

# Quarterly Epidemiologic Report

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*Apr – Jun 04*

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## Disease of the Quarter: West Nile Virus



Source: CDC

Excerpt from the *West Nile Virus: What you need to know* fact sheet on the Centers for Disease Control and Prevention website:

([http://www.cdc.gov/ncidod/dvbid/westnile/resources/WNV\\_factsheet\\_061903.pdf](http://www.cdc.gov/ncidod/dvbid/westnile/resources/WNV_factsheet_061903.pdf))

### What is West Nile Virus?

West Nile Virus (WNV) is a potentially serious illness. Experts believe WNV is established as a seasonal epidemic in North America that flares up in the summer and continues into the fall.

### What are the symptoms of WNV?

WNV affects the central nervous system. Symptoms vary.

- **No symptoms in most people.** Approximately 80% of people who are infected with WNV will not show any symptoms at all.
- **Mild symptoms in some people.** Up to 20% of the people who become infected will display mild symptoms, including fever, headache, and body aches, nausea, vomiting, and sometimes swollen lymph glands or a skin rash on the chest, stomach and back. Symptoms typically last a few days.
- **Serious symptoms in a few people.** About one in 150 people infected with WNV will develop severe illness. The severe symptoms can include high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, vision loss, numbness and paralysis. These symptoms may last several weeks, and neurological effects may be permanent.

### How does it spread?

- **Infected mosquitoes.** Generally, WNV is spread by the bite of an infected mosquito. Mosquitoes are WNV carriers that become infected when they feed on infected birds. Infected mosquitoes can then spread WNV to humans and other animals when they bite.
- **Transfusions, transplants, and mother-to-child.** In a very small number of cases, WNV also has spread through blood transfusions, organ transplants, breastfeeding and even during pregnancy from mother to baby.
- **Not through touching.** WNV is *not* spread through casual contact such as touching or kissing a person with the virus.

### How soon do infected people get sick?

People typically develop symptoms between 3 and 14 days after they are bitten by the infected mosquito.

### How is WNV infection treated?

There is no specific treatment of WNV infection. In cases with mild symptoms, people experience symptoms such as fever and aches that pass on their own. In more severe cases, people usually need

to go to the hospital where they can receive supportive treatment including intravenous fluids, help with breathing and nursing care.

### **What should I do if I think I have WNV?**

Mild WNV illness improves on its own and people do not necessarily need to seek medical attention for this infection. If you develop symptoms of severe WNV illness, such as unusually severe headaches or confusion, seek medical attention immediately. Severe WNV usually requires hospitalization. Pregnant women and nursing mothers are encouraged to talk to their doctor if they develop symptoms that could be WNV.

### **What is the risk of catching WNV?**

- **For most, risk is low.** Less than 1% of people who are bitten by mosquitoes develop any symptoms of the disease and relatively few mosquitoes actually carry WNV.
- **Greater risk for those outdoors a lot.** People who spend a lot of time outdoors are more likely to be bitten by an infected mosquito. They should take special care to avoid mosquito bites.
- **People over 50 can get sicker.** People over the age of 50 are more likely to develop serious symptoms of WNV if they do get sick and should take special care to avoid mosquito bites.
- **Risk through medical procedures is low.** The risk of getting WNV through blood transfusions and organ transplants is very small, and should not prevent people who need surgery from having it. If you have concerns, talk to your doctor before surgery.

**Pregnancy and nursing do not increase risk of becoming infected with WNV.**

### **What can I do to prevent WNV?**

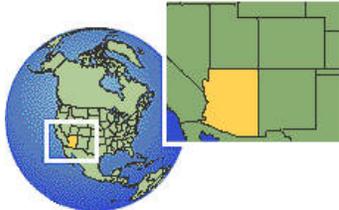
The easiest and best way to avoid WNV is to prevent mosquito bites.

- When you are outdoors, use insect repellents containing DEET (N, N-diethyl-methyltoluamide). Follow the directions on the package.
- Many mosquitoes are most active at dusk and dawn. Consider staying indoors during these times or use insect repellent and wear long sleeves and pants. Light-colored clothing can help you see mosquitoes that land on you.
- Make sure you have good screens on your windows and doors to keep mosquitoes out.
- Get rid of mosquito breeding sites by emptying standing water from flower pots, buckets and barrels. Change the water in pet dishes and replace the water in bird baths weekly. Drill drainage holes in tire swings so water drains out. Keep children's wading pools empty and on their sides when they aren't being used.

