

**NEVADA STATE BOARD OF
PHARMACY**

**IMMUNIZATION
REPORT**

April 1, 2014 – March 31, 2015

**NEVADA STATE BOARD OF PHARMACY
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INTRODUCTION

A copy of this report is available from the Board of Pharmacy on request.

This report, mandated by Nevada Revised Statute (NRS) 639.065, will look at Nevada's immunization levels compared to national levels and review current administrative code changes to improve the health of the people of Nevada by improving access to pharmacists who provide immunizations and by expanding the role of pharmacists in administering immunizations under physician protocol.

NRS 639.065 Annual report concerning immunizations administered by pharmacists.

The Board shall prepare an annual report concerning immunizations administered by pharmacists that includes, without limitation, the number of immunizations which were administered by pharmacists during the previous year, any problems or complaints reported to the Board concerning immunizations administered by pharmacists, and any other information that the Board determines would be useful in determining whether pharmacists should continue to administer immunizations in the State. The report must be available for public inspection during regular business hours at the office of the Board. (Added to NRS by 1999, 2722)

Nevada remains one of the least immunized states in the nation. In the interest of better serving the people of Nevada, NRS 454.213 (18) regulated through the Nevada State Board of Pharmacy, authorizes pharmacists with the proper training to administer vaccinations to patients.

NRS 454.213 addresses a pharmacist's authority to possess and administer dangerous drugs. [Effective January 1, 2008.]

18. In accordance with applicable regulations of the Board, a registered pharmacist who:

(a) Is trained in and certified to carry out standards and practices for immunization programs;

(b) Is authorized to administer immunizations pursuant to written protocols from a physician; and

(c) Administers immunizations in compliance with the "Standards of Immunization Practices" recommended and approved by the United States Public Health Service Advisory Committee on Immunization Practices.

THE STATE OF IMMUNIZATIONS IN THE STATE OF NEVADA

Estimated Vaccination Coverage* with Individual Vaccines and Selected Vaccination Series Among Children 19-35 Months of Age by State and Local Area, 2013 (Nevada/United States)

3+DTaP [¶]	4+DTaP ^{**}	3+Polio ^{††}	1+MMR ^{§§}	3+Hib ^{¶¶}	Hib-PS ^{***}	Hib-FS ^{†††}	3+HepB ^{§§§}
92.7±3.3	81.1±5.0	92.0±3.4	90.4±3.5	88.1±4.2	90.8±3.8	76.5±5.6	88.8±4.2
94.1±0.9	83.1±1.3	92.7±1.0	91.9±0.9	92.8±0.9	93.7±0.9	82.0±1.3	90.8±1.0
HepB Birth dose ^{¶¶¶}	1+Var ^{****}	3+PCV ^{††††}	4+PCV ^{§§§§}	1+HepA ^{¶¶¶¶}	2+HepA ^{**}	Rotavirus ^{††††}	4:3:1 ^{§§§§§}
75.4±5.6	88.6±3.9	89.7±3.9	76.4±5.5	89.9±3.7	61.1±6.4	62.1±6.5	79.9±5.1
74.2±1.4	91.2±0.9	92.4±1.0	82.0±1.3	83.1±1.2	54.7±1.6	72.6±1.5	81.5±1.3
4:3:1:3 ^{¶¶¶¶}	4:3:1:3-PS ^{*****}	4:3:1:4-FS ^{†††††}	4:3:1:3:3 ^{§§§§§}	4:3:1:3:3-PS ^{¶¶¶¶¶}	4:3:1:4:3-FS ^{*****}	4:3:1:3:3:1 ^{†††††}	4:3:1:0:3:1 ^{§§§§§}
78.5±5.2	78.8±5.2	70.5±6.0	74.1±5.6	74.4±5.6	67.0±6.2	72.2±5.8	73.6±5.7
81.1±1.3	81.2±1.3	77.1±1.4	78.7±1.3	78.8±1.3	75.0±1.4	77.7±1.4	77.9±1.4
4:3:1:3:3:1-PS ^{¶¶¶¶¶}	4:3:1:4:3:1-FS ^{*****}	4:3:1:3:3:1:4 ^{†††††}	4:3:1:0:3:1:4 ^{§§§§§}	4:3:1:3:3:1:4-PS ^{¶¶¶¶¶}	4:3:1:4:3:1:4-FS ^{*****}	4:3:1:4:3:1:4-FS ^{*****}	4:3:1:4:3:1:4-FS ^{*****}
72.5±5.8	65.3±6.3	65.6±6.1	66.3±6.1	65.6±6.1	60.6±6.4	60.6±6.4	60.6±6.4
77.7±1.4	74.0±1.4	72.6±1.5	72.7±1.5	72.7±1.5	70.4±1.5	70.4±1.5	70.4±1.5

* Estimate presented as point estimate (%) ± 95% confidence interval (CI). Estimate=NA (Not Available) if the unweighted sample size for the denominator was <30 or (CI half width)/Estimate > 0.588.

