

# Quarterly Epidemiologic Report

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*Apr – Jun '05*

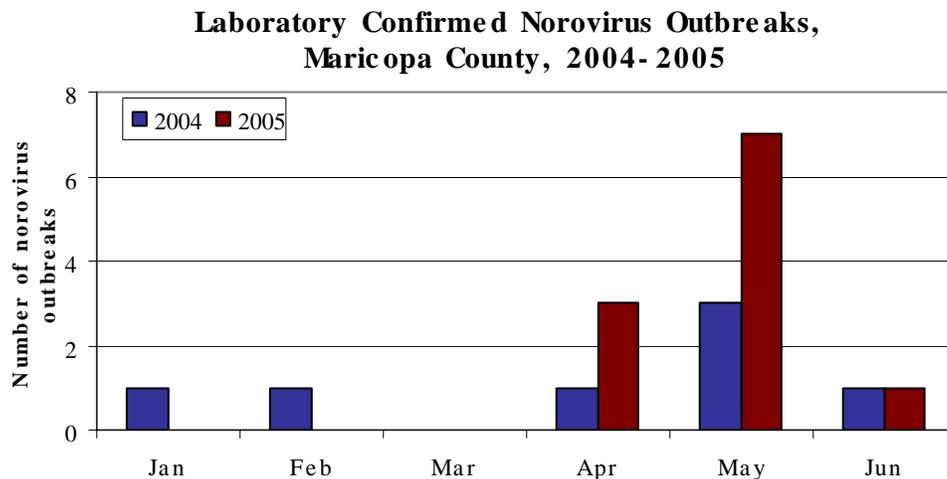
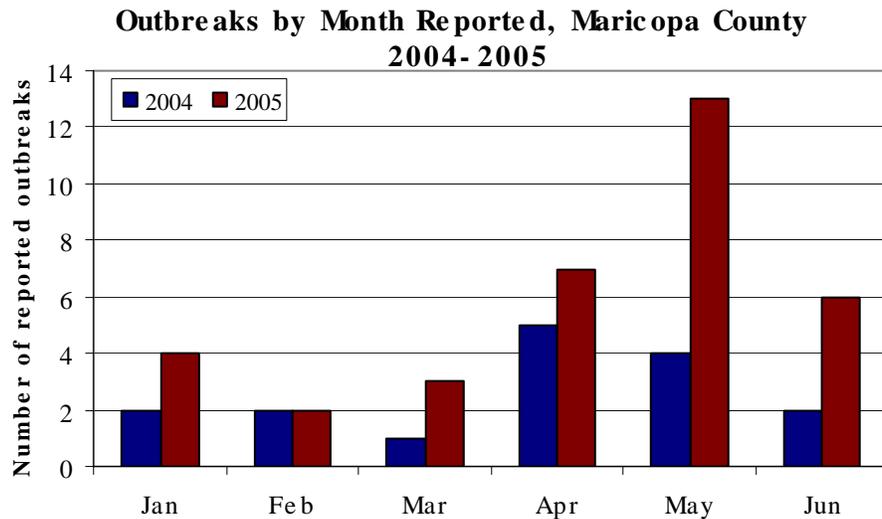
## **INSIDE THIS ISSUE**

- Disease of the quarter: Norovirus
- Update on West Nile Virus Activity
- Pertussis update
- Maricopa County Influenza Surveillance Summary, 2004-2005
- 2005 Maricopa County Communicable Disease summary

## Disease of the Quarter: Norovirus

### Norovirus confirmed in multiple outbreaks in Maricopa County

The number of outbreaks reported to the Maricopa County Department of Public Health Division of Epidemiology has doubled compared to this time last year. Twenty-nine of the 35 outbreaks reported to date cited gastrointestinal symptoms as the primary symptoms. Of those 29 outbreaks, ten (34%) were laboratory-confirmed to be caused by norovirus, and eight (28%) had symptoms, incubation, or duration periods consistent with those caused by norovirus. Of the samples that were sequenced this year, the Miami Beach/326 and Oxford/B2S16 strains were identified. The strains identified during this time last year were Saitama and Oxford/B8S5.



CDC estimates that 23 million cases of acute gastroenteritis are due to norovirus infection, and it is now thought that at least 50% of all foodborne outbreaks of gastroenteritis can be

attributed to noroviruses. <http://www.cdc.gov/ncidod/dvrd/revb/gastro/norovirus-factsheet.htm>

### **What are noroviruses?**

Noroviruses are a group of viruses that cause the “stomach flu” or gastroenteritis in people. Other names that have been used to refer to noroviruses include: Norwalk-like viruses (NLVs), caliciviruses, and small round structured viruses.