More specific information on activities of the Maricopa County Department of Public Health Division of Epidemiology follows on pages 4-5.

*In the next issue...*

*Highlights from the Maricopa County Health Status Report 1998-2002*



### **West Nile Virus in Arizona**

During the summer of 2003, WNV was identified in Arizona for the first time. WNV activity was confirmed in mosquitoes, dead birds, equines, sentinel chickens and or humans in 14 of 15 Arizona counties including Maricopa County. This summer local WNV activity is expected to intensify and result in significant human impact.

As of July 7, 2004, there have been 56 confirmed, locally acquired human cases of WNV. Additionally, 71 WNV positive mosquito pools, 29 WNV infected horses, 23 WNV infected birds and 20 WNV seroconverted sentinel chicken flock were discovered by the Maricopa County Environmental Services Department. As of July 7, 2004 there were two confirmed deaths of patients infected with WNV. For a map of WNV activity in the US, go to:

<http://www.cdc.gov/ncidod/dvbid/westnile/surv&control04Maps.htm>

Nationwide, the following states have reported avian or animal infection as of July 6, 2004: Alabama, Arizona, Arkansas, California, Connecticut, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New York, N. Carolina, Ohio, Oklahoma, Pennsylvania, Puerto Rico, S. Dakota, Tennessee, Texas, Virginia and Wisconsin. Human cases have been reported in Arizona, California, Florida, Michigan, Nebraska, New Mexico, South Dakota and Wyoming.

#### **What is type of surveillance is being done locally?**

State and local health officials resumed enhanced surveillance of mosquito pools, dead bird submissions, sentinel chicken flocks, horses with neurologic disease and, of course, humans with viral nervous system infections in April 2004. In addition, public awareness campaigns regarding reducing mosquito breeding habitats and mosquito avoidance are planned.

On June 8, 2004, Maricopa County Department of Public Health announced the beginning of its West Nile Virus Public Information Hotline. The Public Information Hotline phone number is 602-747-7500 and it operates from 8am to 8pm, 7-days a week.

This hotline will provide current health information regarding West Nile Virus. This information includes: a) General information on West Nile Virus; b) Information about prevention of WNV (mosquito reduction and personal protective strategies); c) Instructions for reporting mosquito complaints and dead birds; and d) Web sites for CDC, the Arizona Department of Health Services, and the Maricopa County Department of Public Health.

### **West Nile Virus links**

Maricopa County Department of Public Health websites:

**Mosquito reduction and avoidance, dead bird reporting:**

<http://www.maricopa.gov/envsvc/water/vector/backyard.asp>

**General information on WNV:** [http://www.maricopa.gov/public\\_health/wnv/default.asp](http://www.maricopa.gov/public_health/wnv/default.asp)

**Fight the Bite flyer:**

[http://www.maricopa.gov/public\\_health/wnv/docs/WNV-FightTheBite.pdf](http://www.maricopa.gov/public_health/wnv/docs/WNV-FightTheBite.pdf)

**Arizona Department of Health Services website on WNV:** [www.westnileaz.com](http://www.westnileaz.com)

ADHS toll-free number: 1-800-314-9243 provides information about WNV.

**CDC:** <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>

**Mexico:** <http://www.cenave.gob.mx/von/default.asp>





**The following information was sent to all Infection Control Practitioners, Emergency Departments and other providers in Maricopa County**

**April marks the beginning of the 2004 mosquito season and resumption of the West Nile Virus (WNV) Enhanced Surveillance Program.**

**What is the role of the Emergency Department, ICP and other providers?**

- I. Report all cases meeting screening criteria below to your county health department epidemiology staff  
(Contact numbers below).
  - All cases of viral encephalitis
  - Hospitalized cases of aseptic/viral meningitis with at least one of the following:
    - >Age 40
    - Altered mentation
    - Profound muscle weakness
    - Neuropathic symptoms;
      - Flaccid paralysis
      - Spastic paralysis
      - Guillain-Barre Syndrome
      - Seizure
  
