

Quarterly Epidemiologic Report

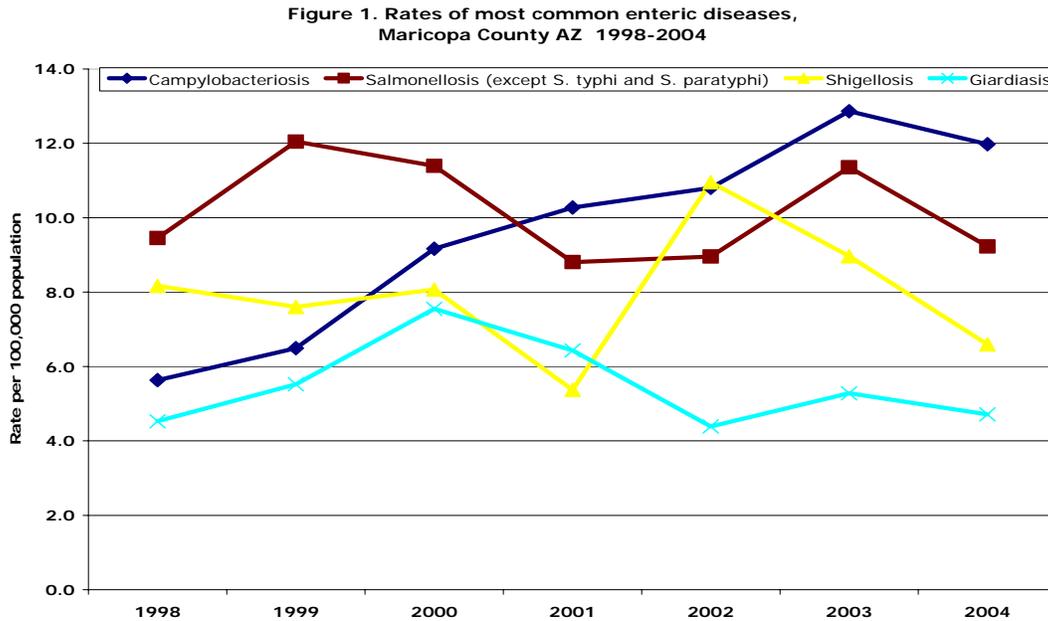
Oct – Dec '05

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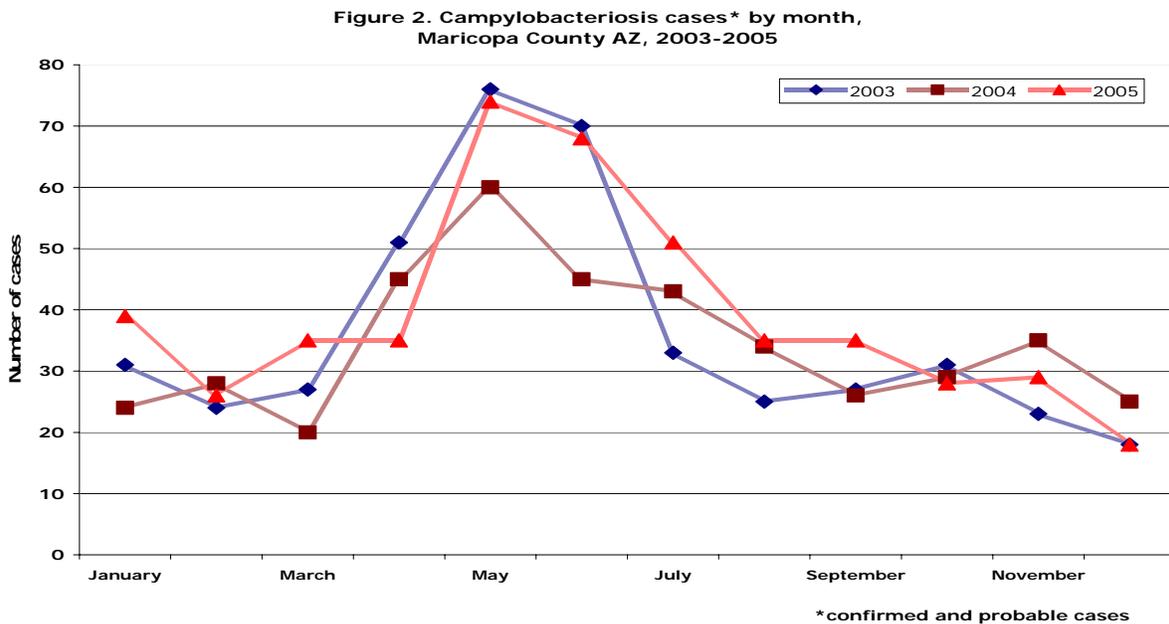
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Disease of the Quarter: Campylobacteriosis

