



**Arizona Vaccine News**  
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VACCINE NEWS

**New Arizona Law Authorizes Pharmacists to Give Vaccines to Some Children**

- On April 13, 2011, Governor Brewer signed Senate Bill 1298 that amends ARS 32-1970 and ARS 32-1974 to authorize pharmacists to give vaccines to children 6 -17 years old.
- Pharmacists can give influenza vaccine to children 6 years and above without a prescription. All other vaccines given to children require a prescription.
- The effective date is July 20, 2011.

For more details, see:

[http://www.azsos.gov/public\\_services/LegislativeFilings/PDFs/2011/50th Legislature 1st Regular Session/CH\\_103.pdf](http://www.azsos.gov/public_services/LegislativeFilings/PDFs/2011/50th_Legislature_1st_Regular_Session/CH_103.pdf)

### How Arizona Pharmacies Contribute to Adult Vaccination Efforts

- In October 2009, a law was signed in Arizona that permits certified pharmacists to give most vaccines to adults 18 years and older without a prescription.
- From 11/1/2009 through 12/31/2010, Arizona pharmacists reported giving 309,295 vaccines. Ninety-one percent (282,174 doses) were seasonal or H1N1 influenza vaccines.
- The next most frequently pharmacist administered vaccines during the same period were zoster (5%) and pneumococcal vaccine (2%).

### FDA Approves Conjugate Meningococcal Vaccine for 9-23 months

- Menactra® is now licensed for infants 9-23 months as a two dose series. It was previously only approved for people aged 2-55 years.  
<http://www.fda.gov/BiologicsBloodVaccines/Vaccines/ApprovedProducts/ucm176044.htm>.
- Menveo® is still licensed for ages 2-55 years.  
<http://www.fda.gov/BiologicsBloodVaccines/Vaccines/ApprovedProducts/ucm201342.htm>
- Menactra® and Menveo® are both quadrivalent meningococcal vaccines and contain four serogroups: A, C, Y, and W-135. They do not contain serogroup B which is the most common meningococcal serogroup seen in infancy.
- The American Academy of Pediatrics, CDC's Advisory Committee on Immunization Practices (ACIP), and Vaccines for Children (VFC) have not yet issued any guidance in response to the FDA lowering of the age for Menactra®.

### Meningococcal Vaccines and the Hajj

- CDC recommends repeating meningococcal vaccine every five years for patients who remain at risk (including travelers to endemic areas) since antibodies wear off with time.  
[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6003a3.htm?s\\_cid=mm6003a3\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6003a3.htm?s_cid=mm6003a3_w)
- Saudi Arabia requires that all Hajj visitors show proof of meningococcal vaccination **no more than 3 years previously** and no less than 10 days prior to arriving. Adults and children 2 years and above are required to have quadrivalent vaccine.  
<http://www.hajjinformation.com/main/p3001.htm>
- Children between 3 months and 2 years of age must be given two doses of the A vaccine with a 3-month interval between the two doses. **Since** there is no monovalent meningococcal vaccine licensed in the US, a quadrivalent vaccine would have to be used to meet this requirement.
- To fulfill Saudi Arabian travel requirements, the meningococcal vaccine may have to be given closer apart than every five years. Giving meningococcal vaccines closer than five years would not be expected to cause a problem with immunological response or adverse side effects.

## **Tdap Survey of Arizona Emergency Department (ED) Physicians**

- The Arizona Immunization Program Office of the Arizona Department of Health Services (ADHS) conducted a survey of ED physicians to see how often they used pertussis vaccine ( Tdap) instead of tetanus-diphtheria (Td) vaccine for wound management according to CDC recommendations <http://www.cdc.gov/mmwr/PDF/rr/rr5517.pdf> . Forty six physicians responded to the survey:
  - 73% used Tdap almost exclusively or most of the time.
  - 9% were not aware of CDC recommendations to give a single dose of Tdap to all teenagers and adults.
  - A frequent reason for not giving Tdap was that the patient was “too old”
- Recently, CDC recommended that Tdap should be used instead of Td for tetanus prophylaxis when indicated in patients  $\geq 7$  years old if they have not previously received a Tdap. This also includes patients  $\geq 65$  years old.  
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6001a4.htm>
- Current FDA licensing for Tdap is for ages 10-64 years, so providers who give Tdap to 7-9 year olds and to those 65 years and older would be using it in an “off label” manner but would be complying with CDC recommendations.

## **Shingles Vaccine Is Now FDA Licensed for 50-59 year olds**

- Zostavax<sup>®</sup> is now licensed for use in adults ages 50 years and above.
- FDA approval was based on a multicenter study that showed that Zostavax<sup>®</sup> reduced the risk of developing shingles within one year of vaccination by approximately 70 percent.
- FDA licensure does not automatically mean health insurance coverage for the vaccine. Patients will need to check their own health care insurance plan coverage.

