of Health and Human Services; CI = confidence interval; Tdap = tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine; MenACWY = quadrivalent meningococcal conjugate vaccine; HPV = human papillomavirus; HPV UTD = HPV Up To Date; MMR = measles, mumps, rubella vaccine; VAR = varicella 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.

¹ Adolescents (N=20,949) in the 2017 NIS-Teen were born January 1999 through February 2005.

² ≥1 dose Tdap at or after age 10 years.

³ Includes percentages receiving MenACWY or meningococcal vaccine of unknown type.

⁴ HPV vaccine, nine-valent (9vHPV), quadrivalent (4vHPV), or bivalent (2vHPV). For 21, 22, and 23 dose measures, percentages are reported among females and males combined (N = 20,949) and for females only (N = 9,845) and males only (N = 11,104).

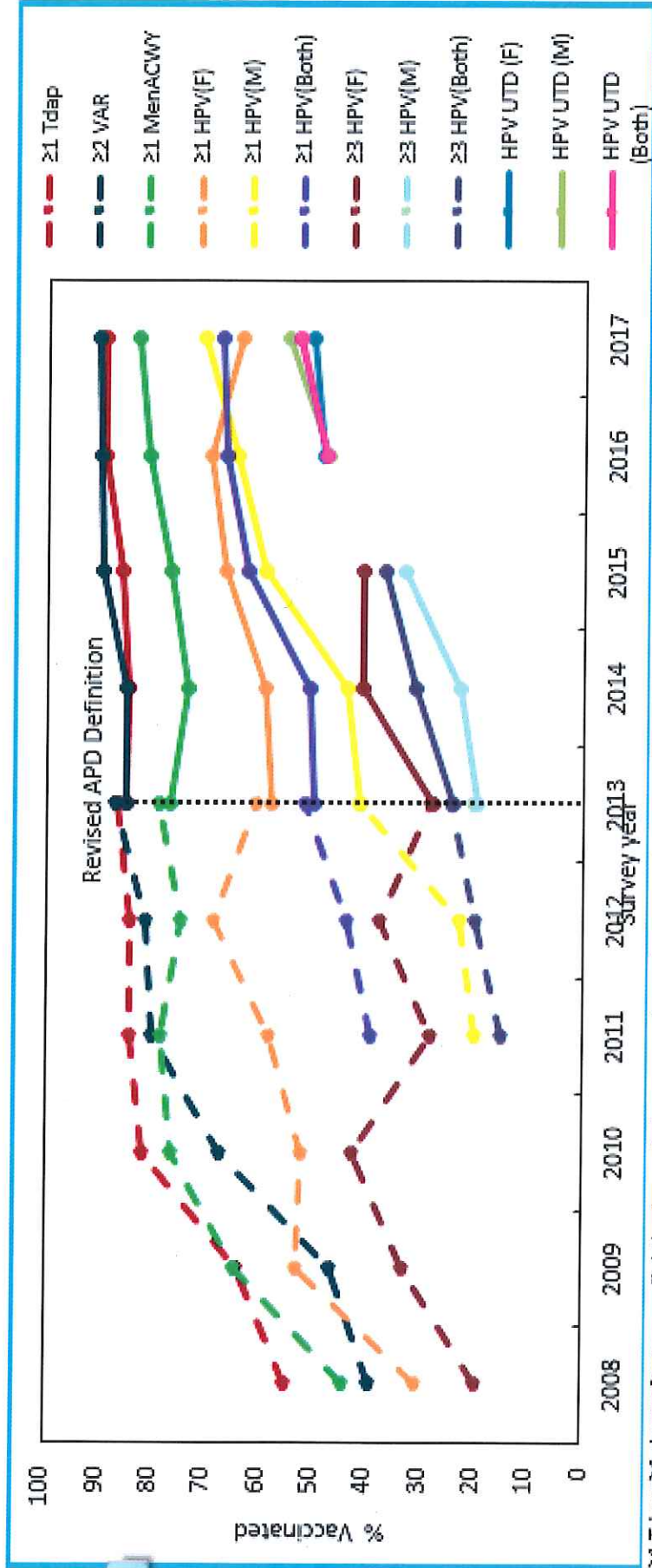
⁵ HPV UTD includes those with 2–3 doses, and those with 2 doses when the first HPV vaccine dose was initiated at age <15 years and at least five months minus four days elapsed between the first and second dose as specified by Clinical Decision Support for Immunization (CDSi). This update to the HPV recommendation occurred in December of 2016.

⁶ ≥2 doses of MMR vaccine.

⁷ ≥2 doses of VAR vaccine among adolescents without a reported history of varicella disease.

