NEVADA STATE BOARD OF PHARMACY

IMMUNIZATION REPORT

April 1, 2018 – March 31, 2019

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 Statue (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)

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.

Nevada Pharmacist Administered Immunizations

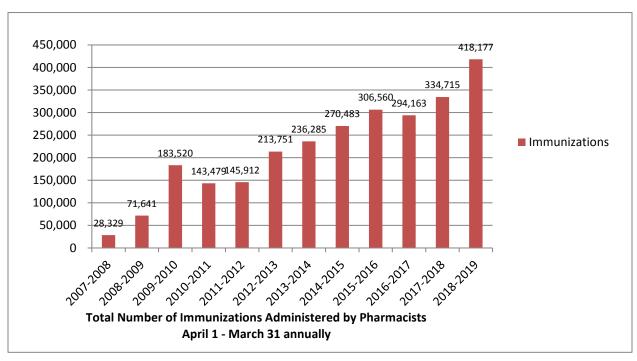
The following table is the most accurate data available on immunizations administered by pharmacists in the time frame of this report.

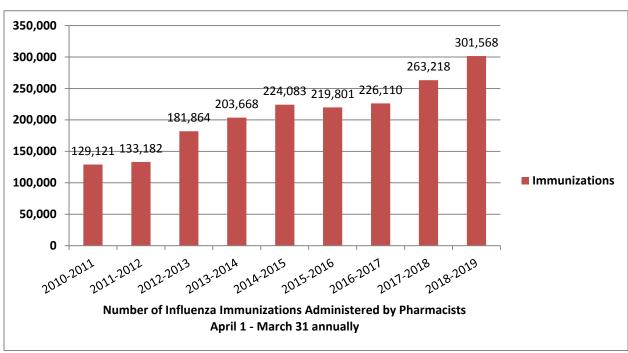
(The source of the following data is WebIZ)

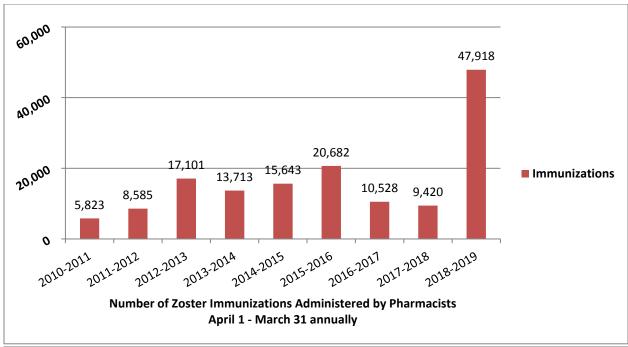
(April 1, 2018– March 31, 2019)

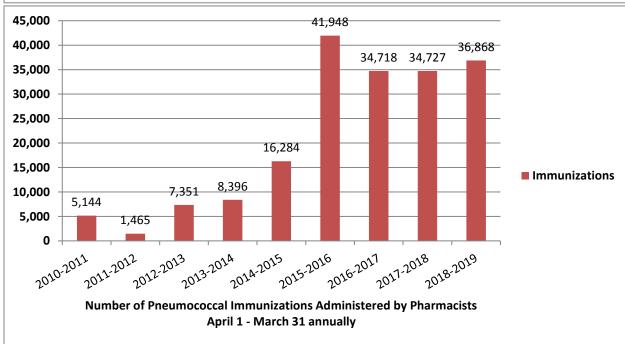
Vaccines	
Cholera, live attenuated	0
Haemophilus influenza B, PRP_OMP con	0
Hepatitis A (Pediatric/Adolescent/Adult)	1471
Hepatitis A & Hepatitis B	2198
Hepatitis B	2239
Herpes Zoster (shingles)	72
HPV (Human Papillomavirus)	1042
Influenza (includes nasal/HD)	301568
Japanese Encephalitis Vaccine	55
Measles Mumps Rubella (MMR)	1801
Meningococcal diseases	2710
Zoster Vaccine Subunits	47846
Pneumococcal diseases	36868
Polio (inactivated)	99
Rabies	46
Tdap (Diphtheria, tetanus toxoids and acellular	
pertussis)	18720
Tetanus and Diphtheria	149
DTaP (hepatitis B and poliovirus)	1
Typhoid	636
Varicella (chicken pox)	655
Yellow Fever	0
Total	418176

