

# Quarterly Epidemiologic Report

---

*Jul – Sept '05*

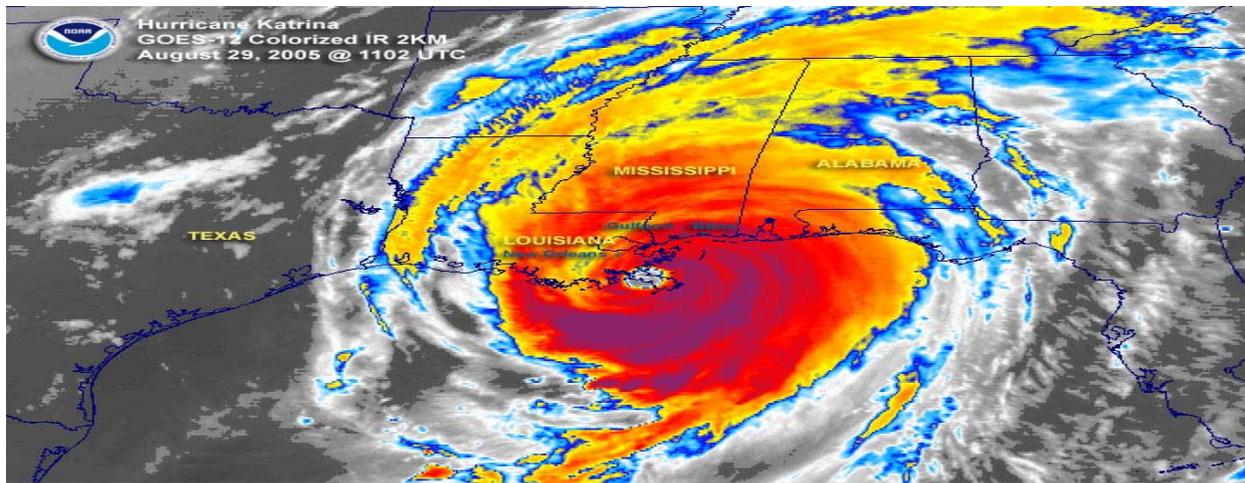
## INSIDE THIS ISSUE

- Hurricane Katrina public health concerns and response
- Disease of the quarter: *Vibrio vulnificus*
- West Nile Virus update
- Pertussis activity to date
- 2005 Maricopa County Communicable Disease summary

# Hurricane Katrina

~ Public Health Concerns and Response ~

Image source: <http://www1.ncdc.noaa.gov/pub/data/images/hurr-katrina-20050829-1102-g12ir.jpg>



On August 29, 2005, Hurricane Katrina made landfall in the Gulf Coast region of the United States. The areas most impacted by the hurricane included Alabama, Mississippi and Louisiana, particularly the New Orleans area that succumbed to major flooding after levees collapsed. From a public health perspective, initial response focused on infection control in evacuation centers, mosquito and vector control in affected communities where stagnant water pooled and encouraging up-to-date vaccinations for persons living in evacuation centers or shelters. A call for volunteers ranging from healthcare professionals to relief personnel was issued. The Arizona Department of Health Services has prepared teams that remain on stand-by to be deployed to the Gulf Coast region when needed. The Maricopa County Department of Public Health Division of Public Health Emergency Management has gathered a list of county public health employees willing to participate in the effort.

## Hurricane Katrina's impact felt in Arizona

On September 4, 2005, evacuees from Hurricane Katrina began arriving in Arizona. Evacuees in the Phoenix area were temporarily housed in the Veterans Memorial Coliseum. The Coliseum was converted into a shelter capable of housing 1000-2000 evacuees. Teams consisting of four doctors and twelve nurses each from hospitals across the Valley rotated through the Coliseum's medical clinic on a volunteer basis.

MCDPH conducted enhanced surveillance among area hospitals from September 5 – 23, 2005. Infection control practitioners at local hospitals were asked to provide a daily status report on the number of HKE's seen at their hospital in addition to providing minimal demographic information (i.e., age, sex) and diagnosis.

The table on the next page shows the final distribution of all HKE's seen at area hospitals during the enhanced surveillance timeframe.

**Hurricane Katrina Evacuee's seen in Phoenix area hospitals by age distribution and sex, September 5-23, 2005**

<b>Age (in years)</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
	<b>n (%)*</b>	<b>n (%)*</b>	<b>n (%)*</b>
≤4	6 (4.6)	4 (3.1)	10 (7.7)
5-17	3 (2.3)	0 (0.0)	3 (2.3)
18-64	48 (36.9)	38 (29.2)	86 (66.2)
≥65	16 (12.3)	13 (10.0)	29 (22.3)
Unknown	2 (1.5)	0 (0.0)	2 (1.5)
<b>Total</b>	<b>75 (57.7)</b>	<b>55 (42.3)</b>	<b>130 (100.0)</b>

\*%=percent of Total.