Campylobacteriosis is one of the most common bacterial causes of diarrheal illness in Maricopa County (see Figure 1) and one of the most common in the United States. The most common symptoms include diarrhea, cramping, abdominal pain and fever within two to five days after exposure to the organism. As shown in the graph below, the rate of Campylobacteriosis in Maricopa County has been increasing since 1998.



The number of reported cases of Campylobacteriosis generally increases during the summer months, as shown in Figure 2 below.



Disease of the Quarter: Campylobacteriosis

Consistent with national data, the most common causative agent isolated in Maricopa County cases was *Campylobacter jejuni*.

Campylobacter has been isolated from raw poultry, water, or contact with infected animals (particularly cats and puppies). Additionally, there has been documented transmission through raw milk. Decreasing the rates of Campylobacteriosis in the county will require limiting the exposure of infants and other vulnerable populations to the organism and increased consumer education.

The following section on Campylobacteriosis is an excerpt from the CDC's Division of Bacterial and Mycotic Diseases.

Clinical features ~ Fever, abdominal cramps, and diarrhea (often bloody). Illness typically lasts one week.

Etiologic agent ~ *Campylobacter*, a gram-negative, microaerophilic bacterium. Virtually all human illness is caused by one species, *Campylobacter jejuni*, but 1% are caused by other species.

Incidence ~ *Campylobacter* is the most common bacterial cause of diarrheal illness. Incidence is approximately 20 cases per 100,000 population diagnosed in the United States. An estimated 2.4 million persons are affected each year.

Transmission ~ Contaminated food (particularly poultry), water, or contact with infected animals (particularly cats and puppies).

Risk groups ~ All age groups. Infants and young adults are particularly likely to be infected.

Surveillance ~ National surveillance is conducted through the Public Health Laboratory Information System (PHLIS). Active laboratory- and population-based surveillance is conducted in FoodNet sites. Surveillance for resistance to antimicrobial agents is conducted through the National Antimicrobial Resistance Monitoring System (NARMS).

Challenges ~ Detecting outbreaks. Determining the fraction of cases related to poultry. Decreasing the contamination of poultry meat. Consumer education. Reducing the development of resistant strains. Identifying sources and syndromes associated with campylobacters other than *jejuni*. Preventing the sale of raw milk.

For the complete fact sheet and more information, visit:

http://www.cdc.gov/ncidod/dbmd/diseaseinfo/campylobacter_t.htm

http://www.cdc.gov/ncidod/dbmd/diseaseinfo/campylobacter_g.htm



Influenza Surveillance in Maricopa County 2005-2006

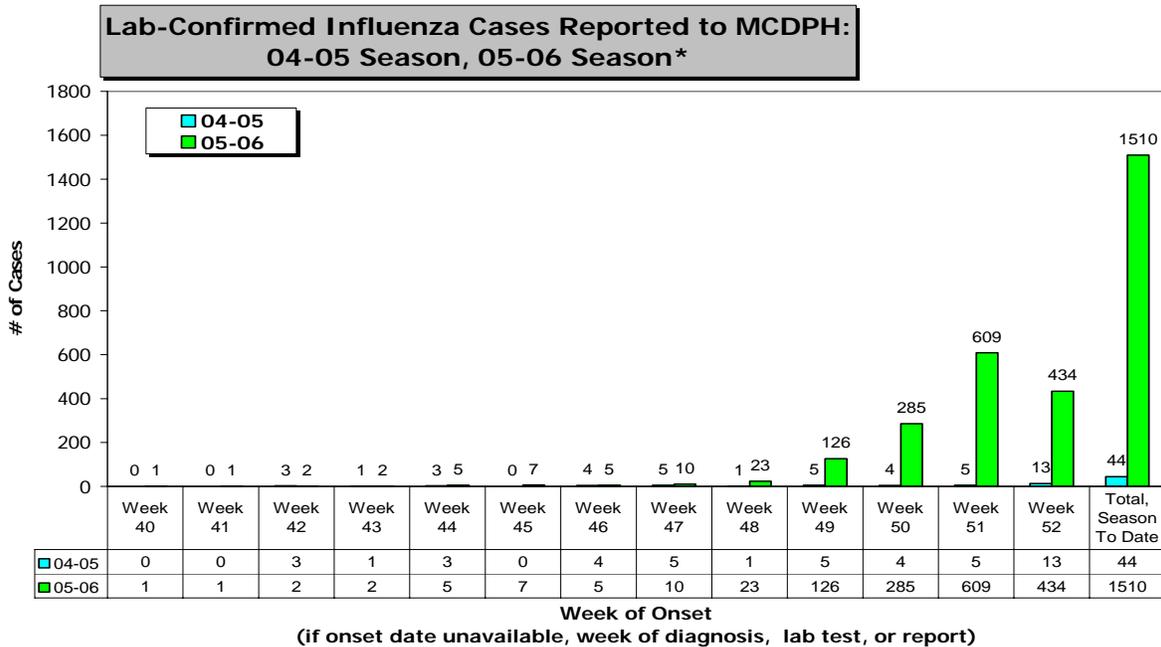
The annual influenza surveillance for the 2005–2006 season conducted by the Maricopa County Department of Public Health (MCDPH) Division of Epidemiology began in October. A total of 36 sites (15 hospital emergency departments, 20 Cigna health care centers, and the ASU Student Health and Wellness Center) were recruited to report, on a weekly basis, the number of patients with influenza-like illness (ILI). Additionally, 42 schools distributed among eight school districts, were recruited to report, on a weekly basis, the number of absences due to illness. The Cigna health care centers and the ASU Student Health and Wellness Center are participants in the Centers for Disease Control and Prevention’s (CDC) Sentinel Surveillance Program.

As of January 6, 2006, over 1,500 lab-confirmed cases of influenza were reported to MCDPH; the majority of these were type A. Arizona was one of seven states reporting widespread activity through week 52. The number of lab-confirmed cases of influenza continues to increase across the state with all 15 counties reporting activity.