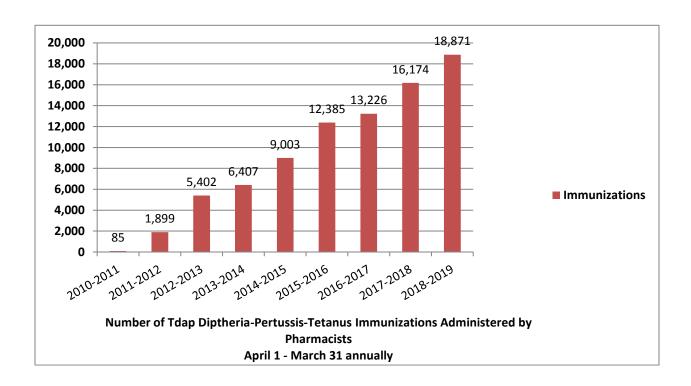
Immunizations administered by Nevada Pharmacists











The significant increase in Zoster immunizations in 2018-2019 reporting period is most likely explained by the fact that Shingrix was introduced late in 2017 and had shortage issues following it's release. The Zoster subunit was given preferential recommendation from the ACIP as well as recommending re-vaccination of those who had already receive the Zoster live vaccine.

Adverse Drug Reactions/Administration Errors for 2018-2019 reporting period:

Vaccine	Adverse Reaction	Improper Administration	Incorrect Age	Incorrect Dose
Influenza	236	164	530	7
Hepatitis A	23	3	35	32
Hepatitis A/B	9	6	2	0
Hepatitis B	0	0	0	36
Zoster	180	33	28	41
Meningococcal	2	10	36	11
Pneumococcal	86	15	36	14
Rabies	1	0	0	0
MMR	8	22	1	0
Tdap	32	5	32	15
Typhoid	0	6	0	0
Varicella	0	7	0	0

Immunization Information for Nevada

Nevada Immunization % by vaccine type, coverage among children 19-35 months by State, HHS Region, and the United States, National Immunization Survey-Child (NIS-Child), 2017

To compare to other states, go to:

https://www.cdc.gov/vaccines/imz-managers/coverage/childvaxview/data-reports/

Selected Nevada Data:

- Diphtheria toxoid, Tetanus toxoid, acellular Pertussis (DTaP) vaccination coverage 86.8%
- Polio vaccination coverage among children 19-35 months 84.6%
- Childhood Measles, Mumps, and Rubella (MMR) Vaccination Coverage 92.4%
- Haemophilus influenzae type b (Hib) vaccination coverage 86.4%
- Childhood Hepatitis B (HepB) Vaccination Coverage 92.4%96.1%
- Varicella vaccination coverage among children 93.8%
- Results for Childhood Pneumococcal Conjugate Vaccine (PCV) Coverage 83.9%
- Childhood Hepatitis A (HepA) Vaccination Coverage Report 90.9%
- Rotavirus Vaccination coverage 66.0%
- Combined 3-vaccine Series Vaccination 80.4%
- Combined 4-vaccine Series Vaccination coverage 75.0%
- Combined 5-vaccine Series Vaccination 75.0%
- Combined 6-vaccine Series Vaccination 75.0%
- Combined 7-vaccine Series Vaccination 71.3%

TABLE 1. Estimated vaccination coverage among children aged 19–35 months, by selected vaccines and doses — National Immunization Survey-Child, United States, 2013–2017*

National Immunization Survey-Child, United States, 2013–2017*

Survey year % (95% CI)