† Estimates with confidence intervals >20 may not be reliable.

§ Children in the 2013 NIS were born January 2010 through May 2012.

¶ ≥3 doses of any diphtheria and tetanus toxoids and pertussis vaccine including diphtheria and tetanus toxoids and any acellular pertussis vaccine (DTaP/DTP/DT).

** ≥4 doses of diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine.

†† ≥3 doses of any poliovirus (Polio) vaccine.

§§ ≥1 doses of measles-mumps-rubella (MMR) vaccine.

¶¶ ≥3 doses of *Haemophilus influenzae* type b (Hib) vaccine.

*** Primary series *Haemophilus influenzae* type b (Hib-PS) vaccine: ≥2 or ≥3 doses of *Haemophilus influenzae* type b (Hib) vaccine, depending on product type.

††† Full series *Haemophilus influenzae* type b (Hib) vaccine: ≥3 or ≥4 doses of *Haemophilus influenzae* type b (Hib-FS) vaccine depending on product type received (includes primary series plus the booster dose).

§§§ ≥3 doses of hepatitis B (HepB) vaccine.

¶¶¶ ≥1 dose of hepatitis B (HepB) vaccine administered between birth and age 3 days.

**** ≥ 1 dose of varicella (Var) vaccine at or after child's first birthday, unadjusted for history of varicella disease (by parent/guardian report or provider records).

++++ ≥ 3 doses of pneumococcal conjugate vaccine (PCV).

§§§§ ≥ 4 doses of pneumococcal conjugate vaccine (PCV).

¶¶¶¶ ≥ 1 dose of hepatitis A (HepA) vaccine.

***** ≥ 2 doses of hepatitis A (HepA) vaccine.

+++++ ≥ 2 or ≥ 3 doses of Rotavirus vaccine, depending on product type received (≥ 2 doses for Rotarix® [RVI] or ≥ 3 doses for RotaTeq® [RV5]).

§§§§§ ≥ 4 doses of diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine, ≥ 3 doses of poliovirus (Polio) vaccine, and ≥ 1 dose of any measles-mumps-rubella (MMR) vaccine.

¶¶¶¶¶ 4:3:1 plus ≥ 3 doses of *Haemophilus influenzae* type b (Hib) vaccine of any type.

***** 4:3:1 plus the primary series *Haemophilus influenzae* type b (Hib-PS) vaccine.

+++++ 4:3:1 plus the full series *Haemophilus influenzae* type b (Hib-FS) vaccine.

§§§§§§ 4:3:1 plus ≥ 3 doses of *Haemophilus influenzae* type b (Hib) vaccine of any type and ≥ 3 doses of hepatitis B (HepB) vaccine.

¶¶¶¶¶¶ 4:3:1 plus the primary series *Haemophilus influenzae* type b (Hib-PS) vaccine and ≥ 3 doses of hepatitis B (HepB) vaccine.

***** 4:3:1 plus the full series *Haemophilus influenzae* type b (Hib-FS) vaccine and ≥ 3 doses of hepatitis B (HepB) vaccine

+++++ 4:3:1 plus ≥ 3 doses of *Haemophilus influenzae* type b (Hib) vaccine of any type, ≥ 3 doses of hepatitis B (HepB) vaccine and ≥ 1 dose of varicella (Var) vaccine.

§§§§§§ 4:3:1 plus ≥ 3 doses of hepatitis B (HepB) vaccine and ≥ 1 dose of varicella (Var) vaccine, excluding *Haemophilus influenzae* type b (Hib) vaccine.

¶¶¶¶¶¶¶ 4:3:1 plus primary series *Haemophilus influenzae* type b (Hib-PS) vaccine, ≥ 3 doses of hepatitis B (HepB) vaccine, and ≥ 1 dose of varicella (Var) vaccine.

***** 4:3:1 plus full series *Haemophilus influenzae* type b (Hib-FS) vaccine, ≥ 3 doses of hepatitis B (HepB) vaccine, and ≥ 1 dose of varicella (Var) vaccine.