The most common diagnoses reported by area hospitals during the enhanced surveillance timeframe included: treatment for a chronic condition (n=24), gastrointestinal (n=17), respiratory/pulmonary (n=18), trauma (n=11), and other (n=25). Other included memory problems, unspecified leg pain, abdominal pain, lymphadenopathy, etc. In contrast, preliminary data (as of 9/17/05) from the Coliseum medical clinic show that the most common diagnoses extracted from medical records were: infection (n=111), treatment for a chronic condition (n=60), cardiac (n=53), respiratory (n=39), dermatology (n=38), and gastrointestinal (n=38). In all cases, either seen at area hospitals or at the Coliseum, patients could have more than one diagnosis.

The table below shows the distribution of the 629 individuals that sought medical care at the Coliseum clinic. Keep in mind, these numbers are preliminary and are considered to be underestimates of the final number of individuals who sought care at the clinic.

**Hurricane Katrina Evacuee's seen at the Coliseum clinic by age distribution and sex, preliminary data as of September 17, 2005**

<b>Age (in years)</b>	<b>Male</b>	<b>Female</b>	<b>Unknown</b>	<b>Total</b>
	<b>n (%)*</b>	<b>n (%)*</b>	<b>n (%)*</b>	<b>n (%)*</b>
≤4	15 (2.4)	10 (1.6)	1 (0.2)	26 (4.1)
5-17	30 (4.8)	30 (4.8)	4 (0.6)	64 (10.2)
18-64	237 (37.7)	201 (32.0)	8 (1.3)	446 (70.9)
≥65	34 (5.4)	54 (8.6)	0 (0.0)	88 (14.0)
Unknown	0 (0.0)	2 (0.3)	3 (0.5)	5 (0.8)
<b>Total</b>	<b>316 (50.2)</b>	<b>297 (47.2)</b>	<b>16 (2.5)</b>	<b>629 (100.0)</b>

\*%=percent of Total.

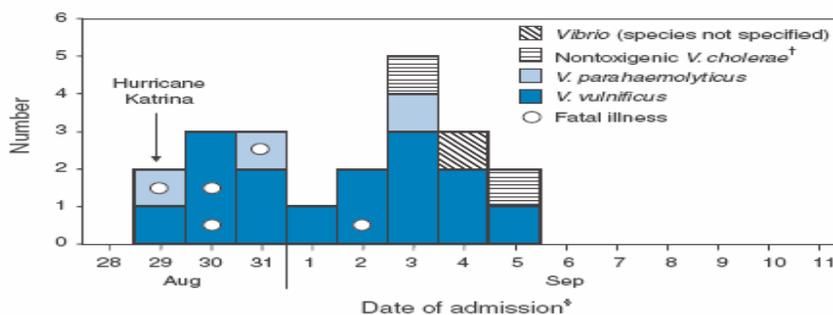
An Arizona Katrina Assistance Center was established where evacuees could receive a variety of services including: financial assistance, low-interest loans, family reunification, housing, legal assistance, job counseling, disability assistance, unemployment insurance, general food and clothing requests, public transportation and other services. Representatives from state and federal agencies, City of Phoenix, Red Cross, Salvation Army, St. Vincent de Paul, and other service organizations were available to answer questions for the evacuees.

The shelter at the Coliseum was closed on September 23<sup>rd</sup>; any evacuees remaining at that time were moved to transitional housing.

## Hurricane Katrina continued ~ *Vibrio* illnesses

The Centers for Disease Control and Prevention (CDC) deployed hundreds of employees to the affected areas and neighboring communities to assist in the public health effort. A primary effort included working with local and state public health officials and clinicians in shelters and evacuation centers to conduct rapid disease detection and ongoing disease surveillance. This active surveillance identified 22 new cases of *Vibrio* illness with five deaths among persons who had resided in Louisiana and Mississippi between August 29 – September 11, 2005 (see Figure 1 below). [1MMWR 2005;54(37);928-931.]

**FIGURE 1. Cases of post-Hurricane Katrina *Vibrio* illness among residents of Louisiana and Mississippi,\* by date of hospital admission — United States, August 29–September 11, 2005**



\* N = 22; Alabama, a third state under surveillance, reported no cases.

† Nontoxigenic *V. cholerae* illnesses represent infections entirely distinct from the disease cholera, which is caused by toxigenic *V. cholerae* serogroup O1 or O139.

§ Date of admission was not available for one Louisiana resident. In cases that did not require hospitalization, the date represents the first contact with a health-care provider for the illness.