Vaccine/Dose	2013	2014	2015	2016	2017
DTaP† ≥3 doses	94.1 (93.2–	94.7 (94.0–	95.0 (94.4–	93.7 (92.8–	94.0 (93.3–
	95.0)	95.4)	95.5)	94.5) [§]	94.7)
DTaP† ≥4 doses	83.1 (81.8–	84.2 (83.0–	84.6 (83.5–	83.4 (82.1–	83.2 (82.0–
	84.3)	85.4)	85.7)	84.6)	84.3)
Poliovirus (≥3 doses)	92.7 (91.6–	93.3 (92.5–	93.7 (93.0–	91.9 (90.9–	92.7 (91.9–
	93.6)	94.1)	94.3)	92.9)§	93.5)
MMR (≥1 dose)¶	91.9 (90.9–	91.5 (90.6–	91.9 (91.0–	91.1 (90.1–	91.5 (90.6–
	92.7)	92.4)	92.7)	92.0)	92.3)
Hib Primary series**	93.7 (92.7–	93.3 (92.5–	94.3 (93.7–	92.8 (91.8–	92.8 (91.9–
	94.5)	94.1)	94.9)	93.6) [§]	93.6)
Hib Full series**	82.0 (80.7–	82.0 (80.7–	82.7 (81.5–	81.8 (80.5–	80.7 (79.4–
	83.3)	83.2)	83.8)	83.0)	82.0)
HepB ≥3 doses	90.8 (89.7–	91.6 (90.7–	92.6 (91.9–	90.5 (89.3–	91.4 (90.5–
	91.7)	92.4)	93.3)	91.5) [§]	92.3)
HepB Birth dose††	74.2 (72.8–	72.4 (70.9–	72.4 (71.0–	71.1 (69.5–	73.6 (72.0–
	75.7) [§]	73.9)	73.7)	72.7)	75.2) [§]
Varicella (≥1 dose)¶	91.2 (90.2–	91.0 (90.1–	91.8 (91.0–	90.6 (89.6–	91.0 (90.1–
	92.1)	91.9)	92.5)	91.5)	91.8)
PCV ≥3 doses	92.4 (91.4–	92.6 (91.8–	93.3 (92.5–	91.8 (90.8–	91.9 (90.9–
	93.3)	93.4)	94.0)	92.7) [§]	92.8)
PCV ≥4 doses	82.0 (80.6–	82.9 (81.6–	84.1 (83.0–	81.8 (80.4–	82.4 (81.1–
	83.3)	84.2)	85.2)	83.1)§	83.6)
HepA ≥1 dose	83.1 (81.9–	85.1 (84.0–	85.8 (84.7–	86.1 (84.9–	86.0 (84.8–
	84.3)§	86.2) [§]	86.8)	87.2)	87.1)
HepA ≥2 doses§§	54.7 (53.1–	57.5 (55.9–	59.6 (58.1–	60.6 (59.1–	59.7 (58.2–
	56.3)	59.1) [§]	61.0)	62.2)	61.3)
Rotavirus¶¶	72.6 (71.1–	71.7 (70.1–	73.2 (71.8–	74.1 (72.6–	73.2 (71.6–
	74.0) [§]	73.2)	74.6)	75.5)	74.7)
Combined 7-vaccine series***	70.4 (68.8–	71.6 (70.2–	72.2 (70.9–	70.7 (69.2–	70.4 (68.9–
	71.9)	73.1)	73.6)	72.2)	71.9)
No vaccinations	0.7 (0.5–1.1)	0.8 (0.6–1.0)	0.8 (0.6– 1.0)	0.8 (0.6–1.0)	1.1 (0.9– 1.4) [§]

Immunization schedules 2019

https://www.cdc.gov/vaccines/schedules/

Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger, United States, 2019

https://www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html

Recommended Immunization Schedule for Adults Aged 19 Years or Older, United States, 2019

https://www.cdc.gov/vaccines/schedules/hcp/adult.html

Vaccines and Preventable Diseases

https://www.cdc.gov/vaccines/vpd/index.html

Vaccines are available for these 17 dangerous or deadly diseases. Over the years, these vaccines have prevented countless cases of disease and saved millions of lives. Infants, children, adolescents, teens and adults need different vaccinations, depending on their age, location, job, lifestyle, travel schedule, health conditions or previous vaccinations.