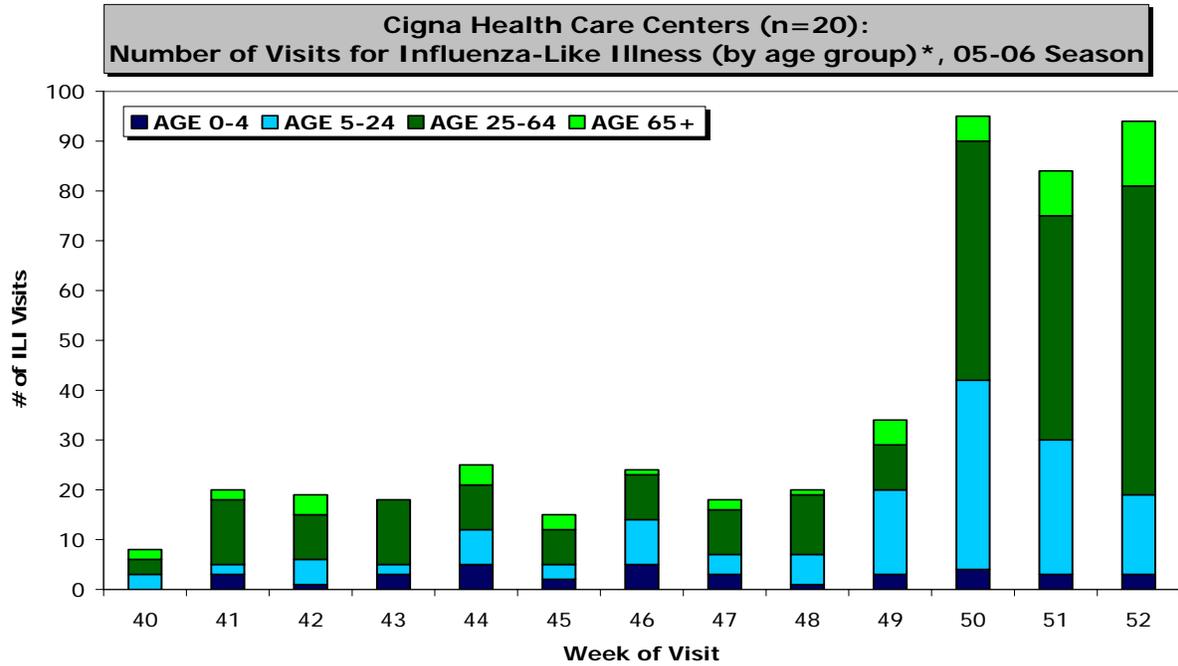
ILI case definition:
fever of at least
100° AND cough
and/or sore throat

The MCDPH weekly influenza report, available online at http://www.maricopa.gov/public_health/epi/flu.asp, includes data on the number of lab-confirmed cases for the current year compared to previous years, age distributions, influenza-like illness data from sites listed above and other useful information related to influenza surveillance. Examples of figures included in the Maricopa County weekly influenza report are shown below:

Lab Surveillance



Another example of the type of information available in the MCDPH weekly influenza summary report:



*Percentages for Weeks 50-52 of the 05-06 season may change in subsequent reports as updated information becomes available

Looking for more information?

For the complete influenza report, visit: http://www.maricopa.gov/public_health/epi/flu.asp

Maricopa County flu information: <http://www.maricopa.gov/flu>

US influenza activity: <http://www.cdc.gov/flu/weekly/fluactivity.htm>

For information on vaccination clinics, visit: <http://www.cir.org/seasonal-flu.html> or contact your health care provider or health care plan.

CDC vaccination recommendations ~ next page

CDC recommendations ~ Who should get vaccinated?



Anyone who wants to reduce their chances of getting the flu can get vaccinated. However, certain people should get vaccinated each year either because they are at high risk of having serious flu complications or because they are in close contact with someone who is at high risk for serious complications and they could make them sick. People who should get vaccinated each year are:

1. **People at high risk for complications from the flu;**
 - **People 65 years and older;**
 - **People** who live in **nursing homes** and other **long-term care facilities** that house those with long-term illnesses;
 - **Adults** and **children 6 months and older** with **chronic heart or lung conditions**, including asthma;
 - **Adults** and **children 6 months and older** who needed **regular medical care** or were in a **hospital during the previous year** because of a **metabolic disease** (like diabetes), **chronic kidney disease**, or **weakened immune system** (including immune system problems caused by medicines or by infection with human immunodeficiency virus [HIV/AIDS]);
 - **Children 6 months to 18 years** of age who are on **long-term aspirin therapy**. (Children given aspirin while they have influenza are at risk of developing Reye syndrome.);
 - **Women who will be pregnant** during the influenza season; and
 - **All children 6-23 months of age**.
 - People with any **condition** that can **compromise respiratory function** or the handling of respiratory secretions (that is, a condition that makes it hard to breathe or swallow, such as brain injury or disease, spinal cord injuries, seizure disorders, or other nerve or muscle disorders.)
2. **People 50 to 64 years of age.** Nearly 1/3 of people 50-64 years of age in the United States have one or more medical conditions that place them at increased risk for serious complications from influenza.
3. **People who can transmit influenza to others at high risk for complications.** This means that if you have contact with anyone in a high risk group (see listing above), you should get vaccinated. This includes health-care workers and parents or other close contacts of children 6-23 months of age and close contacts of seniors.