+++++ 4:3:1 plus ≥ 3 doses of *Haemophilus influenzae* (Hib) vaccine of any type, ≥ 3 doses of hepatitis B (HepB) vaccine, ≥ 1 dose of varicella (Var) vaccine, and ≥ 4 doses of pneumococcal conjugate vaccine (PCV).

§§§§§§§ 4:3:1 plus ≥ 3 doses of hepatitis B (HepB) vaccine, ≥ 1 dose of varicella (Var) vaccine, and ≥ 4 doses of pneumococcal conjugate vaccine (PCV), and *Haemophilus influenzae* type b (Hib) vaccine is excluded.



¶¶¶¶¶¶¶¶ 4:3:1 plus primary series *Haemophilus influenzae* (Hib-PS) vaccine, ≥ 3 doses of hepatitis B (HepB) vaccine, and ≥ 1 dose of varicella (Var) vaccine, and ≥ 4 doses of pneumococcal conjugate vaccine (PCV).








***** 4:3:1 plus full series *Haemophilus influenzae* (Hib-FS) vaccine, ≥ 3 doses of hepatitis B (HepB) vaccine, and ≥ 1 dose of varicella (Var) vaccine, and ≥ 4 doses of pneumococcal conjugate vaccine (PCV).








+++++ Includes Agana Heights, Agat, Asan, Barrigada, Chalan Pago, Dededo, Hagatna/Agana, Inarajan, Maina, Maite, Mangilao, Merizo, Mongmong, Ordot, Piti, Santa Rita, Sinajana, Talofofo, Tamuning-Tumon, Tot, Umatac, Yigo, and Yonago (n=248). Not included in the United States estimates.









§§§§§§§§ Includes St. Croix, St. Thomas, St. John, and Water Island (n=201). Not included in the United States estimates.







Vaccination Coverage Estimates














Difference	Difference Between (Q1/2013-Q4/2013) - (Q1/2012-Q4/2012) Year's Estimates
Excel file  PDF file 	Difference in estimated coverage levels over one year period

Age	Coverage Levels by Milestone Ages
Excel file  PDF file 	Birth dose of HepB only, by State and Local Area
Excel file  PDF file 	3 months by State and Local Area
Excel file  PDF file 	5 months by State and Local Area
Excel file 	7 months by State and Local Area















PDF file 	
Excel file  PDF file 	13 months by State and Local Area
Excel file  PDF file 	19 months by State and Local Area
Excel file  PDF file 	24 months by State and Local Area

WIC and Poverty Status	Coverage Levels with Individual Vaccines & Selected Vaccination Series by Participation in WIC & Poverty Status
Excel file  PDF file 	Participating in WIC by State and Local Area
Excel file  PDF file 	Not Participating in WIC by State and Local Area
Excel file  PDF file 	Living at or Above Poverty by State and Local Area
Excel file  PDF file 	Living Below Poverty by State and Local Area

Urbanicity	Vaccination Coverage Levels by Urbanicity
Excel file  PDF file 	Living in a MSA Central City by State and Local Area
Excel file  PDF file 	Living in a MSA Non Central City by State and Local Area
Excel file  PDF file 	Living in a Non MSA Central City by State and Local Area

Race/ethnicity	Vaccine - Specific Coverage Levels by Race/Ethnicity and Poverty Level
Excel file  PDF file 	3+DTaP by State and Local Area
Excel file  PDF file 	4+DTaP by State and Local Area
Excel file  PDF file 	3+Polio by State and Local Area
Excel file  PDF file 	1+MMR by State and Local Area
Excel file  PDF file 	Full Series Hib by State and Local Area
Excel file  PDF file 	3+HepB by State and Local Area
Excel file 	Hep B Birth Dose by State and Local Area

PDF file 	
Excel file  PDF file 	1+Varicella by State and Local Area
Excel file  PDF file 	3+PCV by State and Local Area
Excel file  PDF file 	4+PCV by State and Local Area
Excel file  PDF file 	2+HepA by State and Local Area
Excel file  PDF file 	Rotavirus by State and Local Area
Excel file  PDF file 	4:3:1 by State and Local Area
Excel file  PDF file 	4:3:1:4* Full Series by State and Local Area
Excel file  PDF file 	4:3:1:4*:3:1 Full Series by State and Local Area
Excel file  PDF file 	4:3:1:4*:3:1:4 Full Series by State and Local Area
Excel file  PDF file 	National Coverage by Race/Ethnicity
Excel file  PDF file 	National Coverage by Poverty Level and Race/Ethnicity

