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. 29 • Data to September 30, 2014

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Table 1. **Selected CD cases reported in San Mateo County**

Disease	2014		2013	
	3rd Qtr	YTD	3rd Qtr	YTD
Coccidioidomycosis	1	4	4	6
Listeriosis	0	1	1	3
Meningitis - Bacterial*$	1	3	0	1
Meningitis - Viral$	2	7	1	4
Meningococcal Disease	0	2	0	0
Paratyphoid Fever	0	1	0	1
Typhoid Fever	0	1	1	1

*Excluding meningococcal meningitis. $ Includes confirmed and probable cases

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

Disease	2014		2013	
	3rd Qtr	YTD	3rd Qtr	YTD
Amebiasis	2	6	4	5
Campylobacteriosis	49	151	69	167
Cryptosporidium	8	28	9	14
E. coli O157	3	8	6	7
Giardia	18	37	16	43
STEC w/ HUS	0	0	0	0
STEC w/o HUS	3	4	1	3
SALMONELLA (non-typhoid)	48	100	68	126
S. Enteritidis	5	17	4	19
S. Infantis	1	3	0	5
S. Typhimurium	1	8	7	13
Pending/Others	41	72	57	89
Shigellosis	9	21	6	8
Vibrio (non-cholera)	8	10	4	4

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

Disease	2014		2013	
	3rd Qtr	YTD	3rd Qtr	YTD
Hepatitis A	0	2	5	7
Hepatitis B (acute)	0	0	0	2
Influenza - ICU Hosp (0-64 yrs)	0	17	0	3
Influenza Death (0-64 yrs)	0	6	0	1
Measles	0	4	0	0
Pertussis*	48	109	33	85

Table 4. **Outbreaks in San Mateo County**

Disease	2014		2013	
	3rd Qtr	YTD	3rd Qtr	YTD
All Gastrointestinal*	4	19	3	24
Confirmed/Probable Norovirus	1	7	0	11
Respiratory*	4	19	0	19
Confirmed Influenza	3	8	0	16

*Includes confirmed, probable and suspect cases.
$ Includes confirmed and probable cases

Sources: California Reportable Disease Information Exchange (CalREDIE)
Notes: Morbidity is based on date of diagnosis. 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.
Authors: Moon Choi, Amie Dubois, Karey Shuhendler, and Catherine Sallenave

Focus on Ebola (Part 1)

Ebola is a single-stranded RNA virus and a member of the *Filoviridae* family. Because of its virulence and high infectivity, Ebola is classified as a Category A bioterrorism agent. The genus Ebola virus is further divided into five species: Zaire, Sudan, Ivory Coast, Bundibugyo, and Reston. The current epidemic in West Africa is due to the Zaire species.

Ebola was first recognized when two outbreaks occurred in Zaire and in Sudan in 1976. In addition to causing human infections, Ebola virus has also spread to wild nonhuman primates, apparently as a result of their contact with an unidentified reservoir host, possibly bats. While previous Ebola outbreaks occurred in Central Africa, an epidemic began in the West African nation of Guinea in late 2013 and was confirmed by the World Health Organization (WHO) in March 2014. The initial case was a two-year-old child who developed fever, vomiting, and black stools, without other evidence of hemorrhage. The outbreak subsequently spread to Liberia, Sierra Leone, Nigeria, Senegal, and Mali.

The magnitude of the **outbreak** has probably been underestimated. As of December 7, 2014, the cumulative number of probable, suspected, and laboratory-confirmed cases attributed to Ebola virus was 17,942, including 6388 deaths. Senegal and Nigeria have not reported any new cases since August 29 and September 5, respectively, and the WHO has declared that the outbreaks are over in these countries. Cases of Ebola virus disease related to the outbreak have also been reported in residents and healthcare workers who have been exposed to the virus in West Africa, and have then been treated in hospitals in the United States and Europe. The first travel-associated case of Ebola was reported in the United States at the end of September 2014. An individual who traveled from Liberia to Dallas, Texas first developed clinical findings consistent with Ebola about five days after arriving in the United States. The patient was asymptomatic prior to and during the flight. Two healthcare workers involved in his care subsequently developed Ebola.

Prior to the 2014 epidemic in West Africa, outbreaks of Ebola were typically controlled within a few weeks or months, probably because the outbreaks occurred in remote regions with low population density, and where residents rarely traveled far from home. However, the 2014 West African epidemic has shown that Ebola can spread rapidly and widely as a result of the extensive movement of infected individuals, the spread of the disease to densely populated urban areas, and the lack of adequate personal protective equipment (PPE) and medical isolation centers.

Person-to-person transmission occurs through direct contact with blood, body fluids, or skin of patients with Ebola, including those who have died from the infection. The ritual washing of Ebola victims at funerals has played a significant role in the spread of infection in past outbreaks, and has contributed to the current epidemic. Transmission is most likely to occur through direct contact of broken skin or unprotected mucous membranes with virus-containing body fluids from a symptomatic person. The most infectious body fluids are blood, feces, and vomit but infectious virus has also been detected in urine, semen, saliva, and breast milk. Ebola virus can also be spread through direct contact with the skin of a patient, although the risk of developing infection from this type of exposure is lower than from exposure to body fluids. The risk of Ebola transmission also depends upon the quantity of virus in the fluid. During the early phase of illness, the amount of virus in the blood is quite low, but levels then increase rapidly and are very high in severely ill patients. An epidemiologic study has shown that family members were at greatest risk of infection if they had physical contact with sick relatives, or their body fluids, during the later stages of illness, or helped to prepare a corpse for burial. Ebola virus may also be transmitted though contact with contaminated surfaces and objects. Human infection with Ebola virus can occur through contact with wild animals (e.g., hunting, butchering, and preparing meat from infected animals).

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).