For the complete fact sheet or more information on the flu, visit www.cdc.gov/flu

Is it a cold or the flu?

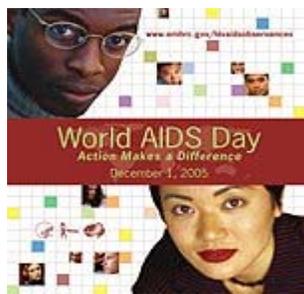


Both colds and the flu are highly contagious and, in the initial stages, might seem alike. It's important to know the difference between the two. The table* below provides distinctions between them.

Symptoms	Cold	Flu
Fever	Rare	Usual, high (100°F-102°F; occasionally higher, especially in young children); lasts 3-4 days
Headache	Rare	Common
General aches, pains	Slight	Usual; often severe
Fatigue, weakness	Sometimes	Usual; can last up to 2-3 weeks
Extreme exhaustion	Never	Usual; at the beginning of the illness
Stuffy nose	Common	Sometimes
Sneezing	Usual	Sometimes
Sore throat	Common	Sometimes
Chest discomfort, cough	Mild to moderate; hacking cough	Common; can become severe
Complications	<ul style="list-style-type: none"> ▪ Sinus congestion ▪ Middle ear infection ▪ Asthma 	Bronchitis, pneumonia; can be life-threatening
Prevention	<ul style="list-style-type: none"> ▪ Wash your hands often ▪ Avoid close contact with anyone with a cold 	Annual vaccination; antiviral medicine – see doctor
Treatment	<ul style="list-style-type: none"> ▪ Antihistamines ▪ Decongestant ▪ Nonsteroidal anti-inflammatory medicines 	Antiviral medicines – see your doctor

*September 2005, From the National Institute of Allergy and Infectious Diseases:
<http://www.niaid.nih.gov/publications/cold/sick.pdf>

World AIDS Day ~ December 1, 2005



This annual global event is dedicated to remembering the victims of AIDS, learning more about the devastating effects of the disease around the world, and reaffirming the commitment to fight it. This year's theme was "Action Makes a Difference."

According to estimates provided by the Arizona Department of Health Services (ADHS), Office of HIV/AIDS, there are currently 7,354 persons known to be living with HIV/AIDS in Maricopa County. Among those persons, 3,902 are living with HIV and 3,452 are living with AIDS. In 2004, there were 319 emergent HIV cases and 190 emergent AIDS cases reported.

The 2005 Arizona Integrated Epidemiologic Profile was released by the Arizona Department of Health Services, Office of HIV/AIDS in September 2005. This report uses a variety of data sources to present one of the most comprehensive pictures of the current HIV/AIDS epidemic in Arizona. Data on trends in modes of transmission, comorbidity, and unmet treatment needs, are a few of the important topics covered in this report. For the complete report, visit: http://www.azdhs.gov/phs/hiv/pdf/integrtd_epi_prof.pdf

Upcoming conferences



What: 5th International Conference on Emerging Infectious Diseases

When: March 19-22, 2006

Where: Atlanta, GA

More information/registration: <http://www.iceid.org>

Major topics include current work on surveillance, epidemiology, research, communication and training, bioterrorism, and preventions and control of emerging infectious diseases, both in the United States and abroad.