As shown above in Figure 1, the *Vibrio* illnesses were caused by *V. vulnificus*, *V. parahaemolyticus*, and nontoxigenic *V. cholerae*. These organisms, found in the environment, are unlikely to be spread person-to-person. This investigation underscores the need for heightened clinical awareness, appropriate culturing of specimens from patients, and empiric treatment of illnesses caused by *Vibrio* species. No confirmed cases of illness were identified with onset after September 5; additional *Vibrio* cases were under investigation at the time of this publication.

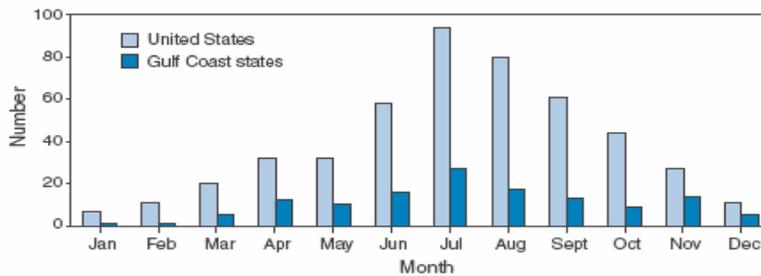
The definition of a post-hurricane *Vibrio* infection case was defined as clinical illness in a person who had resided in a state struck by Hurricane Katrina (i.e., Alabama, Louisiana, or Mississippi) with illness onset and reporting during August 29–September 11, where *Vibrio* species was isolated from a wound, blood, or stool culture. Among cases, a wound-associated *Vibrio* case was defined as an illness that likely resulted from infection of a wound or abrasion acquired before or during immersion in floodwaters.<sup>1</sup>

Eighteen wound-associated *Vibrio* cases were reported in residents of Mississippi (7) and Louisiana (5); in persons displaced from Louisiana to Texas (2), Arkansas (2), and Arizona (1); and in a person displaced from Mississippi to Florida (1). Speciation for 17 of the cases identified: 14 (82%) *V. vulnificus* and 3 (18%) *V. parahaemolyticus*. Five (28%) of the patients with wound-associated *Vibrio* infections died. Four persons were reported with non-wound-associated *Vibrio* infections (Mississippi (2), Louisiana (1) and one displaced from Louisiana to Arizona).<sup>1</sup>

## Hurricane Katrina continued ~ *Vibrio* illnesses

The risk for illness related to infectious diseases after natural disasters such as this is a major public health concern. Nationwide, an average of 412 cases of noncholeraenic *Vibrio* illnesses were reported each year during 2000-2004, including an average of 146 cases reported from the five Gulf Coast states.<sup>1</sup> *Vibrio* illnesses in the US are seasonal and tend to peak in the summer months. During 2000-2004, in September, an average of 14 noncholeraenic *Vibrio* infections were reported from Gulf Coast states, see Figure 2.

**FIGURE 2. Cases of noncholeraenic *Vibrio* illness by month of onset — United States and Gulf Coast states,\* 2004**



\* Alabama, Florida, Louisiana, Mississippi, and Texas.

Additional public health concerns include injury from falls among people returning to damaged homes and communities, carbon monoxide deaths and poisoning, clusters of diseases such as Varicella, scabies and lice. As the threat of major infectious disease outbreaks lessens, concerns regarding injury, environmental health and mental health among evacuees and response workers remain a high priority.

On September 24, 2005, the Gulf Coast region was hit by a second hurricane, Hurricane Rita. There was renewed flooding in the New Orleans area and severe damage occurred in Southeastern Texas. The CDC has shifted response efforts for Hurricane Katrina into interim and long-term public health needs while the response to Hurricane Rita is in the acute phase. CDC will assist the hardest hit areas of Texas with their public health needs.

## Influenza Surveillance is here!

It's that time of year again! The Maricopa County Department of Public Health (MCDPH) annual influenza surveillance will begin October 1st. Every year the MCDPH works with local emergency departments, schools, long-term care facilities, and Cigna health care sites to track the number of patients and students with influenza-like-illness

(ILI) each week.



*If you are interested in participating in this important surveillance program, please call Natalie Fuller at (602) 372-2613 or email: [nataliefuller@mail.maricopa.gov](mailto:nataliefuller@mail.maricopa.gov).*

In the hospital example on the next page, the form allows for reporting of ILI counts as well as the total number of patients seen in the ED. There is a slightly different form for other reporting sources.

