

Cryptosporidiosis Surveillance Project

First Quarterly Report

2014

The San Francisco Bay Area Cryptosporidiosis Surveillance Project (CSP)

CSP monitors human cryptosporidiosis in the San Francisco Bay Area counties served in part or completely by the San Francisco Public Utilities Commission: Alameda, San Francisco, San Mateo, and Santa Clara counties, and Tuolumne county, where the Hetch Hetchy Reservoir is located.

Surveillance Summary: First Quarter 2014:

During the first quarter of 2014, 23 cryptosporidiosis cases were reported. A higher number of cases were reported than in the same period in 2013. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified among cases.

Table 1: Number, Gender and Cumulative Incidence of Cryptosporidiosis Cases by County, January – March 2014

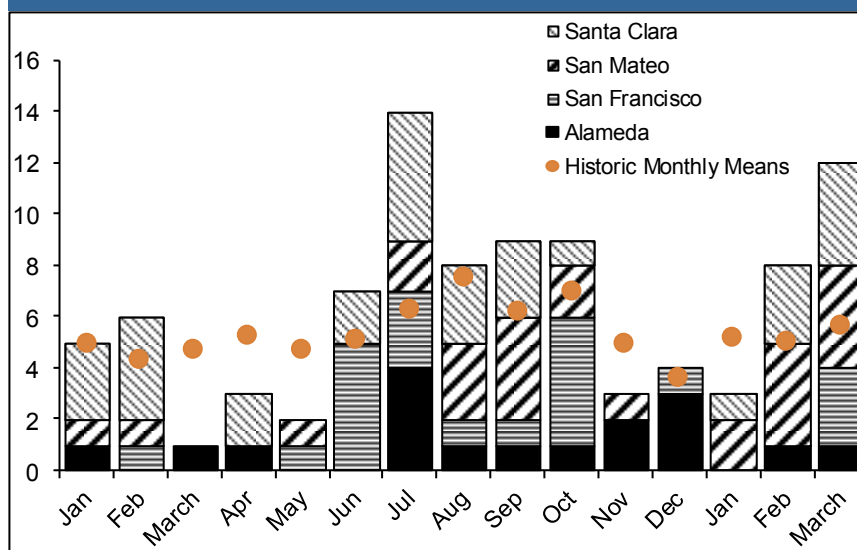
County	N	% Male	Cumulative Incidence per 100,000†
Alameda	2	50%	0.13
San Francisco	3	100%	0.36
San Mateo	10	40%	1.34
Santa Clara	8	50%	0.43
Tuolumne	0	NA	NA
Total	23	52%	0.45

† Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-1 population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2013 and 2014. Sacramento, California, May 2014.

Graphics and Tables:

- Table 1: Cryptosporidiosis case totals, gender ratio and cumulative incidence by county for January through March 2014.
- Figure 1: Monthly case totals by county for January 2013 through March 2014.
- Figure 2: Cryptosporidiosis case counts by county, age group, and sex for January through March 2014.

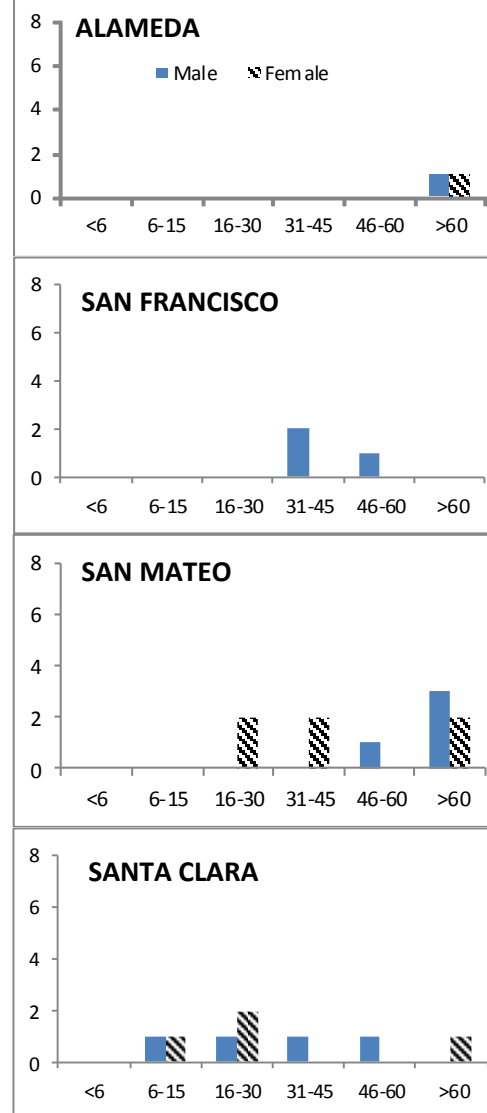
Figure 1: Cryptosporidiosis Cases by Month and County, January—March 2014



Points represent monthly mean case counts 2000-2005, 2007-2008, and 2010. Data from 2006 have been omitted due to a recreational water-related outbreak in August, September, and October, 2006. Data from 2009 have been omitted due to artificial increases that resulted from laboratory errors.

† Historical data obtained through the cooperation of the California Emerging Infections Program.

Figure 2: Case Counts by County, Age and Sex, January—March 2014



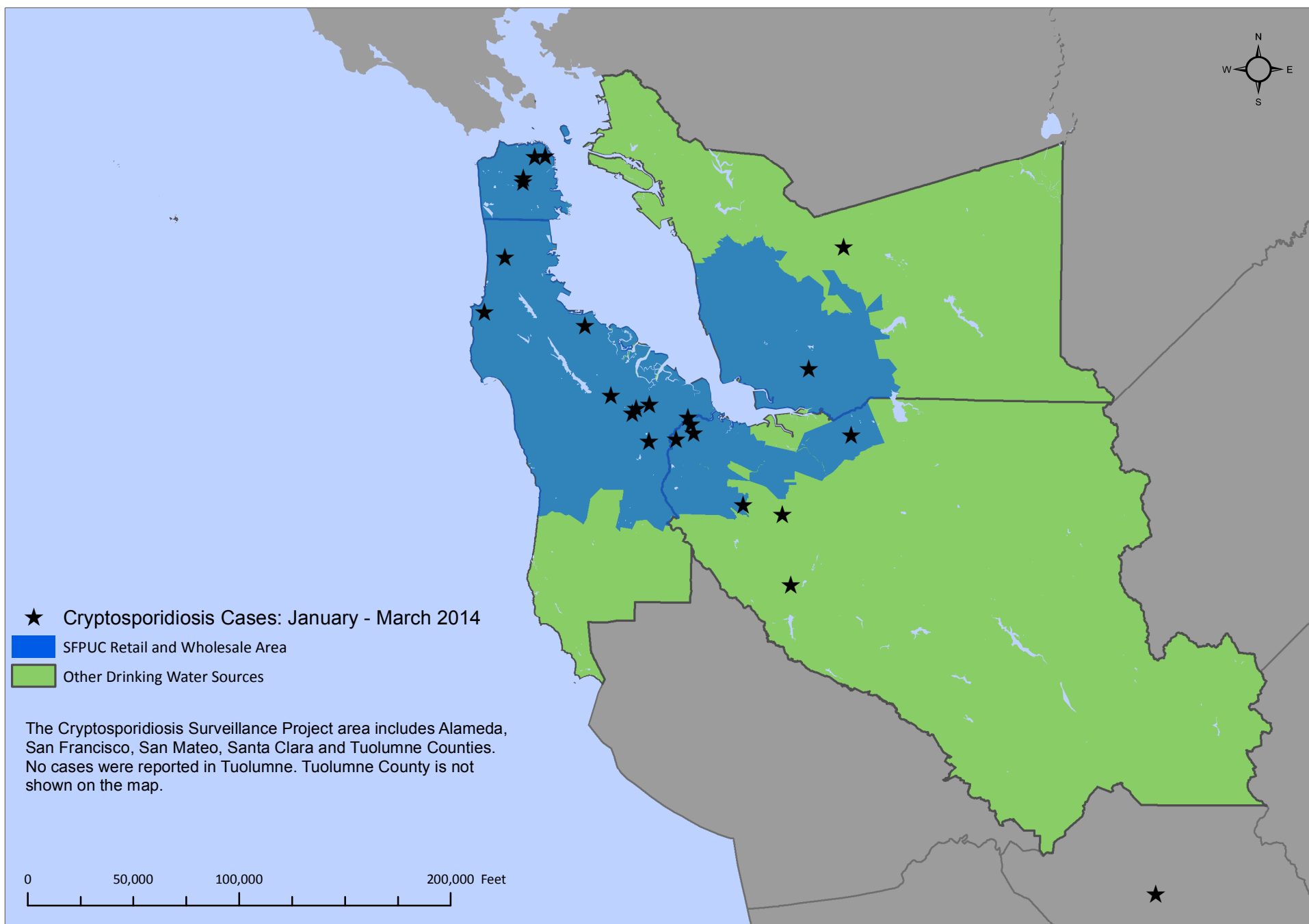
This report was created in May 2014 by the San Francisco Department of Public Health Environmental Health Section in partnership with the San Francisco Public Utilities Commission.

For more information, contact mina.mohammadi@sfdph.org or visit our website at <http://www.sfhealthequity.org/elements/water>

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The Bay Area Cryptosporidiosis Surveillance Project

Alameda, San Francisco, San Mateo, and Santa Clara Counties



The San Francisco Bay Area Cryptosporidiosis Surveillance Project (CSP)

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Surveillance Summary: Second Quarter 2014:

During the first and second quarter of 2014, 49 cryptosporidiosis cases were reported. A higher number of cases were reported than in the same period in 2013. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified among cases.

Table 1: Number, Gender and Cumulative Incidence of Cryptosporidiosis Cases by County, January – March 2014

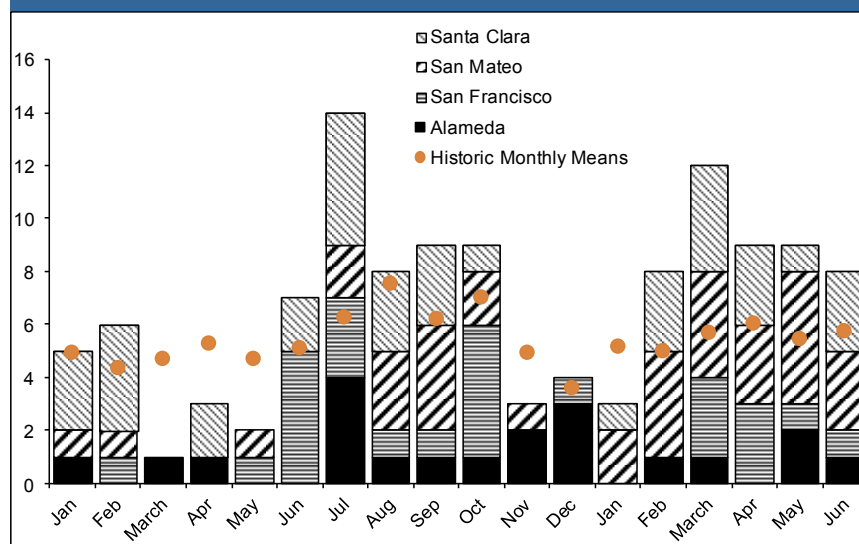
County	N	% Male	Cumulative Incidence per 100,000†
Alameda	5	60%	0.32
San Francisco	8	100%	0.96
San Mateo	21	52%	2.82
Santa Clara	15	40%	0.80
Tuolumne	0	NA	NA
Total	49	57%	0.97

† Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-1 population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2013 and 2014. Sacramento, California, May 2014.

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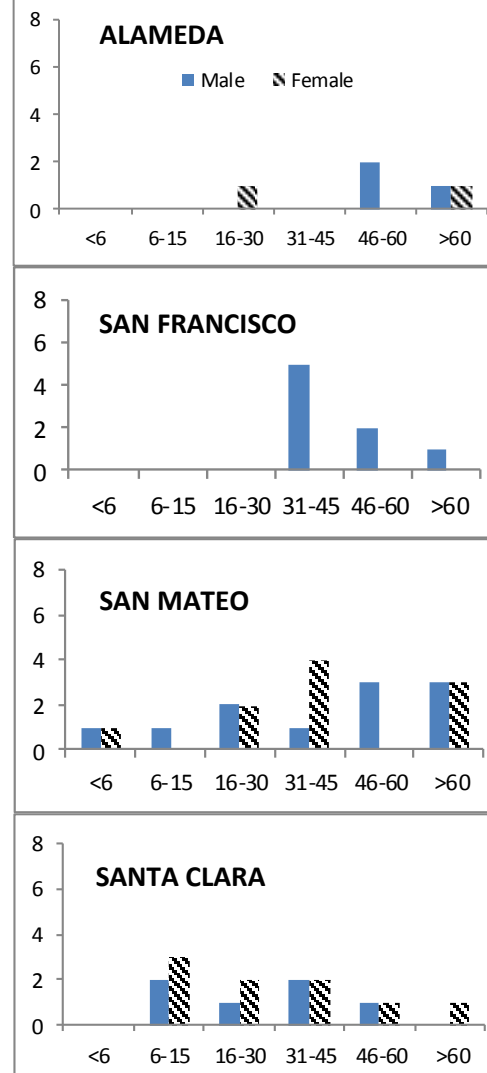
Figure 1: Cryptosporidiosis Cases by Month and County, January—June 2014



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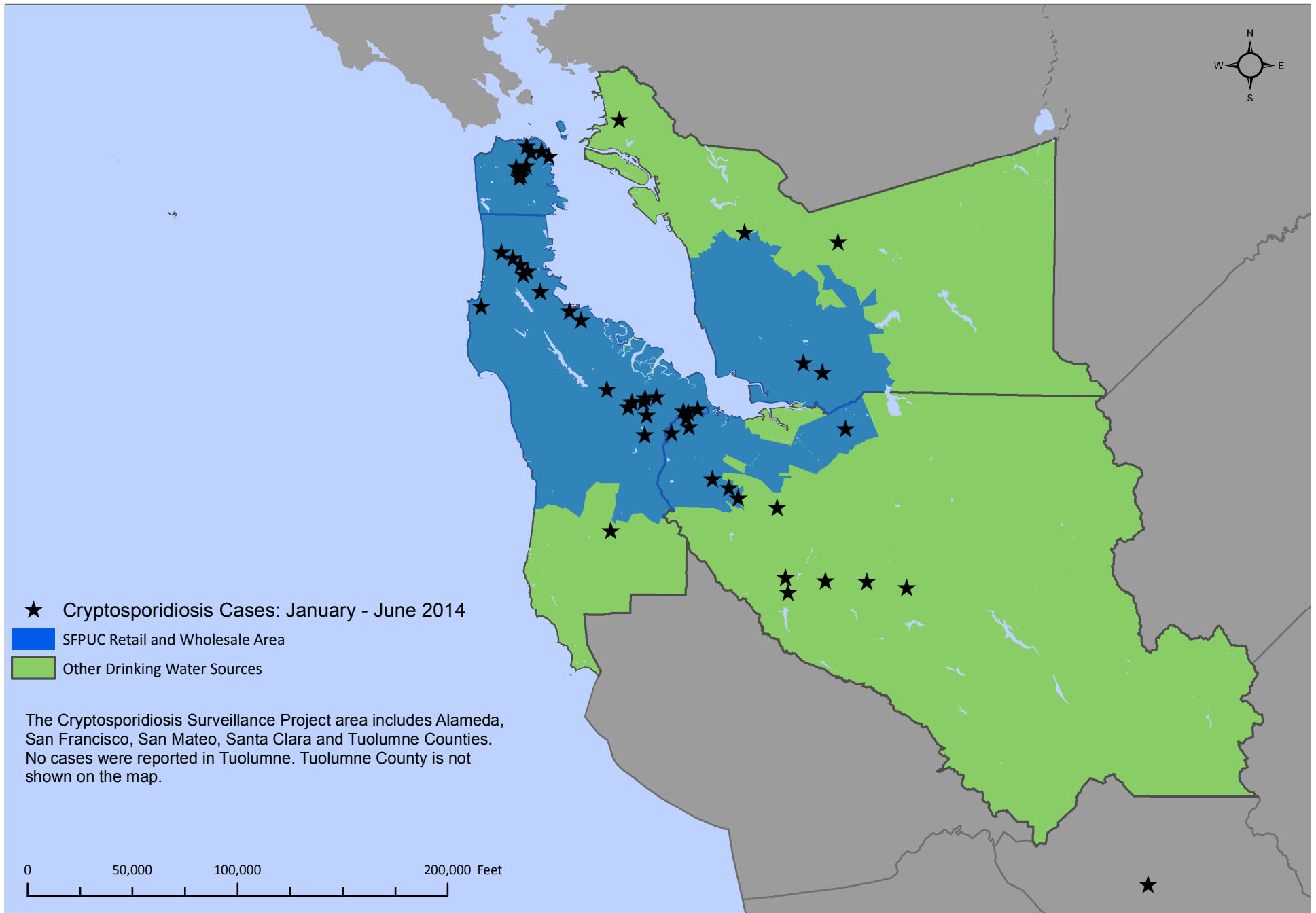
† Historical data obtained through the cooperation of the California Emerging Infections Program.

Figure 2: Case Counts by County, Age and Sex, January–June 2014



The Bay Area Cryptosporidiosis Surveillance Project

Alameda, San Francisco, San Mateo, and Santa Clara Counties



Cryptosporidiosis Surveillance Project

Third Quarterly Report

2014

The San Francisco Bay Area Cryptosporidiosis Surveillance Project (CSP)

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Surveillance Summary: Third Quarter 2014:

During the first, second and third quarters of 2014, 68 cryptosporidiosis cases were reported. A higher number of cases were reported than in the same period in 2013. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified among cases.