- II. **After** consultation with county health department, using the Meningitis/Encephalitis Report Form/Arbovirus Worksheet, submit \*appropriately collected samples to the Arizona State Health Laboratory: Attn: Serology 1520 W Adams, Phoenix, AZ 85007.  
**(\*Serum in red or tiger top and/or CSF sample if available)**  
[Epidemic/Epizootic West Nile Virus in the United States: Revised Guidelines for Surveillance, Prevention, and Control, 2003](http://www.cdc.gov/ncidod/dvbid/westnile/resources/wnv-guidelines-aug-2003.pdf)  
(<http://www.cdc.gov/ncidod/dvbid/westnile/resources/wnv-guidelines-aug-2003.pdf> - see pg 21 for specimen descriptions/guidelines).
  
- III. **If during evening hours or weekend: refrigerate specimen and call your county health department epidemiology staff on the next working day.**

**Contact Info:**

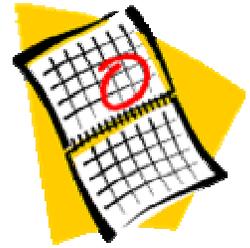
<u>Maricopa County</u>		<u>ADHS</u>	
Alisa Diggs-Gooding	(602) 372-2612	Craig Levy	(602) 364-3851
Tammy Sylvester	(602) 372-2617		
Anita Gulati	(602) 372-2614		
Vjollca Berisha	(602) 372-2611		

**History**

Since the initial outbreak in N.Y.C in 1999, WNV has rapidly spread across the country. The 2003 outbreak in the U.S., which was the largest documented WNV epidemic in the world to date, resulted in 264 deaths and 9,862 illnesses (as of 4/21/04). For the 2003 case count, visit the CDC website at: [http://www.cdc.gov/ncidod/dvbid/westnile/surv&controlCaseCount03\\_detailed.htm](http://www.cdc.gov/ncidod/dvbid/westnile/surv&controlCaseCount03_detailed.htm)

## Upcoming conferences

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### Jul 12-14

Title: National Center for Health Statistics' Data Users Conference  
City: Washington, D.C.  
Location: Omni Shoreham Hotel  
Contact: Linda R. Washington  
Phone: (301) 458-4558  
Email: [LRW1@CDC.GOV](mailto:LRW1@CDC.GOV)

### Jul 19-21

Title: Combating Bioterrorism: The Organizational Response  
City: Boston, Massachusetts  
Location: MIT Security Studies Program, Massachusetts Institute of Technology  
Contact: Magdalena Rieb  
Phone: 617-258-7608  
Email: [mrieb@mit.edu](mailto:mrieb@mit.edu)  
Website: <http://web.mit.edu/professional/summer/courses/17.60s.html>

### Nov 6-10

Title: American Public Health Association (APHA) 132<sup>nd</sup> Annual Meeting and Exposition  
City: Washington, DC  
Theme: Public Health and the Environment  
Website: <http://www.apha.org/meetings/>



The Agency for Healthcare Research and Quality (AHRQ) is conducting a series of free Web-assisted conference calls on bioterrorism and health system preparedness. These calls are designed to share the latest health services research findings, promising practices, and other important information with State and local health officials and key health systems decision makers.

To review the latest agenda on Surge Capacity and Health System Preparedness and to register for future calls, go to: [www.hsrnet.net/ahrq/surgecapacity/](http://www.hsrnet.net/ahrq/surgecapacity/)

Dates and topics of future calls:

- Event #2: Surge Capacity: Facilities and Equipment  
July 13, 2004, 2-3:30 p.m., EDT
- Event #3: Surge Capacity for Mass Casualty  
September 14, 2004, 2-3:30 p.m., EDT

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**18th National Conference on Chronic Disease Prevention and Control**  
**2004 Conference Webcast Archive: [Http://www.18thchronicconference.org/](http://www.18thchronicconference.org/)**

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*The Quarterly Epidemiologic Report is now on the web: [http://www.maricopa.gov/public\\_health/epi/qr.asp](http://www.maricopa.gov/public_health/epi/qr.asp)*