# MARICOPA COUNTY DEPARTMENT OF PUBLIC HEALTH

Division of Epidemiology and Data Services  
**2005-2006 Influenza Surveillance**

Facility Name: \_\_\_\_\_

Person Completing Form: \_\_\_\_\_ Phone: \_\_\_\_\_

Starting Date: \_\_\_\_\_ Ending Date: \_\_\_\_\_

**Sunday**

Number of Cases with ILI\*: \_\_\_\_\_  
Total # of patients seen in ED during this period: \_\_\_\_\_

**Monday**

Number of Cases with ILI\*: \_\_\_\_\_  
Total # of patients seen in ED during this period: \_\_\_\_\_

**Tuesday**

Number of Cases with ILI\*: \_\_\_\_\_  
Total # of patients seen in ED during this period: \_\_\_\_\_

**Wednesday**

Number of Cases with ILI\*: \_\_\_\_\_  
Total # of patients seen in ED during this period: \_\_\_\_\_

**Thursday**

Number of Cases with ILI\*: \_\_\_\_\_  
Total # of patients seen in ED during this period: \_\_\_\_\_

**Friday**

Number of Cases with ILI\*: \_\_\_\_\_  
Total # of patients seen in ED during this period: \_\_\_\_\_

**Saturday**

Number of Cases with ILI\*: \_\_\_\_\_  
Total # of patients seen in ED during this period: \_\_\_\_\_

**Total Cases of ILI for Week: \_\_\_\_\_**

---

**\*CASE DEFINITION FOR INFLUENZA-LIKE ILLNESS (ILI):**

Fever (at least 100 degrees)

**AND**

Cough and/or sore throat

Return Completed Form by fax or e-mail to:  
Natalie Fuller, Maricopa County Influenza Surveillance Coordinator

Fax: (602) 372-2630 Phone: (602) 372-2613 [nataliefuller@mail.maricopa.gov](mailto:nataliefuller@mail.maricopa.gov)

## Disease of the Quarter: *Vibrio vulnificus*

Excerpt from the *Vibrio vulnificus* CDC fact sheet:  
<http://www.bt.cdc.gov/disasters/pdf/vibriovulnificus.pdf>



### Concerns in hurricane-affected areas

Immunocompromised persons especially those with chronic liver disease should avoid exposure of open wounds or broken skin to warm salt or brackish water, and avoid consuming undercooked shellfish harvested in these waters.

Studies have shown that these individuals are 80 times more likely to develop *V. vulnificus* bloodstream infections, than healthy individuals.

After a coastal flood disaster, large numbers of persons with illnesses that affect their resistance to infection may be exposed to seawater. Injury prevention is especially important for high-risk persons. Wounds exposed to seawater should be washed with soap and water as soon as possible, infected wounds should be seen by a doctor, and clinicians should aggressively monitor these wounds.

### What is *Vibrio vulnificus*?

*Vibrio vulnificus* is a bacterium that is a rare cause of illness in the United States. The illness is very different from cholera, which is caused by a different bacteria, called *Vibrio cholerae*. *V. vulnificus* infections do not spread directly from one person to another and are a serious health threat predominantly to persons with underlying illness, such as liver disease, or a compromised immune system. The organism is a natural inhabitant of warm coastal waters. Infection can occur after a wound is exposed to warm coastal waters where the *V. vulnificus* organism is growing. Infection may also be acquired by eating raw or undercooked seafood from those waters.

CDC receives reports of over 400 *Vibrio* illnesses each year. Of those, about 90 per year are due to *V. vulnificus*. Most *V. vulnificus* illness occurs during warm weather months.

### How do people become infected?

*V. vulnificus* is found in oysters and other shellfish in warm coastal waters during the summer months. Since it is naturally found in warm marine waters, people with open wounds can be exposed to *V. vulnificus* through direct contact with seawater, shellfish, and marine wildlife. There is no evidence of person-to-person transmission of the disease.

Immunocompromised persons and those with chronic liver disease are particularly at risk of infection when they eat raw or undercooked seafood, particularly shellfish harvested from the Gulf of Mexico, or they bathe a cut or scrape in marine waters. About three-quarters of patients with *V. vulnificus* infections have known underlying hepatic disease or other immunocompromising illness. Otherwise healthy persons are at much lower risk of *V. vulnificus* infection.

### What are the symptoms of infection with *V. vulnificus*?

Symptoms of infection with *V. vulnificus* include:

- Acute illness, with a rapid decline in health following exposure
- If exposed by contamination of an open wound, increasing swelling, redness, and pain at the site of the wound
- Illness typically begins within 1-3 days of exposure, but begins as late as 7 days after exposure for a small percentage of cases
- Fever, low blood pressure and shock
- Swelling and redness of skin on arms or legs, with blood-tinged blisters

By contrast, the symptoms of cholera are profuse watery diarrhea, vomiting, cramps, and low-grade fever.

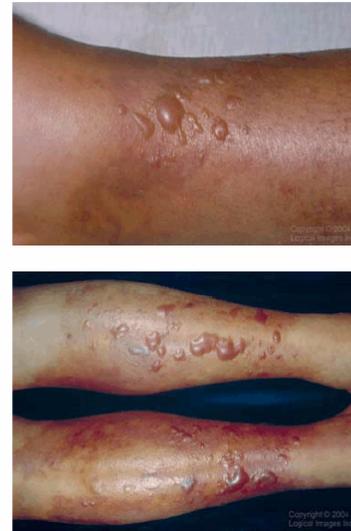
### How is *V. vulnificus* diagnosed?