Facility and VFC	Coverage by Provider Characteristics (Facility Type and VFC participation)
Excel file  PDF file 	National Coverage by Provider Facility Type
Excel file  PDF file 	3+DTaP by Provider Facility Type
Excel file  PDF file 	4+DTaP by Provider Facility Type
Excel file  PDF file 	3+Polio by Provider Facility Type
Excel file  PDF file 	1+MMR by Provider Facility Type
Excel file  PDF file 	Hib-PS by Provider Facility Type
Excel file  PDF file 	Hib-FS by Provider Facility Type

Excel file  PDF file 	HepB by Provider Facility Type
Excel file  PDF file 	Hep B Birth dose by Provider Facility Type
Excel file  PDF file 	1+Varicella by Provider Facility Type
Excel file  PDF file 	3+PCV by Provider Facility Type
Excel file  PDF file 	4+PCV by Provider Facility Type
Excel file  PDF file 	1+HepA by Provider Facility Type
Excel file  PDF file 	2+HepA by Provider Facility Type
Excel file  PDF file 	Rotavirus by Provider Facility Type
Excel file  PDF file 	4:3:1 by Provider Facility Type
Excel file  PDF file 	4:3:1:3* by Provider Facility Type
Excel file  PDF file 	4:3:1:3*:3:1 by Provider Facility Type
Excel file  PDF file 	4:3:1:3*:3:1:4 by Provider Facility Type
Excel file  PDF file 	Participating in Vaccines for Children (VFC) Program by State and Local area
Excel file  PDF file 	Not Participating in VFC by State and Local Area
Demographics	Selected Socio-Demographics
Excel file  PDF file 	Socio-Demographics: Poverty, Provider Type, Race, MSA, and VFC eligibility

Table data can be found at:

<http://www.cdc.gov/vaccines/imz-managers/coverage/nis/child/data/tables-2013.html>

**Vaccine-Preventable Diseases
ACIP: Advisory Committee on Immunization Practices**

Anthrax	Cervical Cancer	Diphtheria
Hepatitis A	Hepatitis B	Haemophilus influenzae type b (Hib)
Human Papillomavirus (HPV)	H1N1 Flu (Swine Flu)	Influenza (Seasonal Flu)
Japanese Encephalitis (JE)	Lyme Disease	Measles
Meningococcal	Monkeypox	Mumps
Pertussis (Whooping Cough)	Pneumococcal	Poliomyelitis (Polio)
Rabies	Rotavirus	Rubella (German Measles)
Shingles (Herpes Zoster)	Smallpox	Tetanus (Lockjaw)
Tuberculosis	Typhoid Fever	Varicella (Chickenpox)
Yellow Fever		

Table data can be found at:

<http://www.cdc.gov/vaccines/vpd-vac/default.htm>

List of Vaccines Used in United States (Links to Basic and Clinical information about the vaccine).

<http://www.cdc.gov/vaccines/vpd-vac/vaccines-list.htm>

**Primary Changes and Updates in the Recommendations
Advisory Committee on Immunization Practices—(ACIP)—United States,
2013-14**

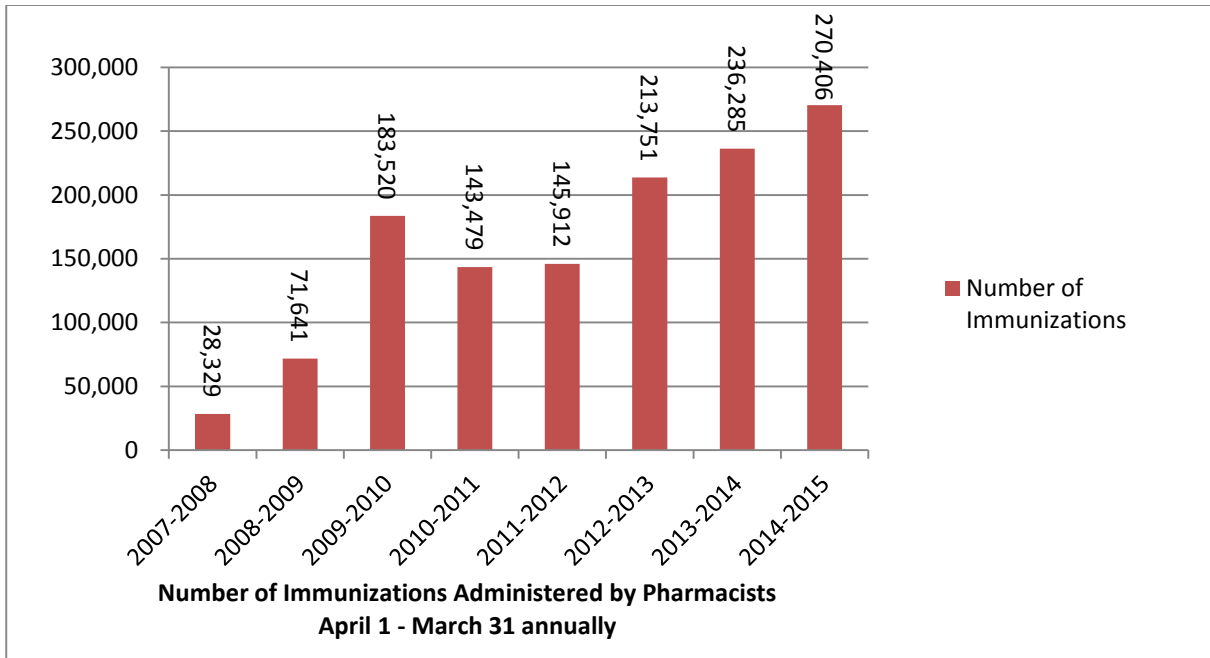
<http://www.cdc.gov/vaccines/hcp/acip-recs/index.html>

