

**NEVADA STATE BOARD OF
PHARMACY**

**IMMUNIZATION
REPORT**

April 1, 2013 – March 31, 2014

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 drug. [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

US, National Immunization Survey Q1/2012-Q4/2012†

	3+DTaP¥	4+DTaP‡	3+Polio§	1+MMR	3+Hib¶	Hib-PS**
US	95.5±0.5	84.6±1.0	93.9±0.6	91.6±0.8	94.0±0.6	94.2±0.6
NV	94.6±3.9	75.2±8.0	94.8±3.6	90.5±4.6	94.8±3.6	94.8±3.6
	Hib-FS††	3+HepB‡‡	Hep B Birth dose§§	1+Var	3+PCV¶¶	4+PCV***
US	80.4±1.1	91.1±0.7	68.6±1.3	90.8±0.7	93.6±0.6	84.4±1.0
NV	77.3±7.7	89.9±5.0	65.2±8.8	88.2±5.3	94.1±3.9	78.9±7.5
	1+HepA#	2+HepA†††	Rotavirus‡‡‡	4:3:1§§§	4:3:1:3	(4:3:1:2*)¶¶¶
US	81.2±1.0	52.2±1.4	67.3±1.3	82.6±1.0	81.9±1.0	81.9±1.0
NV	86.5±6.5	52.8±8.9	56.6±9.0	72.7±8.1	72.5±8.1	72.5±8.1
	(4:3:1:3*)****	4:3:1:3:3:1€	4:3:1:-:3:1ç	4:3:1:2*:3:1€€	4:3:1:3*:3:1çç	4:3:1:3:3:1:4€€
US	75.4±1.2	77.0±1.1	77.6±1.1	77.0±1.1	71.0±1.2	73.3±1.2
NV	70.1±8.3	66.7±8.5	66.9±8.5	66.7±8.5	65.4±8.5	65.8±8.5
	4:3:1:-:3:1:4ççç	4:3:1:2*:3:1:4€€€	4:3:1:3*:3:1:4çççç			
US	73.6±1.2	73.3±1.2	68.5±1.3			
NV	66.0±8.5	65.8±8.5	64.7±8.5			

* Estimate=NA (Not Available) if the unweighted sample size for the denominator was <30 or (CI half width)/Estimate > 0.588 or (CI half width) >10.

Estimates presented as point estimate (%) ± 95% Confidence Interval.

† Children in the Q1/2012-Q4/2012 National Immunization Survey were born from January 2009 through May 2011.

¥ 3 or more doses of any diphtheria and tetanus toxoids and pertussis vaccines including diphtheria and tetanus toxoids, and any acellular pertussis vaccine (DTaP/DTP/DT).

‡ 4 or more doses of DTaP.

§ 3 or more doses of any poliovirus vaccine.

|| 1 or more doses of measles-mumps-rubella vaccine.

¶ Primary series Hib: ≥2 or ≥3 doses of Hib vaccine depending on product type received.

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

‡‡ 3 or more doses of hepatitis B vaccine.

‡‡‡ 1 or more doses of hepatitis B vaccine administered from birth through age 3 days.

§§ 1 or more doses of varicella at or after child's first birthday, unadjusted for history of varicella illness.

||| 3 or more doses of pneumococcal conjugate vaccine (PCV).

¶¶ 4 or more doses of PCV.

*** 1 or more doses of Hepatitis A vaccine.

††† 2 or more doses of Hepatitis A 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 or more doses of DTaP, 3 or more doses of poliovirus vaccine, and 1 or more doses of any MMR vaccine.

|||| 4:3:1 plus the full series Hib.



¶¶¶¶ 4:3:1 plus full series of Hib vaccine and 3 or more doses of HepB vaccine

**** 4:3:1 plus full series of Hib vaccine, 3 or more doses of HepB vaccine, and 1 or more doses of varicella vaccine.

NIS Table Data for 2012

	Overall	Coverage with Individual Vaccines and Vaccination Series
	Excel file 	by State and Local area (includes birth dose of HepB and 2+doses Hep A)
	PDF file 	
	Excel file 	by State (includes birth dose of HepB and 2+doses Hep A)
	PDF file 	

Difference	Difference Between (Q1/2012-Q4/2012) - (Q1/2011-Q4/2011) Year's Estimates
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Excel file  **Difference in estimated coverage levels over one year period**
PDF file 

Age	Coverage Levels by Milestone Ages
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Excel file 		Birth dose of HepB only, by State and Local Area
PDF file 		
Excel file 		3 months by State and Local Area
PDF file 		
Excel file 		5 months by State and Local Area
PDF file 		
Excel file 		7 months by State and Local Area
PDF file 		
Excel file 		13 months by State and Local Area
PDF file 		
Excel file 		19 months by State and Local Area
PDF file 		
Excel file 		24 months by State and Local Area
PDF file 		