*V. vulnificus* infection is diagnosed by culture of wound, by blood cultures, or by stool culture in the case of patients who consumed raw or undercooked seafood. The laboratory should be notified when the physician suspects this infection, since a special growth medium can be used to increase the diagnostic yield. Doctors should have a high suspicion for this organism when patients present with gastrointestinal illness, fever, or shock following the ingestion of raw seafood, especially oysters, or with a wound infection after exposure to seawater.

### What is the treatment for *V. vulnificus*?

*V. vulnificus* infection is treated with antibiotics. When this infection is suspected, treatment with a combination of a third-generation cephalosporin (e.g., ceftazidime) and doxycycline is recommended. *V. vulnificus* wound infections should be treated with aggressive attention to the wound site; amputation of the affected limb is sometimes necessary.

FIGURE 3. Primary septicemic skin lesions caused by *Vibrio vulnificus*



© 2005, Logical Images, Inc.

### Recovery

*V. vulnificus* infection is an acute illness, and those who recover should not expect long-term consequences.

### Other Vibrios

The bacterial species *Vibrio cholerae* has many different types, or serogroups. Only two of those types have ever caused epidemic cholerae. Those are serogroups O1 and O139 (O139 is found only in Asia). Even among those serogroups, strains that lack cholera toxin are not going to cause cholera. About 50 cases of these infections are reported to CDC each year.

The other serogroups are known collectively as “non O1, non O139 *V. cholerae*.” They can cause diarrheal illness, mild or severe, and in persons with underlying immunocompromised illnesses or chronic liver disease, they can cause sepsis, and death. They also rarely can cause wound infections. It is not contagious. Diarrheal illness is treated with rehydration. Sepsis (or wound infections) requires antibiotic treatment.

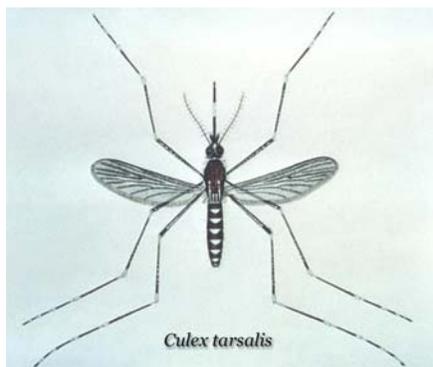
Like other vibrios,

- They have a natural reservoir in the brackish waters along the coast, particularly warm, subtropical waters.
- The most common route of infections is from eating raw or undercooked shellfish harvested from those waters, especially raw oysters.
- Infections are seasonal; with a peak in the late summer, early fall coinciding with the warmest water temperatures.

### For more information on *Vibrio* surveillance:

[http://www.cdc.gov/foodborneoutbreaks/vibrio\\_sum.htm](http://www.cdc.gov/foodborneoutbreaks/vibrio_sum.htm)

## West Nile Virus Update



Enhanced surveillance for West Nile Virus (WNV) is ongoing for the 2005 mosquito season. This includes mosquito pool testing, dead bird collection, and sentinel chicken flock surveillance. The table below shows the current case counts (as of Sept. 27, 2005) for WNV activity in the United States for states reporting 20 or more cases.

As of September 28, 2005, Maricopa County has had 47 human cases of WNV, including two deaths. For the latest information on WNV visit the MCDPH website: <http://www.maricopa.gov/wnv/> or call the WNV Hotline at 602-506-0700.

### 2005 West Nile Virus Activity in the United States – Selected States\* (Reported to CDC as of September 27, 2005)

*\*in the interest of space only states reporting ≥20 human cases are listed*

State	Neuroinvasive disease	Fever	Other clinical/unspec	Total human cases reported to CDC	Deaths
Arizona	16	22	12	50	2
California	220	396	65	681	15
Colorado	14	61	0	75	1
Illinois	96	59	17	172	3
Louisiana	58	23	0	81	6
Michigan	13	3	4	20	3
Minnesota	11	17	0	28	1
Mississippi	23	21	0	44	4
Montana	7	13	0	20	0
Nebraska	19	49	0	68	1
Nevada	8	13	0	21	0
N. Mexico	14	10	0	24	1
Ohio	31	5	0	36	0
S. Dakota	32	175	1	208	1
Texas	41	21	0	62	5
Utah	16	20	0	36	1
<b>Total for all states reporting cases</b>	<b>696</b>	<b>993</b>	<b>115</b>	<b>1804</b>	<b>52</b>

The definitions for the columns included in the table are: a) **Neuroinvasive disease** refers to severe disease cases, particularly West Nile meningitis and West Nile encephalitis, b) **West Nile fever** refers to typically less severe cases that show no evidence of neuroinvasion, and c) **Other clinical/unspecified** includes persons with clinical manifestations other than WN fever,

WN encephalitis, or WN meningitis, such as acute flaccid paralysis and those with insufficient clinical information.

