

Arizona Providers Improve Immunization Coverage Levels

By Jennifer Ralston-King, Immunization Assessment Coordinator

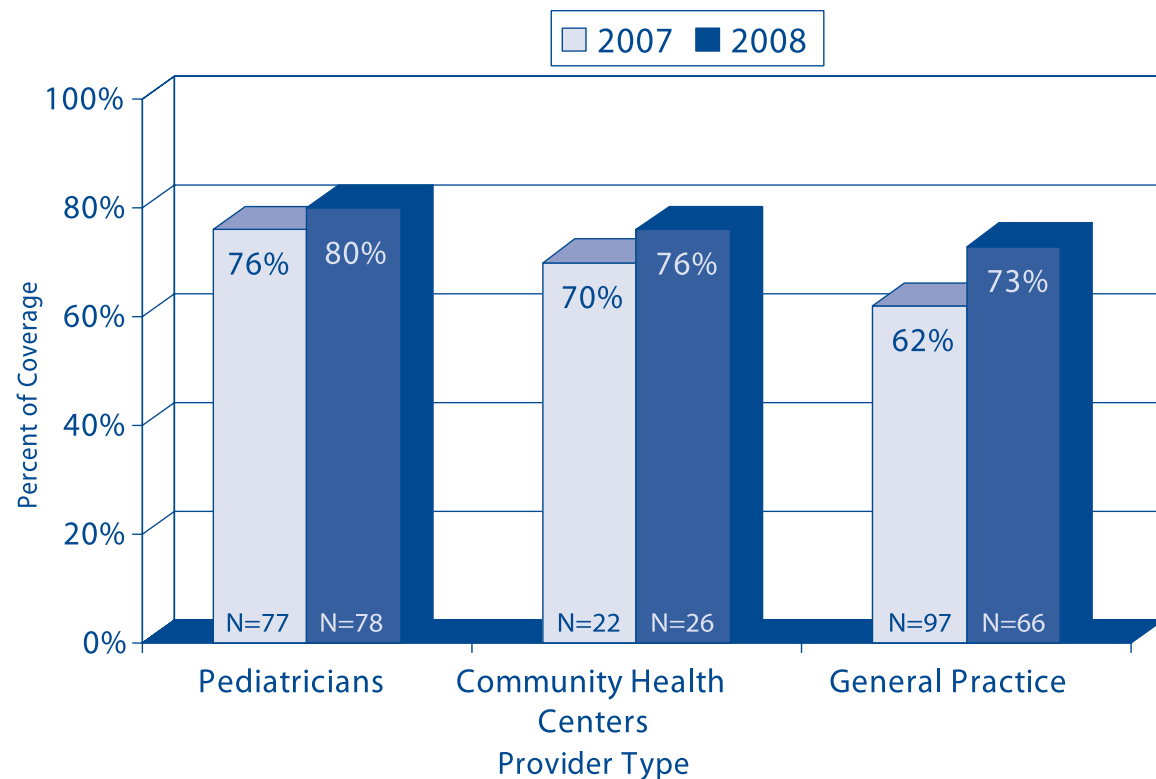
Vaccines for Children providers demonstrated their hard work and dedication to protecting the health of children with improved coverage levels this year. A comparison of 2007 and 2008 coverage levels of pediatricians, community health centers and general practice providers is illustrated by the graph below. The graph below shows mean coverage levels of VFC providers for each year, by provider type.

The results of the National Immunization Survey (see page 2) also indicate substantial increases in Arizona's immunization coverage levels. The Centers for Disease Control and Prevention released data collected during the 2007 National Immunization Survey (NIS) in September 2008. Children included in the survey were born from January 2004 through July 2006. They ranged in

age from 19 to 35 months at the time of the survey.

Arizona's coverage level for the combination of 4 DTaP, 3 Polio, 1 MMR, 3 Hib, 3 Hep B and 1 Varicella (4:3:1:3:3:1) increased nearly five percentage points, from 70.5% to 75.2% since NIS results were released in 2007. Full-page charts illustrating Arizona's progress in reaching the Healthy People 2010 objective of 90% coverage levels are enclosed as inserts. Arizona has achieved 90% objective for Polio #3, Hib #3 and Hepatitis B #3. Providers have done an exceptional job of ensuring the newborns are protected by the birth dose of Hepatitis B. By the third day of life, 77% of Arizona newborns have received Hepatitis B #1. The United States average is 53% for the first Hepatitis B by three days of age.