# Youth Risk Behavior Surveillance System

The Youth Risk Behavior Surveillance System (YRBSS) was developed in 1990 to monitor six categories of priority health risk behaviors among youth and young adults in the United States. These behaviors include: 1) tobacco use; 2) alcohol and other drug use; 3) sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases, including human immunodeficiency virus (HIV) infection; 4) unhealthy dietary behaviors; 5) physical inactivity; and 6) behaviors that contribute to unintentional injuries and violence. The YRBSS also includes a national school-based survey conducted by CDC and state and local school-based surveys conducted by education and health agencies. This is a summary of *select* results for students in grades 9-12 from February-December 2003 in Arizona. For the complete report, visit:

<http://www.cdc.gov/mmwr/PDF/SS/SS5302.pdf>

The following results are weighted data among high school students in Arizona. *The risk behaviors listed below...*

## Tobacco Use

59% ever tried cigarette smoking  
21% smoked cigarettes during past month  
7% smoked cigarettes on  $\geq 20$  days during past month  
5% used smokeless tobacco during past month

## Sexual behaviors

43% ever had sexual intercourse  
11% ever had four or more sex partners  
31% had sexual intercourse during past 3 months  
42% did not use condom during last sexual intercourse\*  
82% did not use birth control pills during last sexual intercourse\*

## Unintentional injuries and violence

13% rarely or never wore safety belts  
17% carried a weapon during the past month  
31% were in a physical fight during past year

## Alcohol and other drugs

51% drank alcohol during past month  
34% reported episodic heavy drinking during past month  
24% used marijuana during past month  
13% ever used cocaine; 13% ever used inhalants

## Dietary behaviors

80% ate  $< 5$  servings of fruits/vegetables per day in past 7 days  
85% drank  $< 3$  glasses of milk per day in past 7 days

## Physical activity

33% participated in insufficient vigorous physical activity†  
71% participated in insufficient moderate physical activity‡  
62% were not enrolled in physical education class

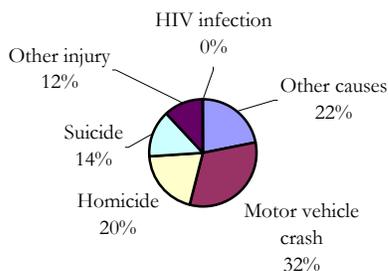
## Overweight

14% at risk for becoming overweight§  
11% overweight||

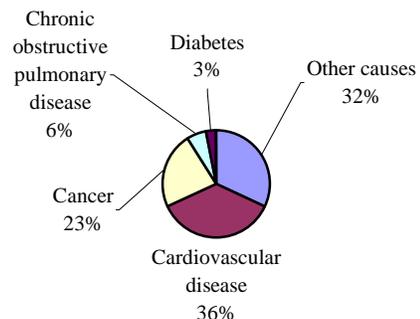
\*Among students who had sexual intercourse in past 3 months. †Didn't participate in vigorous physical activity for  $\geq 20$  mins. on  $\geq 3$  of the past 7 days. ‡Didn't participate in moderate physical activity for  $\geq 30$  mins. on  $\geq 5$  of the past 7 days. §Students who were between the 85<sup>th</sup> and 95<sup>th</sup> percentile for body mass index (BMI) by age and sex, National Center for Health Statistics (NCHS), 2000. ||Students who were at or above the 95<sup>th</sup> percentile for BMI by age and sex, NCHS, 2000.

*...contribute to these leading causes of death in Arizona.\**

**Youth Aged 10-24 Years**



**Adults Aged 25 Years and Older**



\*2001 mortality data, National Center for Health Statistics.



## Recreational Water Illnesses (RWIs)

Summer is here! Summer arrives early in Arizona. For some, summer is synonymous with swimming. Healthy swimming is a key way to protect you and your family from recreational water illnesses (RWIs).

Recreational water illnesses (RWIs) are illnesses that spread by swallowing, breathing, or having contact with contaminated water from swimming pools, spas, lakes, rivers, or oceans. Symptoms caused by RWIs include skin, ear, respiratory, eye and wound infections. Diarrhea is the most commonly reported RWI.