Table 1: Number, Gender and Cumulative Incidence of Cryptosporidiosis Cases by County, January–September 2013

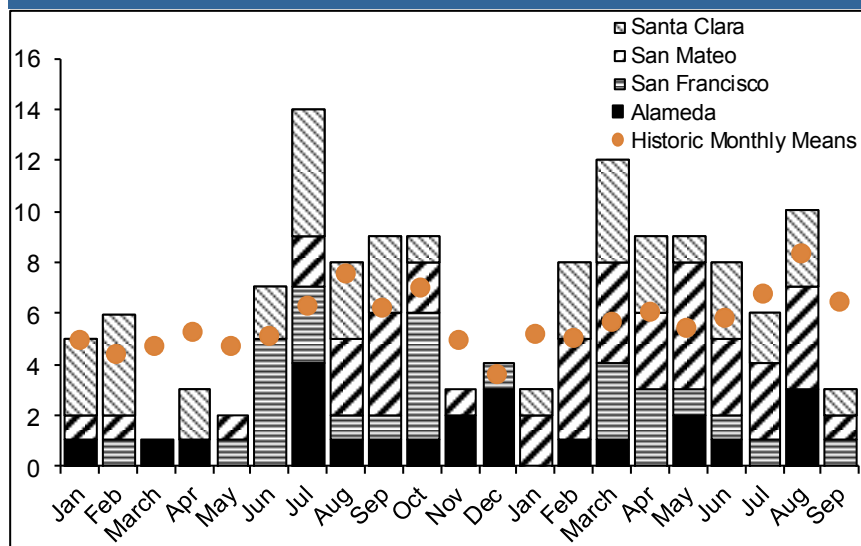
County	N	% Male	Cumulative Incidence per 100,000†
Alameda	8	63%	0.51
San Francisco	10	90%	1.20
San Mateo	29	41%	3.89
Santa Clara	21	38%	1.12
Tuolumne	0	NA	NA
Total	68	50%	1.34

† Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-1 population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2013 and 2014. Sacramento, California, May 2014.

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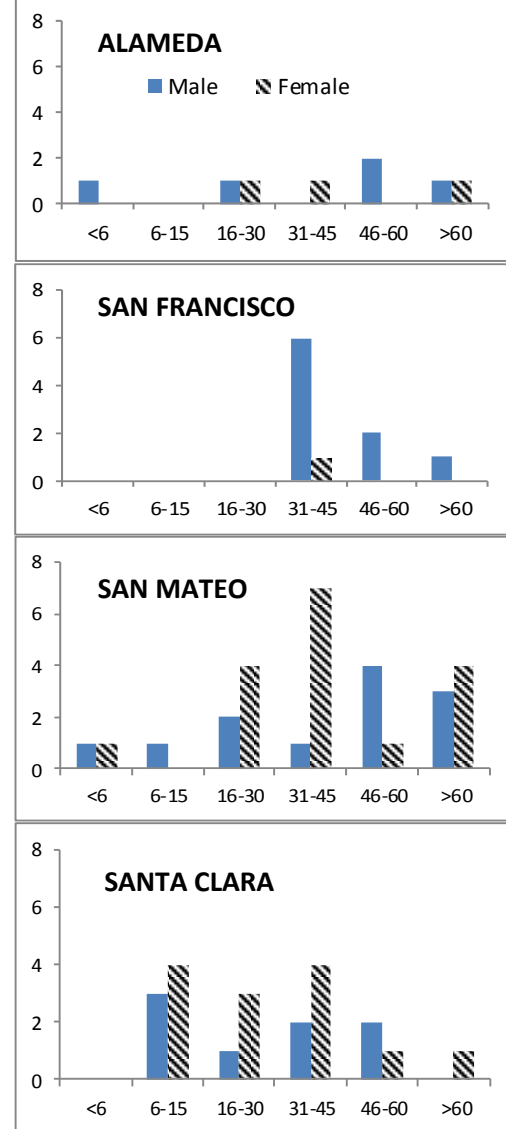
Figure 1: Cryptosporidiosis Cases by Month and County, January–September 2014



Points represent monthly mean case counts 2000–2005, 2007–2008, and 2010. Data from 2006 have been omitted due to a recreational water-related outbreak in August, September, and October, 2006. Data from 2009 have been omitted due to artificial increases that resulted from laboratory errors. There were no reported cases for the month of March 2013.

† Historical data obtained through the cooperation of the California Emerging Infections Program.

Figure 2: Case Counts by County, Age and Sex, January–September 2014



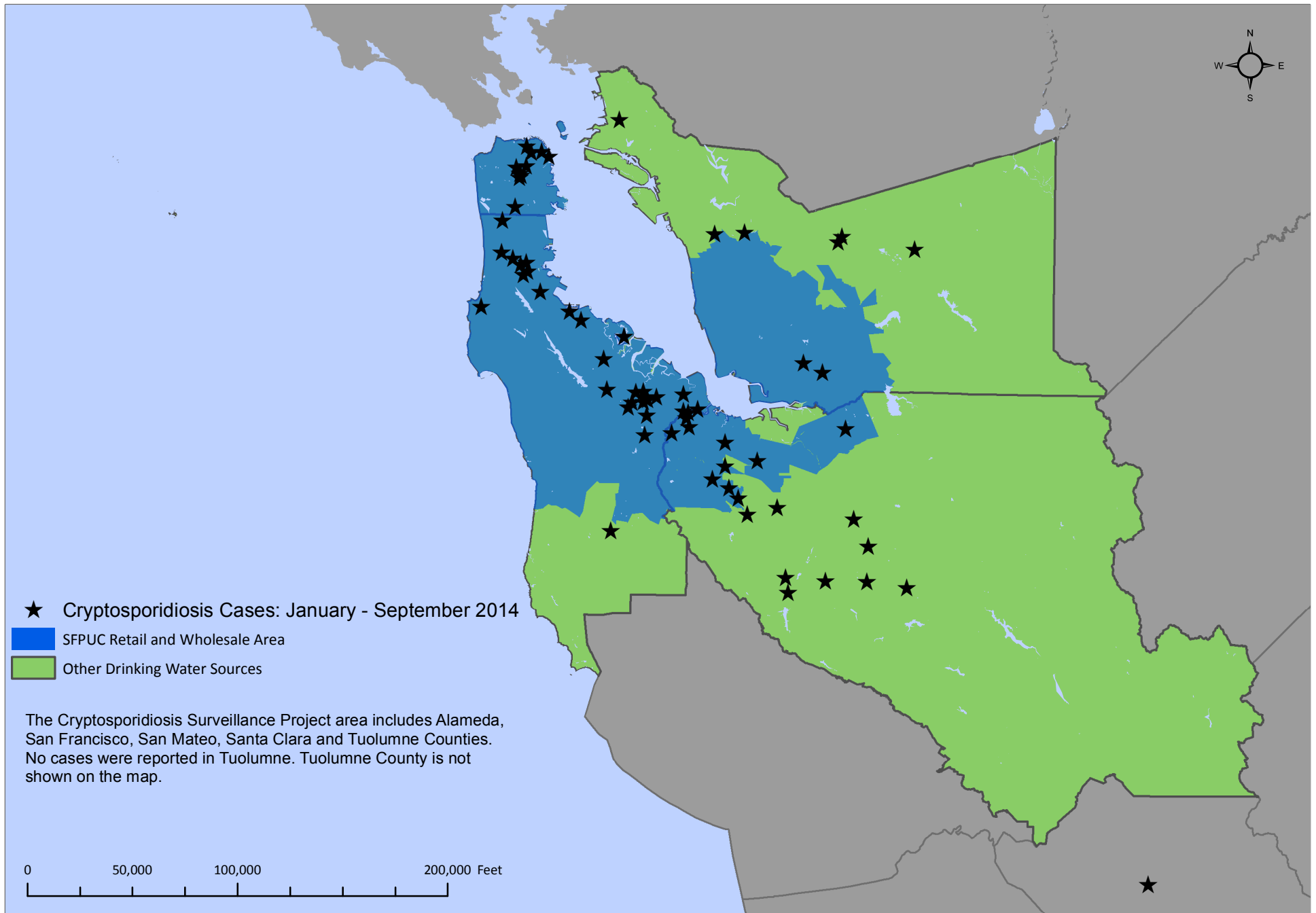
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Alameda, San Francisco, San Mateo, and Santa Clara Counties



Cryptosporidiosis Surveillance Project Annual Report 2014

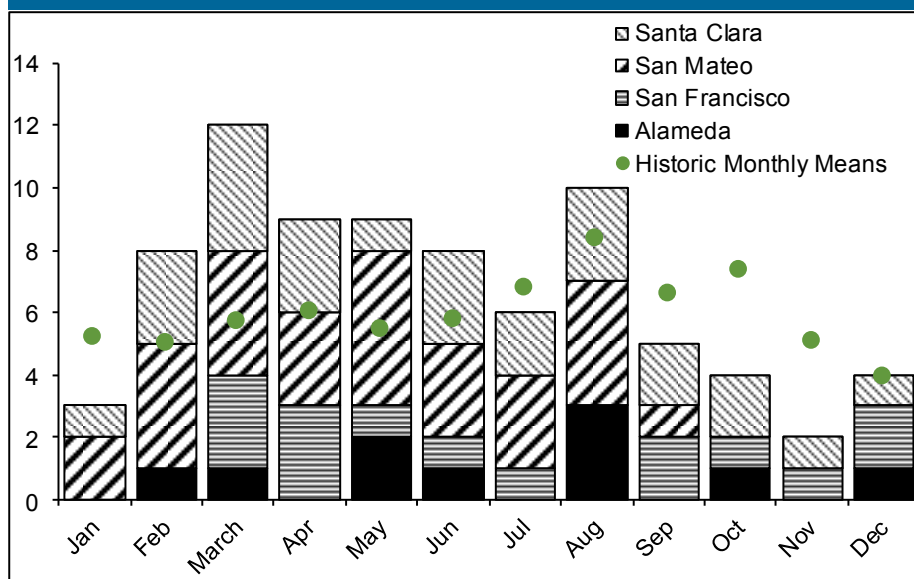
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Surveillance Summary

Fourth Quarter 2014: During the fourth quarter of 2014, 10 cases of cryptosporidiosis were reported in the project area. Fewer cases were reported in the fourth quarter than in the same period of the previous year. Figure 1 presents case counts by month and county.

2014 Surveillance: In 2014 a total of 80 cases were reported. No system-wide, drinking water associated or other cryptosporidiosis outbreaks were detected. Case counts and cumulative incidence (CI) varied by county ranging from 0 cases in Tuolumne County to cases or 3.89 cryptosporidiosis cases per 100,000 residents in San Mateo County (Table 1). Compared to 2013, the incidence of cryptosporidiosis decreased for San Francisco and Alameda counties and increased for Santa Clara and San Mateo counties. Table 1 lists case counts and cumulative incidence by county. Figure 2 presents case counts by county, age, and gender.

Figure 1: Cryptosporidiosis Cases by Month and County, January 2014 - December 2014



No cases reported in Tuolumne County.

Points represent monthly mean case counts 2000-2005, 2007-2008, and 2010-2011.

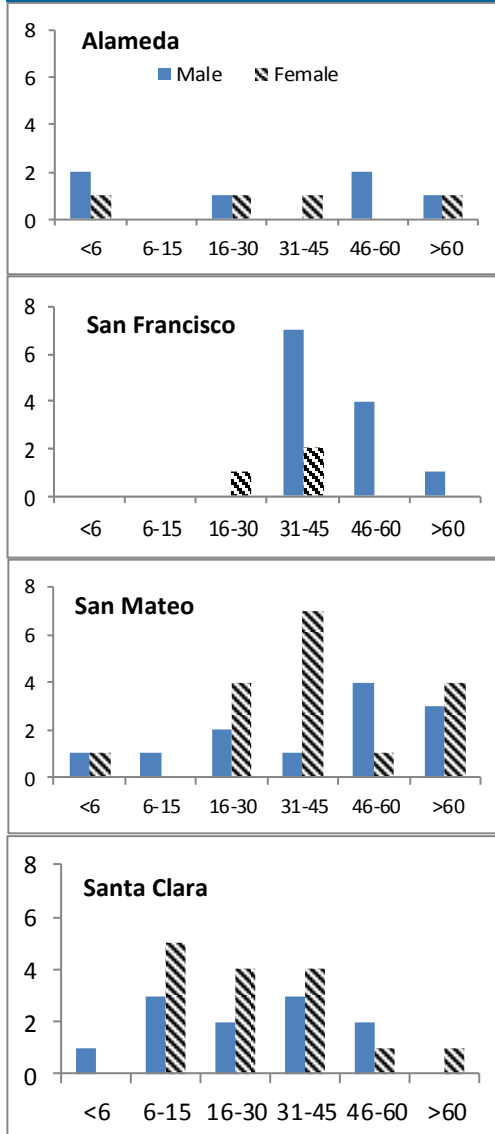
* Historical data obtained through the cooperation of the California Emerging Infections Program.

Table 1: Number of Cases and Cumulative Incidence of Cryptosporidiosis by County, 2014

County	N	Cumulative Incidence per 100,000 [‡]
Alameda	10	0.64
San Francisco	15	1.79
San Mateo	29	3.89
Santa Clara	26	1.39
Tuolumne	0	NA
Total	80	1.58

[‡] Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-1 population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2013 and 2014. Sacramento, California, May 2014.

Figure 2: Case Counts by County, Age and Sex, January–December 2014



Cryptosporidiosis Case Demographics and Risk Factors

In 2014, 33 (41%) of cryptosporidiosis cases were white and 41 (51%) were male. Data on race/ethnicity were not collected for 21 (26%) of cases. Table 2 presents case demographic data by county.

Known risk factors for acquiring cryptosporidiosis infection include contact with animals, day care attendance or work, health care work, travel to developing countries, consumption of untreated water, sexual contact with another case, and having a compromised immune system. Among cases with a specimen collected in 2014, 2 (3%) reported contact with a suspected case during the incubation period. Twenty-nine (36%) cases over age 15 reported sexual contact during the incubation period; eight adult male cases reported MSM activity. Eight (10%) cases reported compromised immune status. Twenty-seven (34%) cases reported contact with animals during the incubation period; four (5%) had contact with farm or non-domesticated animals. Twenty-eight (35%) cases reported foreign travel. Twenty-three (29%) cases reported any recreational water exposure. Table 3 presents selected risk factors for cryptosporidiosis infection by county.

Table 2: Cryptosporidiosis Case Demographics by County, 2014

	N	(%) by County
Alameda		
Male	6	(60%)
White	5	(50%)
Black	1	(10%)
Asian	1	(10%)
Hispanic	3	(30%)
San Francisco		
Male	12	(80%)
White	8	(53%)
Black	1	(7%)
Asian	1	(7%)
Unknown/Missing	5	(33%)
San Mateo		
Male	12	(41%)
White	12	(41%)
Black	2	(7%)
Asian/Pacific	1	(3%)
Hispanic	5	(17%)
Pacific Islander	1	(3%)
Unknown/Missing	8	(28%)
Santa Clara		
Male	11	(42%)
White	8	(31%)
Black	1	(4%)
Asian	5	(19%)
Hispanic	4	(15%)
Unknown/Missing	8	(31%)

Table 3: Percentage of Cases by County with Known Risk Factors During the Incubation Period, 2014

Risk Factor	County	(%)
Contact with Suspect Case	San Francisco	(7%)
	Santa Mateo	(3%)
Daycare	Alameda	(10%)
	San Mateo	(10%)
	Santa Clara	(4%)
Sexual Activity*	Alameda	(30%)
	San Francisco	(53%)
	San Mateo	(41%)
	Santa Clara	(23%)
MSM**	San Francisco	(27%)
	San Mateo	(7%)
	Santa Clara	(8%)
Contact with Farm or Non-Domesticated Animals	Alameda	(10%)
	Santa Mateo	(7%)
	Santa Clara	(4%)
Immune Suppression	Alameda	(10%)
	San Francisco	(20%)
	San Mateo	(7%)
	Santa Clara	(8%)
Foreign Travel	Alameda	(40%)
	San Francisco	(27%)
	San Mateo	(38%)
	Santa Clara	(35%)
Recreational Water Contact ***	Alameda	(40%)
	San Francisco	(40%)
	San Mateo	(21%)
	Santa Clara	(27%)

* Denominator includes cases over 15 years

** Denominator includes male cases over 15 years

***Includes treated and untreated recreational water exposure

Cryptosporidiosis Surveillance

Timeliness

The Cryptosporidiosis Surveillance Project receives case reports through cooperation with clinical diagnostic laboratories, county health departments, and the California Emerging Infections Program.

In 2014, CSP received case notification of positive *Cryptosporidium* laboratory results for 74% of the 80 cases within 7 days of specimen collection. This figure does not adjust for weekends, holidays or time required for specimen processing. According to Title 17 of the California Code of Regulations, *Cryptosporidium* infections are required to be reported to county health departments within 1 day of identification. Table 5 presents county-specific cryptosporidiosis case reporting characteristics.

CSP completed case interviews for 70% of cases in 2014. Interviews were completed within one business day of notification for 50% of all interviewed cases.

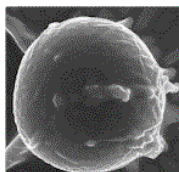


Table 4: Median Days between Specimen Collection and Report to CSP, 2014

	N	Median	Min	Max
2014	80	5	1	118
Quarter				
Quarter 1	23	6	1	56
Quarter 2	26	6	1	19
Quarter 3	21	4	1	118
Quarter 4	10	5	1	15
Informant				
California Emerging Infections Program	21	7	4	118
Clinical Diagnostic Laboratory	14	3	1	19
County Health Department	42	5	1	26
County				
Alameda	10	6	3	15
San Francisco	15	7	1	118
San Mateo	29	4	1	28
Santa Clara	26	5	1	11

Table 5: Median Days Between Specimen Collection and Report to CSP by County, Informant and Quarter, 2014

County	Informant/Quarter	N	Median	Min	Max
Alameda	California Emerging Infections Program	6	6	5	15
	Alameda County Public Health Department	4	6	3	11
	Quarter 1	2	8	6	10
	Quarter 2	3	6	6	7
	Quarter 3	3	5	3	11
	Quarter 4	2	10	5	15
San Francisco	California Emerging Infections Program	6	9	7	118
	Clinical Diagnostic Laboratory	6	4	1	19
	Quarter 1	3	11	7	56
	Quarter 2	5	7	1	19
	Quarter 3	3	7	1	118
	Quarter 4	4	4	2	4
San Mateo	California Emerging Infections Program	6	7	4	28
	Clinical Diagnostic Laboratory	7	3	1	5
	San Mateo County Health Services Agency	15	4	1	26
	Quarter 1	10	10	1	26
	Quarter 2	11	4	1	15
	Quarter 3	8	4	1	28
	Quarter 4	0	-	-	-
Santa Clara	California Emerging Infections Program	3	6	5	8
	Clinical Diagnostic Laboratory	1	2	2	2
	Santa Clara County Public Health Department	22	5	1	11
	Quarter 1	8	5	1	8
	Quarter 2	7	6	4	8
	Quarter 3	7	3	2	6
	Quarter 4	4	8	4	11

This report was created in March 2015 by the San Francisco Department of Public Health Environmental Health Branch in partnership with the San Francisco Public Utilities Commission.

