



Communicable Diseases (CD) Quarterly Report

San Mateo County Health System
CD Control Program

• Provider Reporting: 650.573.2346 (phone) 650.573.2919 (fax) • Issue No. 34 • Data to December 31, 2015

• Catherine Sallenave, MD, CD Controller • Scott Morrow, MD, Health Officer

Table 1. Selected CD cases reported in San Mateo County

Disease	2015		2014	
	4th Qtr	YTD	4th Qtr	YTD
Coccidioidomycosis	1	7	0	4
Listeriosis	3	8	4	5
Meningitis - Bacterial* [§]	1	5	2	5
Meningitis - Viral [§]	5	14	3	10
Meningococcal Disease [§]	0	2	0	2
Malaria	1	5	0	1
Dengue [§]	1	9	3	6
Chikungunya [§]	5	22	5	6

*Excluding meningococcal meningitis §Includes confirmed and probable cases

§Please note that this is a change from the previous case definition which only included confirmed cases.

Table 2. Selected Gastrointestinal illnesses reported in San Mateo County Residents

Disease	2015		2014	
	4th Qtr	YTD	4th Qtr	YTD
Amebiasis	1	5	0	6
Campylobacteriosis	66	241	73	224
Cryptosporidium [§]	13	38	0	28
E. coli O157*	3	11	5	12
Giardia	15	53	11	47
STEC w/o HUS*	3	17	9	15
SALMONELLA (non-typhoid) [§]	31	138	44	143
S. Enteritidis	4	16	3	22
S. Typhimurium	3	7	0	7
Pending/Others	24	115	41	114
Shigellosis [§]	11	35	17	38
Vibrio (non-cholera)	1	5	1	11

*STEC categories exclude E. coli O157 §Includes confirmed and probable cases

Table 3. Selected Vaccine Preventable Diseases reported in San Mateo County Residents

Disease	2015		2014	
	4th Qtr	YTD	4th Qtr	YTD
Hepatitis A	0	2	0	2
Hepatitis B (acute)	1	5	1	1
Influenza - ICU Hosp (0-64 yrs)	0	11	1	18
Influenza Death (0-64 yrs)	0	5	0	6
Measles	0	4	0	4
Pertussis*	7	43	24	133

*Includes confirmed, probable and suspect cases

About the Communicable Disease Control Program

The Communicable Disease Control Program is available to help meet the reporting needs and answer the questions of San Mateo County providers. To report a disease or outbreak, please call 650-573-2346 Monday through Friday, 8:00 am to 5:00 pm, or fax a Confidential Morbidity Report (CMR) to 650-573-2919.

You may download an electronic copy of the CMR at http://smhealth.org/sites/default/files/docs/PHS/cmr_cd_std.pdf. Web-based reporting via CalREDIE is also available. Please contact us if you would like to know more about, and sign up for, web-based reporting. Non-urgent questions and/or general enquiries may be directed to PH_CDControlUnit@smcgov.org (Note: underscore between PH and CD).

Sources: California Reportable Disease Information Exchange (CalREDIE)

Notes: Morbidity is based on the date the case was received; previous reports used date case incident was created in CalREDIE. Totals for past quarters may change due to delays in reporting from labs and providers, the use of different reporting systems, and changes to the resolution statuses of cases based on subsequent information received. All totals are for confirmed cases, unless noted otherwise.

Authors: Moon Choi, Carly Bock, and Catherine Sallenave

Focus on Zika Virus

Zika virus is a flavivirus that is transmitted by *Aedes aegypti* (which also transmit dengue and chikungunya viruses) and *Aedes albopictus* mosquitoes, which are found throughout much of the Americas and some parts of the United States. Although not native to California, these mosquitoes have been detected in 12 California counties; *Aedes aegypti* mosquitoes have been found in San Mateo County but are not established. Thus far, Zika virus infections in California have only been reported in returning travelers. No local transmission has been documented in the continental United States, but transmission has been reported in Puerto Rico. Local spread of the virus is possible if an *Aedes* mosquito bites an infected returning traveler, then bites another person.