Of the 1804 cases, 696 (39%) were WN meningitis or WN encephalitis (neuroinvasive disease), 993 (55%) were WN fever, 115 (6%) were clinically unspecified at this time.☺

### 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/westnile.asp>

Maricopa County website on WNV: <http://www.maricopa.gov/wnv/>

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>



## ~ American Public Health Association (APHA) Annual Meeting ~

### NEW DATES, LOCATION, AND PROGRAM INFORMATION



Due to the devastating situation in New Orleans brought on by Hurricane Katrina, the APHA 133<sup>rd</sup> Annual Meeting & Exposition has been moved to Philadelphia, Pennsylvania, December 10-14, 2005.

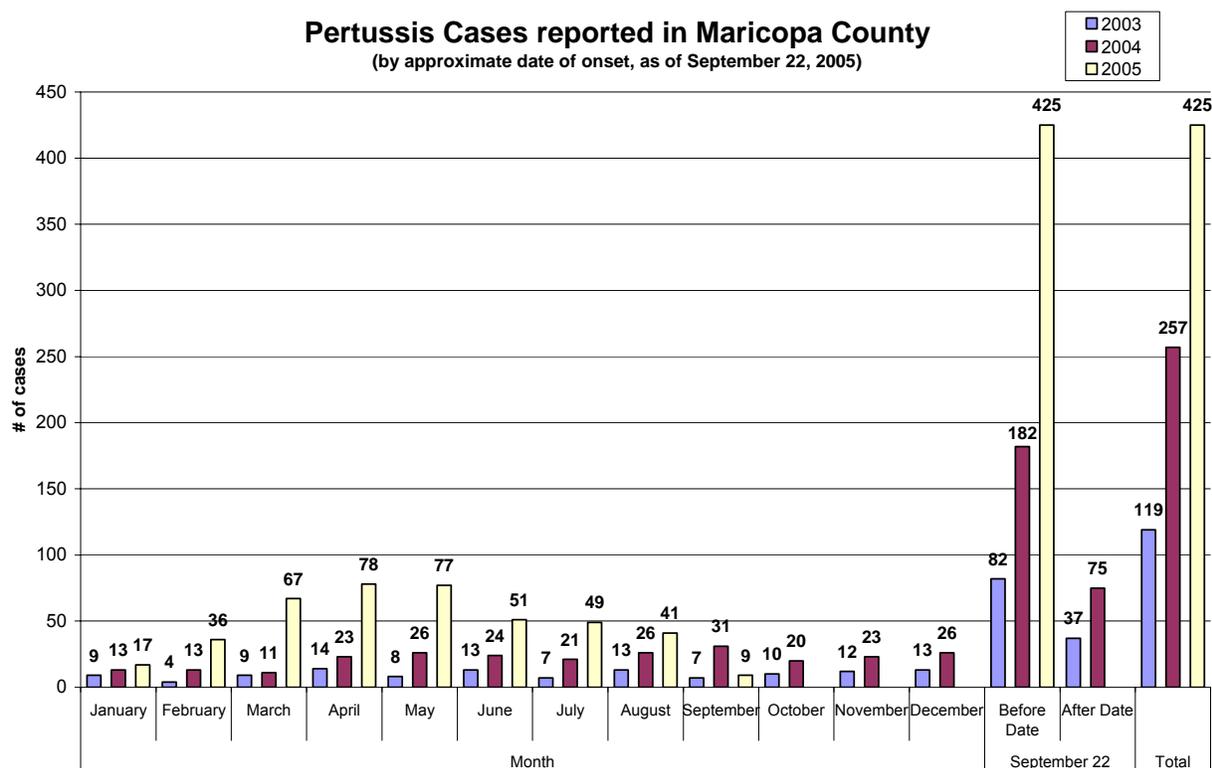
**Theme:** Evidence-based policy and practice

**Website:** <http://www.apha.org/meetings/>

## Pertussis (Whooping Cough) Update

A statewide outbreak of Pertussis occurred from May 19 – October 11, 2005. Although the statewide outbreak is officially over, Pertussis is still circulating in the community. Healthcare providers are encouraged to maintain vaccination diligence to prevent future outbreaks and to prevent outbreaks among family members or household contacts.

As of September 22, 2005, Maricopa County had 420 cases of Pertussis {confirmed (152), probable (268) cases}. The graph below shows the number of Pertussis cases reported to MCDPH as of September 22, 2005 compared to the previous two years. The graph includes confirmed, probable and suspect cases.



