



Division of Public Health Services

*Office of the Assistant Director
Public Health Preparedness Services*

150 N. 18th Avenue, Suite 120
Phoenix, Arizona 85007
(602) 364-3856
(602) 364-3285 FAX
Internet: www.azdhs.gov

JANICE K. BREWER, GOVERNOR
WILL HUMBLE, DIRECTOR

Arizona Vaccine News
Karen Lewis, M.D.
Medical Director
Arizona Immunization Program Office
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VACCINE NEWS

2013 ISDA Guidelines for Vaccination of the Immunocompromised Host

- The Infectious Disease Association has used an international panel of experts for guidelines for vaccination of the immunocompromised host.
- The document is intended for use by primary care and subspecialty providers who care for immunocompromised patients.

See [*Clinical Infectious Diseases*](#) (CID), February 1, 2014.

CDC Guidelines on Protection of Health-Care Personnel against Hepatitis B

- The Centers for Disease Control and Prevention (CDC) gives guidance in this document for evaluating hepatitis B vaccination for all health-care personnel (HCP), how to evaluate immunity among previously immunized HCP, and how to administer post-exposure prophylaxis.
- Health-care personnel with reasonably anticipated risk for blood or body fluid exposure should be fully immunized against hepatitis B, and have postvaccination serologic testing 1-2 months after the final dose of vaccine to confirm that they are immune.

See [*Morbidity and Mortality Weekly Report*](#) (MMWR), December 20, 2013.

Measles in the US from January 1-August 24, 2013

- Although measles elimination (i.e., interruption of continuous transmission lasting ≥ 12 months) was declared in the US in 2000, importation of measles continues to occur.
- A total of 159 cases of measles were reported in the US from Jan. 1 to Aug. 24, 2013. Most were in unvaccinated persons (82%) or in people who had unknown vaccination status (9%). Eleven percent required hospitalization, including four patients with pneumonia. No deaths were reported.
- Of those who were eligible for vaccination, 67% had objected or had parental objection to vaccination because of religious or philosophical beliefs.
- During 2013, nearly two thirds of the cases came from three outbreaks where measles was introduced into communities with pockets of persons who were unvaccinated because of philosophical or religious beliefs.
- Of the imported cases, 50% were importations from the World Health Organization (WHO) European Region.
- All international travelers should have received 2 doses of MMR, at least one month apart. Infants from 6-12 months traveling internationally should receive their 1st dose of MMR before travel.
- Health-care providers should suspect measles in persons who have a febrile rash illness with cough, coryza, and conjunctivitis.

For more information, see [*MMWR*](#), September 13, 2013.

INFLUENZA AND INFLUENZA VACCINES

Estimates of Influenza Illnesses and Hospitalizations Prevented by Vaccination, 2012-13

- From October 2012 to May 2013 in the US, influenza vaccination is estimated to have prevented 6.6 million illnesses, 3.2 million medically-attended illnesses, and 79,260 hospitalizations.
- There were 169 influenza-associated pediatric deaths, the highest number of reported deaths among this age group in a nonpandemic season since national reporting of influenza-associated pediatric deaths began in 2004.
- Peak weeks of influenza have occurred in January through March in >90% of seasons during the past 20 years. Since significant circulation of influenza can occur as late as May, influenza vaccination should be offered to the unvaccinated *now and as long as influenza continues to circulate*.

For more information, see [MMWR](#), December 13, 2013.

Pediatric Influenza-Associated Mortality in the US

- Since October 2004, influenza-associated pediatric deaths have been a nationally notifiable condition.
- There were 830 pediatric influenza-related deaths reported from 2004-2012. In those with a known medical history, 43% had no high-risk condition.
- Children without high-risk medical conditions were more likely to die before hospital admission and within 3 days of symptom onset.

For more information, see the [article](#) in *Pediatrics*, November 2013.

Asthmatics and Influenza Vaccine Coverage

- The good news: Influenza vaccine receipt increased from 36% in the 2005-2006 influenza season up to 50% in the 2010-2011 influenza season.
- The bad news: Only 50% of asthmatics received vaccine in the 2010-2011 season.

See [MMWR](#), December 6, 2013.

Pregnant Women and Influenza Vaccine Coverage

- During the 2010-2011 influenza season in the U.S., in a study of 21 states and New York City, 53.6% of pregnant women received influenza vaccine (44.2% during pregnancy, 8.8% postpartum, and <1% with unknown time of vaccination related to pregnancy).
- Most who were vaccinated during pregnancy received vaccine in the 2nd or 3rd trimester.
- State coverage of pregnant women receiving vaccine varied from 32.6% to 75.9%.
- All pregnant women are at high risk for influenza complications and need vaccination.

See [MMWR](#), December 13, 2013.

LITERATURE ON VACCINES AND VACCINE-PREVENTABLE DISEASES

Correlates of High Vaccination Exemption Rates among Kindergartens in AZ

- Arizona schools with highest proportion of white students had the highest personal belief exemption (PBE) rates.
- Schools with lower numbers of free and reduced price lunches (suggesting higher economic conditions) and charter schools had significantly higher rates of PBE.
- In Arizona, the profile of a high PBE school is that of a charter school attended by predominantly white, higher-income students.