### **What are the symptoms?**

Symptoms usually include nausea, vomiting and diarrhea. In addition, people infected with noroviruses may experience stomach cramps, fever, muscle aches and malaise. The illness often begins suddenly and the infected person may feel very sick. The illness is usually brief, lasting only about one or two days.

Symptoms include: sudden onset of nausea, vomiting and diarrhea.

### **How are noroviruses spread?**

Noroviruses are found in the stool or vomit of infected people. Others can become infected by touching objects contaminated with norovirus and then placing their hands in their mouth, having direct contact with someone who is ill with norovirus, or by eating food or drinking liquids contaminated with norovirus. Spread has also been documented through aerosolization of droplets during vomiting.

### **How long after exposure do symptoms begin?**

Symptoms usually begin within 24-48 hours after exposure; however, documented illness has begun in as little as twelve hours and as long as 72 hours after exposure.

### **Are noroviruses contagious?**

Yes. Noroviruses are extremely contagious and can spread easily from person to person. Both stool and vomit are infectious.

### **How long is a person contagious with norovirus?**

Most people are contagious the moment symptoms begin until at least three days after symptoms end. However, studies have shown that virus can be shed in stool for up to two weeks after infection.

### **Who gets norovirus infection?**

Anyone can become infected with these viruses. There are many different strains of norovirus, which makes it difficult for a person’s body to develop long-lasting immunity. Therefore, norovirus illness can recur throughout a person’s lifetime.

### **Is there any treatment for noroviruses?**

There is no specific treatment for norovirus infection. People ill with norovirus who have diarrhea and vomiting should drink plenty of fluids to prevent dehydration.

### **Can norovirus infection be prevented?**

Yes. There are several preventive measures one can follow to decrease one’s chance of coming in contact with noroviruses:

- ❑ Frequently wash hands, especially after toilet visits and changing diapers and before eating or preparing food.
- ❑ Carefully wash fruits and vegetables, and steam oysters before eating them.



- ❑ Thoroughly clean and disinfect contaminated surfaces immediately after an episode of illness by using a bleach-based household cleaner.
- ❑ Immediately remove and wash clothing or linens that may be contaminated with virus after an episode of illness (use hot water and soap).
- ❑ Flush or discard any vomitus and/or stool in the toilet and make sure that the surrounding area is kept clean.

Persons who are infected with norovirus should not prepare food while they have symptoms and for three days after they recover from illness. Food that may have been contaminated by an ill person should be disposed of properly.

For the complete norovirus fact sheet, go to:

<http://www.cdc.gov/ncidod/dvrd/revb/gastro/norovirus.htm>

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## Health and Safety Radio Talk Show

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The MCDPH Office of Community Health Nursing, in cooperation with La Campesina Radio KNAI 88.3 FM, has kicked off the first Spanish language weekly live radio health and safety program. La Campesina is the largest Spanish radio network in the Valley.

The show will air Mondays from 10 to 11am and will discuss issues ranging from the importance of childhood immunizations, West Nile Virus season, proper birth registration, and general safety topics such as water and pool safety.



The show is co-hosted by Johnny Diloné, of Maricopa County Environmental Services Department, and former Spanish television reporter, Maria Barquin of Campesina 88.3 FM radio.

**West Nile Virus Update, 2005**

Enhanced surveillance for West Nile Virus (WNV) continues for state and local health officials. This includes testing of mosquito pools, sentinel chicken flocks, horses with neurologic disease, dead bird submissions, and humans with viral nervous system infections.

**West Nile Virus Hotline**



**West Nile Virus activity for Arizona and Maricopa County, as of June 30, 2005**

Positive for WNV	Arizona (includes Maricopa County)	2005 Maricopa County (as of 6/30/05)	2004 Maricopa County (as of 6/22/04)
Dead birds	0	0	11
Mosquito pools	43	16	56
Chicken flocks	4	4	6
Human	1	1	20
Equine	2	3	21
Deaths	0	0	0

As of June 29, 2005, fourteen mosquito pools have tested positive for WNV in Maricopa County (see table above). The new rapid test, put in place this season, allows for faster turnaround time in getting results on infected mosquitoes.