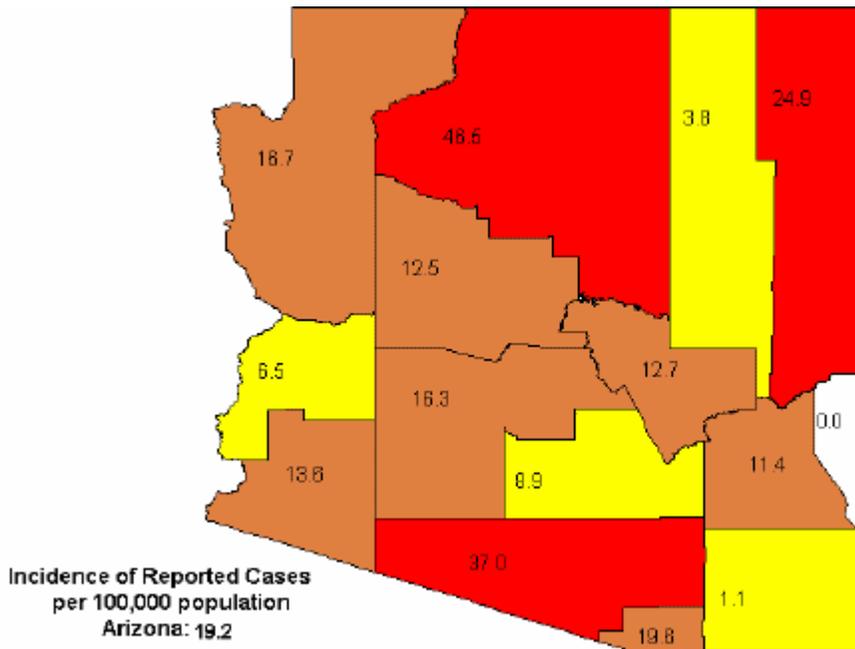
Source: Maricopa County CDR Database

The table below compares confirmed and probable cases of Pertussis among Arizona, Maricopa and Pima counties.

### Selected Reported Pertussis Cases (confirmed and probable cases through 9/22/2005)

	2005 Year-to-Date (as reported by county health departments)	2000-2004 5-year median (End of year) as reported to ADHS
Arizona	820	278
Maricopa	420	127
Pima	252	35

The map below depicts the incidence of reported Pertussis cases in each county.



White: No reported activity (Greenlee)  
 Yellow: 0 - 10 reported cases per 100,000 population (Cochise, Navajo, Pinal, La Paz)  
 Brown: 10 - 20 reported cases per 100,000 population (Gila, Graham, Maricopa, Mohave, Santa Cruz, Yavapai, Yuma)  
 Red: Greater than 20 reported cases per 100,000 population (Apache, Coconino, Pima)  
 Image and data table source: [http://www.azdhs.gov/phs/oids/epi/pertussis\\_stats.htm](http://www.azdhs.gov/phs/oids/epi/pertussis_stats.htm)

A weekly update is posted on the Maricopa County website:  
[http://www.maricopa.gov/public\\_health/pertussis/](http://www.maricopa.gov/public_health/pertussis/)

## October is Domestic Violence Awareness Month

- ✂ An estimated 4.5 million physical assaults are committed against US women by intimate partners annually. (Source: US Dept. of Justice, July 2000.)
- ✂ In Arizona, every 5 minutes a law enforcement officer responds to a domestic violence call; every 39 minutes one or more children witness a domestic violence incident. (Source: AZ Governor's Office)
- ✂ Husbands and boyfriends commit an estimated 13,000 acts of violence against women in the workplace each year. (Source: US Dept. of Justice, 1994)

There are many DV events across the Valley throughout the month of October. For a complete list visit the Arizona Coalition Against Domestic Violence at: [www.azcadv.org](http://www.azcadv.org) or call 1-800-782-6400.

*If something about your relationship with your partner scares you and you need to talk call the NATIONAL DOMESTIC VIOLENCE HOTLINE at:*

*1-800-799-SOFT (7233) or 1-800-787-3224 (TTY)*

For more information on domestic violence: [http://mchlibrary.info/KnowledgePaths/kp\\_domviolence.html](http://mchlibrary.info/KnowledgePaths/kp_domviolence.html)

**Maricopa County Communicable Disease Summary**  
**Confirmed and probable cases reported in 2005 (as of September 30)**