See the [abstract](#) with maps in *Vaccine*, January 2013.

Preventing Cervical Cancer by HPV Vaccination in US Teenage Girls

- In 2012 in the US, only 53.8% of girls had received ≥ 1 dose of human papillomavirus (HPV) vaccine, and only 33.4% had received all 3 doses of the series.
- By increasing 3-dose HPV vaccination coverage to 80% in the US, an estimated additional 53,000 cases of cervical cancer could be prevented over the lifetimes of those girls aged ≤ 12 years old.
- For every year of delay in increasing HPV vaccine coverage, another 4,400 women will eventually go on to develop cervical cancer.
- Health-care providers need to strongly and consistently recommend HPV vaccination for their teenage patients.

See [MMWR](#), July 26, 2013.

Reduction in HPV in Young Women Following Use of HPV Vaccine in the US, 2003-2010

- In 2006, HPV vaccine was introduced into the routine US immunization schedule. By 2010, 3-dose coverage was only 32% among 13-17 years-old females.
- Data of HPV prevalence from the prevaccine era (2003-2006) were compared with HPV prevalence data from the vaccine era (2007-2010) in females aged 14-59 years old.
 - In the 14-19 years old group, the prevalence of vaccine-type HPV viruses (HPV-6, -11, -16, or -18) decreased 56%, going from 11.5% in 2003-2006 to 5.1% in 2007-2010.
 - Among older age groups, vaccine-type HPV prevalence did not differ significantly between the two time periods.
 - Within 4 years of vaccine introduction, the vaccine-type HPV prevalence decreased among females aged 14-19 years despite a low HPV vaccine coverage rate of only 34% in this age group.
 - HPV vaccine effectiveness was 82% for those who had received at least 1 dose.

For more details, see the [article](#) in *Journal of Infectious Diseases* (JID), August 1, 2013.

Middle East Polio Vaccination of 23 Million Children Planned

- The largest-ever immunization response in the Middle East began in December 2013, aiming to vaccinate more than 23 million children against polio in Syria and neighbouring countries.
- As of 26 November, 2013 there have been 17 Syrian children paralyzed by polio in Syria. Prior to this outbreak, no polio cases had been recorded in Syria since 1999.
- Genetically-related polioviruses, which originated in Pakistan, have also been detected in sewage samples in Egypt in December 2012, and in Israel, the West Bank, and Gaza Strip in 2013.

For more information, see the World Health Organization [Press Release](#) from 12/9/13.

Tetanus in Home Schooled Children

- Homeschooled children represent an increasing proportion of school-aged children in the United States.
- Immunization rates among homeschooled children are largely unknown because they are usually not subject to state-based school-entry vaccination requirements.
- In 2012, 2 cases of tetanus were reported in Oklahoma. Both cases were homeschooled children without documentation of diphtheria-tetanus-acellular pertussis vaccination.

See the [abstract](#) in *Pediatrics*, October, 2013.

Less Herpes Zoster in Children with Varicella Vaccination

- Children with herpes zoster (HZ) were studied as to whether their HZ outbreak was due to wild-type varicella virus or varicella virus vaccine.
- HZ incidence in vaccinated children was 79% lower than in unvaccinated children.
- Among vaccinated children, half of HZ cases were due to wild-type varicella virus.

For more information, see the [abstract](#) in JID, December 1, 2013.

SAGE Report Does Not Yet Change Yellow Fever Vaccine International Regulations

- The Strategic Advisory Group of Experts on Immunizations (SAGE) of the World Health Organization (WHO) has recommended in WHO's [Weekly Epidemiologic Record](#) (May 17, 2013) that a booster dose of yellow fever vaccine every 10 years is not necessary.
- However, the International Health Regulations (IHR) provisions for the duration of validity of the yellow fever vaccination certificate being for only 10 years remain in force as long as state parties have not agreed to change those provisions.
- [WHO](#) will discuss with countries how to best proceed to update the IHR provisions.
- Travelers should expect that any changes will take several few months to be enacted. In the meantime, travelers should anticipate that the existing IHR for yellow fever vaccine boosters every 10 years will continue.

Rotavirus Vaccine Protects against Seizures in Infancy

- Rotavirus illness has been linked to childhood seizures.
- To see if rotavirus vaccination decreased the risk of seizures, US children who were fully vaccinated with rotavirus vaccine were compared with children who had not received rotavirus vaccine.
- Having received a full course of rotavirus vaccination showed an 18%–21% reduction in the risk of seizures requiring hospitalization or emergency department care in the year following vaccination, compared with unvaccinated children.
- This reduction in childhood seizures adds to the rotavirus vaccine-related benefit of preventing diarrhea-related hospitalizations.

For more information, see the [article](#) in CID, January 15, 2014.