Arizona Mean Coverage Levels of 24-35 Months Olds
4 DTaP, 3 Polio, 1 MMR, 3 Hib, 3 Hep, 1 Varicella by 24 months



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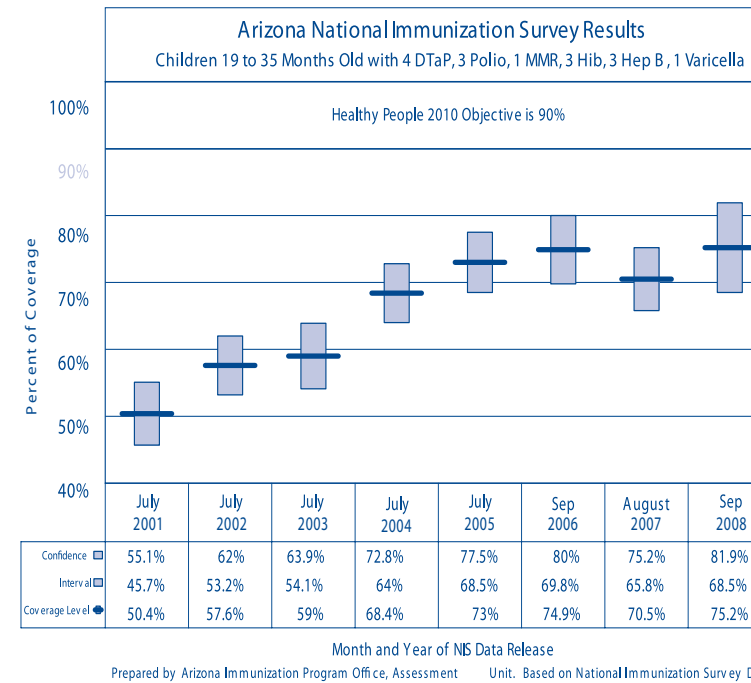
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National Immunization Survey Results

By Jennifer Ralston-King, Immunization Assessment Coordinator



| | Arizona | | United States | |
|-------------------|------------|-----------|---------------|-----------|
| | August '07 | Sept. '08 | August '07 | Sept. '08 |
| Birth Dose Hep B* | 70% | 77% | 50% | 53% |
| 4 DTaP | 80% | 85% | 85% | 85% |
| 3 Polio | 88% | 91% | 93% | 93% |
| 1 MMR | 88% | 89% | 92% | 92% |
| 3 Hib | 92% | 91% | 93% | 93% |
| 3 Hep B | 88% | 92% | 93% | 93% |
| 4 PCV | 67% | 77% | 68% | 75% |
| 3 PCV | 88% | 89% | 87% | 90% |
| 1 Varicella | 83% | 86% | 89% | 90% |
| 1 Influenza | 30% | n/a | 32% | n/a |
| 4:3:1 | 78% | 84% | 83% | 83% |
| 4:3:1:3 | 78% | 83% | 82% | 82% |
| 4:3:1:3:3 | 75% | 80% | 81% | 80% |
| 4:3:1:3:3:1 | 71% | 75% | 77% | 77% |

August 2007 NIS data was collected from the first through fourth quarters of 2006 on children born from January 2003 through June 2005. Hepatitis B "birth doses" were given within the first 3 days of life.
September 2008 NIS data was collected from the first through fourth quarters of 2007 on children born from January 2004 through July 2006.
Source: CDC National Immunization Survey Results, 2007-2008.
Prepared by: ADHS Immunization Program Office, Assessment Unit.

ASIS Update

By Lisa Rasmussen, ASIS Project Leader

- Reminder:**
- Arizona Revised Statute §36-135 requires all immunizations (including non-VFC immunizations) administered to a child under age 18 to be reported to the Arizona Department of Health Services for input into ASIS. This includes influenza, HPV, rotavirus, pneumococcal, and all other vaccines not currently mandated for school or day care entry. You must report all vaccines, even those that are from private stock.