The West Nile Virus website includes on-line reporting tools, information for kids, important links for more information (such as fogging sites), updated statistics, and an option to register for WNV information updates via email. The website is also available in Spanish.

**For more information:**

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

**MC Environmental Services WNV site:**  
<http://www.maricopa.gov/envsvc/WATER/VECTOR/westnile.asp>

**ADHS website on WNV:** <http://www.westnileaz.com/>

**CDC WNV website:**  
[http://www.cdc.gov/ncidod/dvbid/westnile/surv&controlCaseCount05\\_detailed.htm](http://www.cdc.gov/ncidod/dvbid/westnile/surv&controlCaseCount05_detailed.htm)

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## Events

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### **National HIV Testing Day ~ June 27, 2005**

National HIV Testing Day (NHTD) is an annual campaign produced by the National Association of People with AIDS ([NAPWA-US](http://www.napwa-us.org)) to encourage at-risk individuals to receive voluntary HIV counseling and testing. Register online at: <http://www.napwa.org/hivtestinfo/>

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### **July 25-27, 2005**

Title: Combating Bioterrorism: Implementing Policies for Biosecurity

City: Boston, Massachusetts

Location: MIT Security Studies Program, MIT

Contact: MIT Professional Institute

Phone: 617.253.2101

Email: [professional-institute@mit.edu](mailto:professional-institute@mit.edu)

Website with course description:

[http://professional.mit.edu/ApplicationFiles/web/WebFrame.cfm?web\\_id=382](http://professional.mit.edu/ApplicationFiles/web/WebFrame.cfm?web_id=382)



**Evidence-based Policy & Practice**  
APHA 133rd Annual Meeting & Exposition  
New Orleans, LA November 5-9, 2005

**It's never too early to start planning!**

**November 5-9, 2005 is the 133<sup>rd</sup> APHA Annual Meeting in New Orleans, LA.**

At the APHA Annual Meeting over 13,000 public health professionals gather to share ideas, best practices and the latest research in the field. There are a variety of venue from scientific sessions to networking opportunities and events. For more information: <http://www.apha.org/meetings/>



### **Presentations from the 19<sup>th</sup> National Conference on Chronic Disease Prevention and Control, March 1-3, 2005**

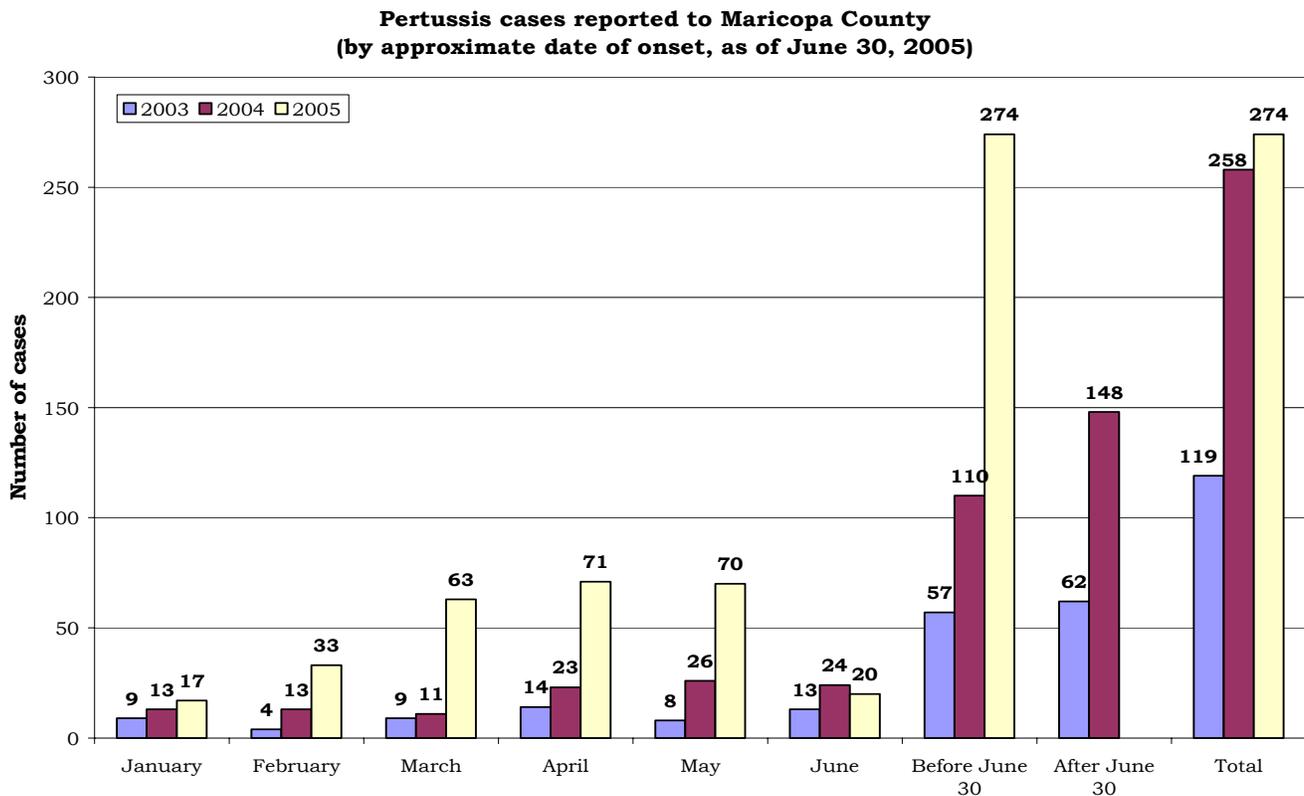
[http://www.cdc.gov/nccdphp/conference/ppt\\_presentations.htm](http://www.cdc.gov/nccdphp/conference/ppt_presentations.htm)

