



ARIZONA DEPARTMENT OF HEALTH SERVICES

Arizona Vaccine News

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Health and Wellness for all Arizonans

Newsletter Topics

VACCINE NEWS

- **Yellow Fever Vaccine Shortage**
- **Cholera Vaccine Recommended for Adults Traveling to Areas with Cholera**
- **2018 CDC Publication on Health Information for International Travel**

INFLUENZA AND INFLUENZA VACCINES

- **New Dosing Difference for Influenza Vaccines in Children 6-35 Months Old**
- **Annual Influenza Vaccination Gives Better Vaccine Efficacy against Hospitalization**
- **Influenza Vaccination in Children Significantly Decreases Influenza-associated Deaths**
- **Comparative Efficacy of High-Dose Influenza Vaccine in Preventing Deaths**

LITERATURE ON VACCINES AND VACCINE-PREVENTABLE DISEASES

- **More Medicare Beneficiaries Are Receiving Both Pneumococcal Vaccines**
- **Description of a Measles Outbreak in a Correctional Facility in Arizona, 2016**
- **Missed Opportunities for MMR Vaccination Prior to International Travel**
- **Measles Outbreak in Minnesota Due to Fears of Autism Decreasing MMR Acceptance**
- **Easy Vaccine Exemption Policies Increase Risks of Measles Outbreaks**
- **Complications from Mumps during a University Outbreak**
- **Discussing Serogroup B Meningococcal Vaccines with Parents and Patients**
- **CDC Gives Updated Guidance on MenB-FHbp Serogroup B Meningococcal Vaccine**

RESOURCES

- **Free Continuing Education Courses on Vaccines**
- **Advisory Committee on Immunization Practices**
- **New CDC Guidelines for Immunization**
- **Updated CDC Vaccine Storage and Handling Toolkit**
- **Recent Updates to the Vaccine Injury Table and to the VAERS Table of Reportable Events**

DO YOU KNOW?

- **Which *Haemophilus influenzae* type b (Hib) Vaccine Is Preferred for Native American Children?**



ARIZONA VACCINE DATA

- **Arizona Pharmacists Contribute to Community Vaccination**
- **Human Papillomavirus (HPV) Vaccine Coverage in Arizona Adolescents**

VACCINE NEWS

Yellow Fever Vaccine Shortage

- There is a shortage of the YF-VAX® yellow fever vaccine in the United States. The shortage is expected to last until the middle of 2018.
- Some Arizona Yellow Fever vaccine [clinics](#) may still have YF-VAX® in stock for a few months.
- An alternate yellow fever vaccine, Stamaril, is available at selected [sites](#) throughout the United States. Arizona has three Stamaril sites in Scottsdale, Tempe, and Tucson.

Cholera Vaccine Recommended for Adults Traveling to Areas with Cholera

- The Centers for Disease Control and Prevention (CDC) now recommends giving [cholera vaccine](#) to adults ages 18-64 years old who will be traveling from the United States to an area of active cholera transmission.

For more details, see *Morbidity and Mortality Weekly Report* (MMWR), [May 12, 2017](#).

2018 CDC Publication on Health Information for International Travel

- The updated 2018 edition of CDC's Health Information for International Travel (the Yellow Book) provides the most current health guidelines and information for clinicians advising international travelers, including pretravel vaccine recommendations.
- The 2018 Yellow Book is available for free online at www.cdc.gov/yellowbook. Printed copies are also available to purchase.

INFLUENZA AND INFLUENZA VACCINES

New Dosing Difference for Influenza Vaccines in Children 6-35 Months Old

- [FluLaval](#)® (GlaxoSmithKline) has recently been licensed for ages 6 months and above. The dosage is 0.5 mL intramuscularly for all patients ages 6 months and older.
- [Fluzone](#)® (Sanofi Pasteur) is licensed for 6-35 months old children at a dose of 0.25 mL, and for all other patients 3 years and older at a dose of 0.5 mL.
- [Fluarix](#)® (GlaxoSmithKline) currently is licensed for ages 3 years and older at a dose of 0.5 mL.
- **Providers should make sure that all staff members realize that there is now a difference in the dosing of pediatric influenza vaccine for ages 6-35 months, depending on manufacturer and product.**

Annual Influenza Vaccination Gives Better Vaccine Efficacy against Hospitalization

- In Australia, influenza vaccine efficacy (VE) was studied from 2010–2015 in hospitalized patients over 9 years old.
- Overall VE was estimated to be 43%. However, in those who received influenza vaccine in both the current and previous season, VE was estimated to be 51%, while VE was 33% for those vaccinated only during the current season.
- Similar VE results were observed when analyzed by influenza A(H1N1), influenza A(H3N2), and influenza B strains.

See the abstract in *Clinical Infectious Diseases*, [June 1, 2017](#).