Keep your records up to date in ASIS:

- If you have children that have left your practice, please update their status in ASIS. This is quite simple to do. When you edit the Patient Demographic, there is a field for Inactive status (it's at the bottom of the patient block on the right side of the screen). Change the status to inactive, and indicate the reason for inactivation. This will remove the child from many reports that are run for your practice.

Run Reminder/Recalls:

- The Reminder/Recall report can assist you in determining which of your patients need immunizations. The report can generate mailing labels which you can mail to the parents reminding them to bring their children in. The Arizona Partnership for Immunization (TAPI) can provide postcards free of charge. See their website at www.whyimmunize.org for ordering information. Our staff can provide you with

instructions to generate the reports or you can visit our website at www.azdhs.gov/phs/asiis/asiissupport.htm to download an instruction guide.

Non-administered vaccines:

- Please enter all vaccines not administered by your clinic as historical vaccines. This allows for a more complete immunization record for the child. Child care facilities and schools rely on this information for their records. Reporting historical vaccines may be time consuming, but consider the amount of immunizations a child would require had an incomplete electronic record been the only source of information.

ASIS is for adults also:

- ASIS can be used to collect adult immunization data also. We recommend that ASIS be used as a repository for immunization status (including immunity and serological results) of health care workers. The system has been used during outbreak situations, and can save much needed vaccines for those that truly need the immunizations.

Track your vaccine inventory:

- If you take the time to populate your vaccine inventory in ASIS, entry will be much easier, since the lot number and expiration date fields will be pre-populated from your inventory. You can use the Reconciliation function to indicate any wasted vaccines, which will also make future



ordering easier.

Call us for more information:

- For more information on any of the above features or other assistance, the ASIS hotline is available for technical assistance Monday through Friday, 8 am - 5 pm, excluding state holidays. Call either 602-364-3899 or 1-877-491-5741 and one of the friendly folks in the ASIS unit will assist you with your needs.

ASIS training is available:

- Introductory training is usually held on the first two

Tuesday's of each month, from 9 am to 12 pm, 1740 West Adams, Room 008, Phoenix, Arizona.

- Advanced training is usually held on the third Tuesday of each month, from 9 am to 12 pm, 1740 West Adams, Room 008, Phoenix, Arizona.
- Regional training is also scheduled in locations outside of the Phoenix area.
- Call our hotline to enroll in a training class.

Rotavirus Vaccines Making Dent in Disease Statistics

By Karen Lewis, M.D.

Arizona typically has peak rotavirus activity in winter months. It will be a welcome relief if there continues to be less rotavirus activity as a result of rotavirus vaccine use. Recent data from the Centers for Disease Control and Prevention (CDC) suggests that use of rotavirus vaccines may be delaying the onset and magnitude of rotavirus activity in the U.S.

Annually in the US, rotavirus has contributed to 20-60 deaths, 55,000-70,000 hospitalizations, 205,000-272,000 emergency department visits, and 410,000 physician office visits.

In February 2006, the U.S. Food and Drug Administration (FDA) approved Merck's rotavirus vaccine, RotaTeq®. Then in March 2008, the FDA approved GlaxoSmithKline's rotavirus vaccine, ROTARIX®.

In order to measure the effect of rotavirus vaccine on rotavirus activity, the CDC analyzed national data comparing rotavirus activity during a fifteen year period between 1991-2006 with rotavirus activity during the period of July 2007-May 2008. Therefore, their analysis would have been principally measuring the effect of RotaTeq®.

Data for the 2007-2008 period were obtained using population surveillance for children less than 3 years old with rotavirus gastroenteritis at sentinel sites in three counties in New York, Ohio, and Tennessee.

The CDC found that the onset of national rotavirus activity for the 2007-2008 period was delayed by about 2-4 months compared with the 15 previous rotavirus seasons. Historically, median onset of rotavirus activity occurred in mid-November. In 2008, the onset of rotavirus activity did not occur until late February.

