



Communicable Diseases (CD) Quarterly Report

San Mateo County Health Department
CD Control Program

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Focus on: DENGUE

San Mateo County was notified of 3 cases of dengue in the 3rd quarter.

Dengue is the most prevalent mosquito-borne viral disease; it is estimated that over 100 million dengue virus infections occur each year throughout the world. Dengue accounts for approximately 10% of post-travel systemic febrile illnesses, second only to malaria. There are four closely related but serologically distinct dengue viruses, called DEN-1, DEN-2, DEN-3 and DEN-4, of the genus *Flavivirus*. The risk of severe disease is much higher in sequential rather than primary dengue infection.

Symptomatic dengue infections can present with a wide range of clinical manifestations, from mild febrile illness to a life-threatening shock syndrome. Classic dengue fever is an acute febrile illness accompanied by headache, pain and marked muscle and joint pains ("break-bone fever"). Dengue hemorrhagic fever (DHF) is the most serious manifestation of dengue virus infection and can be associated with circulatory failure and shock. Epidemiologic studies have demonstrated that the greatest risk factor for the development of DHF is secondary infection with a different dengue serotype from the original infecting virus. Thus, severe disease occurs primarily in patients who reside in hyperendemic areas where multiple serotypes circulate simultaneously.

Avoidance of exposure to infected *A. aegypti* mosquitoes is the primary approach in preventing dengue in travelers. These mosquitoes predominantly live in urban areas in and around houses. Bed netting is of little use since mosquitoes are most active during the daytime. Remaining in well-screened or air-conditioned buildings during the day can reduce the risk of exposure. When outside during the day, travelers should wear clothing that reduces the amount of exposed skin and use a mosquito repellent such as DEET.

Table 1. Selected Vaccine Preventable Diseases reported in San Mateo County Residents

Disease	2007		2006	
	3rd Qtr	YTD	3rd Qtr	YTD
Varicella (death/hospitalizations)	0	0	2	3
Hepatitis A	1	11	3	6
Measles	0	0	1	1
Mumps	0	0	0	1
Pertussis	2	11	10	42

Table 2. Outbreaks in San Mateo County

Disease	2007		2006	
	3rd Qtr	YTD	3rd Qtr	YTD
GI — ALL	4	22	5	16
Norovirus	2	19	4	14
Unspecified/Other	2	3	1	2
RESPIRATORY — ALL	0	3	0	1
Influenza (A/B)	0	1	0	0
Influenza A	0	1	0	1
Unspecified	0	1	0	0
Varicella	0	2	0	4

Table 3. Salmonella cases reported in San Mateo County Residents

Disease	2007		2006	
	3rd Qtr	YTD	3rd Qtr	YTD
TOTAL SALMONELLA	40	88	56	111
S. Enteritidis	1	5	14	34
S. Typhimurium	1	2	7	16
S. Newport	1	4	8	10
S. Heidelberg	1	2	4	6
S. Agona	0	0	1	6
Other	6	8	19	31
Unknown/Pending	30	67	3	8
Typhoid Fever (<i>S. typhi</i>)	2	6	2	5
Typhoid Carrier	2	2	0	0

Table 4. Shigella cases reported in San Mateo County Residents

Disease	2007		2006	
	3rd Qtr	YTD	3rd Qtr	YTD
TOTAL SHIGELLA	12	24	20	31
Shigella Group B	2	8	6	13
Shigella Group D	9	14	13	14
Shigella – Unknown	1	2	1	4

Table 5. Selected CD cases reported in San Mateo County Residents

Disease	2007		2006	
	3rd Qtr	YTD	3rd Qtr	YTD
Amebiasis	2	5	1	8
Brucellosis	0	0	0	2
Campylobacteriosis	59	153	54	136
Coccidioidomycosis	2	7	2	6
Cryptosporidiosis	4	7	7	10
Dengue	3	3	0	0
E.Coli 0157:H7	2	6	8	10
E.Coli 0157:H7 with HUS	0	0	0	1
E.Coli non-0157:H7, shiga toxin +	1	1	0	0
Giardia	22	57	48	55
H. Flu, Invasive Disease	2	2	0	0
Leptospirosis	1	1	0	0
Listeriosis	0	4	0	3
Malaria	1	4	2	3
Meningitis — Bacterial	0	1	1	2
Meningococcal Meningitis	0	0	0	1
Meningitis — Viral	1	8	3	8
Meningitis — Fungal	0	1	0	0
Meningitis — Unknown	1	1	0	0
MRSA	237	705	212	725
Non- cholera Vibrio	5	5	10	12
Yersiniosis	2	4	0	1

† Sources: Automated Vital Statistics System (AVSS)

Note: Morbidity is based on date of diagnosis. Totals for past quarters may change due to delays in reporting from labs and providers.

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