Communicable Diseases (CD) Quarterly Report
2017 4th Quarter
San Mateo County Health System
CD Control Program

· Provider Reporting: 650.573.2346 (phone) 650.573.2919 (fax) · Issue No. 42 · Data to December 31, 2017

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Table 1. Selected Communicable Disease cases reported in San Mateo County (SMC) Residents

Disease	2017		2016	
	4th Qtr	YTD	4th Qtr	YTD
Chikungunya*	0	1	3	4
Coccidioidomycosis	8	18	0	2
Dengue*	0	4	0	12
Listeriosis	1	9	2	6
Malaria	2	3	0	2
Meningitis - Bacterial†‡	0	5	3	5
Meningitis - Fungal†§	0	0	0	2
Meningitis - Viral†	6	11	3	13
Meningitis, NOS†#	0	0	0	1
Meningococcal Disease*	0	2	0	2
Zika*	0	2	5	13

*Includes confirmed and probable cases †Includes confirmed, probable, and suspect cases
‡Excluding meningococcal meningitis §Excluding coccidioidomycosis #Not Otherwise Specified

Table 2. Selected Gastrointestinal Illnesses reported in SMC Residents

Disease	2017		2016	
	4th Qtr	YTD	4th Qtr	YTD
Amebiasis	1	7	1	5
Campylobacteriosis*	78	308	56	273
Cryptosporidiosis*	6	28	7	22
Shigellosis*	12	67	12	41
Vibriosis (non-cholera)*	1	3	2	4
Salmonellosis (non-typhoid)*	33	150	27	127
serotype Enteritidis	6	14	5	23
serotype I 4,[5],12:i:-	0	2	1	16
serotype Infantis	0	8	0	3
serotype Thompson	2	6	0	1
Pending/Other serotypes	25	120	21	84
E. coli O157 with HUS / without HUS†	0 / 1	0 / 18	0 / 1	2 / 6
Shiga Toxin Positive Feces with HUS / without HUS†	0 / 1	0 / 5	0 / 2	0 / 8
STEC with HUS / without HUS†	1 / 3	1 / 18	0 / 4	0 / 18

*Includes confirmed and probable cases †*E. coli* O157, STEC, and Shiga Toxin Positive Feces categories are mutually exclusive

Table 3. Selected Vaccine Preventable Diseases reported in SMC Residents

Disease	2017		2016	
	4th Qtr	YTD	4th Qtr	YTD
Hepatitis A	1	3	0	1
Influenza - ICU Hosp (0-64 yrs)	5	9	2	8
Influenza Death (0-64 yrs)	1	1	0	2
Measles	0	0	0	0
Mumps	0	3	0	1
Pertussis*	11	72	57	100

*Includes confirmed, probable and suspect cases

Sources: California Reportable Disease Information Exchange (CalREDIE), all data pulled March 22, 2018
Notes: Morbidity is based on the date the case was received by the CD Control Program; Salmonella serotypes are based on the date the incident was created in CalREDIE. Case definitions changed as of 1/1/2017 for several gastrointestinal illness conditions which may result in an artificial increase in 2017 case counts compared to 2016 case counts. 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.
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Focus on Pertussis

Pertussis, or "whooping cough", is an acute communicable disease caused by a small, gram-negative coccobacillus, *Bordetella pertussis*. The **initial catarrhal stage** has an insidious onset with an irritating cough that gradually becomes **paroxysmal**, usually within 1-2 weeks, and lasts for 1-2 months or longer. Paroxysms are characterized by spasms of severe coughing followed by a sudden deep inspiration, often resulting in a characteristic "whooping" noise. Post-tussive vomiting is common. During the **final convalescent stage**, paroxysms are less common and the cough gradually resolves over 2-3 weeks. Of note, illness may be milder in previously vaccinated individuals.

Very young infants often present differently. They may not have a noticeable cough or "whoop" but may have facial color changes (may turn blue, purple or red). They may gag, gasp or stop breathing and often have **leukocytosis** with an increased absolute lymphocyte count.

Pertussis is highly contagious. **Transmission** typically occurs when a susceptible person inhales aerosolized droplets from the respiratory tract of an infected person. Transmission via contact with fomites rarely occurs, if ever.

Complications of infection with *B. pertussis* include pneumonia, seizures, encephalopathy and death. The number of deaths in vaccinated populations is low. **Most deaths occur in infants under 6 months**, too young to have completed primary immunization. **An increasing proportion of cases is being reported in previously immunized individuals, suggesting waning immunity following vaccination with the acellular vaccine.**

The preferred methods for the laboratory diagnosis of pertussis are culture and polymerase chain reaction. Commercial serological tests and direct fluorescent antibody (DFA) testing are not recommended.

Antimicrobial treatment with azithromycin is recommended for all recently infected individuals, regardless of their age. TMP-SMX can be used as an alternative agent if needed in patients aged >2 months. **Communicability ends after 5 days of treatment.**

Antimicrobial prophylaxis with azithromycin is routinely given to individuals in close contact with cases of pertussis, regardless of their age or vaccination status. Such prophylaxis is usually initiated for close contacts in household, child care, hospital and selected school settings. Close contacts at high risk for severe disease (i.e., infants < 6 months of age, unimmunized infants/children, immunocompromised individuals and pregnant women) or close contacts who may transmit pertussis to high risk persons (i.e., healthcare workers) should also be prophylaxed.

Children should be vaccinated against pertussis with **DTaP**, beginning at 2 months of age. Adults need a tetanus/diphtheria booster every 10 years after completing the primary series. **All pregnant women should receive Tdap vaccine during every pregnancy** regardless of pertussis vaccination history, preferably at the first opportunity **between 27 and 36 weeks gestation** to maximize the maternal antibody response and passive antibody transfer to the infant. **For non-pregnant adults aged 18-64**, a 1-time dose of **Tdap** for protection from pertussis is currently recommended to replace the next **Td** vaccine. A minimum interval of 2 years is recommended from the last Td, although shorter intervals are acceptable, as in the case of a pertussis outbreak. **All persons in contact with infants** should be up-to-date for pertussis vaccine. Although only one dose of Tdap is currently recommended for non-pregnant adolescents and adults, individuals may choose to be revaccinated if it has been several years since receipt of Tdap.

Vaccine information can be found at http://www.cdc.gov/vaccines. For details regarding vaccination of adults with Tdap, please refer to http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5517a1.htm. Information regarding the prevention of pertussis among pregnant, postpartum women and their infants can be found at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5704a1.htm.

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://www.smchealth.org/communicablediseasereporting. 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 SMCCDControl@smcgov.org.