What: 2006 International Symposium on Waterborne Pathogens

When: March 16-18, 2006

Where: Atlanta, GA

More information: www.awwa.org/conferences/pathogens/call

Special areas of concern include sources of pathogens, detection methods, outbreak investigations, new water and wastewater treatment technologies, and public health effects, treatment, and communications.

BRFSS

Turning Information Into Health

What: 23rd Annual BRFSS Conference

When: March 18-22, 2006

Where: Palm Springs, CA

Website: <http://www.cdc.gov/brfss/conference/index.htm>

The purpose of the annual conference is to determine the content of the 2007 BRFSS Survey and update attendees regarding state-of-the-art behavioral risk factor monitoring, methodologies, and technological innovations.



ADHS Office of Emergency Preparedness and Response

What: Joint Vector-Borne/Zoonotic Diseases and Bioterrorism/Public Health Threats Conference

When: March 29-30, 2006

Where: Glendale Civic Center, Glendale AZ

Website: <http://www.azdhs.gov/phs/edc/edrp/es/conf.htm>

This joint conference provides both an Arizona and a national perspective on these two exciting and ever-changing fields of public health and safety.

West Nile Virus (WNV) Update



West Nile Virus (WNV) surveillance is ongoing for the 2005 mosquito season. This includes positive mosquito pools, equines or human cases. The table below shows the current case counts (as of Jan. 5, 2006) for WNV in Maricopa County. To date, WNV has been found in 14 of Arizona's 15 counties.

As of January 6, 2006, Maricopa County has had 77 human cases of WNV, including four 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.

West Nile Virus activity* for 2005 Maricopa County

Positive for WNV	Maricopa County
Dead birds	3
Mosquito pools	123
Chicken flocks	31
Human	77
Equine	17
Other animal	1
Deaths	4
*as of 1/6/06	

For more information:

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

Arizona Department of Health Services website on WNV: 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>

Maricopa County Communicable Disease Summary
Confirmed and probable cases reported in 2005 (as of December 29, 2005)

Disease					Yearly totals		
	1 Q	2 Q	3 Q	4 Q	2005 YTD	2004 YTD	2003 YTD
Amebiasis	6	6	3	3	18	11	36
Anthrax	0	0	0	0	0	0	0
Aseptic Meningitis: viral	168	149	205	125	647	598	1264
Botulism	0	1	0	1	2	1	0
Botulism, Infant	0	0	0	0	0	0	0
Brucellosis	1	2	2	0	5	3	4
Campylobacteriosis	96	175	121	74	466	399	434
Cholera	0	0	0	0	0	0	1
Coccidioidomycosis (valley fever)	181	205	264	332	982	1107	859
Colorado tick fever	0	0	0	0	0	0	0
Congenital Rubella	0	0	0	0	0	0	0
Conjunctivitis: acute	4	0	1	0	5	0	3
Creutzfeldt-Jakob disease	0	0	2	0	2	2	4
Cryptosporidiosis	2	1	2	1	6	7	6
Dengue	0	1	3	2	6	1	1
Diphtheria	0	0	0	0	0	0	0
Ehrlichiosis	0	0	1	0	1	1	0
Encephalitis: viral	2	9	9	7	27	46	46
<i>Escherichia coli</i> O157:H7	4	4	8	12	28	20	19
Giardiasis	15	9	13	17	54	162	178
H. influenzae: Invasive	25	16	7	11	59	40	47
Hansen's disease (Leprosy)	0	0	0	0	0	0	0
Hantavirus	0	0	0	0	0	0	0
Hepatitis A	15	12	20	16	63	91	127
Hepatitis B	297	225	254	184	960	1127	1030
Hepatitis C	337	327	304	210	1178	1598	1890
Hepatitis D	0	0	2	0	2	0	2
Hepatitis Non-A, Non-B	0	0	0	0	0	0	0
Legionellosis	5	2	2	11	20	10	12
Leptospirosis	0	0	0	2	2	0	0
Listeriosis	2	1	2	3	8	5	5
Lyme Disease	3	2	9	2	16	19	13
Malaria	2	4	7	8	21	13	12
Measles	1	0	0	1	2	0	4
Meningococcal Invasive	9	5	1	3	18	11	17
Mumps	0	0	0	1	1	4	3
Pertussis (whooping cough)	120	208	148	91	567	256	123
Plague	0	0	0	0	0	0	0
Poliomyelitis	0	0	0	0	0	0	0
Psittacosis	0	0	0	1	1	0	0

Source: MCDPH Communicable Disease Reporting system, 12/29/05.