For more information, contact mina.mohammadi@sfdph.org or visit our website at :

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Surveillance Summary: First Quarter 2015:

During the first quarter of 2015, 32 cryptosporidiosis cases were reported. This is a higher number of cases than reported in the same period in 2014. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified among cases.

Table 1: Number, Gender and Cumulative Incidence of Cryptosporidiosis Cases by County, January–March 2015

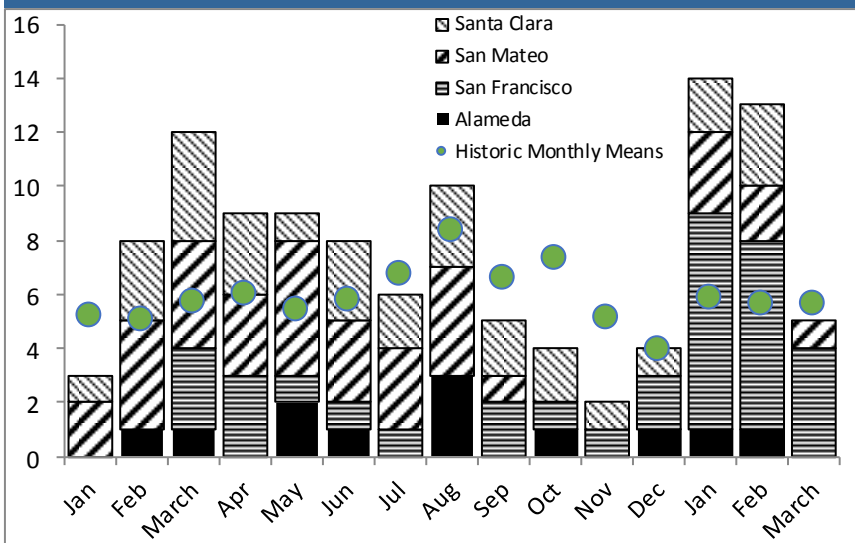
County	N	% Male	Cumulative Incidence per 100,000 [‡]
Alameda	2	50%	0.13
San Francisco	19	79%	2.27
San Mateo	6	67%	0.80
Santa Clara	5	60%	0.27
Tuolumne	0	NA	NA
Total	32	72%	0.63

[‡] Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-2. California Population Estimates and component of change by year—July 1, 2010—2014. Sacramento, California, December 2014.

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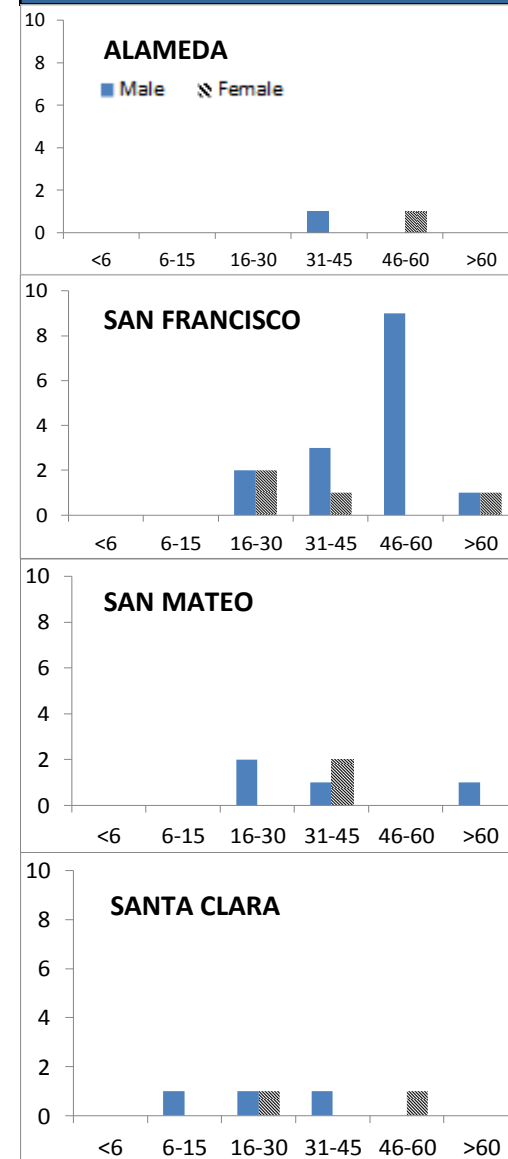
Figure 1: Cryptosporidiosis Cases by Month and County, January–March 2015



Points represent monthly mean case counts 2000–2005, 2007–2008, and 2010. Data from 2006 have been omitted due to a recreational water-related outbreak in August, September, and October, 2006. Data from 2009 have been omitted due to artificial increases that resulted from laboratory errors. There were no reported cases for the month of March 2013.

[†] Historical data obtained through the cooperation of the California Emerging Infections Program.

Figure 2: Case Counts by County, Age and Sex, January–March 2015



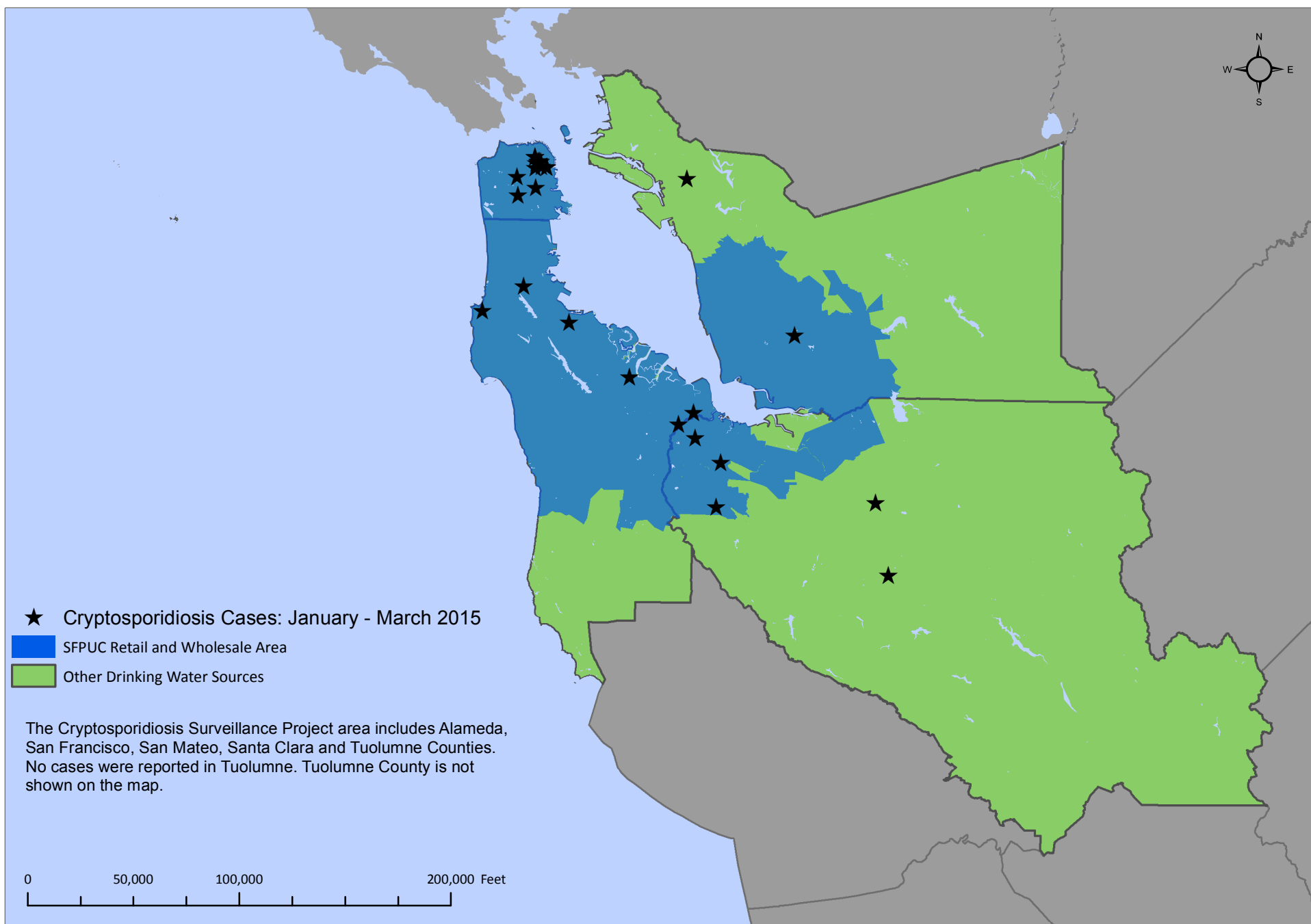
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The Bay Area Cryptosporidiosis Surveillance Project

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Cryptosporidiosis Surveillance Project

Second Quarterly Report

2015

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Surveillance Summary: Second Quarter 2015:

During the first and second quarter of 2015, 65 cryptosporidiosis cases were reported. A higher number of cases were reported than in the same period in 2014 specifically for San Francisco county. More than half of the cases (58%) were due to an increase in San Francisco for cases that were mainly homeless or marginally housed, and were immunocompromised. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified among cases.

Table 1: Number, Gender and Cumulative Incidence of Cryptosporidiosis Cases by County, January–June 2015

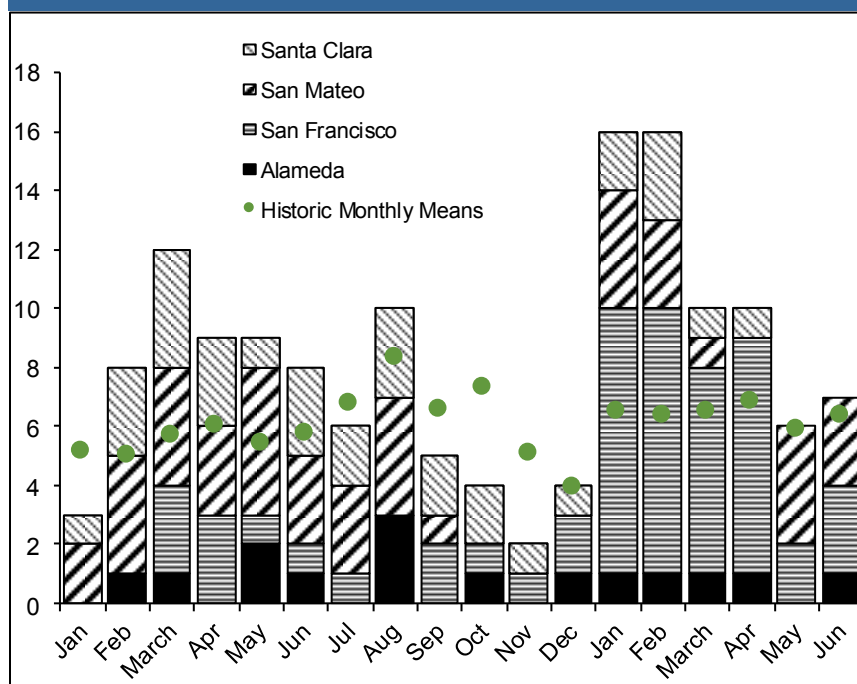
County	N	% Male	Cumulative Incidence per 100,000 [‡]
Alameda	5	80%	0.31
San Francisco	38	76%	4.49
San Mateo	15	67%	1.99
Santa Clara	7	71%	0.37
Tuolumne	0	NA	NA
Total	65	74%	1.27

[‡] Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-1 population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2014 and 2015. Sacramento, California, May 2015.

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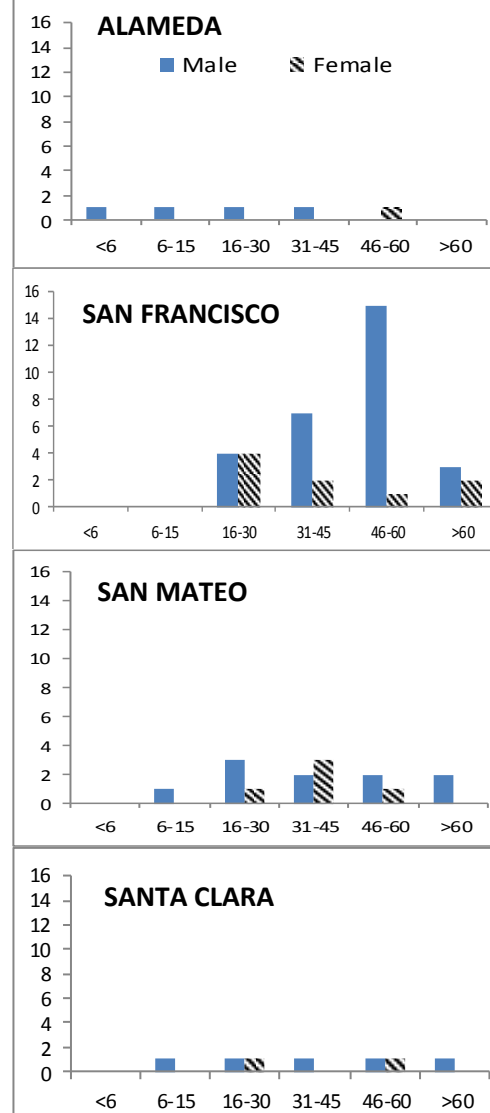
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Figure 2: Case Counts by County, Age and Sex, January–June 2015



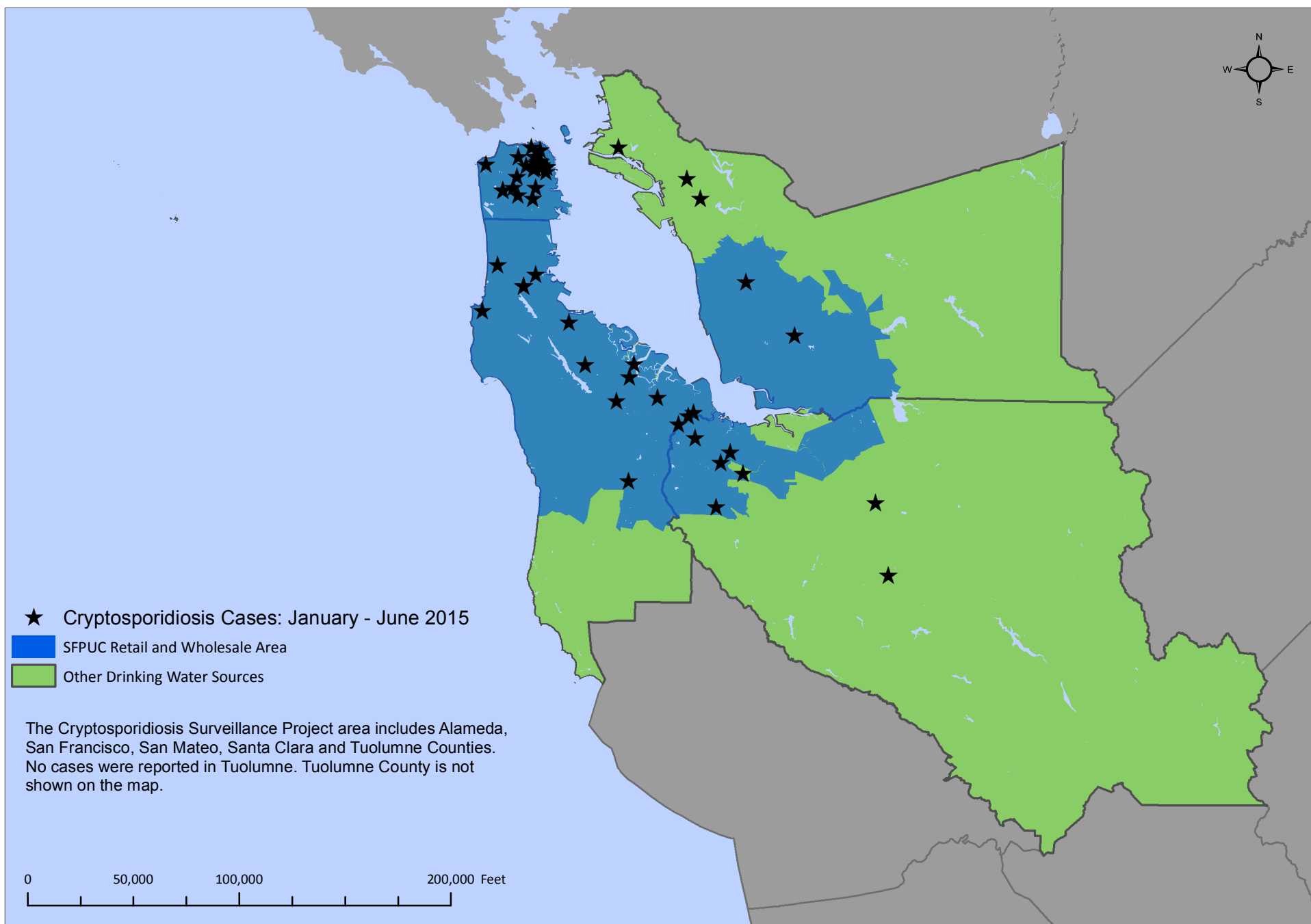
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Surveillance Summary: Third Quarter 2015:

During the first, second and third quarters of 2015, 92 cryptosporidiosis cases were reported. A higher number of cases were reported than in the same period in 2014 specifically for San Francisco county. Almost half of the cases (47%) were due to an increase in San Francisco for cases that were mainly homeless or marginally housed, and were immunocompromised. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified among cases.