**Theme: Health Disparities: Progress, Challenges, and Opportunities**  
*Accelerating the rate of progress in improving lives*

**Conference Goal:** The major goal of conference is to accelerate the rate of progress in improving the lives of those at highest risk for poor health, including racial and ethnic minority groups and low-income and less educated populations.

## Pertussis (Whooping Cough) Update

Due to the significant increase in Pertussis cases in 2005, a statewide outbreak was declared on May 19, 2005. In the United States epidemics occur every 3-5 years. In Maricopa County the disease tends toward a three-year pattern. As of June 30, 2005, there were 274 cases reported to the Maricopa County Department of Public Health. The chart below shows the number of Pertussis cases this year compared to the previous two years at this time.



A weekly update is posted on the Maricopa County website:

[http://www.maricopa.gov/public\\_health/pertussis/](http://www.maricopa.gov/public_health/pertussis/)

The information provided below is an excerpt from the MCDPH Physician Fact Sheet. For the complete fact sheet, go to:

[http://www.maricopa.gov/public\\_health/pertussis/docs/Pertussis-PhysicianFactSheet.pdf](http://www.maricopa.gov/public_health/pertussis/docs/Pertussis-PhysicianFactSheet.pdf)

**Clinical Description** Pertussis is an acute bacterial disease occurring in periodic outbreaks. Disease may occur at any age, regardless of immunization status. Approximately 35% of reported cases are in infants younger than 6 months. Pertussis can last 6-10 weeks; however, more than half of the primary cases last less than 6 weeks. Pertussis is most severe in the first 12 months of life.

Illness begins with mild, upper respiratory symptoms and little or no fever. Coughing becomes worse within 1-2 weeks, with bouts of violent coughing lasting several minutes. Cyanosis and apnea are common in infants. The cough may be followed with a “whooping sound” in older infants and preschool children. Older children and adults typically have a persistent cough and no whoop. Bouts of coughing may result in expulsion of clear mucus which is often followed with vomiting. The patient appears well between episodes.

Pertussis is often misdiagnosed as bronchitis or allergies in teens or adults, or croup or asthma in infants, allowing for transmission to susceptible contacts. Parents often report multiple visits to a provider after a child suffers repeated bouts of coughing, “turns blue then recovers,” is fever-free and appears “okay.” Adults report “nagging cough” and fatigue.