The percentage of positive rotavirus antigen detection tests was also markedly decreased. Historically, the highest

percentage of positive rotavirus tests was 41%, and the time for this peak percentage was week 12 (March). In the 2007-2008 rotavirus season, the percentage of positive rotavirus stool tests only got as high as 17.8%, and this did not occur until week 17 (April).

Next, the total number of rotavirus tests performed January 1, 2008-May 3, 2008 were compared with the total number of tests performed during this same period in the previous 7 seasons. The number of rotavirus stool tests in 2008 were lower by a median of 37.0%, and the number of tests that were positive for rotavirus was lower by a median of 78.5%.

This overall decrease in rotavirus activity occurred in spite of not all of the children in the study cohort receiving rotavirus vaccine. The 2-3 year olds were too old to have received RotaTeq® in infancy. Also, rotavirus vaccination at these sentinel sites in March 2008 was 56% for 3 month old infants having received 1 dose of rotavirus vaccine, and 33.7% of 13 month olds having received 3 doses of rotavirus vaccine.

The pronounced decrease in rotavirus activity for the 2007-2008 season may not only be due to the direct protective effect of the vaccine on the individual recipient, but also to herd effect by decreasing transmission of rotavirus in the community. Continued surveillance will be needed to see if the delayed onset and diminished magnitude of rotavirus activity continues to be seen on a yearly basis.

Reference:

CDC. Delayed Onset and Diminished Magnitude of Rotavirus Activity-United States, November 2007-May 2008. MMWR 2008; 57: 398-401. <http://www.cdc.gov/mmwr/PDF/wk/mm5725.pdf>

Don't Be a Vector for Influenza! Health Care Workers Need Yearly Influenza Vaccines

By Karen Lewis, M.D.

A vector is an organism that does not itself cause disease but spreads infection by transmitting pathogens from one host to another. Unvaccinated health care workers (HCWs) are vectors when they spread influenza to their patients, their coworkers, and their families.

Patients also are vectors when they spread influenza to unvaccinated HCWs. The results are sicker patients, sicker HCWs, and more stress on overloaded hospitals who can't afford to have HCWs at home with influenza. Unfortunately, only about 40% of HCWs receive yearly influenza vaccine.¹ Therefore, spread the message: **all HCWs should be immunized yearly against influenza.**

Influenza vaccination protects the health of HCWs and patients during the winter.

- People who receive influenza vaccine have 43 % less sick leave due to upper respiratory infections (URIs), 36 % fewer days of sick leave for all illnesses, 44 % fewer visits to physicians for URIs, 25 % fewer URI illnesses, and 20 % fewer days of URIs.²
- Long term care centers with higher HCW influenza vaccination rates have many fewer deaths, fewer influenza-like illnesses (ILIs), fewer physician consults for ILIs, and fewer hospital admissions for ILIs.³

HCWs sometimes fail to get vaccinated because of misinformation about the vaccine. The influenza shot cannot cause clinical illnesses such as runny nose, sore throat, cough, or "stomach flu." The trivalent inactivated vaccine (TIV) is a killed vaccine, so the virus cannot replicate in the body and cannot cause respiratory or gastrointestinal illnesses.

HCWs can be immunized with either TIV or the live attenuated influenza vaccine (LAIV). LAIV is given as a nasal spray. Studies have shown that symptoms after LAIV are no different than symptoms after placebo, except that LAIV recipients are more likely than placebo recipients to experience a stuffy nose.

LAIV is approved for healthy people between 2-49 years old, unless they are close contacts of patients with severe immunosuppression. HCWs who receive LAIV should wait 7 days before working with patients whose immunosuppression is severe enough to require a protective environment.⁴

HCWs are essential public workers during influenza season. Don't be a vector. Get a yearly influenza vaccine.

Resources:

Information for where to get influenza vaccine in Arizona can be found at www.cir.org, 602-263-8856, or 800-352-3792 (from the area codes 520 & 928).

More online information about influenza vaccine can be found at www.azdhs.gov/flu, www.cdc.gov/flu, and www.cdc.gov/vaccines/vpd-vac/flu/default.htm.