<http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm248390.htm>

## VACCINE PREVENTABLE DISEASES NEWS

### **Arizona Pertussis Cases Higher in 2010 than in 2009**

- There were 546 total cases of pertussis in Arizona in 2010, compared with 277 cases in 2009
- In the first four months of 2011 there have been 258 reported cases of pertussis, compared to 145 during the same time period in 2010
- Surges in pertussis cases tend to occur every 3-5 years. In 2005, Arizona had a declared pertussis outbreak with 1,108 reported cases.

## LITERATURE ON VACCINES AND VACCINE PREVENTABLE-DISEASES

### **Arizona’s 2008 Measles Outbreak**

- A Swiss traveler with measles caused 14 confirmed cases of measles in Arizona in 2008.
- Of the 14 patients, half were over 18 years, 29% were hospitalized, and all were unvaccinated or had unknown immunization history.
- Two hospitals where measles exposures occurred spent US\$799,136 responding to and containing 7 cases in these facilities.

See the abstract in *Journal of Infectious Diseases*, May 15, 2011.

<http://jid.oxfordjournals.org/content/early/2011/04/25/infdis.jir115.abstract>

### **International Travel Should Prompt Measles Vaccination for Infants and Children**

- Children aged  $\geq 12$  months who are traveling internationally should receive 2 doses of MMR vaccine, separated by at least 28 days.
- Children aged 6--11 months who are traveling internationally should receive 1 dose of MMR vaccine.
- Because serologic response to the measles component of the vaccine varies among infants aged 6--11 months, infants vaccinated before age 12 months should be revaccinated on or after the first birthday with 1 dose of MMR vaccine followed by a second dose at least 28 days later

See MMWR, April 8, 2011.

[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6013a1.htm?s\\_cid=mm6013a1\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6013a1.htm?s_cid=mm6013a1_w)

### **More Professional Schools Requiring Vaccinations**

- Prematriculation vaccination requirements for 563 medical and nursing schools in the US were surveyed
- More than 90% of schools required measles, mumps, rubella, and hepatitis B vaccines for entering students; varicella vaccination also was commonly required.
- Tetanus, diphtheria, and acellular pertussis vaccination (Tdap) was required by 66%, 70%, and 75% of nursing, MD-granting, and DO-granting schools, respectively.
- Nursing and DO-granting schools (31% and 45%, respectively) were less likely than MD-granting schools (78%) to offer students influenza vaccines free of charge.

See abstract in *Annals of Internal Medicine*, March 15, 2011

<http://annals.org/content/154/6/391.abstract>

### **Outbreak of Type 2 Vaccine-Derived Poliovirus in Nigeria**

- Low polio vaccine coverage in Nigeria resulted in a vaccine-derived poliovirus type 2 outbreak.
- Symptoms of disease from vaccine-derived poliovirus are indistinguishable from wild type poliovirus.

See *Journal of Infectious Diseases*, April 1, 2011.

<http://jid.oxfordjournals.org/content/203/7/898.full.pdf+html>

### **AZ County-Level Immunization Trends from 1995-2008**

- The CDC has compiled county-level vaccination data for specific counties in the US. Eight Arizona counties are represented: Cochise, Coconino, Maricopa, Arizona, Mohave, Pima, Pinal, Yavapai, and Yuma.
- Immunization rates have consistently risen during this time period.

See "County-level Trends in Vaccination Coverage Among Children Aged 19-35 Months—United States, 1995-2008," MMWR April 29, 2011 <http://www.cdc.gov/mmwr/pdf/ss/ss6004.pdf>

### **The Effect of Litigation on the Vaccine Industry**

- For a short history of the National Vaccine Injury Compensation Act (NVICA) and the recent Supreme Court decision supporting NVICA, see *New England Journal of Medicine*, April 21, 2011 <http://www.nejm.org/doi/full/10.1056/NEJMp1102182>

### ***Pediatrics* Publishes a Supplement on Vaccine Safety**

- A supplement in the May 2011 issue of *Pediatrics* contains 18 articles on vaccine safety including an article by Mary Healy and Larry Pickering entitled “How to Communicate with Vaccine-Hesitant Parents.”  
[http://pediatrics.aappublications.org/cgi/reprint/127/Supplement\\_1/S127](http://pediatrics.aappublications.org/cgi/reprint/127/Supplement_1/S127)

### VACCINE RESOURCES

#### **The Pink Book Is Now Available**

- The 12<sup>th</sup> edition of CDC’s *Epidemiology and Prevention of Vaccine-Preventable Diseases* is now available on line at <http://www.cdc.gov/vaccines/pubs/pinkbook/default.htm>

### ADHS GUIDANCE

#### **ADHS Pertussis and Pertussis Vaccine Lecture**

- Anyone wanting further training about pertussis and pertussis vaccines for their facility, staff, or office can contact Dr. Karen Lewis, Medical Director for the Arizona Immunization Program Office, at [karen.lewis@azdhs.gov](mailto:karen.lewis@azdhs.gov)