- Incubation Period** 6 - 20 days, usually 7 - 10 days.
- Transmission** Cases are highly contagious. Transmission requires close contact with respiratory secretions of the mouth, nose and throat of an infected individual or infected droplets in the air.
- Contagious Period** Patients are most contagious during the early stages of disease (cold-like symptoms) and contagiousness may persist for 3 weeks or more after onset of cough without appropriate antibiotic treatment.
- Diagnosis** Most cases are diagnosed based on clinical symptoms (see above). Laboratory confirmation is by culture only. A culture swab of nasopharyngeal mucus should be obtained prior to treating the patient and is obtained on special media such as Regan-Lowe or Bordet-Gengou, on a calcium alginate swab. Note expiration date on media, as shelf life is 4 - 6 weeks. Culture kits and instructions for use are available through the Maricopa County Department of Public Health. Also, State Lab testing is available free of charge by contacting the Maricopa County Department of Public Health at (602) 506-6767.
- Immunization** Primary Series: 3 doses DTaP or whole cell DTP at 2, 4, 6 months, with booster doses at 15 - 18 months and 4 - 6 years. It is also acceptable to begin the DTaP series at six weeks of age. See immunization schedules. Children who are delayed in immunizations should be immunized using the minimum intervals between vaccine doses. Waning immunity 3 - 5 years after series completion may contribute to susceptible status. A vaccine licensed for adolescents and adult use will be available in summer 2005, see <http://www.cdc.gov/nip/> for more information.

**Reports Required** Immediate telephone reports of cases and suspect cases are required within 24 hours.

Notify Infection Control: 239-4390 or pager: 223-5185

Or contact: Community Health Nursing  
 Maricopa County Department of Public Health –  
 602-506-6767 and/or the 24-hr disease reporting line 602-747-7111

**Reported Pertussis Cases Year-to-date**  
*(confirmed and probable cases)*

	2005 YTD cases	2000-2004 5 year median (as reported to ADHS)
Maricopa County	269	127
Pima County	225	35
Arizona	577	278

**Statewide Pertussis Activity 2005**

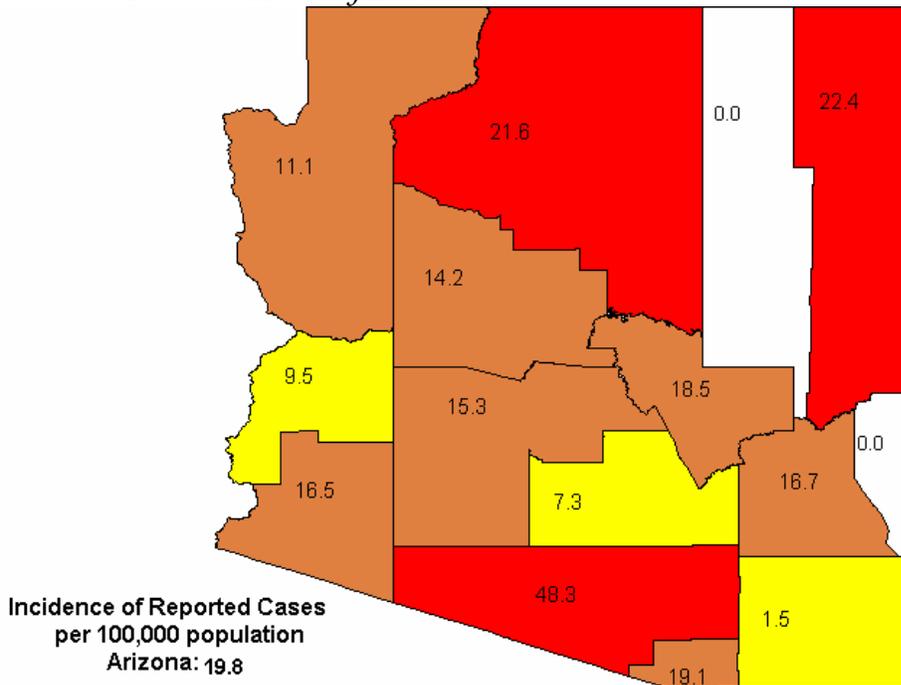


Image courtesy of ADHS website: [http://www.azdhs.gov/phs/oids/epi/pertussis\\_stats.htm](http://www.azdhs.gov/phs/oids/epi/pertussis_stats.htm)

For more information on Pertussis, here are some other useful links:

MCDPH: [http://www.maricopa.gov/public\\_health/pertussis/](http://www.maricopa.gov/public_health/pertussis/)

## Influenza Surveillance in Maricopa County 2004-2005

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The MCDPH Division of Epidemiology annual influenza surveillance for the 2004-2005 season has ended. A total of 83 sites participated in this year's surveillance activities. During the 2004-2005 influenza season, 1,063 laboratory-tested specimens were positive for influenza. The positive specimens were: 443 untyped influenza A virus, 72 influenza type A (H3N2) virus, 413 influenza type B virus, and 135 untyped influenza virus. The season peaked in week 7 (February 13-19, 2005).