<http://www.cdc.gov/flu/professionals/acip/2013-summary-recommendations.htm#primary-changes>

PHARMACIST ADMINISTERED IMMUNIZATIONS

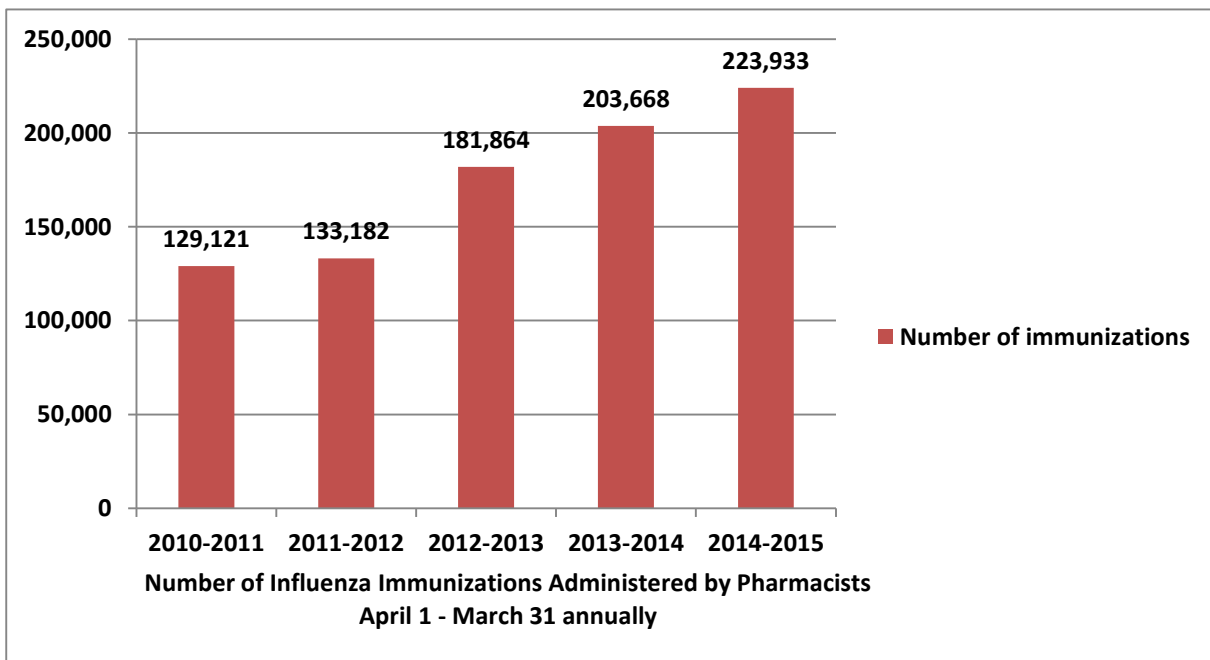
The following table is the most accurate data available on immunizations administered by pharmacists in the time frame of this report (April 1, 2014– March 31, 2015).