For individual questions about influenza vaccines, call your local health department, or the Arizona Immunization Program Office at (602) 364-3630.

References:

1. CDC. Influenza Vaccination of Health-Care Personnel. MMWR 2006; 55: 1-16
2. Nichol K et al. The Effectiveness of Vaccination against Influenza in Healthy, Working Adults. NEJM 1995; 333: 889-893.
3. Hayward AC et al. Effectiveness of an Influenza Vaccine Programme for Care Home Staff to Prevent Death, Morbidity, and Health Service Use among Residents: Cluster Randomised Controlled Trial. BMJ 2006; 333;1241. Published online 2006 December 1. doi: 10.1136/bmj.39010.581354.55.
4. CDC. Prevention and Control of Influenza. Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2008. MMWR 2008; 57: 1-60.

RESOURCES

Statewide Flu/Pneumonia Hotline!

Get the **flu shot not the flu!**
A resource linking people with clinic locations
Phoenix Metro: (602) 263-8856 Arizona: 1-800-352-3792
<http://www.cirs.org/>
What's New! <http://www.azdhs.gov/phs/immun/new.htm>

CDC IN THE NEWS...

Vaccine Shortages: go to <http://www.cdc.gov/vaccines/vac-gen/shortages/downloads/hib-flyer-042308.pdf>
To check weekly flu activity in Arizona and across the country, visit: <http://www.cdc.gov/flu/weekly/fluactivity.htm>
Results of the National Immunization Survey of Adolescents and Teens may be found at: <http://www.cdc.gov/vaccines/stats-surv/imz-coverage.htm#nisteen>
Updated questions and answers about Shingles vaccine are posted at <http://www.cdc.gov/vaccines/vpd-vac/shingles/vac-faqs.htm>



Arizona Immunization Program Vaccine Center Update

By Cherry Boardman, RN, MSN

Influenza Vaccine

The Arizona VFC program received 25% more vaccine than last year. The following quantities of flu vaccine are expected for the 2008-2009 flu season.

Sanofi 0.25 mL preservative free flu vaccine in syringes: 85,000 doses

Sanofi 0.5 mL preservative free flu vaccine in syringes: 49,910 doses

Sanofi 0.5 mL preservative free flu vaccine in vials: 18,090 doses

Sanofi 0.5 mL flu vaccine in multi-dose vials: 75,000 doses

Novartis 0.5 mL flu vaccine in syringes: 12,000 doses

MedImmune live attenuated flu vaccine (LAIV): 12,000 doses

We have received orders for more doses than we have supply in some presentations. Providers may receive some vaccine in a presentation other than requested. We are attempting to obtain more vaccine in presentations where there is short supply.

New Vaccines in 2008

Three new vaccines have been added to the VFC Program. A rotavirus vaccine (Rotarix®) another combination vaccine (DTaP/IPV); diphtheria, tetanus and acellular pertussis (DTaP) and inactivated polio (Kinrix®); and another combination vaccine (DTaP/IPV/Hib) diphtheria, tetanus and acellular pertussis (DTaP); inactivated polio (IPV); and Haemophilus b Conjugate (HIB) (Pentacel®) are available to order.

Rotarix® is a two dose series manufactured by GlaxoSmithKline (GSK). Kinrix® is licensed for the second booster dose in the DTaP and IPV series. It is also manufactured by GSK. Pentacel® is licensed for the three doses in the primary DTaP, IPV and HIB series and the first booster dose in the series. It is manufactured by sanofi pasteur.

Meningococcal Vaccine and Tetanus Diphtheria and Acellular Pertussis (Tdap) Vaccines

New school rules became effective for meningococcal vaccine MCV4 (Menactra®) and tetanus diphtheria and acellular pertussis vaccine Tdap (Boostrix® and Adacel®) Fall 2008. All children entering 6th grade who are 11 years of age must be immunized with one dose of each vaccine. MCV4 and Tdap are both offered through the Arizona VFC Program.

Pneumococcal Conjugate Vaccine

ACIP recommends that all children 24-59 months who have not completed any recommended schedule should receive 1 dose of pneumococcal conjugate vaccine PVC7 (Prevnar®).