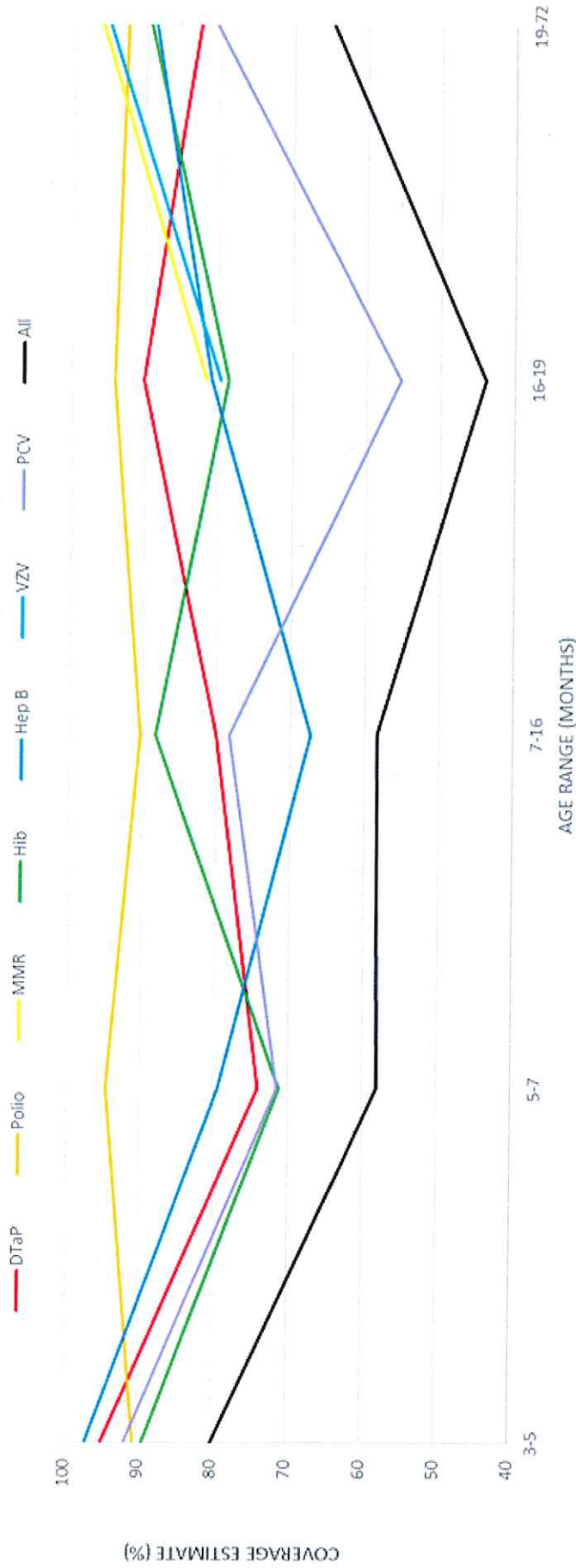
*** Statistically significant (p<0.05) percentage point increase from 2016.

Estimated vaccination coverage with selected vaccines among adolescents aged 13-15 years, by survey year, NIS-Teen, Nebraska, 2008-2017



≥1 Tdap: ≥1 dose of tetanus, diphtheria, acellular, pertussis vaccine at or after age 10 years.
 ≥1 MenACWY: ≥1 dose of quadrivalent meningococcal conjugate vaccine.
 ≥1 HPV: ≥1 dose of human papillomavirus vaccine.
 HPV UTD: includes those with ≥ 3 doses, and those with 2 doses when the first HPV vaccine dose was initiated at age <15 years and at least five months minus four days elapsed between the first and second dose as specified by Clinical Decision Support for Immunization (CDSI). This update to the HPV recommendation occurred in December of 2016.
 APD: Adequate provider data. A revised APD definition was implemented in 2014, retrospectively applied to 2013 data and revised estimates were calculated for purposes of comparability to 2014 data. Estimates using different APD definitions may not be directly comparable.
 Figures includes two sets of estimates for 2013. Estimates from 2008-2013 connected with dashed lines are previously published estimates using the previous APD definition. Estimates from 2013-2017 connected with solid lines use the revised APD definition.

Vaccination rates reported by childcare facilities in Nebraska, 2017



* A child is considered up-to-date if they received the minimum number of doses required of each vaccine as noted in 173 NAC 4-005.04.
 **DTaP means diphtheria, tetanus toxoid, and pertussis vaccine.
 **MMR means measles mumps, and rubella vaccine.
 **Hib means Haemophilus influenzae type B vaccine.
 **Hep B means hepatitis B vaccine.
 **VZV means varicella (chickenpox) vaccine.
 **PCV means pneumococcal vaccine.
 **All means up-to-date for all 7 relevant vaccines previously noted.