#### **How to Schedule an Immunization after an Invalid Dose**

- Doses of any vaccine administered  $\geq 5$  days earlier than the minimum interval or age should not be counted as valid doses and should be repeated as age appropriate.
- The repeat dose should be **spaced after the invalid dose** by the recommended minimum interval

For more details, see the new General Immunization Recommendations document in MMWR Jan 18, 2011, p. 5. <http://www.cdc.gov/mmwr/pdf/rr/rr6002.pdf>

#### **Tdap and Meningococcal Vaccines Are Valid for School Entry if Given at 10 Years Old**

- Arizona school rules exclude children who are 11 years and older in 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> grades if they have not had a single dose of Tdap vaccine as long as 5 years has passed since the last DTaP, DTP, DT, or Td.
- School rules exclude children who are 11 years and older in 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> grades if they have not had a single dose of meningococcal vaccine.
- Each year there will be an additional grade added to the rule so that by the 2014-2015 school year, Tdap and meningococcal vaccines will be required for all 6<sup>th</sup>-12<sup>th</sup> grades.
- Some children entering 6<sup>th</sup> grade are still 10 years old. If Tdap and/or meningococcal vaccines are given when children are 10 years old, they would be counted as valid vaccines for fulfilling Arizona school rules.

See the chart below for more details on the 2011-2012 Arizona School Immunization Requirements, Kindergarten-12<sup>th</sup> Grade.

- 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/index.htm>

## 2011-2012 Arizona School Immunization Requirements, Kdg-12<sup>th</sup> Grade

1. Students must have proof of all required immunizations, or valid exemption, in order to attend the first day of school. Arizona law allows exemptions for medical reasons, lab evidence of immunity and personal beliefs. Exemption forms are available from schools and at [www.azdhs.gov/phs/immun/idr\\_forms](http://www.azdhs.gov/phs/immun/idr_forms). Homeless students are allowed a 5-day grace period.
2. The immunization record for each vaccine dose must include the date and name of doctor or clinic.
3. The statutes and rules governing school immunization requirements are:  
Arizona Revised Statutes 15-871 - 874; Arizona Administrative Code, R9-6-701 - 708.

Please check requirements for each child's age and grade level in the chart below.

Age →	Under age 7	7 - 10 years	11 years and older	11 years and older
Grade →	Kindergarten and above	Kindergarten-5 <sup>th</sup> grades	<u>6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> &amp; 9<sup>th</sup> Grades Only</u>	10 <sup>th</sup> -12 <sup>th</sup> grades
Vaccine ↓				
DTaP/DTP/DT	4-5* doses At least 1 dose at 4 years of age or older is required. *A 6th dose is required if 5 doses have been given before 4 years of age.	History of 4 DTaP or a total of 3 tetanus & diphtheria doses given after 12 months of age.	<b>1 Tdap dose is required when 5 years</b> have passed since the last DTaP, DTP, DT or Td. Students starting or finishing the first 3 tetanus & diphtheria doses must receive only 1 Tdap as part of the 3-dose series.	Students who have not already received Tdap are required to receive <u>1 Tdap dose</u> when <u>10 years</u> have passed since the last DTaP, DTP, DT, or Td. Students starting or finishing the first 3 tetanus & diphtheria doses must receive only 1 Tdap as part of the 3-dose series.
Td				
Tdap		Not required for 11+ year olds in these grades		
Meningococcal		Not required for 11+ year olds in these grades	<b>1 dose</b>	1 dose recommended, but not required for 10 <sup>th</sup> -12 <sup>th</sup> graders in the 2011-2012 school year.
Polio	<b>3-4 doses</b> 3 doses meet the requirement if the third dose was given at age 4 years or older. 4 doses meet the requirement even if all 4 doses were given in the first year of life.			
MMR	<b>2 doses</b> A third dose will be required if the first dose was given before 12 months of age.			
Hepatitis B	<b>3 doses</b> A fourth dose will be required if the third dose was given before 24 weeks of age.			
Varicella	1 dose if given before 13 years of age 2 doses if first dose was given at 13 years of age or later Students attending school prior to 9/1/2011 with parental recall of chicken pox disease are allowed to continue attendance with parental recall of disease. As of 9/1/2011, students enrolling in preschool or school for the first time are required to present proof of varicella immunization, or valid exemption due to laboratory evidence of immunity, medical reasons or personal beliefs.			

Arizona Immunization Program Office • 150 North 18<sup>th</sup> Avenue, Suite 120 • Phoenix, AZ 85007 • (602) 364-3630 • Toll-free (866) 222-2329 (5/9/11)  
School Immunization Data Report forms will be available from links at <http://www.azdhs.gov/phs/immun/back2school.htm> in September 2011.