Table 1: Number, Gender and Cumulative Incidence of Cryptosporidiosis Cases by County, January–September 2015

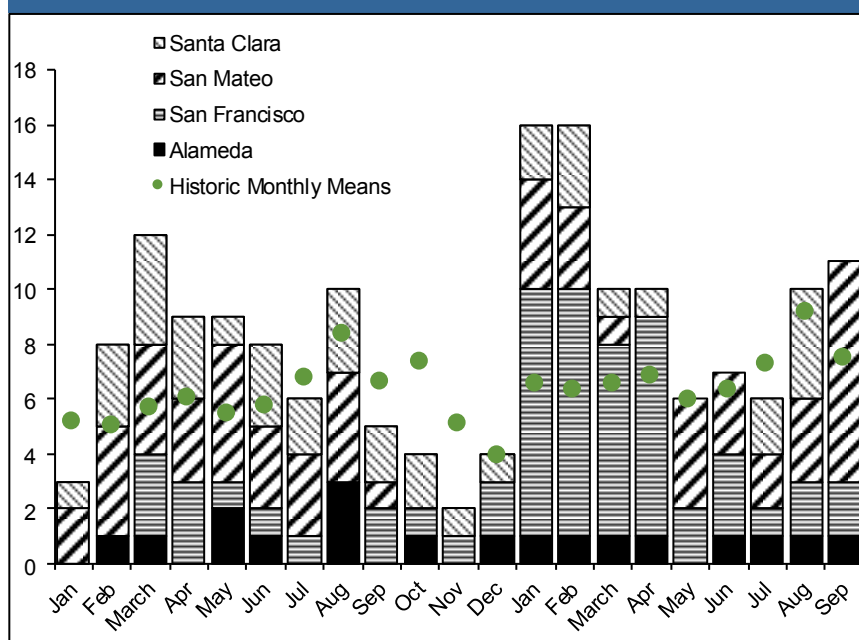
County	N	% Male	Cumulative Incidence per 100,000†
Alameda	8	63%	0.50
San Francisco	43	75%	5.09
San Mateo	28	64%	3.72
Santa Clara	13	77%	6.88
Tuolumne	0	NA	NA
Total	92	71%	1.79

† Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-1 population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2014 and 2015. Sacramento, California, May 2015.

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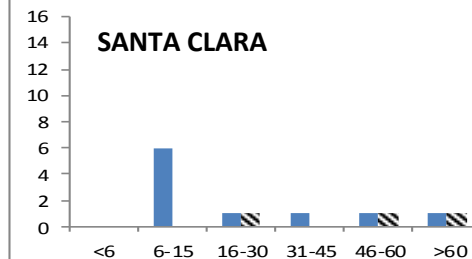
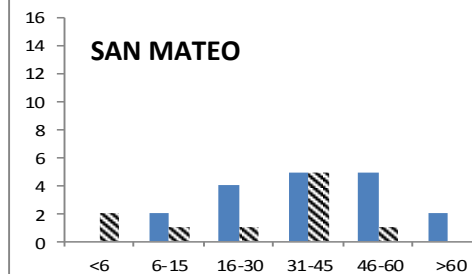
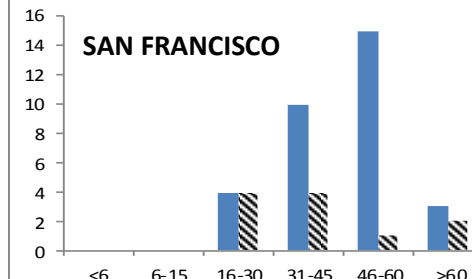
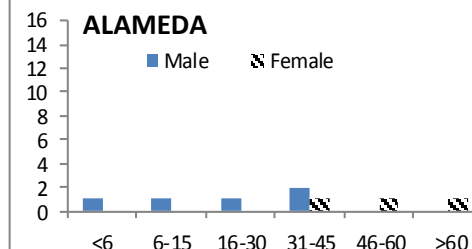
Figure 1: Cryptosporidiosis Cases by Month and County, January–September 2015



Points represent monthly mean case counts 2000-2005, 2007-2008, and 2010. Data from 2006 have been omitted due to a recreational water-related outbreak in August, September, and October, 2006. Data from 2009 have been omitted due to artificial increases that resulted from laboratory errors. There were no reported cases for the month of March 2013.

† Historical data obtained through the cooperation of the California Emerging Infections Program.

Figure 2: Case Counts by County, Age and Sex, January–September 2015



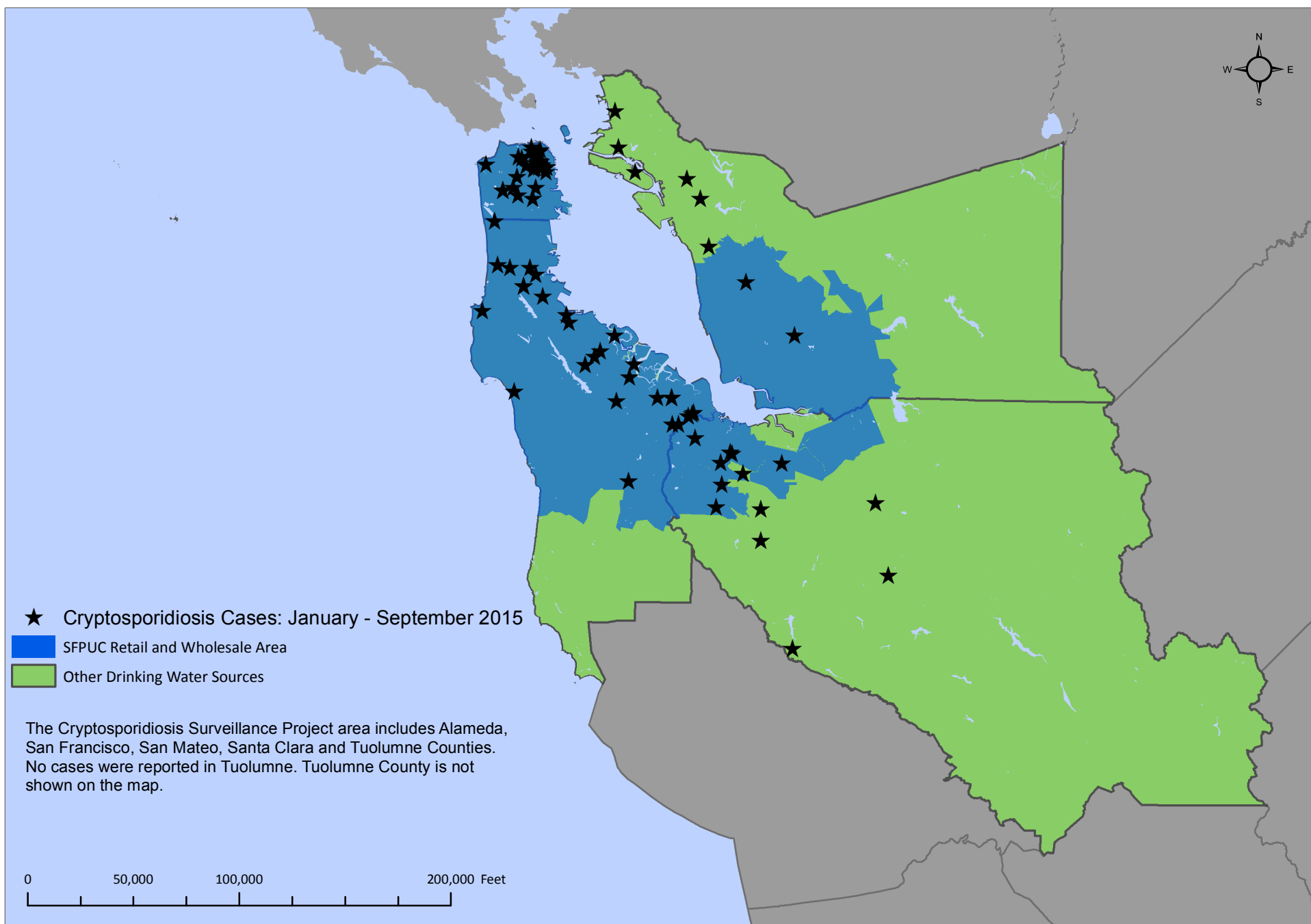
This report was created in October 2015 by the San Francisco Department of Public Health Environmental Health Section in partnership with the San Francisco Public Utilities Commission.

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The Bay Area Cryptosporidiosis Surveillance Project

Alameda, San Francisco, San Mateo, and Santa Clara Counties



Cryptosporidiosis Surveillance Project Annual Report 2015

The Bay Area Cryptosporidiosis Surveillance Project (CSP) monitors human cryptosporidiosis in Bay Area Counties served by the San Francisco Public Utilities Commission: Alameda, San Francisco, San Mateo, and Santa Clara, and Tuolumne County, where the Hetch Hetchy Reservoir is located.

Surveillance Summary

Fourth Quarter 2015: During the fourth quarter of 2015, 23 cases of cryptosporidiosis were reported in the project area. More cases were reported in the fourth quarter than in the same period of the previous year. Figure 1 presents case counts by month and county.

2015 Surveillance: In 2015 a total of 116 cases were reported. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified. Case counts and cumulative incidence (CI) varied by county ranging from 0 cases in Tuolumne County to cases or 5.44 cryptosporidiosis cases per 100,000 residents in San Mateo and San Francisco counties (Table 1). Compared to 2014, the incidence of cryptosporidiosis decreased for Santa Clara and Alameda counties and increased for San Francisco and San Mateo counties. Table 1 lists case counts and cumulative incidence by county. Figure 2 presents case counts by county, age, and gender.

Table 1: Number of Cases and Cumulative Incidence of Cryptosporidiosis by County, 2015

County	N	Cumulative Incidence per 100,000 [‡]
Alameda	10	0.63
San Francisco	46	5.44
San Mateo	41	5.44
Santa Clara	19	1.01
Tuolumne	0	NA
Total	116	2.26

[‡] Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-1 population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2014 and 2015. Sacramento, California, May 2015.

Figure 2: Case Counts by County, Age and Sex, January–December 2015

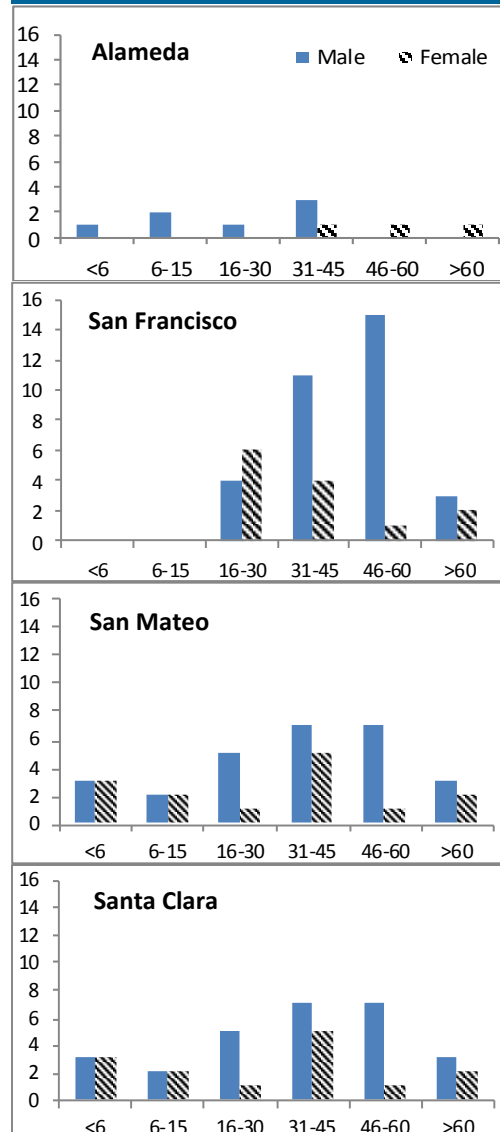
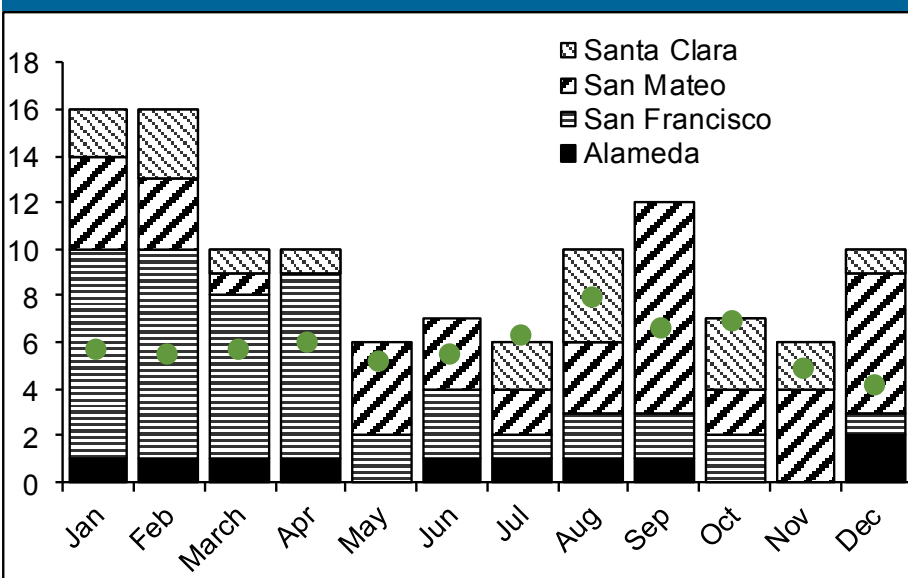


Figure 1: Cryptosporidiosis Cases by Month and County, January 2015 - December 2015



No cases reported in Tuolumne County.

Points represent monthly mean case counts 2000-2005, 2007-2008, and 2010-2014.

[†] Historical data obtained through the cooperation of the California Emerging Infections Program.

Cryptosporidiosis Case Demographics and Risk Factors

In 2015, 44 (38%) of cryptosporidiosis cases were white and 79 (68%) were male. Data on race/ethnicity were not collected for 32 (28%) of cases. Table 2 presents case demographic data by county.

Known risk factors for acquiring cryptosporidiosis infection include contact with animals, day care attendance or work, health care work, travel to developing countries, consumption of untreated water, sexual contact with another case, and having a compromised immune system. Among cases with a specimen collected in 2015, 12 (10%) reported contact with a suspected case during the incubation period. Twenty-five (26%) cases over age 15 reported sexual contact during the incubation period; thirteen (14%) adult male cases reported MSM activity. Thirty-seven (32%) cases reported compromised immune status. Thirty-eight (33%) cases reported contact with animals during the incubation period; six (5%) had contact with farm or non-domesticated animals. Twenty-seven (23%) cases reported foreign travel. Thirty (26%) cases reported any recreational water exposure. Table 3 presents selected risk factors for cryptosporidiosis infection by county.

Table 2: Cryptosporidiosis Case Demographics by County, 2015

	N	(%) by County
Alameda		
Male	7	(70%)
White	2	(20%)
Black	1	(10%)
Asian	1	(10%)
Hispanic	1	(10%)
Unknown/Missing	5	(50%)
San Francisco		
Male	33	(72%)
White	17	(37%)
Black	3	(7%)
Asian	3	(7%)
Hispanic	7	(15%)
Unknown/Missing	16	(35%)
San Mateo		
Male	27	(66%)
White	18	(44%)
Black	1	(2%)
Asian	7	(17%)
Hispanic	9	(22%)
Unknown/Missing	6	(15%)
Santa Clara		
Male	12	(63%)
White	7	(37%)
Asian	1	(5%)
Hispanic	4	(21%)
Multiple/Other	2	(11%)
Unknown/Missing	5	(26%)

Table 3: Percentage of Cases by County with Known Risk Factors During the Incubation Period, 2015

Risk Factor	County	(%)
Contact with Suspect Case	Alameda	(10%)
	San Francisco	(9%)
	San Mateo	(15%)
	Santa Clara	(5%)
Daycare	Alameda	(10%)
	San Mateo	(10%)
Sexual Activity*	Alameda	(20%)
	San Francisco	(30%)
	San Mateo	(17%)
	Santa Clara	(11%)
MSM**	Alameda	(10%)
	San Francisco	(15%)
	San Mateo	(10%)
	Santa Clara	(5%)
Contact with Farm or Non-Domesticated Animals	San Francisco	(4%)
	San Mateo	(7%)
	Santa Clara	(5%)
Immune Suppression	Alameda	(10%)
	San Francisco	(61%)
	San Mateo	(20%)
Foreign Travel	Alameda	(10%)
	San Francisco	(13%)
	San Mateo	(37%)
	Santa Clara	(26%)
Recreational Water Contact ***	Alameda	(20%)
	San Francisco	(17%)
	San Mateo	(32%)
	Santa Clara	(37%)

* Denominator includes cases over 15 years

** Denominator includes male cases over 15 years

***Includes treated and untreated recreational water exposure

Cryptosporidiosis Surveillance Timeliness

The Cryptosporidiosis Surveillance Project receives case reports through cooperation with clinical diagnostic laboratories, county health departments, and the California Emerging Infections Program.

In 2015, CSP received case notification of positive *Cryptosporidium* laboratory results for 69% of the 116 cases within 7 days of specimen collection. This figure does not adjust for weekends, holidays or time required for specimen processing. According to Title 17 of the California Code of Regulations, *Cryptosporidium* infections are required to be reported to county health departments within 1 day of identification. Table 5 presents county-specific cryptosporidiosis case reporting characteristics.

CSP completed case interviews for 63% of cases in 2015. Interviews were completed within one business day of notification for 44% of all interviewed cases.