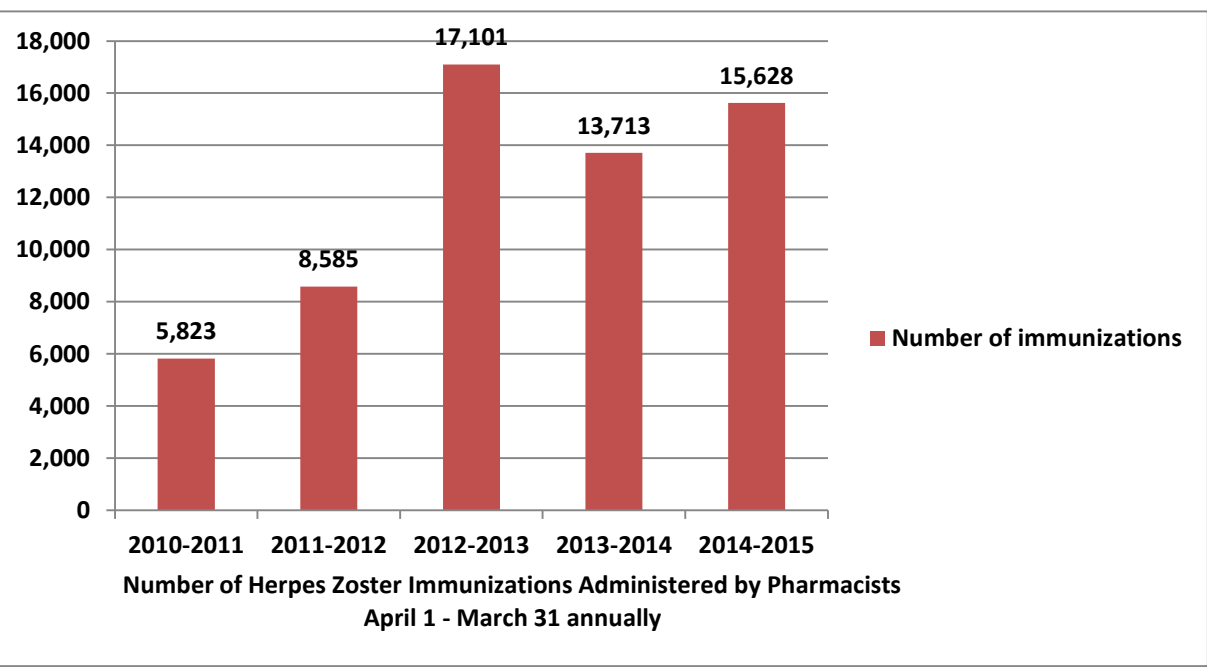
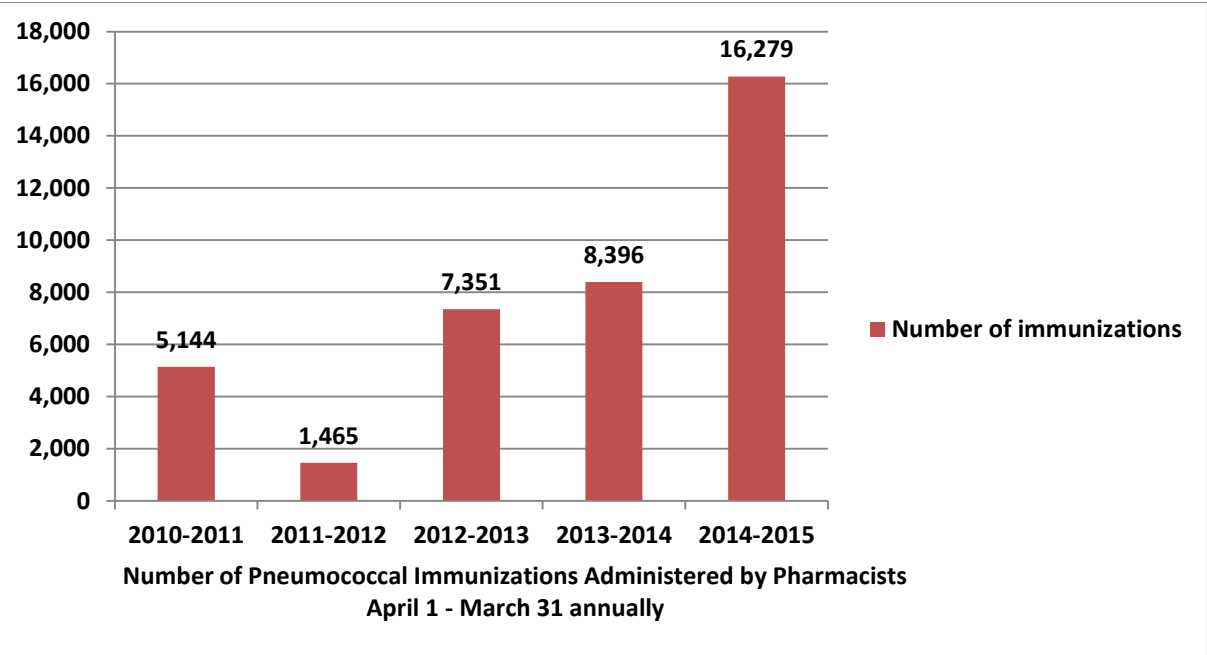
Vaccines	Administered
Diphtheria	0
Hepatitis A	949
Hepatitis A Inactivated & Hepatitis B (Recombinant) Vaccine	305
Hepatitis B	1,024
Herpes Zoster (shingles)	15,628
HPV (Human Papillomavirus)	660
Influenza (includes nasal/HD)	223,933
Japanese Encephalitis Vaccine	25
Measles Mumps Rubella (MMR)	1,046
Meningococcal diseases	273
Pneumococcal diseases	16,279
Polio	72
Rabies	9
Rotavirus	0
Rubella	0
Smallpox	0
Tetanus	566
Tetanus/Diphtheria	77
Tetanus-Diphtheria-Pertussis	9,003
Typhoid (oral/injectable)	429
Varicella (chickenpox)	100
Yellow Fever	28
Other (not distinguished on reporting)	0
Total doses administered	270,406