Vaccine Shortages and Delays

The current information on national vaccine shortage and delays can be found at www.cdc.gov/vaccines and search on "vaccine shortages".

Haemophilus b Conjugate (HIB) and Haemophilus b Conjugate/Hepatitis B Vaccines

Merck HIB (PedvaxHIB®) and HIB/Hepatitis B vaccines (COMVAX®) are still in limited supply for specific groups. On October 11th, Merck issued a statement indicating Pedvax HIB® And Comvax® are projected to return to market in mid-2009. Arizona receives a monthly allocation of PedvaxHIB® to provide to Native Americans and high risk children only. All other children should receive sanofi ActHIB®. The booster dose of HIB should be deferred for all children except Native Americans and children with health conditions that put them at high risk of acquiring HIB disease.

Note: The nation's HIB supply will not be sustainable if providers continue to administer the booster dose. Please do not administer the booster dose of ActHIB® until further notice.

Vaccine Storage Equipment

CDC has determined that only two types of refrigerator storage units are acceptable to store VFC vaccines. Dorm-style refrigerators are no longer acceptable units. The Vaccine Center staff will be identifying providers that do not have appropriate storage units and informing these providers of the types of units that they must use to store VFC vaccine.

The appropriate storage units are: 1) a refrigerator that has a separate freezer compartment with a separate exterior door, or 2) stand-alone refrigerators and freezers.

Annual VFC Re-Enrollment

It is time for the annual VFC re-enrollment. All VFC providers must re-enroll annually even if a provider initially enrolled after August to be able to receive VFC vaccine. The re-enrollment forms will be mailed at the end of September or beginning of October. Please watch for the re-enrollment packet. Re-enrollment forms must be returned by November 30th. Providers must return forms by 12/31/08 to remain in the VFC program and receive VFC vaccines.

Measles Outbreak: Pima and Pinal Counties, February - July, 2008

By Susan Goodykoontz; Vaccine Preventable Disease Epidemiologist

A February, 2008 visit by an ill European tourist to a Pima County hospital emergency room initiated the largest Arizona measles outbreak in 10 years. The tourist (the index case) presented to the Pima emergency room on February 12, 2008 with fever (measured as high as 104.5°F on 2/8), rash, cough, coryza, and pneumonia. She was admitted to the hospital on February 13th and placed in airborne isolation on February 15th. She was confirmed by IgM serology for measles at the Arizona State Laboratory as well as the Centers for Disease Control and Prevention Measles Laboratory (CDC). She was also positive for measles virus on Real-Time PCR at CDC.

The measles outbreak that resulted from this ill visitor was part of a national resurgence of measles that occurred in the United States from January through July 2008. During this time period, 131 cases of measles were reported, and 89% of these cases (including the Arizona cases) were either imported or associated with importations from other countries where measles outbreaks were ongoing (Italy, Switzerland, Belgium, India, Israel, China, Germany, Pakistan, the Philippines, and Russia). Affected states in addition to Arizona (14 cases) include: Illinois (32 cases), New York (27 cases), Washington (19 cases), California (14 cases), Wisconsin (seven cases), Hawaii (five cases), Michigan (four cases), Arkansas (two cases), the District of Columbia (one case), Georgia (one case), Louisiana (one case), Missouri (one case), New Mexico (one case), Pennsylvania (one case), and Virginia (one case).