Healthy swimming behaviors are the most important way to prevent the spread of RWIs. The Division of Parasitic Diseases at the Centers for Disease Control and Prevention have developed six "PLEAs" to promote healthy swimming:

### Three "PLEAs" for all swimmers

- ❖ Please don't swim when you have diarrhea... this is especially important for kids in diapers. You can spread the germs into the water and make other people sick.
- ❖ Please don't swallow the pool water. In fact, try your best to avoid even having water get in your mouth.
- ❖ Please practice good hygiene. Take a shower before swimming and wash your hands after using the toilet or changing diapers. Germs on your body end up in the water.

### Three "PLEAs" for parents with young kids

Follow these "PLEAs" to protect your child and others from getting sick and to help keep RWIs out of your community:

- ❖ Please take your kids on bathroom breaks or check diapers often. Waiting to hear "I have to go" may mean it's too late.
- ❖ Please change diapers in a bathroom and not at poolside. Germs can spread to surfaces and objects in and around the pool and spread illness.
- ❖ Please wash your child thoroughly (especially the rear end) with soap and water before swimming. We all have invisible amounts of fecal matter on our bottoms that end up in the pool.



## Perinatal Periods of Risk – Phase II

### Call to action

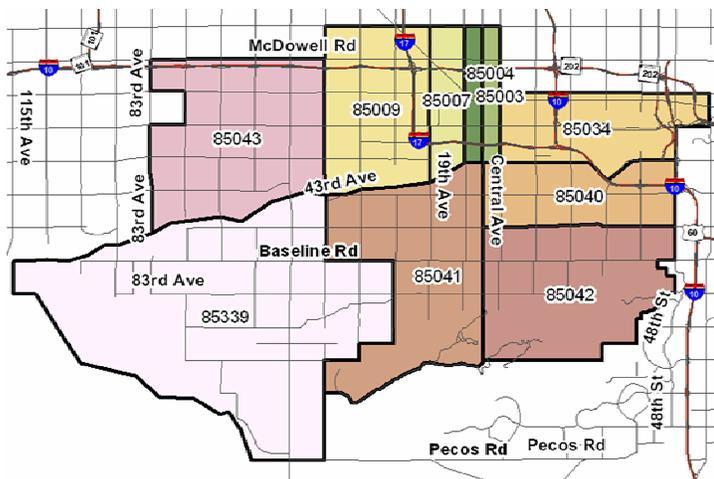
Presentations of the results of the two-phased Perinatal Periods of Risk (PPOR) analyses performed in the South Phoenix and Maryvale communities



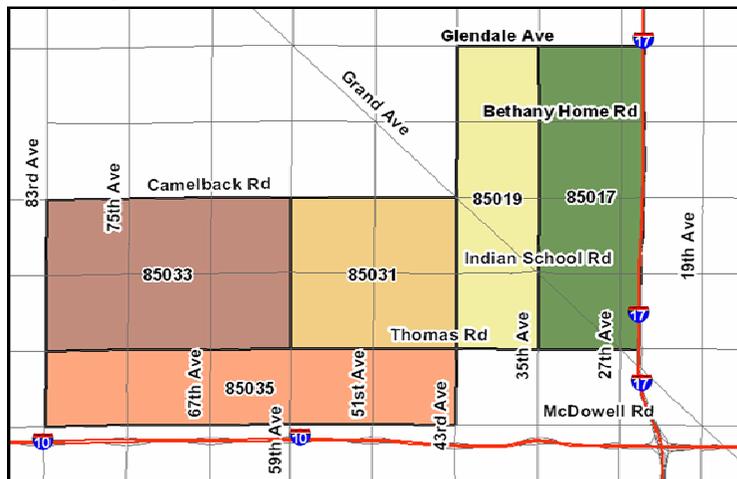
have heightened awareness of the fetal-infant mortality rates and the risk factors and causes these rates represent in the two communities. Currently, community action leaders are forming groups to discuss the implications of the analyses for their community. They will be working on implementation plans based on suggested community interventions. To participate in one of these planning groups, please contact Wanda Thompson at (602) 506-6142.

The maps below show the two neighborhoods examined in the analyses.