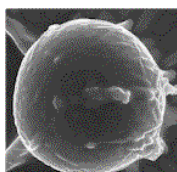


Table 4: Median Days between Specimen Collection and Report to CSP, 2015

	N	Median	Min	Max
2015	116	4	1	86
Quarter				
Quarter 1	42	9	1	86
Quarter 2	23	4	1	38
Quarter 3	28	2	1	25
Quarter 4	23	1	1	9
Informant				
California Emerging Infections Program	9	13	3	48
Clinical Diagnostic Laboratory	44	8	1	86
County Health Department	79	3	1	66
County				
Alameda	10	10	3	48
San Francisco	46	8	1	86
San Mateo	41	2	1	38
Santa Clara	19	3	1	65

Table 5: Median Days Between Specimen Collection and Report to CSP by County, Informant and Quarter, 2015

County	Informant/Quarter	N	Median	Min	Max
Alameda	California Emerging Infections Program	7	15	7	48
	Alameda County Public Health Department	3	4	3	9
	Quarter 1	3	24	15	48
	Quarter 2	2	6	9	38
	Quarter 3	3	7	4	10
San Francisco	Quarter 4	2	5	3	7
	San Francisco Communicable Disease Control	46	8	1	86
	Quarter 1	25	12	1	86
	Quarter 2	13	4	1	26
	Quarter 3	5	2	1	25
San Mateo	Quarter 4	3	3	1	9
	San Mateo County Health Services Agency	39	2	1	38
	Clinical Diagnostic Laboratory	1	1	1	1
	San Francisco County Health Department	1	1	1	1
	Quarter 1	8	5	1	38
Santa Clara	Quarter 2	7	4	1	6
	Quarter 3	14	2	1	6
	Quarter 4	12	1	1	8
	California Emerging Infections Program	2	9	5	13
	Santa Clara County Public Health Department	17	2	1	65
Santa Clara	Quarter 1	6	6	2	65
	Quarter 2	1	4	4	4
	Quarter 3	6	2	1	9
	Quarter 4	6	2	1	5

This report was created in May 2015 by the San Francisco Department of Public Health Environmental Health Branch in partnership with the San Francisco Public Utilities Commission.

For more information, contact mina.mohammadi@sfdph.org or visit our website at :

<https://www.sfdph.org/dph/EH/Water/Crypto.asp>

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Cryptosporidiosis Surveillance Project

First Quarterly Report

2016

The San Francisco Bay Area Cryptosporidiosis Surveillance Project (CSP)

CSP monitors human cryptosporidiosis in the San Francisco Bay Area counties served in part or completely by the San Francisco Public Utilities Commission: Alameda, San Francisco, San Mateo, and Santa Clara counties, and Tuolumne county, where the Hetch Hetchy Reservoir is located.

Surveillance Summary: First Quarter 2016:

During the first quarter of 2016, 20 cryptosporidiosis cases were reported. This is a lower number of cases than reported in the same period in 2015. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified among cases.

Table 1: Number, Gender and Cumulative Incidence of Cryptosporidiosis Cases by County, January–March 2016

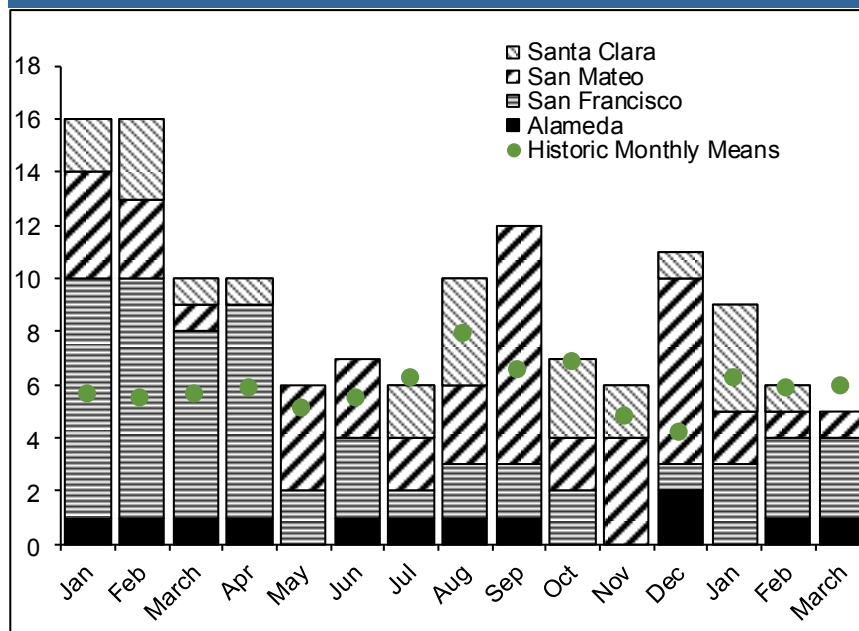
County	N	% Male	Cumulative Incidence per 100,000 [‡]
Alameda	2	50%	0.12
San Francisco	9	78%	1.04
San Mateo	4	50%	0.52
Santa Clara	5	40%	0.26
Tuolumne	0	NA	NA
Total	20	60%	0.38

[‡] Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-2. California Population Estimates and component of change by year—July 1, 2010—2015. Sacramento, California, December 2015.

Graphics and Tables:

- Table 1: Cryptosporidiosis case totals, gender ratio and cumulative incidence by county for January through March 2016.
- Figure 1: Monthly case totals by county for January 2015 through March 2016.
- Figure 2: Cryptosporidiosis case counts by county, age group, and sex for January through March 2016.

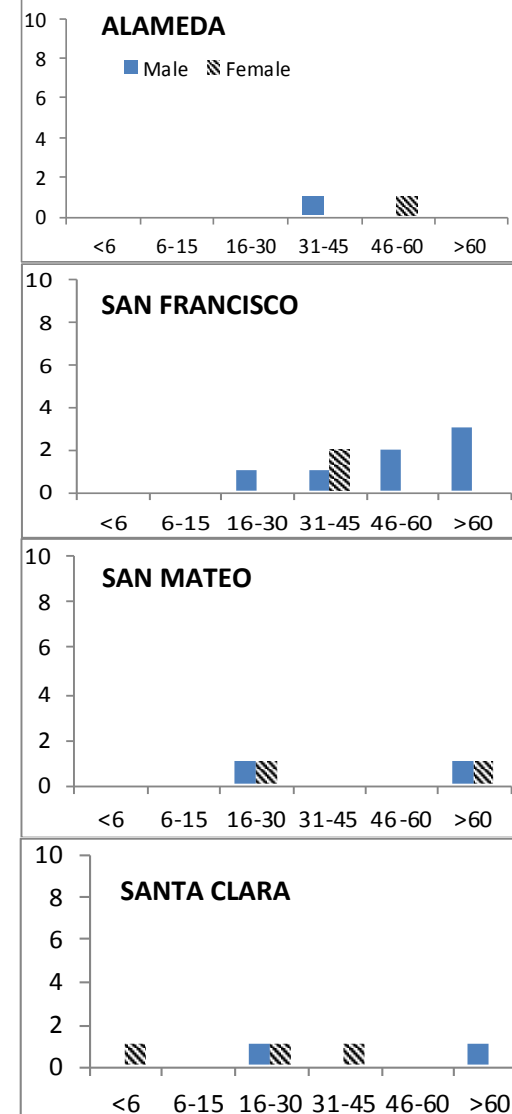
Figure 1: Cryptosporidiosis Cases by Month and County, January–March 2016



Points represent monthly mean case counts 2000–2005, 2007–2008, and 2010. Data from 2006 have been omitted due to a recreational water-related outbreak in August, September, and October, 2006. Data

[†] Historical data obtained through the cooperation of the California Emerging Infections Program.

Figure 2: Case Counts by County, Age and Sex, January–March 2016



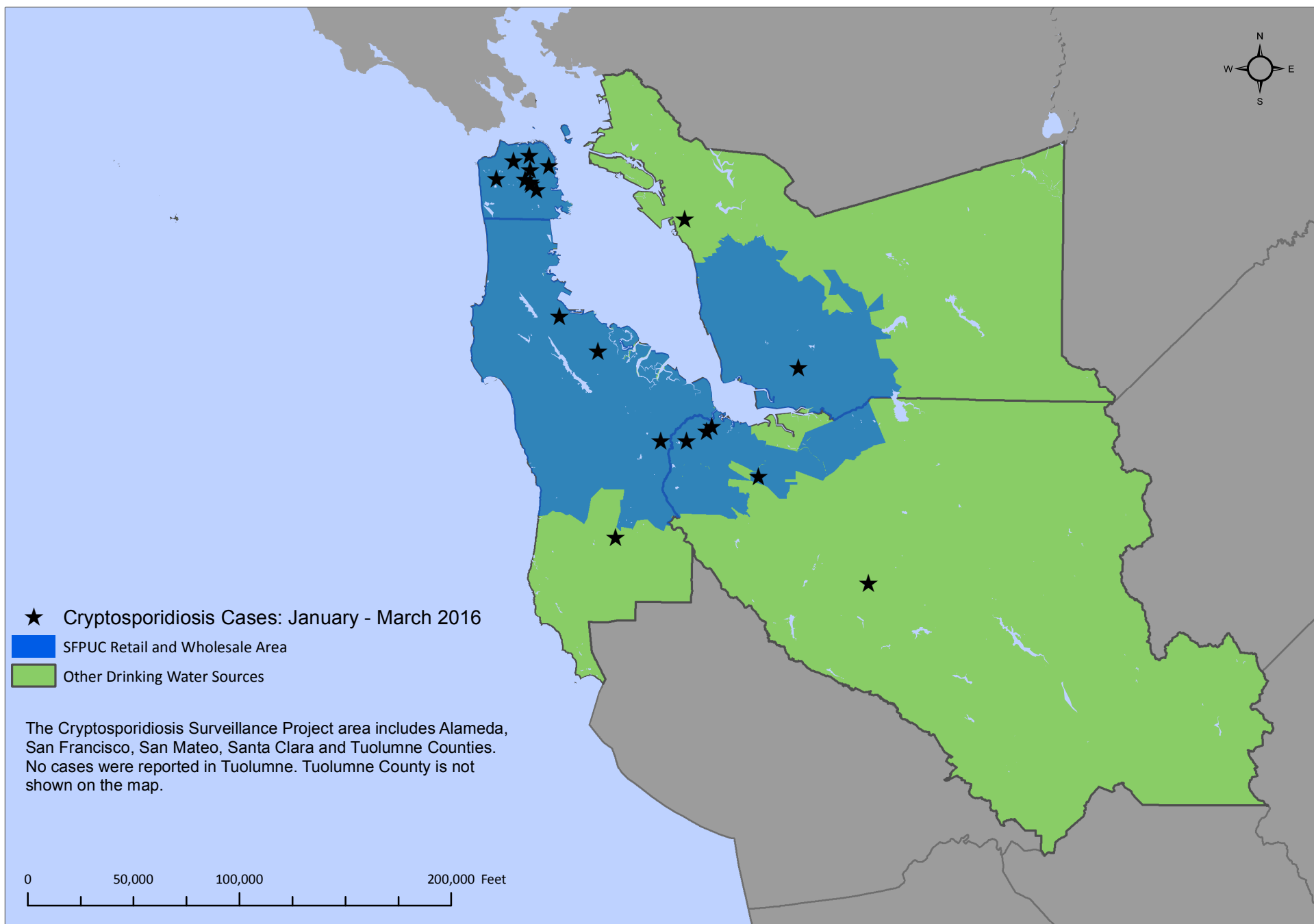
This report was created in April 2016 by the San Francisco Department of Public Health Environmental Health Branch in partnership with the San Francisco Public Utilities Commission.

For more information, contact mina.mohammadi@sfdph.org or visit our website at <https://www.sfdph.org/dph/EH/Water/Crypto.asp>

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The Bay Area Cryptosporidiosis Surveillance Project

Alameda, San Francisco, San Mateo, and Santa Clara Counties



2016

The San Francisco Bay Area Cryptosporidiosis Surveillance Project (CSP)

CSP monitors human cryptosporidiosis in the San Francisco Bay Area counties served in part or completely by the San Francisco Public Utilities Commission: Alameda, San Francisco, San Mateo, and Santa Clara counties, and Tuolumne county, where the Hetch Hetchy Reservoir is located.

Surveillance Summary: Second Quarter 2016:

During the second quarter of 2016, 33 cryptosporidiosis cases were reported. This is a lower number of cases than reported in the same period in 2015. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified among cases.

Table 1: Number, Gender and Cumulative Incidence of Cryptosporidiosis Cases by County, January–June 2016

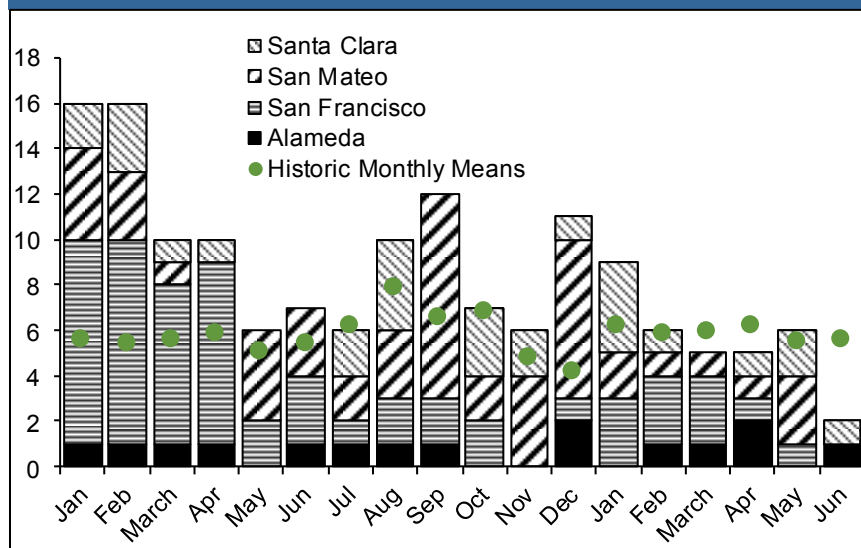
County	N	% Male	Cumulative Incidence per 100,000 [‡]
Alameda	5	60%	0.31
San Francisco	11	73%	1.28
San Mateo	8	50%	1.05
Santa Clara	9	33%	0.47
Tuolumne	0	NA	NA
Total	33	55%	0.63

[‡] Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-2. California Population Estimates and component of change by year—July 1, 2010—2015. Sacramento, California, December 2015.

Graphics and Tables:

- Table 1: Cryptosporidiosis case totals, gender ratio and cumulative incidence by county for January through June 2016.
- Figure 1: Monthly case totals by county for January 2015 through June 2016.
- Figure 2: Cryptosporidiosis case counts by county, age group, and sex for January through June 2016.

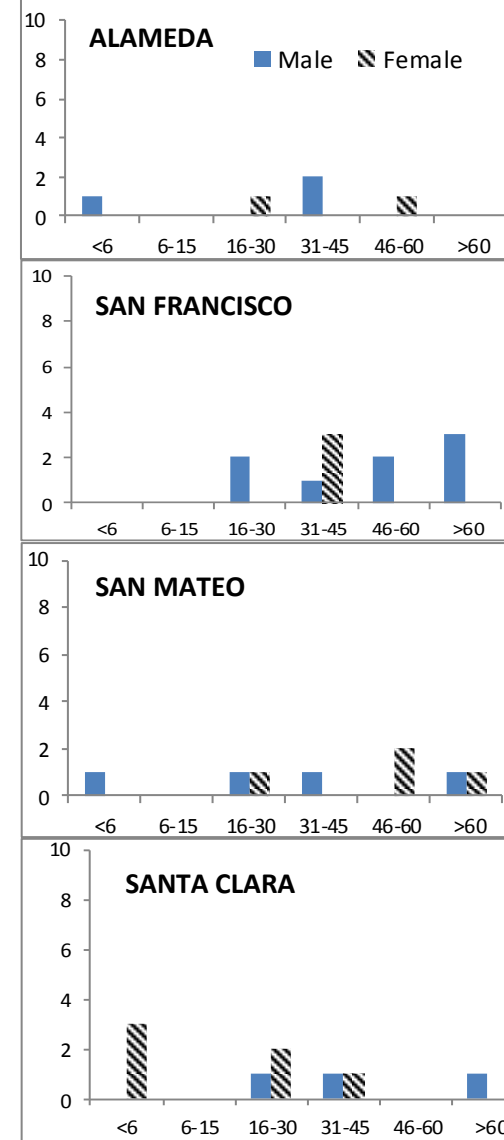
Figure 1: Cryptosporidiosis Cases by Month and County, January–June 2016



Points represent monthly mean case counts 2000–2005, 2007–2008, and 2010. Data from 2006 have been omitted due to a recreational water-related outbreak in August, September, and October, 2006. Data from 2009 have been omitted due to artificial increases that resulted from laboratory errors. There were no reported cases for the month of March 2013.

[†] Historical data obtained through the cooperation of the California Emerging Infections Program.

