

## Vector-Borne & Zoonotic Disease: 5-Year Report 2008-2012

Vector-borne and zoonotic diseases are infectious diseases involving animal hosts or vectors like mosquitoes, ticks, and fleas. Zoonotic diseases are diseases of animals that have the capability of being transmitted to humans. Many of these zoonotic diseases require the use of a vector to facilitate the transmission from animals to humans; these are referred to as vector-borne diseases. The following report is a summary of both categories of infectious diseases that were reported to and investigated by Maricopa County Department of Public Health (MCDPH) from the years 2008-2012. While MCDPH investigates all reported cases of these diseases, some cases may be ruled-out or lost to follow-up due to incompatible symptoms, laboratory testing, or lack of interview information.

	2008	2009	2010	2011	2012
	Confirmed or Probable <sup>†</sup>	Confirmed or Probable <sup>†</sup>	Confirmed or Probable <sup>†</sup>	Confirmed or Probable <sup>†</sup>	Confirmed or Probable <sup>†</sup>
Amebiasis	7	0	1	8	5
Brucellosis <sup>§</sup>	2	2	6	3	4
Cysticercosis	11	2	1	2	4
Dengue <sup>§</sup>	5	5	7	3	7
Ehrlichiosis <sup>§</sup>	2	1	0	4	1
Hantavirus	0	0	0	1	0
Lyme Disease <sup>§</sup>	8	3	0	7	3
Malaria <sup>§</sup>	10	9	20	17	15
Psittacosis <sup>§</sup>	0	0	0	0	0
Q Fever <sup>§</sup>	2	2	3	3	4
Rocky Mountain Spotted Fever <sup>§</sup> (RMSF)	0	0	0	0	1
St. Louis Encephalitis Virus (SLEV)	0	0	0	0	0
Taeniasis	0	1	0	0	1
Tularemia	0	0	0	0	0
West Nile Virus (WNV)	90	20	115	45	90

<sup>†</sup> Confirmed or Probable case classifications represent a case that is either laboratory-confirmed and/or had a clinically compatible illness to the disease

<sup>§</sup> These diseases underwent changes in either laboratory criteria, clinical presentation, and/or case definitions from 2008-2010. These changes may have affected reporting of these diseases and the numbers of total cases investigated or classified as confirmed or probable. Source: <http://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/disease-data-statistics-reports/infectious-disease-epidemiology-report-2008-2013.pdf>

Report ALL suspected rabies cases and ALL animal bites!

MCDPH can conduct a rabies risk assessment and assess if rabies vaccination is needed. There is no cure for rabies after the onset of symptoms and death is expected within days of symptom onset. In high risk exposure situations rabies can be prevented by administration of post-exposure prophylaxis.

To report a suspected rabies case or to receive a rabies risk assessment call-

Monday-Friday 8 am to 5 pm:  
**(602) 506-6767**

Holidays and After Hours:  
**(602) 747-7111**

## Rabies

Rabies is a deadly zoonotic disease caused by a virus that attacks the central nervous system and causes acute, progressive encephalomyelitis (brain swelling) that almost always leads to death. It is transmitted when saliva of an infected animal is passed to an uninfected animal through a bite, scratch, abrasion, open wound, or mucous membrane contaminated with saliva or other potentially infectious material (such as brain tissue or cerebrospinal fluid) from a rabid animal.

Bats, skunks, foxes, raccoons, bobcats, and coyotes serve as important carriers for the disease. Cats, dogs and livestock can also become infected with rabies if they have not been vaccinated and are bitten by rabid wild animals. As a result of animal control and vaccination programs and the development of effective human rabies vaccines and immunoglobulins, there has not been a case of rabies in a human since 1981 in Arizona. Furthermore, there has not been a rabid dog in Maricopa County since 1977 or a rabid cat since 1982 making domestic animals, such as dogs and cats low risk for rabies transmission in our county.

From 2008 to 2012, there were **51** confirmed cases of rabies in wild animals in Maricopa County. Out of the 51 cases, 86% were bats, 2% were foxes, and 4% were bobcats.

**Total Number of Animal Exposures Assessments  
Conducted by MCDPH, 2008-2012**

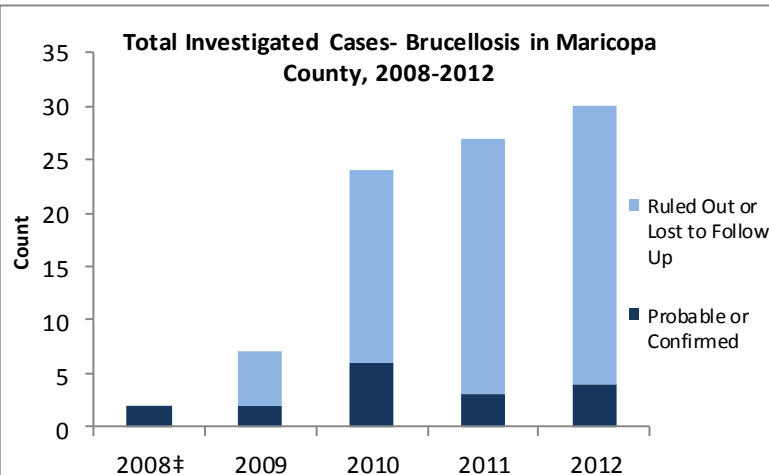
2008	2009	2010	2011	2012
N/A	263	268	411	626

➔ For more information regarding rabies, please [click here](#) to visit MCDPH's Rabies Homepage

**Rabies Positive Animals in Maricopa County, 2008-2012**

	2008	2009	2010	2011	2012
<b>Bat</b>	21	11	8	3	1
<b>Fox</b>	0	1	0	0	0
<b>Bobcat</b>	0	0	1	1	0
<b>Other</b>	2	1	0	1	0
<b>Total</b>	23	13	9	5	1

## Brucellosis



† 2008 data for total cases investigated not available

**What:** Bacterial disease caused by the *Brucella* species

**Where:** Found worldwide. Higher-risk areas include Eastern Europe, South & Central America, Asia, Africa, and the Middle East.

**How:** From contact with infected animals or consumption of contaminated animal products, like consuming unpasteurized cheese or milk. Most commonly found in cattle, sheep, goats, pigs and dogs. Individuals may also become infected through inhalation or contamination of skin wounds.

**Signs & Symptoms:** Fever, sweats, body aches, weakness, headaches, chills, arthralgia, depression. Severe infection may also infect the liver, spleen, heart or central nervous system

**Treatment:** Antibiotics- typically a combination of doxycycline and rifampin

**Prevention:** Avoid undercooked meats and unpasteurized dairy products, such as raw milk. People who frequently come into contact with animal tissues should wear protective equipment like gloves, goggles, and aprons.





**For more information about these and many other infectious diseases, please visit MCDPH's Disease Prevention & Epidemiology page:**

**<http://www.maricopa.gov/PublicHealth/Services/EPI/diseases.aspx>**

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