### South Phoenix



### Maryvale



### South Phoenix and Maryvale summary

The table below shows the risk factors and suggested interventions. For 1996-2000, the rate of preventable deaths in South Phoenix was 4.8 per 1,000 pregnancies and for Maryvale it was 3.0 per 1,000 pregnancies. In both communities, the most excess was found in the maternal health and prematurity area which suggests that improving the preconceptional health of mothers and improving programs that target prenatal care should help reduce the fetal-infant mortality rate in these communities. Some population groups also showed excess deaths in the infant health area (see table below).

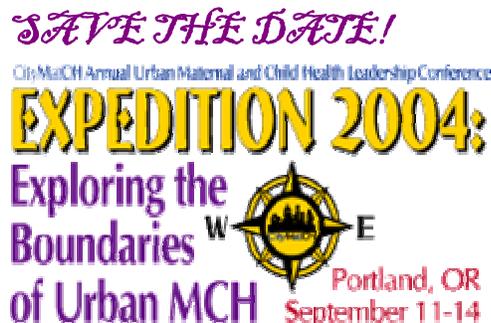
Risk factor	General risk category	Interventions
Low education	Socio-economic status (SES)-related	Improve SES, environment
Unmarried		
No social support		
Barriers to care	Health care organization	Increase access
Less prenatal care		
Infant transfers	Behavioral	Improve women's health before and during pregnancy and infant health
Smoking cigarettes		
Stomach sleeping	Nutritional	
Breast-feeding		
<15 lbs weight gain		
Small for gestational age		
Multivitamin		

### For more information

The 2004 Maricopa County Maternal and Child Health Needs Assessment, developed by the Division of Maternal, Child, and Family Health Division's Family Health Partnerships Program and the Division of Epidemiology, will fully describe the results of the PPOR

analyses in Maricopa County and the South Phoenix and Maryvale communities. Funding provided by The Virginia G. Piper Charitable Trust made the PPOR analyses and community presentations possible.☺

*Based on analyses & presentations by L. Nohre, PhD*



On-line registration: <http://app1.unmc.edu/citymatch/conf2004/Registration/intro.htm>



### WHAT IS THE PLANNING COUNCIL?

The Planning Council is a federally mandated community group, appointed by the Maricopa County Board of Supervisors, to plan the organization and delivery of Title I HIV Services.

Title I funds go to Eligible Metropolitan Areas (EMAs) that have been hit hardest by the HIV epidemic. Title I funds are used to meet emergency service needs of people living with HIV disease. EMAs use funding to meet needs that are not met by any other program.

Decisions about which CARE Act services to fund are made by the HIV Health Services Planning Council for each EMA, and are based on service gaps in their region.

The Phoenix EMA serves Maricopa and Pinal Counties.

### OUR MISSION STATEMENT

The Phoenix EMA Ryan White Title I HIV Health Services Planning Council is a working consortium of affected and infected community members, service providers and health officials whose mission is to provide a client-centered, culturally competent continuum of care, meeting the needs of those living with HIV/AIDS.

1845 East Roosevelt  
Phoenix, AZ 85006  
Phone: 602-506-5002

[PlanningCouncil@mail.maricopa.gov](mailto:PlanningCouncil@mail.maricopa.gov)

**For more information visit:** [http://www.maricopa.gov/public\\_health/ryanwhite/default.asp](http://www.maricopa.gov/public_health/ryanwhite/default.asp)

## BORDETELLA PERTUSSIS (INFORMATION FOR HEALTH CARE PRACTITIONERS)

There has been a recent increase in the number of cases of *Bordetella Pertussis* (“whooping cough”) reported to the Maricopa County Department of Public Health (MCDPH). These cases represent an increase of 54% over the number of cases reported at this time last year.