WIC and Poverty Status	Coverage Levels with Individual Vaccines & Selected Vaccination Series by Participation in WIC & Poverty Status
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Excel file  **Participating in WIC by State and Local Area**
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Excel file 
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Not Participating in WIC by State and Local Area

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Living at or Above Poverty by State and Local Area

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Living Below Poverty by State and Local Area

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

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Living in a MSA Non Central City by State and Local Area

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Living in a Non MSA Central City by State and Local Area

Race/ethnicity	Vaccine - Specific Coverage Levels by Race/Ethnicity and Poverty Level
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Excel file 
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3+DTaP by State and Local Area

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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 
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Hep B Birth Dose by State and Local Area

Excel file 
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1+Varicella by State and Local Area

Excel file 
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3+PCV by State and Local Area

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4+PCV by State and Local Area

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2+HepA by State and Local Area

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Rotavirus by State and Local Area

Excel file 

PDF file 

4:3:1 by State and Local Area

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4:3:1:3* Full Series by State and Local Area

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PDF file 

4:3:1:3*:3:1 by State and Local Area

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4:3:1:3*:3:1:4 by State and Local Area

Excel file 

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National Coverage by Race/Ethnicity

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National Coverage by Poverty Level and Race/Ethnicity

Facility and VFC

Coverage by Provider Characteristics (Facility Type and VFC participation)

Excel file 

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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 

HepB by Provider Facility Type

PDF file 

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 

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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

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4:3:1:3*:3:1:4 by Provider Facility Type

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Participating in Vaccines for Children (VFC) Program by State and Local area

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Not Participating in VFC by State and Local Area

Demographics

Selected Socio-Demographics

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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-2012.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
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Table Data can be found at: <http://www.cdc.gov/vaccines/vpd-vac/default.htm>

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

Routine annual influenza vaccination of all persons aged 6 months and older continues to be recommended.

2013-14 U.S. trivalent influenza vaccines will contain an A/California/7/2009 (H1N1)-like virus, an H3N2 virus antigenically like the cell-propagated prototype virus A/Victoria/361/2011, and a B/Massachusetts/2/2012-like virus. Quadrivalent vaccines will include an additional vaccine virus, a B/Brisbane/60/2008-like virus.

Several new, recently-licensed vaccines will be available for the 2013-14 season, and are acceptable alternatives to other licensed vaccines indicated for their respective age groups when otherwise appropriate:

A quadrivalent live attenuated influenza vaccine (LAIV4; Flumist® Quadrivalent [MedImmune]) is expected to replace the trivalent (LAIV3) formulation. FluMist® Quadrivalent is indicated for healthy, nonpregnant persons aged 2 through 49 years;

A quadrivalent inactivated influenza vaccine (IIV4; Fluarix® Quadrivalent [GlaxoSmithKline]) will be available, in addition to the previous trivalent formulation. Fluarix® Quadrivalent is indicated for persons aged 3 years and older;

A quadrivalent inactivated influenza vaccine (IIV4; Fluzone® Quadrivalent [Sanofi Pasteur]) will be available in addition to the previous trivalent formulation. Fluzone® Quadrivalent is indicated for persons aged 6 months and older;

A trivalent cell culture-based inactivated influenza vaccine (ccIIV3; Flucelvax® [Novartis]), which is indicated for persons aged 18 years and older; and

A recombinant hemagglutinin (HA) vaccine (RIV3; FluBlok® [Protein Sciences]), which is indicated for persons aged 18 through 49 years.