Control click or Click on a disease name to learn more about the diseases and the vaccines that prevent them.

- Chickenpox (Varicella)
- Diphtheria
- Flu (Influenza)
- Hepatitis A
- Hepatitis B
- Hib (*Haemophilus influenzae* type b)
- HPV (Human Papillomavirus)
- Measles
- Meningococcal
- Mumps
- Pneumococcal
- Polio (Poliomyelitis)
- Rotavirus
- Rubella (German Measles)
- Shingles (Herpes Zoster)
- Tetanus (Lockjaw)
- Whopping Cough (Pertussis)

Non-routine Vaccines by Disease

Non-routine Vaccines by Disease

People in certain research jobs and travel situations may be exposed to dangerous or deadly diseases that are no longer common in the U.S. Because of the increased risk of disease exposure in these instances, these 7 non-routine vaccines are available, listed below by disease. These are considered non-routine vaccines because they are not part of the recommended immunization schedules for children, adolescents and adults.

- Anthrax
- Japanese Encephalitis (JE)
- Rabies
- Smallpox
- Tuberculosis
- Typhoid Fever
- Yellow Fever

https://www.cdc.gov/vaccines/vpd/vaccines-diseases.html

Recommended Vaccines by Age

https://www.cdc.gov/vaccines/vpd/vaccines-age.html

Advisory Committee for Immunization Practices (ACIP)Vaccine-Specific ACIP Recommendations

Vaccine-Specific ACIP Recommendations

- Anthrax
- BCG
- Cholera
- DTaP/Tdap/Td UPDATED
- Hepatitis A
- Hepatitis B UPDATED
- Hib
- HPV
- <u>Influenza</u>
- Japanese Encephalitis
- Measles, Mumps and Rubella
- MMRV
- Meningococcal
- Pneumococcal
- Polio
- Rabies
- Rotavirus
- Smallpox (Vaccinia)

- <u>Typhoid</u>
- Varicella (Chickenpox)
- Yellow Fever
- Zoster (Shingles)

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

Prevention and Control of Seasonal Influenza with Vaccines, 2018-19 http://www.cdc.gov/flu/professionals/acip/

Vaccines Licensed for Immunization and Distribution in the US with Supporting Documents