For all of the 2004-2005 weekly summaries, visit:  
[http://www.maricopa.gov/public\\_health/epi/flu.asp](http://www.maricopa.gov/public_health/epi/flu.asp)

**Maricopa County Communicable Disease Summary**  
**Confirmed and probable reported cases**  
**2003-2005**

as of June 27, 2005			Year-to-date totals		
Disease	1 Q	2 Q	2005* YTD	2004 YTD	2003 YTD
Amebiasis	5	5	10	6	21
Anthrax	0	0	0	0	0
Aseptic Meningitis: viral	167	122	289	266	334
Botulism	0	2	2	0	0
Brucellosis	1	2	3	0	2
Campylobacteriosis	104	155	259	219	275
Cholera	0	0	0	0	1
Coccidioidomycosis (valley fever)	179	173	352	563	341
Colorado tick fever	0	0	0	0	0
Congenital Rubella	0	0	0	0	0
Conjunctivitis: acute	4	0	4	0	1
Creutzfeldt-Jakob disease	0	0	0	1	1
Cryptococcosis	2	1	3	4	6
Cryptosporidiosis	2	1	3	3	2
Dengue	1	1	2	0	0
Diphtheria	0	0	0	0	0
Ehrlichiosis	0	0	0	0	0
Encephalitis: viral	1	3	4	22	18
<i>Escherichia coli</i> O157:H7	4	3	7	5	5
Giardiasis	12	4	16	76	75
H. influenzae: Invasive	26	16	42	25	33
Hansen's disease (Leprosy)	0	0	0	0	0
Hantavirus	0	0	0	0	0
Hepatitis A	14	9	23	45	72
Hepatitis B	310	197	507	573	453
Hepatitis C	336	231	567	825	882
Hepatitis D	0	0	0	0	2
Hepatitis Non-A, Non-B	0	0	0	0	0
Legionellosis	5	8	13	3	5
Leptospirosis	0	0	0	0	0
Listeriosis	2	1	3	2	4
Lyme Disease	6	1	7	7	4
Malaria	3	3	6	6	5
Measles	1	0	1	0	3
Meningococcal Invasive	9	5	14	6	11
Mumps	0	1	1	2	1
Pertussis (whooping cough)	113	156	269	104	56
Plague	0	0	0	0	0
Poliomyelitis	0	0	0	0	0
Source: MCDPH Communicable Disease Reporting system, 6/27/05.					
*2005 counts are underestimates of the actual count due to delays in data entry.					

**Maricopa County Communicable Disease Summary**  
**Confirmed and probable reported cases**  
**2003-2005**

as of June 27, 2005			Year-to-date totals		
Disease	1 Q	2 Q	2005* YTD	2004 YTD	2003 YTD
Psittacosis	0	0	0	0	0
Q Fever	1	0	1	1	1
Rabies exposure	4	9	13	5	2
Relapsing fever (Borreliosis)	0	0	0	0	0
Reye syndrome	0	0	0	0	0
Rocky Mountain spotted fever	0	0	0	1	1
Rubella	0	0	0	1	1
Salmonellosis	63	66	129	144	139
Scabies	33	2	35	6	6
Severe acute respiratory syndrome	0	0	0	0	0
Shigellosis	33	30	63	90	100
Staphylococcal infection	160	121	281	102	18
Streptococcus pneumoniae	143	100	243	185	245
Streptococcal Group A: invasive	72	61	133	208	205
Streptococcal Group B: invasive	29	25	54	142	32
Taeniasis	1	0	1	1	2
Tetanus	0	0	0	0	0
Toxic shock syndrome (TSS)	1	0	1	3	4
Trichinosis	0	0	0	0	0
Tularemia	0	0	1	0	0
Typhoid Fever	1	1	2	2	1
Typhus Fever	0	0	0	0	1
Vancomycin-resistant Enterococcus	310	314	624	482	348
Varicella (chickenpox)	464	249	713	815	425
Vibrio infection	0	3	3	1	2
West Nile virus	2	4	5	183	0
Yellow fever	0	0	0	0	0
Yersiniosis	0	0	0	3	2

*Source:* MCDPH Communicable Disease Reporting system, 6/27/05.

\*2005 counts are underestimates of the actual count due to delays in data entry.

**MCDPH Divisions of Epidemiology and BDPR  
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	Epidemiologist	372-2612
Andrew Edmonds	Surveillance Data Analyst	372-2619
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, Epidemiology	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	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
West Nile Virus 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.**