



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. 6 • Data to Dec 31, 2008
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Table 1. Selected CD cases reported in San Mateo County Residents

Disease	2008		2007	
	4th Qtr	YTD	4th Qtr	YTD
Botulism – Foodborne	1	1	0	0
Rat-Bite Fever	1	1	0	0
Dengue	1	5	0	2
H. Flu, Invasive Disease	1	1	0	2
Legionella	2	3	0	1
Listeriosis	1	5	0	5
Meningococcal Meningitis	0	2	0	0
Other Bacterial Meningitis	1	5	0	2
Meningitis - Viral	1	17	0	10
MRSA	159	1010	218	933
Typhoid Fever (<i>S. typhi</i>)	1	5	0	7

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

Disease	2008		2007	
	4th Qtr	YTD	4th Qtr	YTD
Campylobacteriosis	50	197	29	184
Cryptosporidium	3	16	1	8
E. Coli 0157: H7	2	14	3	10
Giardia	13	64	13	69
SALMONELLA (non-typhoid)	30	113	18	108
S. Enteritidis	4	21	5	14
S. Typhimurium	2	14	1	4
S. Paratyphi	1	6	0	0
S. Heidelberg	1	8	0	10
Other	22	62	12	80
Pending	0	2	0	0
Shigella	3	27	2	26
Vibrio (non-cholera)	1	5	1	6

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

Disease	2008		2007	
	4th Qtr	YTD	4th Qtr	YTD
Hepatitis B (acute)	2	8	2	9
Hepatitis B (chronic)	124	428	*	*
Pertussis	6	26	2	16
Rubella	1	1	0	0

* Incomplete data, not reported at this time

Table 4. Outbreaks in San Mateo County

Disease	2008		2007	
	4th Qtr	YTD	4th Qtr	YTD
Norovirus (confirmed)	4	11	3	13
Salmonella	1	1	0	0
Enterovirus	1	1	0	0
Respiratory (including flu)	2	6	0	3
Scabies	3	6	0	1

Focus on: Norovirus

Noroviruses, single-stranded, non-enveloped RNA viruses and part of the Calciviridae family, are classified into 5 genogroups, with groups I, II and IV affecting humans. Genogroups are further divided into genotypes and then strains. Noroviruses are the leading cause of viral gastroenteritis, with an estimated 23 million people affected yearly in the United States.

Illness due to norovirus is characterized by diarrhea, vomiting, abdominal pain, malaise and low-grade fever, which usually quickly resolve, although illness in the elderly, immunocompromised patients or those with cardiovascular illness can be less benign. Viral shedding can be prolonged.

Outbreaks due to norovirus appear to be increasing. Although multiple strains often circulate simultaneously, outbreaks are usually dominated by one strain, which can be identified and tracked with the use of PCR technology. The GII.4 strain in particular has been associated with outbreaks in closed institutions, such as hospitals and nursing homes, where transmission often occurs by person-to-person contact.

Transmission also occurs through food and water routes, as well as contact with contaminated surfaces/fomites. Half of all food-borne outbreaks in the United States are thought to be due to norovirus. Large outbreaks have implicated oysters, raspberries and water. Vomiting with airborne norovirus dispersion is also an important route of virus dissemination.

While norovirus is easy to spread, with 10-100 virions being enough to infect a healthy individual, it is more difficult to remove. Simple detergent cleaning is not sufficient to remove norovirus from surfaces. Surfaces should be wiped with a detergent to remove particulate debris, followed by application of a bleach solution as a disinfectant. Other disinfectants, such as quaternary ammonium compounds or alcohols are not as effective and alcohol-based cleansers are insufficient for hand disinfection. Hand washing, using liquid soap and water for 1 minute, rinsing for 20 seconds, and drying with disposable paper towels is recommended to eliminate noroviral hand contamination.

Interestingly, not everyone is susceptible to infection with norovirus. Some people will only acquire asymptomatic infection and some are absolutely resistant to norovirus infection. Host determinants of resistance to norovirus infection are complex but seem to involve histoblood group antigens, as well as blood group antigen status (O, A, B or AB). Those who do become infected with a particular strain are likely to be infected multiple times in their lifetime, as immunity is short-lived and infection with one strain does not necessarily induce cross-protective immunity to other strains.

For more information regarding norovirus, please go to <http://www.smhealth.org/norovirus> or <http://www.cdc.gov/ncidod/dvrd/revb/gastro/norovirus.htm>

Effective February 13, 2008, **severe *Staphylococcus aureus* infections in previously healthy persons resulting in death or admission to an intensive care unit** are reportable from healthcare providers to local health departments in California. A "previously healthy person" is a person who has not been hospitalized, or had surgery, dialysis, or residency in a long-term care facility in the past year and did not have an indwelling catheter or percutaneous medical device prior to the current illness. Infection with either **methicillin-sensitive *S. aureus* (MSSA)** or **methicillin-resistant *S. aureus* (MRSA)** is reportable if the patient meets case definition.

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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