Disease				Yearly totals		
	1 Q	2 Q	3 Q	2005 YTD	2004 YTD	2003 YTD
Amebiasis	6	6	2	14	8	31
Anthrax	0	0	0	0	0	0
Aseptic Meningitis: viral	168	148	180	496	464	1062
Botulism	0	1	0	1	1	0
Botulism, Infant	0	0	0	0	0	0
Brucellosis	1	2	2	5	1	4
Campylobacteriosis	96	175	115	386	320	363
Cholera	0	0	0	0	0	1
Coccidioidomycosis (valley fever)	180	205	207	592	858	590
Colorado tick fever	0	0	0	0	0	0
Congenital Rubella	0	0	0	0	0	0
Conjunctivitis	4	0	1	5	0	1
Creutzfeldt-Jakob disease	0	0	2	2	1	1
Cryptosporidiosis	2	1	2	5	4	3
Dengue	1	1	4	6	1	1
Diphtheria	0	0	0	0	0	0
Ehrlichiosis	0	0	1	1	1	0
Encephalitis: viral	2	9	8	19	36	37
<i>Escherichia coli</i> O157:H7	4	4	8	16	14	13
Giardiasis	14	9	12	35	122	126
H. influenzae: Invasive	25	16	7	48	34	37
Hansen's disease (Leprosy)	0	0	0	0	0	0
Hantavirus	0	0	0	0	0	0
Hepatitis A	14	12	15	41	68	111
Hepatitis B	297	224	228	749	856	738
Hepatitis C	337	327	244	908	1198	1427
Hepatitis D	0	0	2	2	0	2
Hepatitis Non-A, Non-B	0	0	0	0	0	0
Legionellosis	5	2	6	13	7	9
Leptospirosis	0	0	0	0	0	0
Listeriosis	2	1	2	5	4	5
Lyme Disease	3	1	12	16	18	13
Malaria	3	3	6	12	10	10
Measles	1	0	0	1	0	4
Meningococcal Invasive	9	5	1	15	10	11
Mumps	0	0	0	0	3	2
Pertussis (whooping cough)	120	203	111	434	187	85
Plague	0	0	0	0	0	0
Poliomyelitis	0	0	0	0	0	0
Psittacosis	0	0	0	0	0	0
Q fever	1	0	1	2	2	2
Rabies exposure	4	11	15	30	7	2
Relapsing fever (Borreliosis)	0	0	0	0	0	0

**Maricopa County Communicable Disease Summary**  
**Confirmed and probable cases reported in 2005 (as of September 30)**

Disease				Yearly totals		
	1 Q	2 Q	3 Q	2005 YTD	2004 YTD	2003 YTD
Reye syndrome	0	0	0	0	0	0
Rocky Mountain spotted fever	0	0	0	0	1	3
Rubella	0	0	0	0	1	1
Salmonellosis	62	82	110	254	239	283
Scabies	33	2	18	53	7	12
Severe acute respiratory syndrome	0	0	0	0	0	0
Shigellosis	31	32	89	152	157	212
Staphylococcal Infection	152	157	143	452	124	55
Streptococcus pneumoniae	141	108	32	281	230	274
Streptococcal Group A: invasive	71	70	31	172	240	273
Streptococcal Group B: invasive	29	29	15	73	190	58
Taeniasis	1	0	0	1	1	3
Tetanus	0	0	0	0	0	0
Toxic shock syndrome (TSS)	1	0	1	2	3	5
Trichinosis	0	0	0	0	0	0
Tularemia	0	0	0	0	0	0
Typhoid Fever	1	2	0	3	2	1
Typhus Fever	0	0	0	0	0	1
Varicella (chickenpox)	457	250	77	784	883	471
Vancomycin-resistant Enterococcus	297	334	265	896	659	464
Vibrio infection	0	3	4	7	5	5
West Nile virus	1	3	43	47	383	8
Yellow fever	0	0	0	0	0	0
Yersiniosis	0	0	0	0	4	3

Source: MCDPH Communicable Disease Reporting system, 9/30/05.

Note: Cases included in this table are listed by CDR date which is equivalent to the date of onset or next available date if onset date is unknown.

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

Vjollca Berisha	Senior Epidemiologist	372-2611
Kristin Cass	Executive Assistant	372-2604
Marcos Coria	Epidemiologist	372-2632
Alisa Diggs	Senior Epidemiologist	372-2612
Abrium Escárzaga	BT Epidemiologist	372-2643
Robert French	Deputy Director, BDPR	372-2658
Natalie Fuller	Surveillance Data Analyst	372-2613
Jeanette Gibbon	Senior Epidemiologist	372-2642
Ron Klein	Disease Surveillance Sup	506-6722
Chris Mahon	Program Admin, CHN	506-6771
Liva Nohre	Senior Epidemiologist	372-2631
Sarah Santana	Director, Epidemiology	372-2601
Mare Schumacher	Deputy Director, Epi	372-2602
Jennifer Stewart	Epidemiologist	372-2621
Heather Thrasher	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	pager #'s for death certificates or human remains ~ 450-9982 or 229-9315
HIV (reports)	506-6426	Next business day
Public health emergencies	747-7111	747-7111
Rabies exposure	pager ~ 779-1358	747-7111
STDs (other than HIV)	506-1678	Next business day
TB	506-5065 or 372-1408	747-7111
WNV hotline	506-0700	506-0700

**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.**