Vaccines Licensed for Use in the United States

Product Name	Trade Name
Adenovirus Type 4 and Type 7 Vaccine, Live, Oral	No Trade Name
Anthrax Vaccine Adsorbed	Biothrax
BCG Live	BCG Vaccine
BCG Live	TICE BCG
Cholera Vaccine Live Oral	Vaxchora
Diphtheria & Tetanus Toxoids Adsorbed	No Trade Name
Diphtheria & Tetanus Toxoids & Acellular Pertussis Vaccine Adsorbed	Infanrix
Diphtheria & Tetanus Toxoids & Acellular Pertussis Vaccine Adsorbed	DAPTACEL
Diphtheria & Tetanus Toxoids & Acellular Pertussis Vaccine Adsorbed, Hepatitis B (recombinant) and Inactivated Poliovirus Vaccine Combined	Pediarix
<u>Diphtheria and Tetanus Toxoids and Acellular Pertussis</u> <u>Adsorbed and Inactivated Poliovirus Vaccine</u>	KINRIX
Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed and Inactivated Poliovirus Vaccine	Quadracel
Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed, Inactivated Poliovirus and Haemophilus b Conjugate (Tetanus Toxoid Conjugate) Vaccine	Pentacel
<u>Haemophilus b Conjugate Vaccine (Meningococcal Protein Conjugate)</u>	PedvaxHIB
Haemophilus b Conjugate Vaccine (Tetanus Toxoid Conjugate)	ActHIB
Haemophilus b Conjugate Vaccine (Tetanus Toxoid Conjugate)	Hiberix
Hepatitis A Vaccine, Inactivated	Havrix
Hepatitis A Vaccine, Inactivated	VAQTA
Hepatitis A Inactivated and Hepatitis B (Recombinant) Vaccine	Twinrix
Hepatitis B Vaccine (Recombinant)	Recombivax HB
Hepatitis B Vaccine (Recombinant)	Engerix-B
Hepatitis B Vaccine (Recombinant), Adjuvanted	HEPLISAV-B
Human Papillomavirus Quadrivalent (Types 6, 11, 16, 18) Vaccine, Recombinant	Gardasil
Human Papillomavirus 9-valent Vaccine, Recombinant	Gardasil 9
Human Papillomavirus Bivalent (Types 16, 18) Vaccine, Recombinant	Cervarix
Influenza A (H1N1) 2009 Monovalent Vaccine	No Trade Name
Influenza A (H1N1) 2009 Monovalent Vaccine	No Trade Name
Influenza A (H1N1) 2009 Monovalent Vaccine	No Trade Name
Influenza A (H1N1) 2009 Monovalent Vaccine	No Trade Name
Influenza A (H1N1) 2009 Monovalent Vaccine	No Trade Name
<u>Influenza Virus Vaccine, H5N1</u> (for National Stockpile)	No Trade Name

Influenza A (H5N1) Virus Monovalent Vaccine, No Trade Name **Adjuvanted** Influenza Vaccine, Adjuvanted **FLUAD AFLURIA Influenza Vaccine OUADRIVALENT Influenza Vaccine** Flucelvax Quadrivalent **Influenza Virus Vaccine** Afluria (Trivalent, Types A and B) **Influenza Virus Vaccine FluLaval** (Trivalent, Types A and B) Influenza Vaccine, Live, Intranasal **FluMist** (Trivalent, Types A and B) **Influenza Virus Vaccine Fluarix** (Trivalent, Types A and B) **Influenza Virus Vaccine** Fluvirin (Trivalent, Types A and B) **Influenza Virus Vaccine Agriflu** (Trivalent, Types A and B) **Influenza Virus Vaccine** Fluzone, Fluzone High-Dose and Fluzone Intradermal (Trivalent, Types A and B) **Influenza Virus Vaccine Flucelvax** (Trivalent, Types A and B) **Influenza Vaccine (Trivalent)** Flublok **Influenza Vaccine (Quadrivalent)** Flublok Quadrivalent Influenza Vaccine, Live, Intranasal FluMist Quadrivalent (Quadrivalent, Types A and Types B) **Influenza Virus Vaccine** Fluarix Quadrivalent (Quadrivalent, Types A and Types B) **Influenza Virus Vaccine** Fluzone Quadrivalent (Quadrivalent, Types A and Types B) **Influenza Virus Vaccine** FluLaval (Quadrivalent, Types A and Types B) Quadrivalent Japanese Encephalitis Virus Vaccine, Inactivated, Ixiaro Adsorbed Japanese Encephalitis Virus Vaccine Inactivated JE-Vax Measles and Mumps Virus Vaccine, Live M-M-Vax Measles, Mumps, and Rubella Virus Vaccine, Live M-M-R II Measles, Mumps, Rubella and Varicella Virus Vaccine Live ProQuad Meningococcal (Groups A, C, Y, and W-135) Menveo Oligosaccharide Diphtheria CRM197 Conjugate Vaccine Meningococcal (Groups A, C, Y and W-135) Menactra Polysaccharide Diphtheria Toxoid Conjugate Vaccine Meningococcal Group B Vaccine **BEXSERO** Meningococcal Group B Vaccine **TRUMENBA** Meningococcal Polysaccharide Vaccine, Groups A, C, Y Menomune-A/C/Y/W-135 and W-135 Combined