Figure 2: Case Counts by County, Age and Sex, January–June 2016



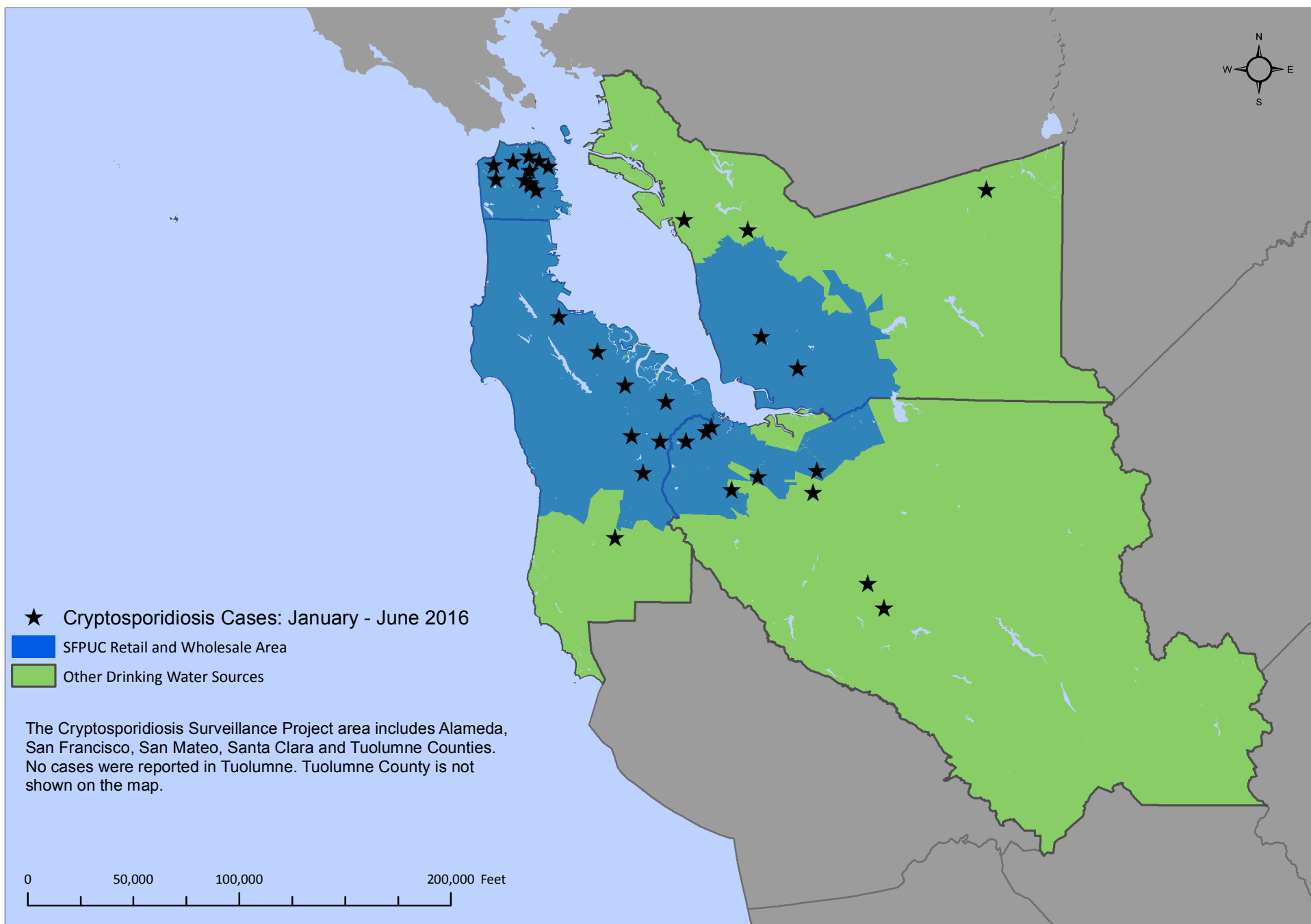
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The Bay Area Cryptosporidiosis Surveillance Project

Alameda, San Francisco, San Mateo, and Santa Clara Counties



Cryptosporidiosis Surveillance Project

Third Quarterly Report

2016

The San Francisco Bay Area Cryptosporidiosis Surveillance Project (CSP)

CSP monitors human cryptosporidiosis in the San Francisco Bay Area counties served in part or completely by the San Francisco Public Utilities Commission: Alameda, San Francisco, San Mateo, and Santa Clara counties, and Tuolumne county, where the Hetch Hetchy Reservoir is located.

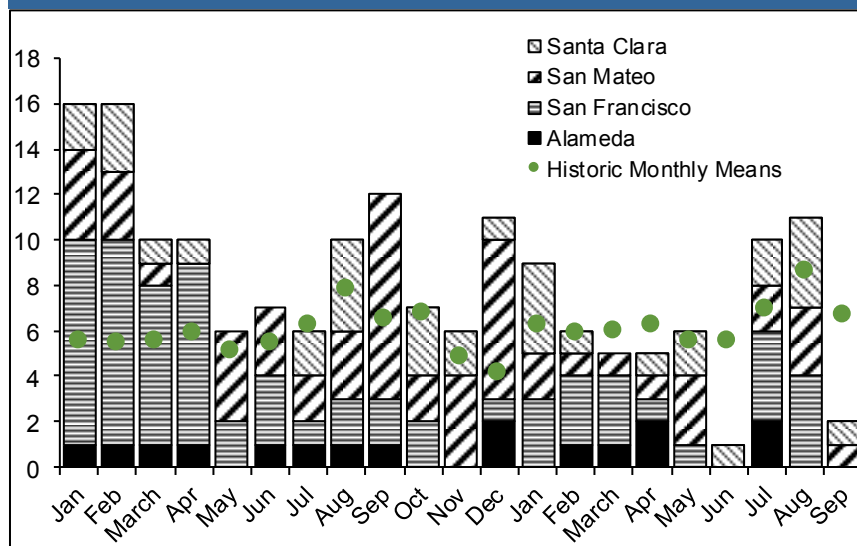
Surveillance Summary: Third Quarter 2016:

During the first, second and third quarters of 2016, 55 cryptosporidiosis cases were reported. A lower number of cases were reported than in the same period in 2015. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified among cases.

Graphics and Tables:

- Table 1: Cryptosporidiosis case totals, gender ratio and cumulative incidence by county for January through September 2016.
- Figure 1: Monthly case totals by county for January 2015 through September 2016.
- Figure 2: Cryptosporidiosis case counts by county, age group, and sex for January through September 2016.

Figure 1: Cryptosporidiosis Cases by Month and County, January–September 2016



Points represent monthly mean case counts 2000-2005, 2007-2008, and 2010. Data from 2006 have been omitted due to a recreational water-related outbreak in August, September, and October, 2006. Data from 2009 have been omitted due to artificial increases that resulted from laboratory errors. There were no reported cases for the month of March 2013.

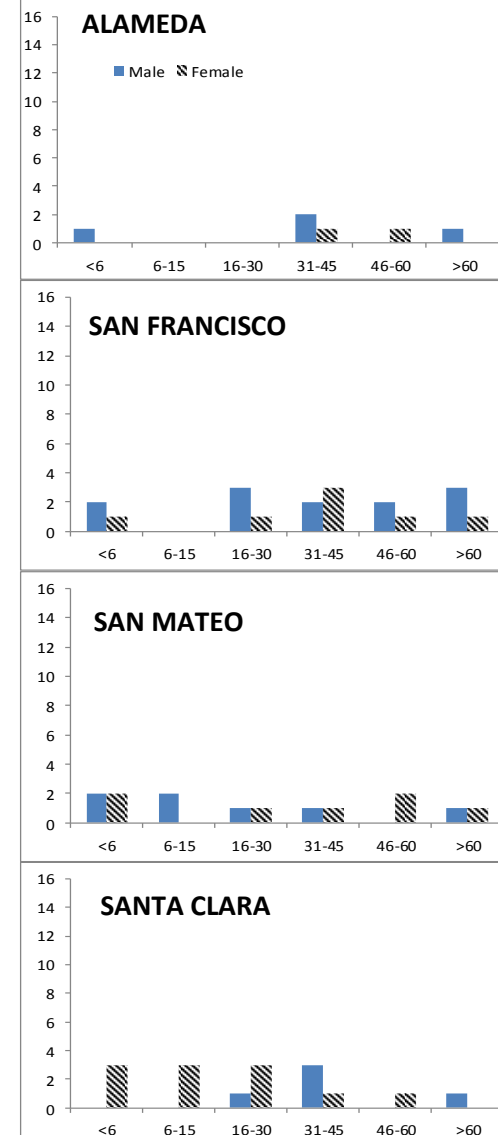
* Historical data obtained through the cooperation of the California Emerging Infections Program.

Table 1: Number, Gender and Cumulative Incidence of Cryptosporidiosis Cases by County, January–September 2016

County	N	% Male	Cumulative Incidence per 100,000†
Alameda	6	67%	0.37
San Francisco	19	63%	2.20
San Mateo	14	50%	1.83
Santa Clara	16	31%	0.84
Tuolumne	0	NA	NA
Total	55	51%	1.05

† Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-2. California Population Estimates and component of change by year—July 1, 2010—2015. Sacramento, California, December 2015.

Figure 2: Case Counts by County, Age and Sex, January–September 2016



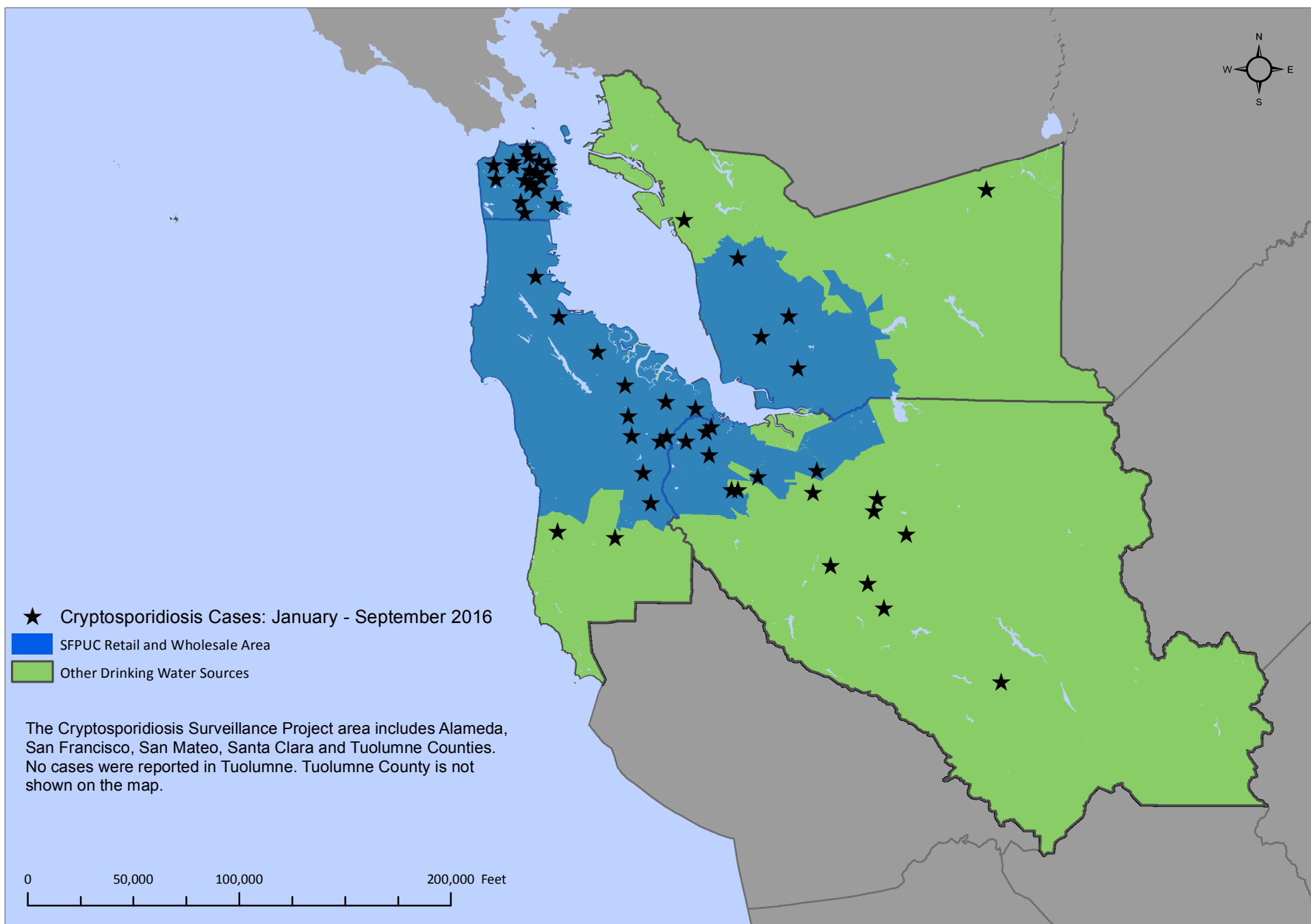
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The Bay Area Cryptosporidiosis Surveillance Project

Alameda, San Francisco, San Mateo, and Santa Clara Counties



Cryptosporidiosis Surveillance Project Annual Report 2016

The Bay Area Cryptosporidiosis Surveillance Project (CSP) monitors human cryptosporidiosis in Bay Area Counties served by the San Francisco Public Utilities Commission: Alameda, San Francisco, San Mateo, and Santa Clara, and Tuolumne County, where the Hetch Hetchy Reservoir is located.

Surveillance Summary

Fourth Quarter 2016: During the fourth quarter of 2016, 26 cases of cryptosporidiosis were reported in the project area. More cases were reported in the fourth quarter than in the same period of the previous year. Figure 1 presents case counts by month and county.

2016 Surveillance: In 2016 a total of 82 cases were reported. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified. Case counts and cumulative incidence (CI) varied by county ranging from 0 cases in Tuolumne County to cases or 2.74 cryptosporidiosis cases per 100,000 residents in San Mateo county (Table 1). Compared to 2015, the incidence of cryptosporidiosis decreased for San Francisco and San Mateo counties and increased for Santa Clara and Alameda counties. Table 1 lists case counts and cumulative incidence by county. Figure 2 presents case counts by county, age, and gender.

Table 1: Number of Cases and Cumulative Incidence of Cryptosporidiosis by County, 2016

County	N	Cumulative Incidence per 100,000 [‡]
Alameda	14	0.86
San Francisco	23	2.66
San Mateo	21	2.74
Santa Clara	24	1.25
Tuolumne	0	NA
Total	82	1.57

[‡] Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-1 population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2016 and 2017. Sacramento, California, May 2017.

Figure 2: Case Counts by County, Age and Sex, January–December 2016

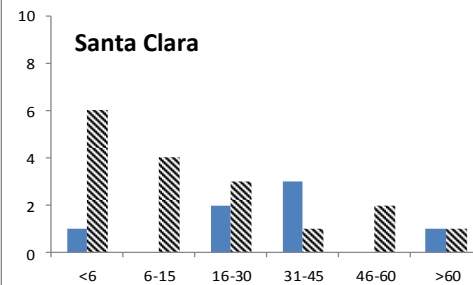
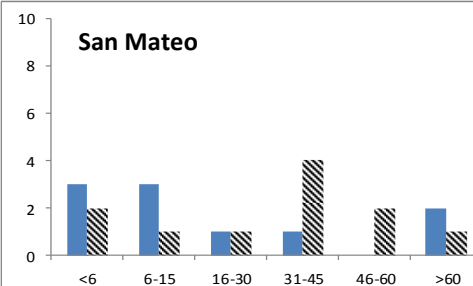
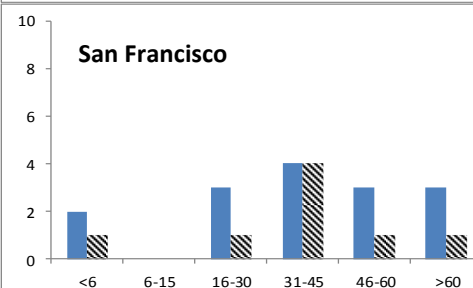
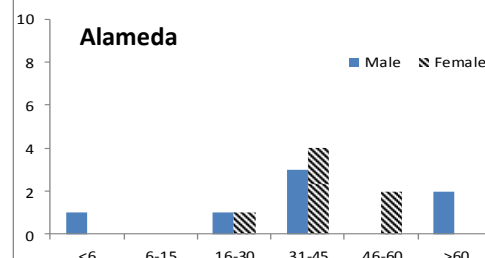
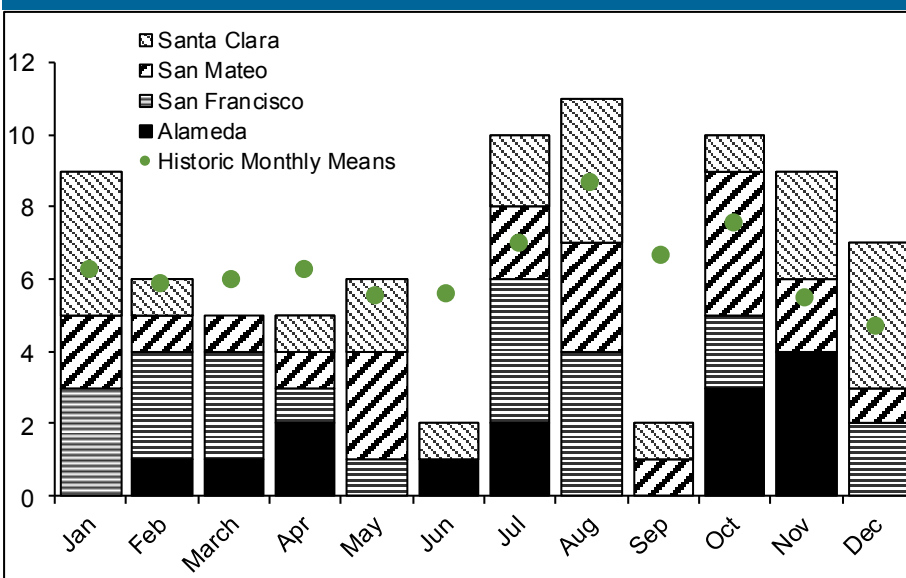


Figure 1: Cryptosporidiosis Cases by Month and County, January 2016 - December 2016



No cases reported in Tuolumne County.

Points represent monthly mean case counts 2000-2005, 2007-2008, and 2010-2014.

[†] Historical data obtained through the cooperation of the California Emerging Infections Program.

Cryptosporidiosis Case Demographics and Risk Factors

In 2016, 39 (48%) of cryptosporidiosis cases were white and 39 (48%) were male. Data on race/ethnicity were not collected for 17 (21%) of cases. Table 2 presents case demographic data by county.

Known risk factors for acquiring cryptosporidiosis infection include contact with animals, day care attendance or work, health care work, travel to developing countries, consumption of untreated water, sexual contact with another case, and having a compromised immune system. Among cases with a specimen collected in 2016, 7 (9%) reported contact with a suspected case during the incubation period. Eighteen (31%) cases over age 15 reported sexual contact during the incubation period; six (10%) adult male cases reported MSM activity. Eight (10%) cases reported compromised immune status. Thirty-five (43%) cases reported contact with animals during the incubation period; thirteen (16%) had contact with farm or non-domesticated animals. Nineteen (23%) cases reported foreign travel. Thirty-five (43%) cases reported any recreational water exposure. Table 3 presents selected risk factors for cryptosporidiosis infection by county.