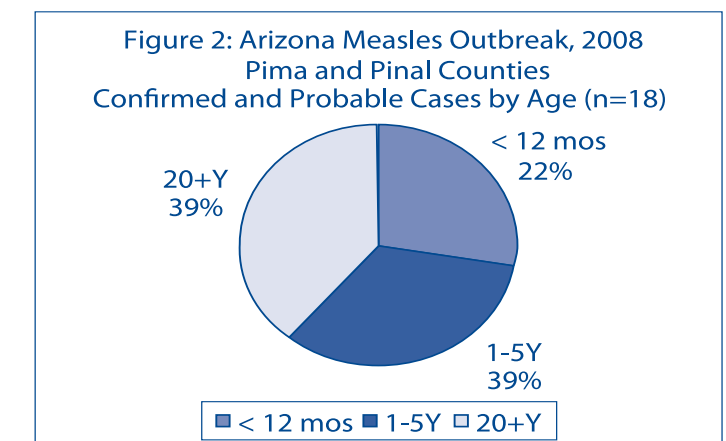
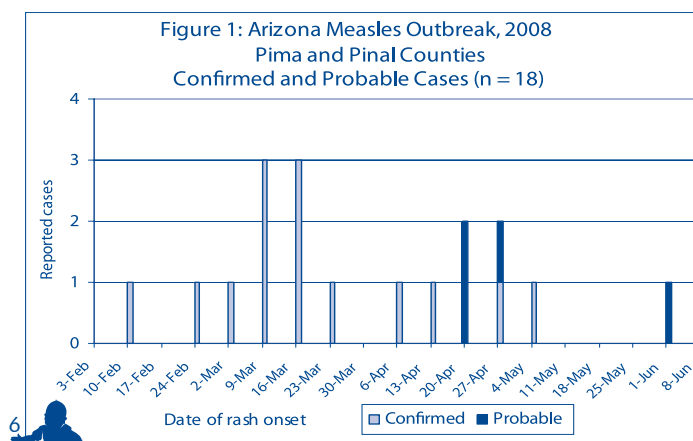
The elimination of indigenous transmission of measles was declared in the United States in 2000. However, approximately 20 million cases of measles continue to be reported worldwide each year, and the risk of transmission due to importation of measles into the United States remains a constant threat. The last large-scale measles outbreak reported in Arizona occurred in Maricopa County in 1998. This outbreak was a result of importation (the index case occurred in a school-aged refugee from a country where measles was endemic, and the case remained unvaccinated upon arrival to the United States), transmission was primarily school-based, and eleven cases were reported. Since that outbreak ten years ago, sporadic cases have been reported - the majority of these cases resulted from importation, and no secondary cases were identified - most likely attributable to rapid case identification and immediate initiation of control measures.

At the end of the Pima/Pinal outbreak (officially declared July 21, 2008), 18 cases were reported, 14 confirmed cases (13 from Pima County and one from Pinal County that had frequent travel to Pima County) and four probable cases, with five generations of spread (See Figure 1). Four of the cases were less than one year old, thus too young to have been immunized. The remaining 12 confirmed cases were unimmunized. The four cases that were classified as probable had received MMR vaccine just prior to rash onset. Nine of the cases were male and the other nine female. The age range of cases was seven months to 51 years of age (See Figure 2).

Measles is a highly contagious viral illness that is spread by airborne transmission. It has a characteristic clinical presentation beginning with a prodrome that includes fever (typically 101° F), cough, coryza, and conjunctivitis ("The Three C's"). Rash appears two to four days after the prodrome and is described as maculopapular, becoming confluent, beginning on the head and moving down the body, and fading in order of appearance, lasting five to six days. Koplik spots (small white spots on the buccal mucosa) may appear during the early course of the illness. Complications occur in up to 30 percent of measles cases and include otitis media, broncopneumonia, laryngotracheobronchitis (croup), diarrhea, acute encephalitis, and death.

For children, two doses of measles-mumps-rubella (MMR) vaccine are routinely recommended; the first dose given at 12-15 months of age, and the second dose given at age 4-6 years but can be administered earlier as long as there is a four-week interval between the first and second doses. All adults should receive at least one dose of MMR vaccine unless they have other documented evidence of measles immunity (such as documented receipt of two doses of live measles virus vaccine, laboratory evidence of immunity, documentation of physician-diagnosed measles, or birth before 1957); however, two doses are recommended for adult students in post-secondary educational institutions, health care workers, and persons planning to travel internationally.