ARIZONA DEPARTMENT OF HEALTH SERVICES UPDATES

Arizona Annual Immunization Conference to Be Held on April 23-24, 2014

- The 21st annual Arizona Immunization Conference will be held on April 23-24, 2014 at the Black Canyon Conference Center, 9440 N. 25th Avenue, Phoenix, AZ.
- [Registration](#) and the agenda for the conference will be available soon (follow Annual Conference link).

Pharmacists Contribute to Vaccine Delivery in Arizona

- Since October 2009, [Arizona law](#) ARS §32-1974 allows certified pharmacists to administer vaccines to adults without a prescription, with the [exception](#) that rabies, typhoid, yellow fever, and Japanese encephalitis virus vaccines still require prescriptions (A.A.C. R9-6-1301).

- Subsequently, Arizona law was amended to allow certified pharmacies to also give vaccines to children 6-17 years old if the children had a prescription. Influenza vaccine and vaccines needed for public health emergencies were exempted from requiring a prescription for a child. However, certain health insurance plans may still require a prescription for any vaccine in both children and adults.
- Pharmacies are required by [law](#) to report any administered vaccine to the Arizona State Immunization Information System (ASIIS), Arizona's registry for vaccinations.
- ASIIS data shows the total number of vaccines given by pharmacies during the following time periods:
 - Nov. 2009-Dec. 2010: 309,295
 - Jan.-Dec. 2011: 219,055
 - Jan.-Dec. 2012: 381,862
- In 2012, Arizona pharmacies gave 302,727 doses of influenza vaccine, 41,318 doses of zoster vaccine, 16,686 doses of the adolescent and adult formulation of the tetanus-diphtheria-acellular pertussis (Tdap) vaccine, and 13,648 doses of pneumococcal polysaccharide vaccine. [Source: Arizona Immunization Program Office]

RESOURCES

Tips and Timesavers for Talking with Parents about HPV Vaccine

- CDC provides [messaging](#) for providers to respond to parents' concerns and questions about HPV and HPV vaccination.
- The statement "HPV vaccine is cancer prevention" has a strong effect on parents.
- The single best predictor of HPV vaccination is a strong recommendation from a health-care provider.

Resources for Providers to Talk to Vaccine Hesitant Parents

- The CDC, the American Academy of Pediatrics (AAP), and the American Academy of Family Practitioners (AAFP) have created materials called "[Provider Resources for Vaccine Conversations with Parents.](#)"
- These resources help health-care providers assess parents' needs, identify the role that parents want to play in making decisions for their child's health, and then help health-care providers communicate in ways that meet the parents' needs.
- Practitioners can sign up to be notified when new materials are added to this site.

Parents' Guide to Childhood Immunizations

A second reprint has been published by the Department of Health and Human Services and the CDC of "[Parents' Guide to Childhood Immunizations.](#)" The 64-page booklet discusses:

- Diseases that are prevented by vaccines and the vaccines that prevent them.
- How to prepare for a doctor's visit that includes vaccinations, and what to expect during and after the visit.
- How vaccines help the baby's immune system do its job.
- What is in vaccines, how well they work, and how safe they are.
- Where to find more information about vaccines.

Children’s Hospital of Philadelphia (CHOP) Offers Free Immunization App

- The Vaccine Education Center at CHOP has developed "[Vaccines on the Go: What You Should Know](#)," a free mobile app for parents.
- The app has a broad range of vaccine information for parent and can be downloaded to iPhone and Android devices.

New Stanford University Hepatitis B Manual

- “[Physician’s Guide to Hepatitis B, a Silent Killer](#),” a manual published by Stanford University, provides in-depth coverage of hepatitis B infection, guidance for prenatal screening, how hepatitis B-exposed newborns should receive hepatitis B vaccine and hepatitis B immune globulin, and the importance of hepatitis A vaccine in people who are chronically infected with hepatitis B.

***Needle Tips* Electronic Newsletter**

- [Needle Tips](#) is a free newsletter from the Immunization Action Coalition (IAC). It is written for health professionals who provide immunization services to children, teens, or adults. It has ready-to-print materials from IAC to photocopy and hand out to staff and patients.
- Every issue includes the “Ask the Experts” feature by CDC experts who answer challenging and timely questions about vaccines.
- The “Vaccine Highlights” section contains vaccine news from the Advisory Committee on Immunization Practice (ACIP) and CDC.
- The technical content of *Needle Tips* is reviewed for accuracy by the CDC.
- An electronic [subscription](#) to *Needle Tips* is free.

Updated Guide to Influenza Vaccine and Egg Allergy

- The IAC has recently developed a one page [document](#) and algorithm to guide health-care providers about egg allergy and influenza vaccines.
- This document follows CDC’s guidance on the subject for the 2013-14 influenza season.

Voices for Vaccines

- “[Voices for Vaccines](#)” is a website where many parents explain why they immunize their children, or how they changed from anti-vaccine to pro-vaccine.

- Please feel free to distribute ADHS’ *Arizona Vaccine News* to any of your partners who may be interested. Past issues of *Arizona Vaccine News* can be found at: <http://www.azdhs.gov/phs/immun/vacNews.htm>