Table 2: Cryptosporidiosis Case Demographics by County, 2016

	N	(%) by County
Alameda		
Male	7	(50%)
White	8	(57%)
Asian	1	(7%)
Multiple	1	(7%)
Unknown/Missing	4	(29%)
San Francisco		
Male	15	(65%)
White	14	(61%)
Black	3	(13%)
Asian	1	(4%)
Hispanic	4	(17%)
Unknown/Missing	1	(4%)
San Mateo		
Male	10	(48%)
White	12	(57%)
Asian	2	(10%)
Hispanic	3	(14%)
Unknown/Missing	4	(19%)
Santa Clara		
Male	7	(29%)
White	5	(21%)
Asian	4	(17%)
Hispanic	6	(25%)
Multiple/Other	1	(4%)
Unknown/Missing	8	(33%)

Table 3: Percentage of Cases by County with Known Risk Factors During the Incubation Period, 2016

Risk Factor	County	(%)
Contact with Suspect Case	Alameda	(7%)
	San Francisco	(13%)
	San Mateo	(5%)
	Santa Clara	(8%)
Daycare	Alameda	(7%)
	San Francisco	(4%)
	San Mateo	(24%)
	Santa Clara	(17%)
Sexual Activity*	Alameda	(29%)
	San Francisco	(22%)
	San Mateo	(24%)
	Santa Clara	(13%)
MSM**	Alameda	(7%)
	San Francisco	(22%)
Contact with Farm or Non-Domesticated Animals	Alameda	(29%)
	San Francisco	(4%)
	San Mateo	(24%)
	Santa Clara	(13%)
Immune Suppression	Alameda	(14%)
	San Francisco	(26%)
Foreign Travel	Alameda	(14%)
	San Francisco	(26%)
	San Mateo	(19%)
	Santa Clara	(29%)
Recreational Water Contact ***	Alameda	(36%)
	San Francisco	(39%)
	San Mateo	(52%)
	Santa Clara	(42%)
* Denominator includes cases over 15 years		
** Denominator includes male cases over 15 years		
***Includes treated and untreated recreational water exposure		

Cryptosporidiosis Surveillance

Timeliness

The Cryptosporidiosis Surveillance Project receives case reports through cooperation with clinical diagnostic laboratories, county health departments, and the California Emerging Infections Program.

In 2016, CSP received case notification of positive *Cryptosporidium* laboratory results for 73% of the 82 cases within 7 days of specimen collection. This figure does not adjust for weekends, holidays or time required for specimen processing. According to Title 17 of the California Code of Regulations, *Cryptosporidium* infections are required to be reported to county health departments within 1 day of identification. Table 5 presents county-specific cryptosporidiosis case reporting characteristics.

CSP completed case interviews for 82% of cases in 2016. Interviews were completed within one business day of notification for 42% of all interviewed cases.

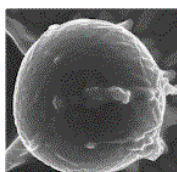


Table 4: Median Days between Specimen Collection and Report to CSP, 2016

	N	Median	Min	Max
2016	82	3	1	241
Quarter				
Quarter 1	20	3	1	11
Quarter 2	13	3	1	35
Quarter 3	23	3	1	24
Quarter 4	26	2	1	241
Informant				
California Emerging Infections Program	10	11	7	241
County Health Department	72	2	1	47
County				
Alameda	14	6	1	18
San Francisco	23	7	1	53
San Mateo	21	1	1	241
Santa Clara	24	2	1	13

Table 5: Median Days Between Specimen Collection and Report to CSP by County, Informant and Quarter, 2016

County	Informant/Quarter	N	Median	Min	Max
Alameda	California Emerging Infections Program	2	11	9	12
	Alameda County Public Health Department	12	5	1	18
	Quarter 1	2	8	7	9
	Quarter 2	3	5	4	4
	Quarter 3	2	7	2	12
	Quarter 4	7	3	1	16
San Francisco	San Francisco Communicable Disease Control	17	3	1	47
	California Emerging Infections Program	6	9	7	53
	Quarter 1	9	1	1	11
	Quarter 2	2	26	17	35
	Quarter 3	8	4	1	24
	Quarter 4	4	28	2	53
San Mateo	San Mateo County Health Services Agency	19	1	1	7
	California Emerging Infections Program	2	214	186	241
	Quarter 1	4	2	1	7
	Quarter 2	4	1	1	3
	Quarter 3	6	1	1	2
	Quarter 4	7	2	1	241
Santa Clara	Santa Clara County Public Health Department	24	2	1	13
	Quarter 1	5	1	1	4
	Quarter 2	4	2	1	4
	Quarter 3	7	4	2	13
	Quarter 4	8	2	1	9

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Cryptosporidiosis Surveillance Project

First Quarterly Report

2017

The San Francisco Bay Area Cryptosporidiosis Surveillance Project (CSP)

CSP monitors human cryptosporidiosis in the San Francisco Bay Area counties served in part or completely by the San Francisco Public Utilities Commission: Alameda, San Francisco, San Mateo, and Santa Clara counties, and Tuolumne county, where the Hetch Hetchy Reservoir is located.

Surveillance Summary: First Quarter 2017:

During the first quarter of 2017, 17 cryptosporidiosis cases were reported. This is a lower number of cases than reported in the same period in 2016. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified among cases.

Table 1: Number, Gender and Cumulative Incidence of Cryptosporidiosis Cases by County, January–March 2017

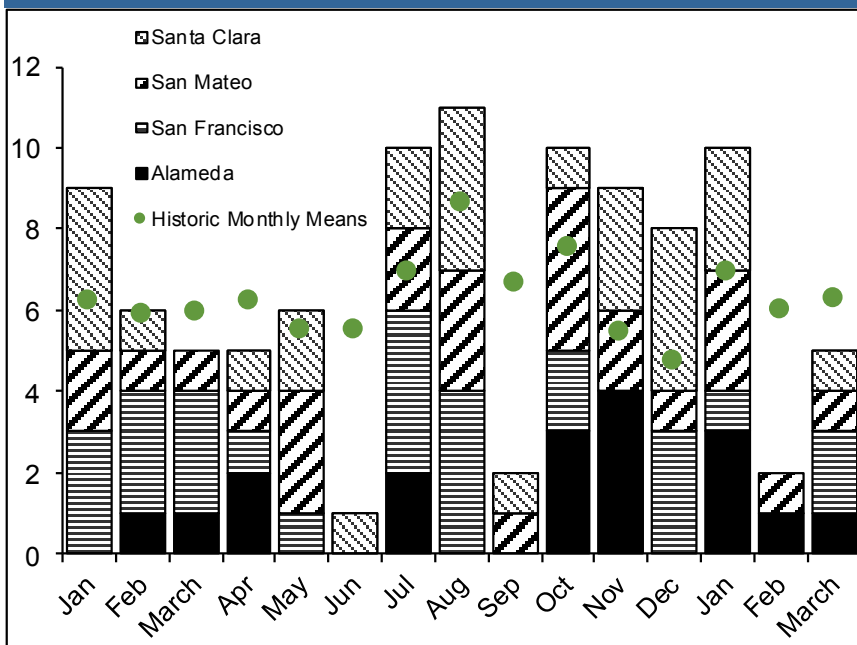
County	N	% Male	Cumulative Incidence per 100,000 [‡]
Alameda	5	60%	0.31
San Francisco	3	33%	0.34
San Mateo	5	40%	0.65
Santa Clara	4	25%	0.21
Tuolumne	0	NA	NA
Total	17	41%	0.32

[‡] Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-2. California Population Estimates and component of change by year—July 1, 2010—2016. Sacramento, California, December 2016.

Graphics and Tables:

- Table 1: Cryptosporidiosis case totals, gender ratio and cumulative incidence by county for January through March 2017.
- Figure 1: Monthly case totals by county for January 2016 through March 2017.
- Figure 2: Cryptosporidiosis case counts by county, age group, and sex for January through March 2017.

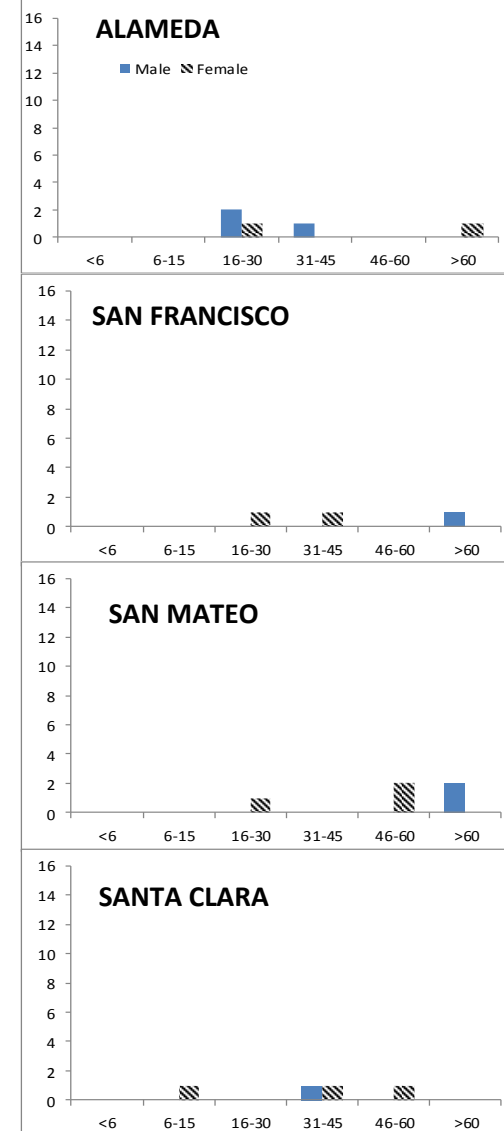
Figure 1: Cryptosporidiosis Cases by Month and County, January–March 2017



Points represent monthly mean case counts 2000–2005, 2007–2008, and 2010. Data from 2006 have been omitted due to a recreational water-related outbreak in August, September, and October, 2006. Data from 2009 have been omitted due to artificial increases that resulted from laboratory errors. There were no reported cases for the month of March 2013.

^{*} Historical data obtained through the cooperation of the California Emerging Infections Program.

Figure 2: Case Counts by County, Age and Sex, January–March 2017



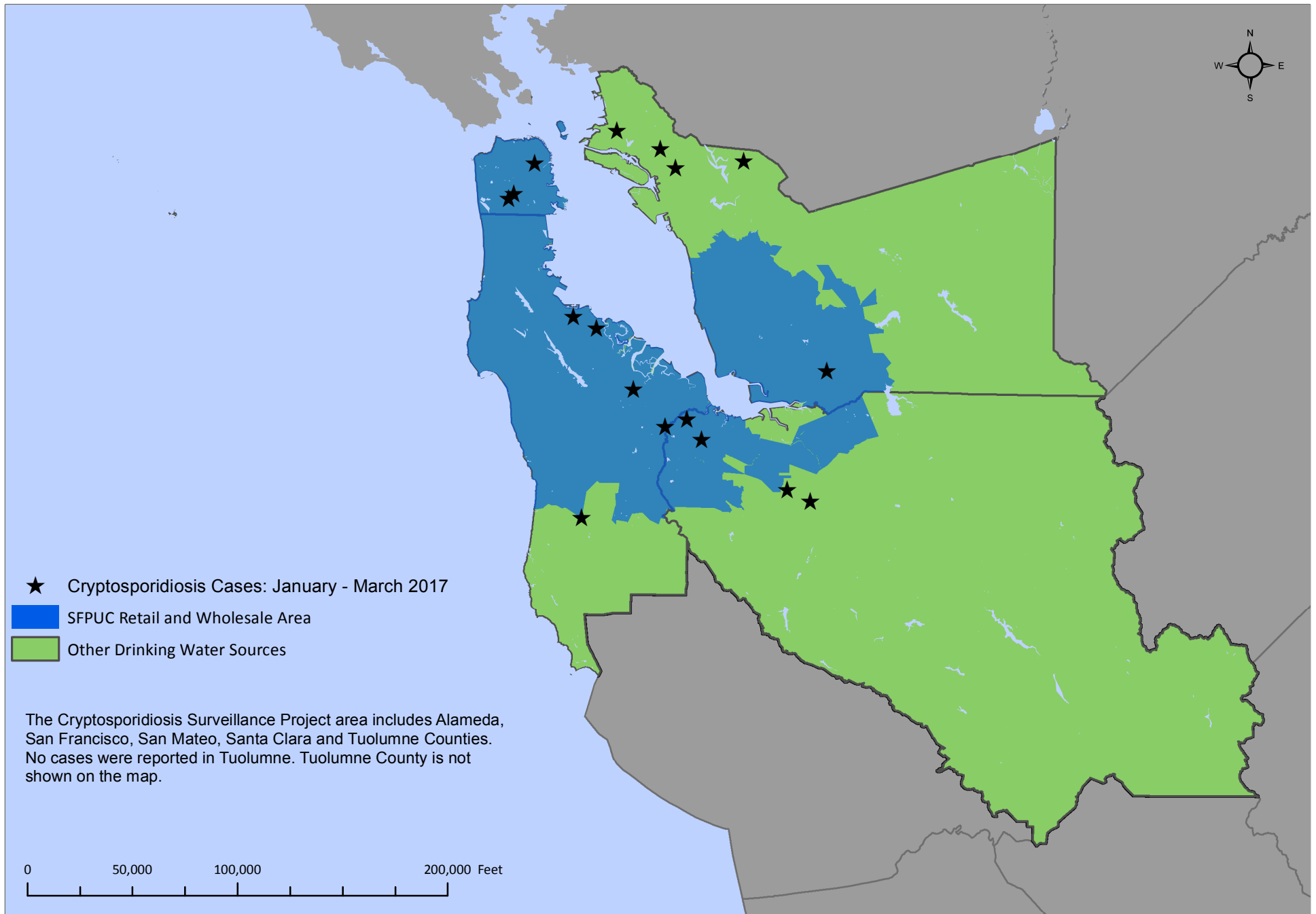
This report was created in July 2017 by the San Francisco Department of Public Health Environmental Health Branch in partnership with the San Francisco Public Utilities Commission.

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The Bay Area Cryptosporidiosis Surveillance Project

Alameda, San Francisco, San Mateo, and Santa Clara Counties



Cryptosporidiosis Surveillance Project

Second Quarterly Report

2017

The San Francisco Bay Area Cryptosporidiosis Surveillance Project (CSP)

CSP monitors human cryptosporidiosis in the San Francisco Bay Area counties served in part or completely by the San Francisco Public Utilities Commission: Alameda, San Francisco, San Mateo, and Santa Clara counties, and Tuolumne county, where the Hetch Hetchy Reservoir is located.

Surveillance Summary: Second Quarter 2017:

During the second quarter of 2017, 39 cryptosporidiosis cases were reported. This is a higher number of cases than reported in the same period in 2016. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified among cases.

Table 1: Number, Gender and Cumulative Incidence of Cryptosporidiosis Cases by County, January–June 2017

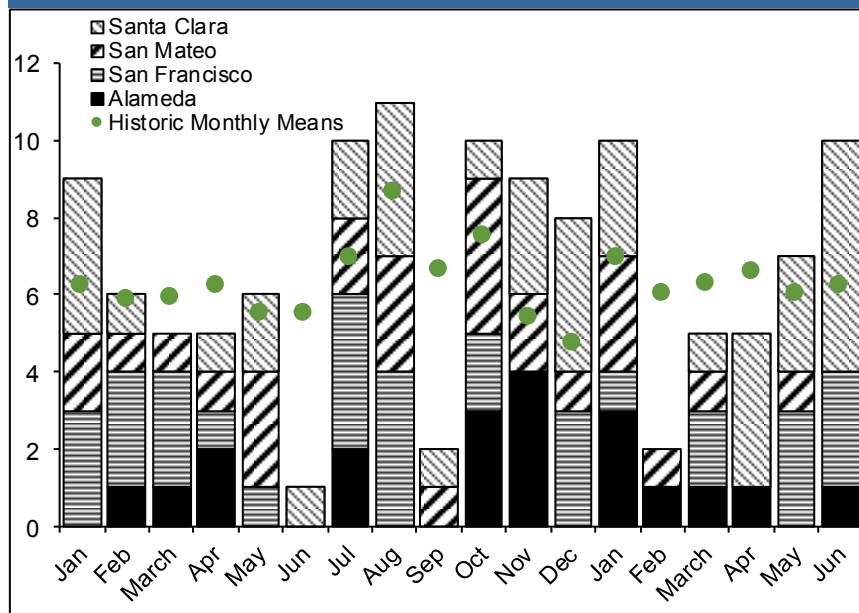
County	N	% Male	Cumulative Incidence per 100,000 [‡]
Alameda	7	71%	0.43
San Francisco	9	67%	1.03
San Mateo	6	33%	0.78
Santa Clara	17	41%	0.88
Tuolumne	0	NA	NA
Total	39	51%	0.74

[‡] Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-2. California Population Estimates and component of change by year—July 1, 2010—2016. Sacramento, California, December 2016.

Graphics and Tables:

- Table 1: Cryptosporidiosis case totals, gender ratio and cumulative incidence by county for January through June 2017.
- Figure 1: Monthly case totals by county for January 2016 through June 2017.
- Figure 2: Cryptosporidiosis case counts by county, age group, and sex for January through June 2017.