Plague Vaccine No trade name Pneumococcal Vaccine, Polyvalent Pneumovax 23 Pneumococcal 13-valent Conjugate Vaccine Prevnar 13 (Diphtheria CRM197 Protein) **Poliovirus Vaccine Inactivated (Human Diploid Cell) Poliovax Poliovirus Vaccine Inactivated (Monkey Kidney Cell) IPOL Rabies Vaccine Imovax Rabies Vaccine RabAvert Rabies Vaccine Adsorbed** No Trade Name **Rotavirus Vaccine, Live, Oral ROTARIX** Rotavirus Vaccine, Live, Oral, Pentavalent RotaTeq Smallpox (Vaccinia) Vaccine, Live **ACAM2000** Tetanus & Diphtheria Toxoids, Adsorbed **TDVAX Tetanus & Diphtheria Toxoids Adsorbed for Adult Use TENIVAC Tetanus Toxoid Adsorbed** No Trade Name Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Adacel Pertussis Vaccine, Adsorbed Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular **Boostrix** Pertussis Vaccine, Adsorbed **Typhoid Vaccine Live Oral Ty21a Vivotif** Typhoid Vi Polysaccharide Vaccine **TYPHIM Vi** Varicella Virus Vaccine Live Varivax **Yellow Fever Vaccine** YF-Vax **Zoster Vaccine, Live, (Oka/Merck)** Zostavax

SHINGRIX

Zoster Vaccine Recombinant, Adjuvanted

Contact FDA

(800) 835-4709 (240) 402-8010 ocod@fda.hhs.gov

Consumer Affairs Branch (CBER)
Division of Communication and Consumer Affairs
Office of Communication, Outreach and Development
Food and Drug Administration
10903 New Hampshire Avenue
Building 71 Room 3103
Silver Spring, MD 20993-0002

Related Information

• Vaccine Safety & Availability

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.

Immunizations

http://dpbh.nv.gov/Programs/Immunizations/

WebIZ

Help Desk: 775-684-5954 or toll-free at 877-689-3249, <u>izit@health.nv.gov</u>.

Go to the WebIZ home page to download and study the new regulations, forms and instructions.

NEVADA STATE HEALTH DIVISION: WEBIZ CONTACT INFORMATION

NEVADA WEBIZ - OUR STATEWIDE IMMUNIZATION INFORMATION SYSTEM

http://dpbh.nv.gov/Programs/WebIZ/WebIZ_-_Home/

Public Access Portal

https://izrecord.nv.gov/

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:

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

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

Influenza Vaccines — United States, 2018–2019 Influenza Season

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

Vaccine-Preventable Diseases

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

NEVADA IMMUNIZATION COALITION

http://www.immunizenevada.com

Vaccines & Immunizations

Resources: https://www.vaccines.gov/more_info/approvals/index.html

Vaccines and Immunizations: https://www.cdc.gov/vaccines/index.html

Traveler's: https://wwwnc.cdc.gov/travel/destinations/list

People with Specific Diseases: https://www.cdc.gov/vaccines/spec-grps.html#conditions

Racial and Ethnic Populations: https://www.cdc.gov/vaccines/spec-grps.html#randepop

Refugees and Immigrants: https://www.cdc.gov/vaccines/adults/rec-vac/immigrants-refugees.html

Spanish Speaking: https://www.cdc.gov/vaccines/spec-grps.html#spanish

Vaccine Safety: https://www.cdc.gov/vaccinesafety/index.html

Immunization Education and Training: https://www.cdc.gov/vaccines/ed/index.html

Vaccine Guidelines and Recommendations for Emergency Situations:

https://www.cdc.gov/vaccines/hcp/acip-recs/recs-emergency.html

Vaccine Storage and Handling: https://www.cdc.gov/vaccines/hcp/admin/storage/index.html