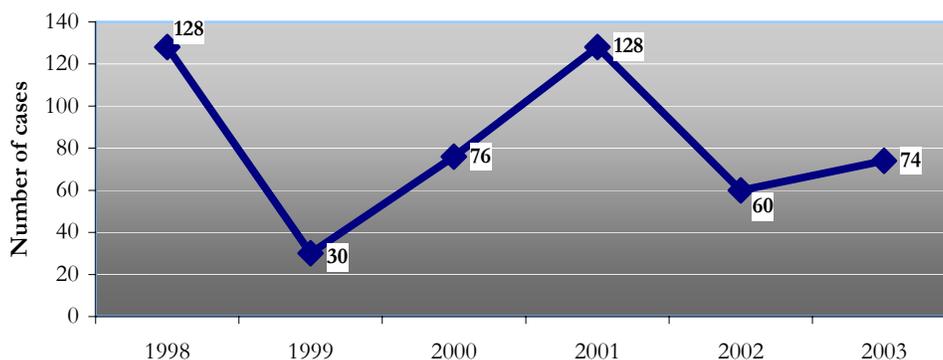
**Pertussis should be suspected in all symptomatic children and adults *regardless of immunization status*.** Fully immunized children can still develop Pertussis disease and present with milder symptoms, as vaccine efficacy is not 100% and wanes with age. Typically, infected adults or older children transmit disease to infants in the household. Exposed infants frequently become seriously ill with complications requiring hospitalization.

You can help prevent the transmission of Pertussis by taking the following actions:

- ❑ **Consider Pertussis in any patient presenting with a severe or episodic cough of seven days or longer** and report these suspect cases to the MCDPH. (Chances of culture confirmation are increased if specimens are obtained prior to 14 days of cough.)
- ❑ In accordance with State regulation ***immediately report all cases or suspect cases within 24 hours*** of recognition to the **MCDPH Community Health Nursing at (602) 506-6767**. **After regular business hours, weekends and holidays call (602) 747-7111**.
- ❑ **DO NOT DELAY REPORTING** while awaiting laboratory confirmation.
- ❑ Whenever possible, **collect nasopharyngeal specimens from suspect cases**. Please contact MCDPH to obtain media and access to free testing from the ADHS laboratory.
- ❑ **Immediately treat all cases and suspect cases and prophylax all household contacts** with oral erythromycin for a full 14 days. This is required to eradicate carriage and prevent bacteriologic relapse and antibiotic resistance.
- ❑ Age appropriately **immunize all children under seven years of age against Pertussis** with DTaP vaccine.

If you have questions or need further assistance, you are welcome to contact the MCDPH office of Community Health Nursing at (602) 506-6767.

Maricopa County Pertussis Cases, 1998-2003



**MCDPH Division of Epidemiology  
Contact Numbers (all 602 area code)**

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Vjollca Berisha	Senior Epidemiologist	372-2611
Kristin Cass	Executive Assistant	372-2604
Marcos Coria	MCH Data Analyst	372-2632
Alisa Diggs-Gooding	Epidemiologist	372-2612
Andrew Edmonds	Surveillance Data Analyst	372-2619
Abrium Escárzaga	BT Epidemiologist	372-2643
Natalie Fuller	Surveillance Data Analyst	372-2613
Jeanette Gibbon	Epidemiologist	372-2642
Anita Gulati	Epidemiologist	372-2614
Robert Jones	Medical Dir, Surveillance/BDPR	372-2650
Ron Klein	Disease Surveillance Sup	506-6722
Chris Mahon	Program Admin, CHN	506-6771
Karen Moffitt	Senior Epidemiologist	372-2636
Liva Nohre	Senior Epidemiologist	372-2631
Lawrence Sands	Director, Chronic Disease	372-8402
Sarah Santana	Director, Epidemiology	372-2601
Mare Schumacher	Deputy Director, Epi	372-2602
Jennifer Stewart	Epidemiologist	372-2621
Heather Wanatowicz	Administrative Supervisor	372-2605
Gary West	Statistical Programmer	372-2603

**To report communicable diseases, unusual health occurrences, and public health emergencies (all 602 area codes unless otherwise noted)**

	<b>Business hours M-F 8a-5p</b>	<b>After 5p</b>
Bite reports	506-7387	506-7387
Communicable diseases	506-6767	747-7111
Death/birth certificates, funeral homes, human remains	506-6805	450-9982 or 229-9315
HIV (reports)	506-6426 or 506-6871	Next business day
Public health emergencies	747-7111	747-7111
Rabies exposure	779-1358	747-7111
STDs (other than HIV)	506-1678	Next business day
TB	506-5065 or 372-1408	747-7111

**For change of name or address or to be removed or added to this mailing list, please e-mail  
Jeanette Gibbon at: [jeanettegibbon@mail.maricopa.gov](mailto:jeanettegibbon@mail.maricopa.gov) or call (602) 372-2642.**