Influenza Vaccination in Children Significantly Decreases Influenza-associated Deaths

- A study of children from 2010-2014 showed that influenza vaccination was 65% effective in decreasing deaths due to influenza in healthy children and 51% effective in decreasing deaths from influenza in children with underlying health conditions.

See the article in *Pediatrics*, [May 2017](#) and an associated [CDC press release](#).

Comparative Efficacy of High-Dose Influenza Vaccine in Preventing Deaths

- High-dose influenza vaccine was 36.4% more effective than standard influenza vaccine in preventing deaths among people ≥ 65 years old during the 2012-2013 influenza season when influenza A(H3N2) circulation was common.
- However, there was no significant difference in effectiveness between the two vaccines during the 2013-2014 season when influenza A(H1N1)pdm09 viruses predominated.

See the article in *Journal of Infectious Diseases*, [February 15, 2017](#).

LITERATURE ON VACCINES AND VACCINE-PREVENTABLE DISEASES

Maternal Pertussis Vaccination during Pregnancy Benefits Infants during Their First Year of Life

- Vaccinating pregnant women with Tetanus-diphtheria-acellular pertussis vaccine (Tdap) was 88% effective in protecting infants from pertussis before their first Diphtheria-Tetanus-acellular Pertussis vaccine (DTaP) dose, and 69% effective in protecting infants from pertussis over the entire first year of life.
- Maternal Tdap vaccination during pregnancy did not interfere with infants' immune responses to DTaP vaccine.

See the article in *Pediatrics*, [May 2017](#).

More Medicare Beneficiaries Are Receiving Both Pneumococcal Vaccines

- CDC [recommends](#) that all people 65 years old or older receive a dose of pneumococcal polysaccharide vaccine (PPSV23). In addition, they should also be given a dose of pneumococcal conjugate vaccine (PCV13) if it was not previously received.
- Among Arizona Medicare patients, 41.4% have received at least one dose of PPSV23, 29.9% have received at least one dose of PCV13, and 16.5% have received both PPSV23 and PCV13.

For more details, see MMWR, [July 14, 2017](#).

Description of a Measles Outbreak in a Correctional Facility in Arizona, 2016

- Of the 31 total cases of measles, 22 were in detainees and 9 were in staff.
- Assuring full measles immunization status of staff in congregate settings is important in limiting the spread of measles in a facility.

See MMWR, [May 25, 2017](#).

Missed Opportunities for MMR Vaccination Prior to International Travel

- Of 40,810 adults evaluated at selected pretravel clinics in the United States between 2009-2014, 16% were considered eligible for Measles-Mumps-Rubella vaccine (MMR), but over half did not receive MMR at the time of their visit.
- Traveler refusal (48%), provider decision (28%), and health systems barriers (24%) were reasons for failure to vaccinate MMR eligible patients.

See the [article](#) and [editorial](#) in *Annals of Internal Medicine*, July 18, 2017.



Measles Outbreak in Minnesota Due to Fears of Autism Decreasing MMR Acceptance

- Sixty-five cases of measles occurred in Minnesota between March 30, 2017-May 27, 2017, primarily in the Somali-American community.
- Fears about MMR vaccine causing autism resulted in the first dose receipt of MMR falling from over 90% in 2004 to 35.6% in 2014 among Somali children in Hennepin County, Minnesota.
- Thirty-one percent of measles cases required hospitalization for dehydration or pneumonia.
- Ninety-five percent of measles cases were in unimmunized persons.

See MMWR, [July 14, 2017](#).

Easy Vaccine Exemption Policies Increase Risks of Measles Outbreaks

- Modeling of the likelihood and size of a measles outbreak showed that a state with an easy non-medical vaccine exemption policy is 140%-190% more likely to have a measles outbreak compared to states with medium or difficult vaccine exemption policies.
- The size of measles outbreaks could be reduced by half with stronger exemption policies, thus decreasing costs to public health, the healthcare system, and the individual.

See the abstract in *Academic Pediatrics*, [July 2017](#).

Complications from Mumps during a University Outbreak

- During July 2015-May 2016, 301 cases of mumps were diagnosed in students at the University of Iowa.
- Complications of mumps included 15 cases of orchitis, 3 cases of transient hearing loss, 2 cases of mastitis, and 1 case of meningitis. All of these students had received 2 doses of MMR.
- Mumps and its complications can still occur in people who have received 2 doses of MMR.

See MMWR, [April 14, 2017](#).

Discussing Serogroup B Meningococcal Vaccines with Parents and Patients

- For healthy adolescents ages 16-23 years old, the Advisory Committee on Immunization Practices (ACIP) has given meningococcal B vaccine a Category B recommendation, meaning that there should be individual clinical decision making between the provider and the parent/patient.
- The American Academy of Pediatrics encourages providers to discuss the availability of meningococcal B vaccines with families so that the patient can know about the disease and the vaccine.