Note: This table includes *confirmed and probable* cases listed by CDR date which is equivalent to the date of onset or next available date if onset date is unknown and may differ from ADHS data which is selected by date of report to the State.

Maricopa County Communicable Disease Summary
Confirmed and probable cases reported in 2005 (as of December 29, 2005)

Disease					Yearly totals		
	1 Q	2 Q	3 Q	4 Q	2005 YTD	2004 YTD	2003 YTD
Q fever	1	0	0	0	1	3	1
Rabies exposure	4	11	15	7	37	13	3
Relapsing fever (Borreliosis)	0	0	0	0	0	0	0
Reye syndrome	0	0	0	0	0	0	0
Rocky Mountain spotted fever	0	0	0	0	0	1	0
Rubella	0	0	0	1	1	2	1
Salmonellosis	62	82	122	84	350	298	382
Scabies	33	2	19	0	54	8	25
Severe acute respiratory syndrome	0	0	0	0	0	0	0
Shigellosis	31	32	94	99	256	218	303
Staphylococcal infection	151	157	165	111	584	281	99
Streptococcus pneumoniae	141	108	41	62	352	303	361
Streptococcal Group A: invasive	71	70	36	60	237	282	359
Streptococcal Group B: invasive	29	29	16	14	88	219	98
Taeniasis	1	0	0	2	3	2	5
Tetanus	0	0	0	0	0	1	0
Toxic shock syndrome (TSS)	1	0	0	0	1	3	5
Trichinosis	0	0	0	0	0	0	0
Tularemia	0	0	0	0	0	0	0
Typhoid Fever	1	2	0	0	3	2	0
Typhus Fever	0	0	1	0	1	0	1
Vancomycin-resistant Enterococcus	297	334	297	215	1143	879	608
Varicella (chickenpox)	458	250	124	120	952	1052	665
Vibrio infection	0	3	5	4	12	5	6
West Nile virus	2	8	72	13	95	426	10
Yellow fever	0	0	0	0	0	0	0
Yersiniosis	0	0	0	1	1	4	5

Source: MCDPH Communicable Disease Reporting system, 12/29/05.

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**MCDPH Divisions of Epidemiology and PHEM
Contact Numbers (all 602 area code)**

Vjollca Berisha	Senior Epidemiologist	372-2611
Kristin Cass	Executive Assistant	372-2604
Alisa Diggs	Senior Epidemiologist	372-2612
Bob England	Medical Director, MCDPH	506-6601
Abrium Escárzaga	Senior Epidemiologist	372-2643
Robert French	Deputy Director, PHEM	372-2658
Natalie Fuller	Epidemiologist	372-2613
Jeanette Gibbon	Senior Epidemiologist	372-2642
Ron Klein	Disease Surveillance Supervisor	506-6722
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 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)

	Business hours M-F 8a-5p	After 5p
Animal bite reports	506-7387	506-7387
Communicable diseases	506-6767	747-7111
Death/birth certificates	506-6805	450-9982 (pager) or
funeral homes, human remains		229-9315 (pager)
HIV (reports)	506-6426	Next business day
Public health emergencies	747-7111	747-7111
Rabies exposure	779-1358 (pager)	747-7111
STDs (other than HIV)	506-1678	Next business day
Tuberculosis	506-5065 or 372-1408	747-7111
WNV hotline	506-0700	506-0700

<p>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 or call (602) 372-2642.</p>
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