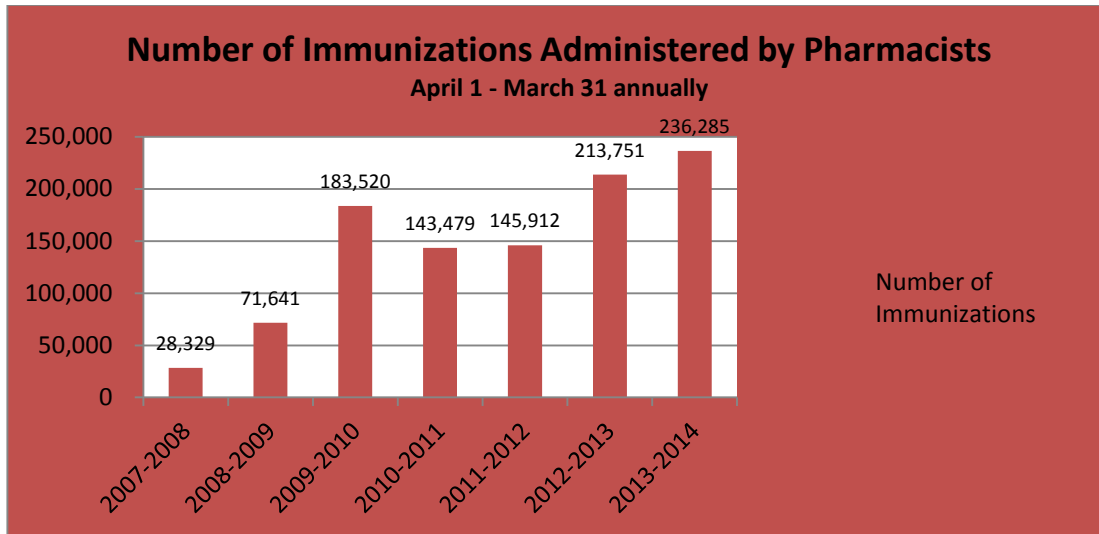
Within approved indications and recommendations, no preferential recommendation is made for any type or brand of licensed influenza vaccine over another.

<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, 2013– March 31, 2014).

Vaccines	Administered
Diphtheria	10
Hepatitis A	1,393
Hepatitis B	604
[Hepatitis A Inactivated & Hepatitis B (Recombinant) Vaccine] TWINRIX ®	295
Herpes Zoster (shingles)	13,713
HPV (Human Papillomavirus)	313
Influenza(includes nasal/HD)	203,668
Measles Mumps Rubella (MMR)	512
Meningococcal diseases	307
Pneumococcal diseases	8,396
Rotavirus	0
Rubella	0
Smallpox	0
Tetanus	144
Tetanus/Diphtheria Td	0
Tetanus-Diphtheria-Pertussis Tdap Tdap	6,407
Typhoid (oral/injectable)	234
Varicella (chickenpox)	257
Yellow Fever	0
Other (Rabies/Japanese Encephalitis, Polio/HIB)	32
Total doses administered	236,285



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

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 (5)
 - Pain/swelling in area of injection/ muscle aches
 - Red swelling eyes (had prior eye infection)
 - Flu symptoms/ Pain and swelling at injection site
- Pneumonia Vaccine (2)
 - Redness/pain/swelling at injection site
- Zostavax Vaccine (3)
 - Redness/swelling at injection site
- Flumist (1)
 - Administered to Patient over 50 / not approved for patients over 50. No adverse events reported with administration.

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/PDFs/Immunizations/2010WebIZ/RegistryRegInstructions_Flowchart2010.pdf

IMMUNIZATION CHANGES/RECOMMENDATIONS

Advisory Committee for Immunization Practices (ACIP) updated recommendations can be found at: <http://www.cdc.gov/vaccines/pubs/ACIP-list.htm>

Nevada State Health Division Technical Bulletin

Summary of Nevada Immunization Requirements for Public and Private School Attendance Bureau/Program: Bureau of Child, Family and Community Wellness/Immunization Program
Bulletin #: BCFCW-IZ-03-11

Date: June 1, 2011

To: Immunization Providers, School Nurses, County Health Officers, School District Administrators, Boards of Trustees of School Districts, and Private School Officials
Contact: Erin Seward (775) 684-3209

The new immunization requirements will go into effect for all K-12 students new to the school districts beginning with the 2011-2012 school year.

Changes going into effect are:

- Polio Vaccine - 1 dose of Polio Vaccine is required after the child’s 4th birthday. If a 4th dose is provided prior to the 4th birthday, it is invalid.

- Varicella Vaccine - Second dose of Varicella is required.
- These new requirements are for children new to a school district. This includes children enrolling in school for the first time (kindergarten) and children who have moved from a different school district (within Nevada and to Nevada).
- ACIP's recommended ages and intervals between doses of routinely recommended vaccines are required for school entry.
- Utilize ACIP's recommended minimum age and intervals when a child is behind on required immunizations.
- Doses are only valid if they follow the ACIP's recommended ages and intervals (for "on time" or "behind" children).
- A medical exemption requires a contraindication or precaution to the receipt of a given vaccine.

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:

CDC : Immunization schedules

<http://www.cdc.gov/vaccines/schedules/index.html>

Advisory Committee for Immunization Practices (ACIP) Recommendations

<http://www.cdc.gov/vaccines/pubs/ACIP-list.htm>

Nevada State Health Division: WebIZ contact information

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

Nevada Immunization Coalition

<http://www.immunizenevada.com>