See the article in *Pediatrics*, [May 2017](#).

CDC Gives Updated Guidance on MenB-FHbp Serogroup B Meningococcal Vaccine

- [Trumenba](#)[®] (MenB-FHbp vaccine) manufactured by Pfizer is now recommended to be given on either a 2-dose or a 3-dose vaccine schedule. The 2-dose schedule is given at 0 and 6 months. The 3-dose schedule is given at 0, 1-2, and 6 months.
- In most cases, either of these Trumenba[®] schedules is acceptable. However, only the 3-dose Trumenba[®] schedule should be used for people at increased risk for meningococcal disease and for use during serogroup B meningococcal disease outbreaks.
- CDC [recommendations](#) are unchanged for [Bexsero](#)[®], the meningococcal serogroup B vaccine that is manufactured by GlaxoSmithKline.

See MMWR, [May 19, 2017](#).



DO YOU KNOW?

Which *Haemophilus influenzae* type b (Hib) Vaccine Is Preferred for Native American Children?

- The Merck Hib vaccine (PRP-OMP/PedvaxHIB®) is preferred over other Hib vaccine brands in American Indian and Native American children.
- Hib meningitis peaks earlier in Native American children and PRP-OMP use protects them better than other Hib vaccines.

See MMWR, [February 28, 2014](#) (RR-1), page 8.

RESOURCES

Free Continuing Education Courses on Vaccines

- The CDC offers online, free continuing education [courses](#) on immunizations for physicians, nurses, health educators, pharmacists, and other healthcare professionals.

Advisory Committee on Immunization Practices

- [ACIP](#) is an advisory committee of the CDC that meets three times a year to discuss and vote on new immunization recommendations for the civilian population in the United States.
- The ACIP votes on [vaccine recommendations](#) become official CDC policy when they are published in the [MMWR](#).

New CDC Guidelines for Immunization

- The new “General Best Practice Guidelines for Immunization: Best Practices Guidance of The Advisory Committee on Immunization Practices” [publication](#) updates and replaces the [January 28, 2011](#) MMWR titled “General Recommendations on Immunization.”
- These Guidelines will be updated online as new ACIP recommendations are given.
- [Continuing education](#) is available on this new document through April 20, 2019.

Updated CDC Vaccine Storage and Handling Toolkit

- The 2016 CDC Vaccine Storage and Handling Toolkit reflects best practices for vaccine storage and handling.
- Continuing education is available for this updated toolkit through the You Call the Shots: [Vaccine Storage and Handling](#) module through December 31, 2017.

Recent Updates to the Vaccine Injury Table and to the VAERS Table of Reportable Events

- Two important tables that are part of the [National Childhood Vaccine Injury Act](#) were updated in March 2017.
 - 1) The [Vaccine Injury Table](#) is used by the [National Vaccine Injury Compensation Program](#). It lists time frames for adverse events after vaccination regarding compensation for specified adverse events that occur after specified vaccines.
 - 2) The [VAERS Table of Reportable Events](#) lists time frames that are required by law for healthcare providers to report adverse events after vaccination to the Vaccine Adverse Events Reporting System (VAERS).
- Two new adverse events have been added to many of the vaccines in the VAERS Table of Reportable Events: 1) Shoulder injury related to vaccine administration, and 2) vasovagal syncope. Both of these adverse events should be reported within 7 days of administration of vaccine.



ARIZONA VACCINE DATA

Arizona Pharmacists Contribute to Community Vaccination

- Pharmacists who give vaccines are required by law to report all administered vaccines (both adult and pediatric) to the Arizona State Immunization Information System (ASIS).
- In 2016, ASIS data showed that pharmacists administered a total of 644,735 doses of vaccine. The majority were given to people 18 years old and above (624,701 doses).
- The top three vaccines given to adults by pharmacists in 2016 were influenza (478,882 doses), pneumococcal (74,890 doses) and zoster (25,428 doses).

Human Papillomavirus (HPV) Vaccine Coverage in Arizona Adolescents

- ASIS data was used to assess HPV vaccine receipt in Arizona adolescents ages 13-18 years old. Between 2015 and 2016, the completion of three doses of HPV vaccine in females increased from 35% to 37%, and in males from 24% to 28%.
- During the same time period, the number of adolescent females who had not received any dose of HPV vaccine decreased from 36% to 33%, and the number of males who had not received HPV vaccine decreased from 47% to 40%.

- Please feel free to distribute ADHS' *Arizona Vaccine News* to any of your partners who may be interested. If you wish to unsubscribe, email karen.lewis@azdhs.gov. Past issues of *Arizona Vaccine News* and the Arizona Immunization Program Office's *Immunications* newsletter are at <http://www.azdhs.gov/phs/immun/vacNews.htm> .