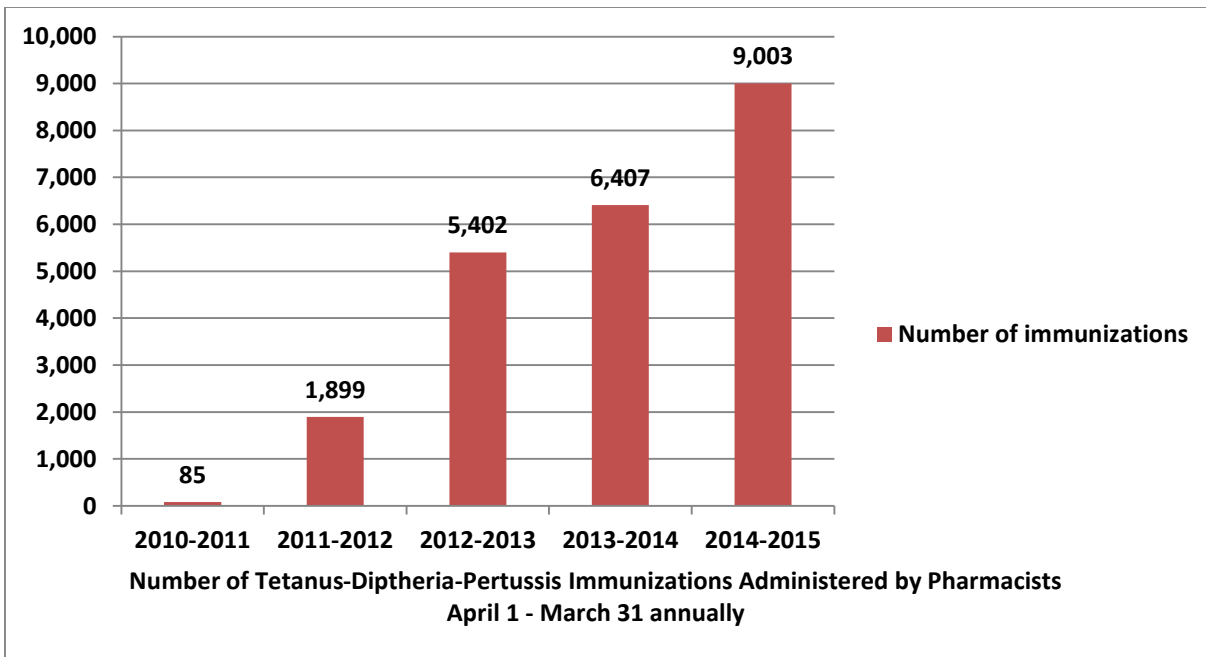


Note: In the 2009-2010 flu season the H1N1 vaccine was a separate vaccine from the seasonal influenza vaccine.

Specific immunizations administered by Pharmacists







ADVERSE DRUG REACTIONS

Less than a dozen adverse reactions were reported by patients to pharmacies. These adverse reactions are based on patient reporting only, not from health care practitioners who may have seen the patient after administration of the vaccine.