In response to the outbreak, a recommendation was issued that all Pima County children 6-12 months of age receive a single dose of MMR vaccine, and that children over 12 months receive their first and second doses of MMR as soon as



Save the Date

16th Annual Immunization Conference- A two-day conference held on Tuesday and Wednesday
April 21-22nd, 2009
Black Canyon Conference Center / 9440 N. 25th Avenue, Phoenix, AZ, 85021



possible, with the assurance of at least a 4 week interval between first and second doses (this recommendation was rescinded June 26, 2008). Other outbreak control measures included vaccinating contacts of suspected cases within 72 hours of exposure (ring vaccination), assuring that health care workers had documentation of MMR vaccination, and special health care facility interventions to minimize spread such as immediate isolation of suspected cases and exclusion of health care workers without adequate documentation of measles-containing vaccine. In addition, a Public Health Emergency was declared in Pima County as a result of the outbreak, and State Health Crisis Funds were used to purchase additional vaccine and laboratory testing supplies.

This outbreak as part of the national resurgence of measles underscores the importance of maintaining optimal immunization rates to minimize the risk of transmission due to importation of measles. If you have any questions about the measles outbreak, please contact the Infectious Disease

Epidemiology Section at (602) 364-3676. If you have any questions relating to measles immunizations, please contact the Arizona Immunization Program Office at (602) 364-3630.

References:

- Centers for Disease Control and Prevention. Chapter 10 - Measles. Epidemiology and Prevention of Vaccine-Preventable Diseases. Atkinson W, Hamborsky J, McIntyre L, Wolfe S, eds. 10th ed, 2nd printing, Washington DC: Public Health Foundation, 2008.
- Centers for Disease Control and Prevention. Measles - United States, January 1 - April 25, 2008. MMWR 2008; 57: 494-8.
- Centers for Disease Control and Prevention. Update: Measles - United States, January - July 2008, MMWR 2008; 57: 893-896.
- Pima County Health Department. Measles Outbreak 2008, Pima County, Executive Summary.

Ask Our Experts!

- Q. Has the recent news on Arizona economy going to affect the vaccines we receive from the Arizona VFC program?**
- A. As of January 1, 2009, the Arizona VFC program is unable to provide all the ACIP recommended vaccines for children 0 through 18 years of age. This change restricts some or all the vaccines for the underinsured children seen in private physician offices. The latest question and answer sheet is available at <http://www.azdhs.gov/phs/immun/QAaboutVFCchangeJan1st.pdf>
- Q. I am from another state. How can I get a copy of my child's immunization record?**
- A. If you cannot get the records directly from the child's previous provider, you can try the state's immunization registry to see if the records are found in their database. This website, <http://www.cdc.gov/vaccines/programs/iis/contact-state.htm>, will provide you with a list of the contacts from each registry where you can request the records.
- Q. If a child was immunized in another state, how can a school nurse or parent get the child's record into the Arizona State Immunization Information System (ASIIS)?**
- A. The parent may provide a copy of the documentary proof of immunization to ASIIS and request that the record be added. The contact numbers for ASIIS are 877-491-5741 and 602-364-3899.

Summary of Reportable Vaccine-Preventable Diseases January - August 2008 ^{1,2}

| | Jan - August, 2008 | Jan - August, 2007 | Jan - August 5 Year Median |
|---|--------------------|--------------------|----------------------------|
| Measles | 14 | 0 | 0 |
| Mumps | 1 | 4 | 1 |
| Rubella (Congenital Rubella Syndrome) | 0 (0) | 0 (0) | 0 (0) |
| Pertussis (confirmed) | 133 (6) | 168 (8) | 168 (93) |
| <i>Haemophilus influenzae</i> , serotype b invasive disease (<5 years of age) | 11 (7) | 4 (1) | 2 (1) |
| Meningococcal infection, invasive | 6 | 10 | 13 |
| <i>Streptococcus pneumoniae</i> , invasive | 810 | 691 | 523 |
| Hepatitis A | 69 | 114 | 114 |
| Hepatitis B, acute | 161 | 127 | 195 |
| Hepatitis B, chronic | 828 | 701 | 728 |

¹ Data are provisional and reflect case reports during this period.

² These counts reflect the year reported or tested and not the date infected



Immunications

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If you need this publication in an alternative format, contact the Arizona Immunization Program Office at (602) 364-3630 or 1-800-376-8939 (State TDD/TYY Relay)

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