An estimated 80% of persons infected with Zika virus are asymptomatic. If **symptoms** occur, they usually begin 3-7 days after the person is bitten by an infected mosquito, and commonly include acute onset of fever, maculopapular rash, joint pain, and/or nonpurulent conjunctivitis. Symptoms are generally mild and last several days to a week. Aspirin and nonsteroidal anti-inflammatory drugs should be avoided until dengue can be excluded, to reduce the risk for hemorrhage. As symptoms of Zika, dengue and chikungunya overlap, all 3 diseases should be considered in a returning traveler from Latin America or the Caribbean.

Zika virus maternal infections have been confirmed in **infants with microcephaly**. In the current outbreak in Brazil, an unusual increase in the number of microcephalic infants has been reported and cerebral calcifications have been described in some cases. However, the number of microcephaly cases that are associated with Zika virus infection, pathologic mechanisms, and the role of other contributory factors are unknown. A causal relationship between Zika virus infection and adverse fetal outcomes, including fetal loss has not been confirmed. The full spectrum of clinical outcomes that may be associated with Zika virus infections during pregnancy is unknown. Guillain-Barré, meningitis/encephalitis, and myelitis have been associated with Zika infection.

Sexual transmission of Zika virus is possible, although there is limited data about the risk. CDC recommends that men who reside in, or traveled to, regions with active Zika virus transmission abstain from sexual activity or consistently and correctly use condoms to prevent sexual transmission of Zika virus. These recommendations are of particular importance for those men who have a pregnant partner, and should be practiced for the duration of the pregnancy.

To meet clinical criteria for Zika virus testing, 2 or more of the symptoms listed above must be present within 14 days of travel to a country with ongoing Zika transmission OR after unprotected sexual contact with a male who developed symptoms consistent with Zika virus disease within 2 weeks of his return from an area with active Zika virus transmission. An updated list of these countries/territories is available at <http://www.cdc.gov/zika/geo/index.html>.

Symptomatic individuals including pregnant women should ideally be tested by **RT-PCR and/or serology within 7 days of illness onset**. A convalescent specimen may be indicated 2-3 weeks after the first specimen is collected. **Asymptomatic pregnant women** may be offered **serologic testing 2-12 weeks after exposure to Zika virus**. Testing should also be considered for pregnant women with a history of exposure to Zika virus if there is **ultrasound evidence of fetal microcephaly or cerebral calcifications**. Of note, interpretation of serologic results may be complex due to cross-reactivity with other flaviviruses (e.g., Dengue Fever, Yellow Fever virus, West Nile Virus).

Zika testing is only available at the CDC and the California Department of Public Health (CDPH). If collecting **serum** for molecular (RT-PCR) and/or serologic testing for Zika virus disease, providers should submit at least 2 mls of serum, but preferably 2 separate tubes with 2 mls each. Providers may also collect 3-5 mls of **urine** of **symptomatic** individuals.

Standard precautions should be implemented for suspect and confirmed cases of Zika virus disease. There is no specific **treatment** for Zika virus disease and there are **no vaccines** to prevent Zika infection. **Preventing mosquito bites** is the best way to avoid infection. Travelers should use insect repellents containing DEET, picaridin, IR3535, oil of lemon eucalyptus, or para-menthane-diol for long lasting protection. **Using insect repellent is safe and effective. Pregnant women and women who are breastfeeding can and should choose an EPA-registered insect repellent and use it according to the product label.** If using both sunscreen and insect repellent, the sunscreen should be applied before the repellent. When weather permits, travelers should wear long-sleeved shirts and long pants. They should use air conditioning or window/door screens when available to keep mosquitoes outside, or sleep under a mosquito bed net.

CDC recommends that **pregnant women postpone travel** to areas where Zika virus transmission is ongoing. Pregnant women who must travel to these areas should talk to their health care provider first and follow steps to avoid mosquito bites during the trip. Women trying to become pregnant should consult with their healthcare provider before traveling to these areas and follow steps to avoid mosquito bites.

Between December 1, 2015 and February 29, 2016, **78 requests** for Zika virus testing were submitted to the San Mateo County Communicable Diseases Control Program. Of these, **57 met the testing criteria**. The majority of test results are still pending, without any positive result to date.