- Flu Vaccine (1)
 - Patient had tingling in arm, shaking, shivering, and rapid heart rate. Patient felt better the next day.
- Hepatitis A Vaccine (1)
 - Patient had pain at injection site. Paramedics were called when patient was concerned about shock. The patient stated the reaction was due to the needle/shot.
- Zostavax Vaccine (1)
 - Patient had muscle and joint pain and inflammation/itching for 3 days.
- MMR Measles Mumps Rubella (1)
 - Paramedics were called – patient was ok. Patient had possible shock resolved. Patient did not have seizures.
- DPT (Tetanus-Diphtheria-Pertussis) (1)
 - Patient's arm was swollen for several days

CENTRALIZED RECORDKEEPING

LCB file R115-08 adopted by the Board made changes to reporting requirements under NAC 639.2976. These changes simplified the reporting requirements, requiring only reporting to the Immunization Information System established by the Department of Health and Human Services.

This data may be entered electronically directly into WebIZ or manually through the use of a written form. In addition to mandatory reporting as of July 1, 2009, all providers must give both children and adults a form that explains the purpose of the registry and allows them to opt-out of inclusion in the registry.

NRS 439.265: Reporting vaccinations to Nevada WebIZ

Effective January 28, 2010 all ACIP recommended vaccinations administered to children and adults must be recorded in Nevada WebIZ. This means that patients of all ages who receive a vaccination must be entered in Nevada WebIZ. Some providers have thought that the law only applies to VFC (Vaccines for Children) vaccines. The law requires entry for all vaccines, regardless of purchase method.

Individuals may “opt-out” by completing the Participation Form and the provider must mail or fax the form to the WebIZ program.

Go to the “Reports/Forms” page in Nevada WebIZ to download and study the new regulations, forms and instructions.

http://health.nv.gov/Immunization_WebIZ_Policies_Forms.htm

Registry Regulation Instructions

http://health.nv.gov/Immunization_WebIZ_Info.htm

Public Access Portal

<https://izrecord.nv.gov/public/WebCode/PublicPortal/Frame.aspx>

Prior to administering any vaccine, review and understand the complete manufacturer literature.

CONCLUSION

In addition to increasing accessibility, and with the changing recommendations increasing the number of individuals who should be immunized, the burden on other healthcare professionals is reduced by allowing and encouraging pharmacists to participate in immunization administration. As changes are made to NRS 439.265 and NAC 639.297, healthcare providers administering immunizations must be aware of new or updated recordkeeping requirements as well as changes with regards to the current recommended age and other requirements for vaccines the healthcare provider administers.

Website Information:

CURRENT IMMUNIZATION SCHEDULE RECOMMENDATIONS FROM THE CDC

2015 Recommended Immunizations for Children from Birth Through 6 Years Old

<http://www.cdc.gov/vaccines/parents/downloads/parent-ver-sch-0-6yrs.pdf>

2015 Recommended Immunizations for Children from 7 Through 18 Years Old

<http://www.cdc.gov/vaccines/who/teens/downloads/parent-version-schedule-7-18yrs.pdf>

2015 Recommended Immunizations for Adults: By AGE

<http://www.cdc.gov/vaccines/schedules/downloads/adult/adult-schedule-easy-read.pdf>

Mobile Apps (TravWell, Can I Eat This? and 2014 Yellow Book)

<http://wwwnc.cdc.gov/travel/page/apps-about>

Disease Directory (Information for travelers about specific diseases which can affect them while traveling).

<http://wwwnc.cdc.gov/travel/diseases>

Influenza Vaccines — United States, 2014–15 Influenza Season

<http://www.cdc.gov/flu/protect/vaccine/vaccines.htm>

ADVISORY COMMITTEE FOR IMMUNIZATION PRACTICES (ACIP) RECOMMENDATIONS

Vaccines Included in the Immunization Schedules for Children, Adolescents, and Adults

<http://www.cdc.gov/vaccines/acip/committee/guidance/vac-abbrev.html>

Vaccine-Preventable Diseases

<http://www.cdc.gov/vaccines/vpd-vac/default.htm> (Vaccines and Immunizations)

<http://www.cdc.gov/vaccines/hcp/acip-recs/index.html> (Vaccine Recommendations of the ACIP Advisory Committee for Immunization Practices (ACIP))

<http://www.cdc.gov/flu/professionals/acip/2013-summary-recommendations.htm#primary-changes> (Summary* Recommendations: Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices—(ACIP)—United States, 2013-14)

NEVADA STATE HEALTH DIVISION: WEBIZ CONTACT INFORMATION

http://health.nv.gov/Immunization_ContactUs.htm#WebIZContact

NEVADA IMMUNIZATION COALITION

<http://www.immunizenevada.com>