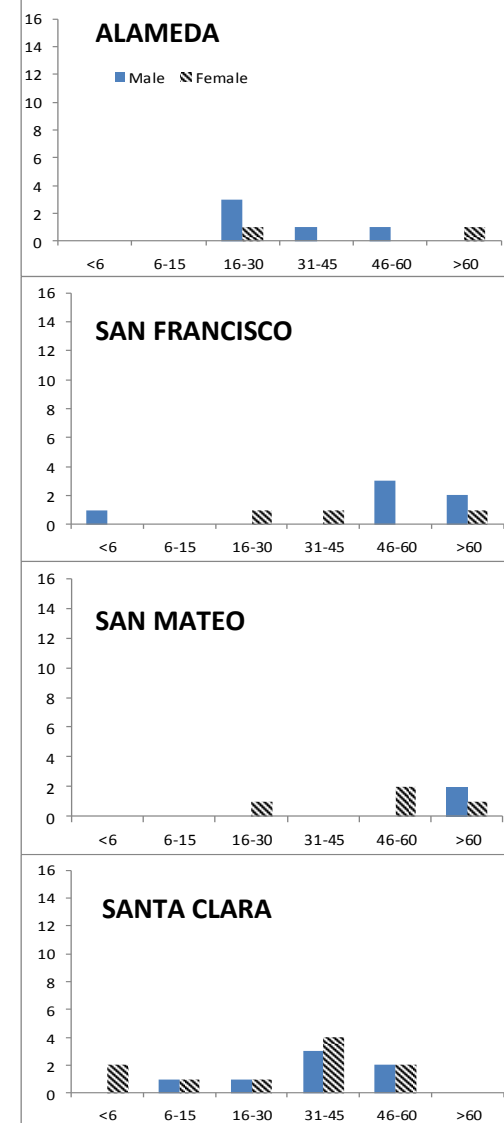
Figure 1: Cryptosporidiosis Cases by Month and County, January–June 2017



Points represent monthly mean case counts 2000–2005, 2007–2008, and 2010. Data from 2006 have been omitted due to a recreational water-related outbreak in August, September, and October, 2006. Data from 2009 have been omitted due to artificial increases that resulted from laboratory errors. There were

[‡] Historical data obtained through the cooperation of the California Emerging Infections Program.

Figure 2: Case Counts by County, Age and Sex, January–June 2017



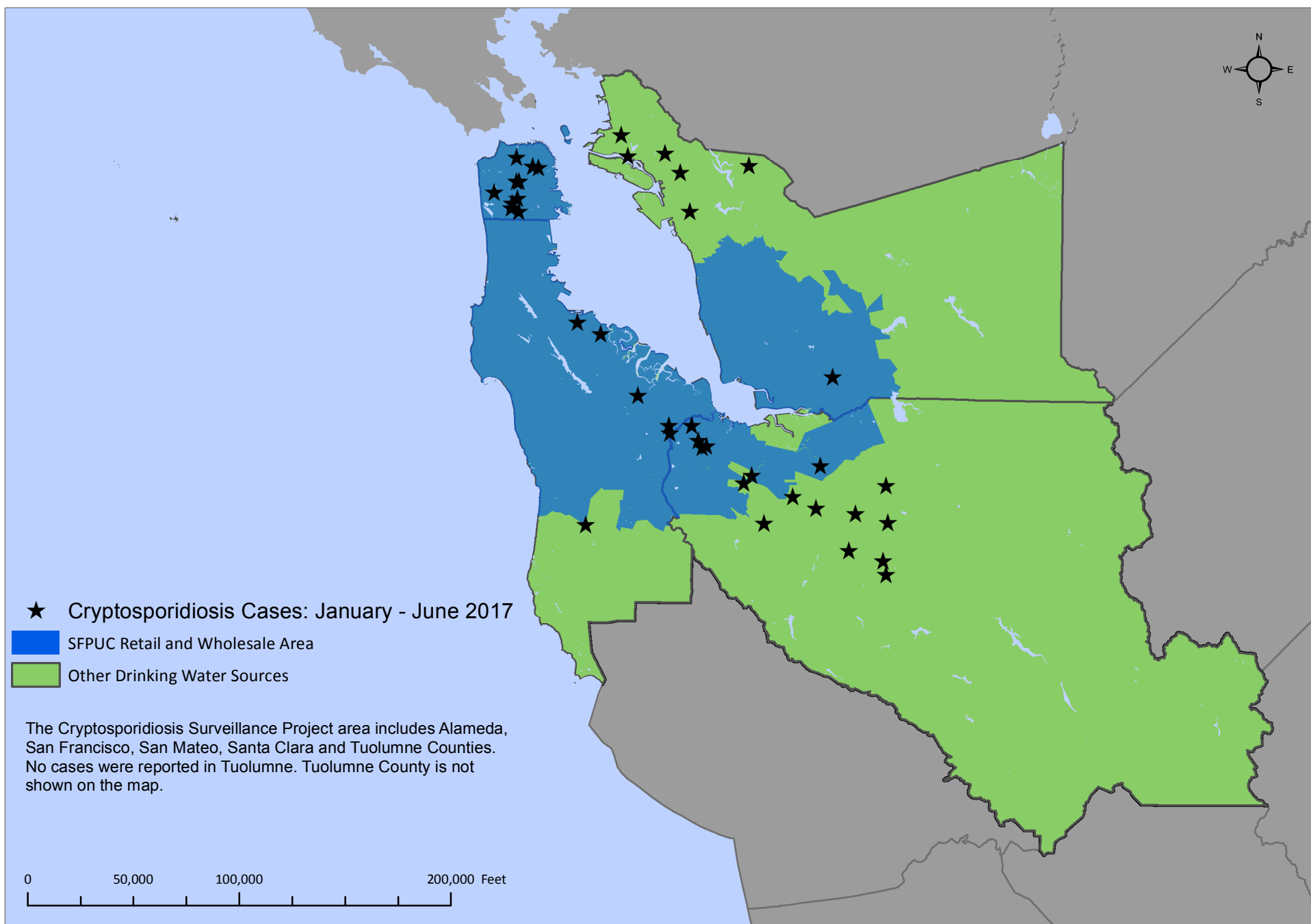
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The Bay Area Cryptosporidiosis Surveillance Project

Alameda, San Francisco, San Mateo, and Santa Clara Counties



Cryptosporidiosis Surveillance Project

Third Quarterly Report

2017

The San Francisco Bay Area Cryptosporidiosis Surveillance Project (CSP)

CSP monitors human cryptosporidiosis in the San Francisco Bay Area counties served in part or completely by the San Francisco Public Utilities Commission: Alameda, San Francisco, San Mateo, and Santa Clara counties, and Tuolumne county, where the Hetch Hetchy Reservoir is located.

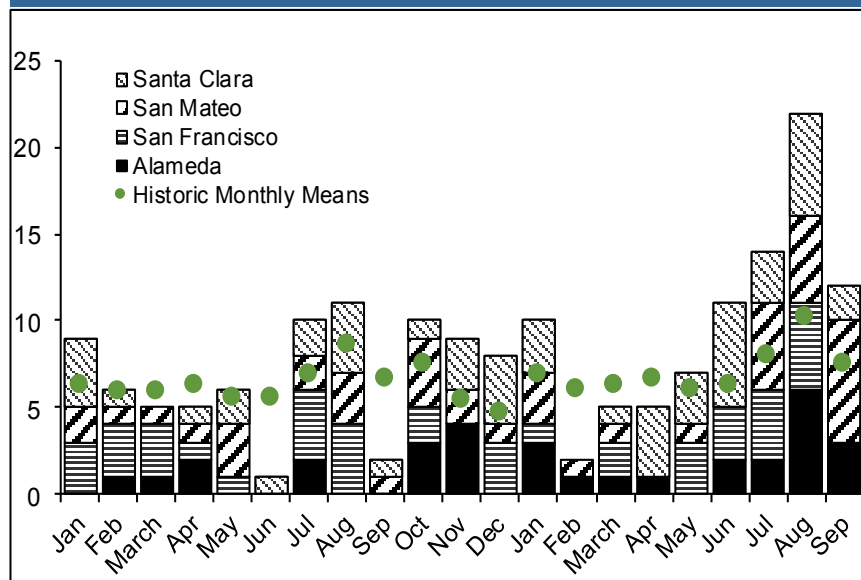
Surveillance Summary: Third Quarter 2017:

During the first, second and third quarters of 2017, 88 cryptosporidiosis cases were reported. A lower number of cases were reported than in the same period in 2016. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified among cases.

Graphics and Tables:

- Table 1: Cryptosporidiosis case totals, gender ratio and cumulative incidence by county for January through September 2017.
- Figure 1: Monthly case totals by county for January 2016 through September 2017.
- Figure 2: Cryptosporidiosis case counts by county, age group, and sex for January through September 2017.

Figure 1: Cryptosporidiosis Cases by Month and County, January–September 2017



Points represent monthly mean case counts 2000-2005, 2007-2008, and 2010. Data from 2006 have been omitted due to a recreational water-related outbreak in August, September, and October, 2006. Data from 2009 have been omitted due to artificial increases that resulted from laboratory errors. There were

† Historical data obtained through the cooperation of the California Emerging Infections Program.

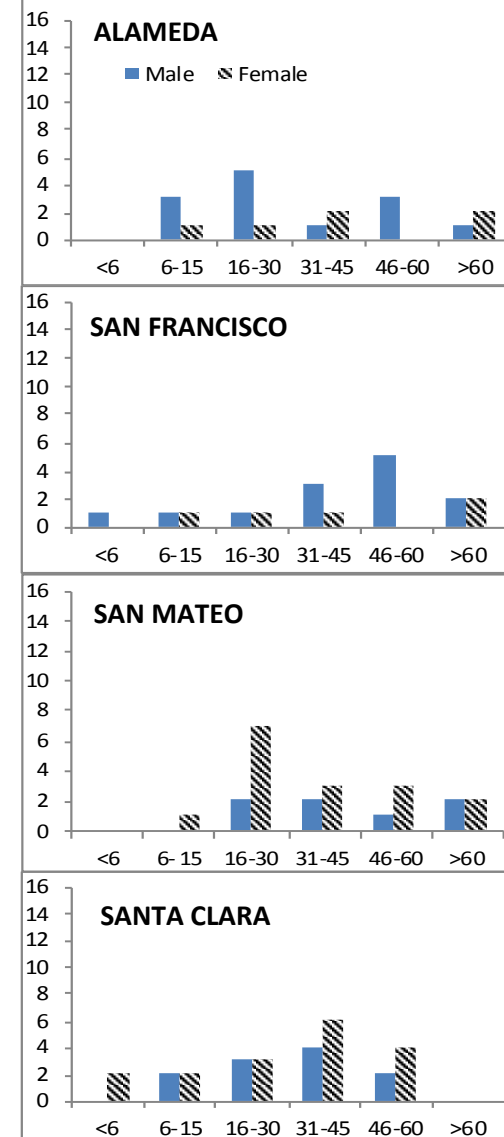
Table 1: Number, Gender and Cumulative Incidence of Cryptosporidiosis Cases by County, January–September 2017

County	N	% Male	Cumulative Incidence per 100,000†
Alameda	19	68%	1.16
San Francisco	18	72%	2.07
San Mateo	23	30%	2.99
Santa Clara	28	39%	1.45
Tuolumne	0	NA	NA
Total	88	50%	1.67

† Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-2. California Population Estimates and component of change by year—July 1, 2010—2016.

Sacramento, California, December 2016.

Figure 2: Case Counts by County, Age and Sex, January–September 2017



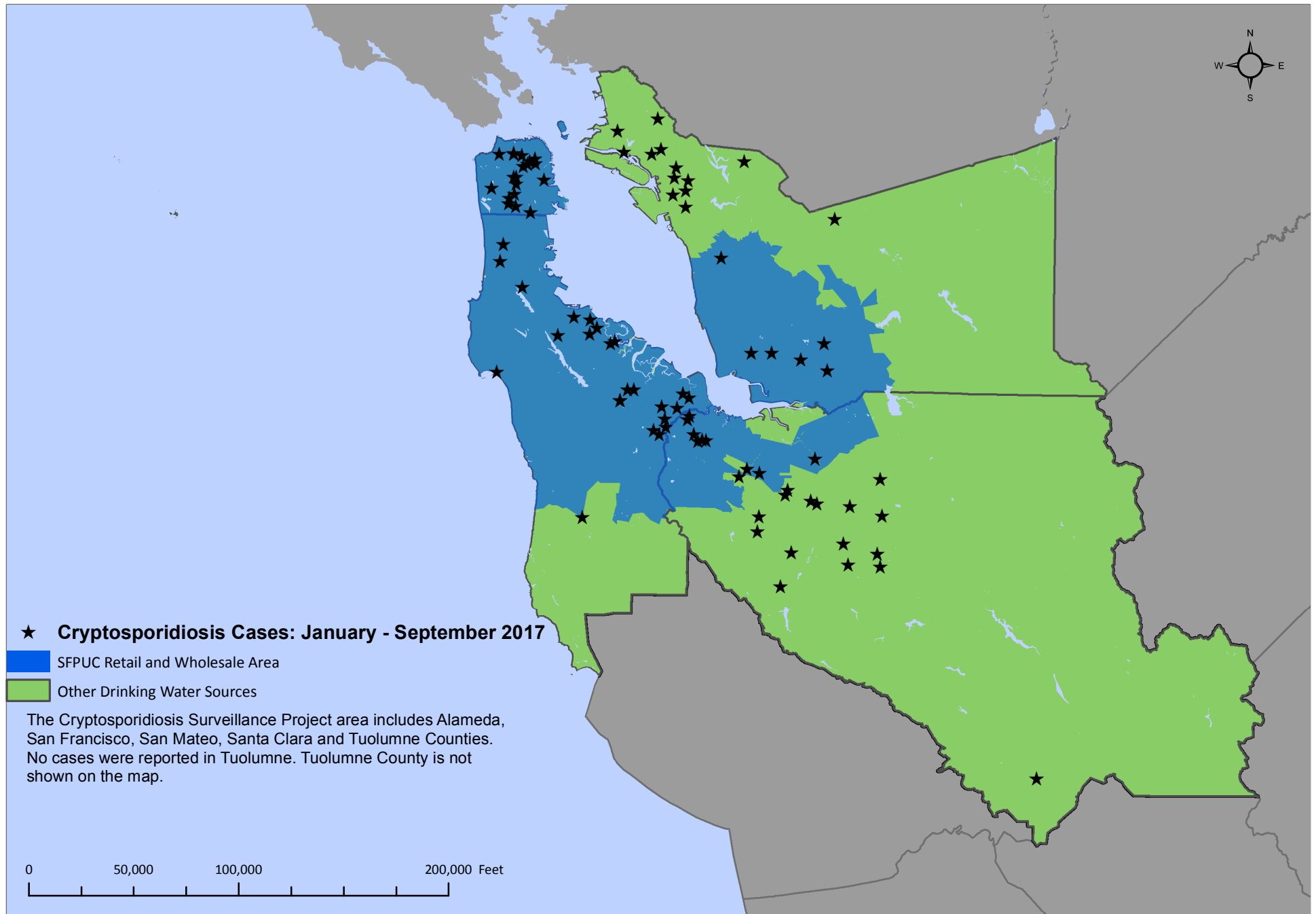
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The Bay Area Cryptosporidiosis Surveillance Project

Alameda, San Francisco, San Mateo, and Santa Clara Counties



The Bay Area Cryptosporidiosis Surveillance Project (CSP) monitors human cryptosporidiosis in Bay Area Counties served by the San Francisco Public Utilities Commission: Alameda, San Francisco, San Mateo, and Santa Clara, and Tuolumne County, where the Hetch Hetchy Reservoir is located.

Surveillance Summary

Fourth Quarter 2017: During the fourth quarter of 2017, 24 cases of cryptosporidiosis were reported in the project area. Fewer cases were reported in the fourth quarter than in the same period of the previous year. Figure 1 presents case counts by month and county.

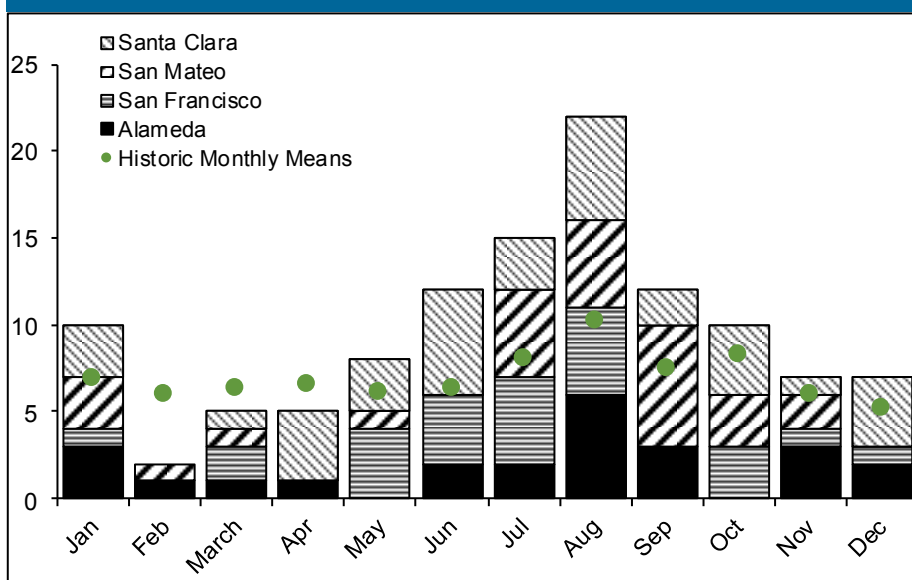
2017 Surveillance: In 2017 a total of 115 cases were reported. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified. Case counts and cumulative incidence (CI) varied by county ranging from 0 cases in Tuolumne County to cases or 3.66 cryptosporidiosis cases per 100,000 residents in San Mateo county (Table 1). Compared to 2016, the incidence of cryptosporidiosis increased for Alameda, San Francisco, San Mateo and Santa Clara counties. Table 1 lists case counts and cumulative incidence by county. Figure 2 presents case counts by county, age, and gender.

Table 1: Number of Cases and Cumulative Incidence of Cryptosporidiosis by County, 2017

County	N	Cumulative Incidence per 100,000 [‡]
Alameda	24	1.47
San Francisco	26	3.01
San Mateo	28	3.66
Santa Clara	37	1.92
Tuolumne	0	NA
Total	115	2.20

[‡] Cumulative incidences were calculated using the following population estimates: State of California, Department of Finance, E-1 population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2016 and 2017. Sacramento, California, May 2017.

Figure 1: Cryptosporidiosis Cases by Month and County, January 2017 - December 2017

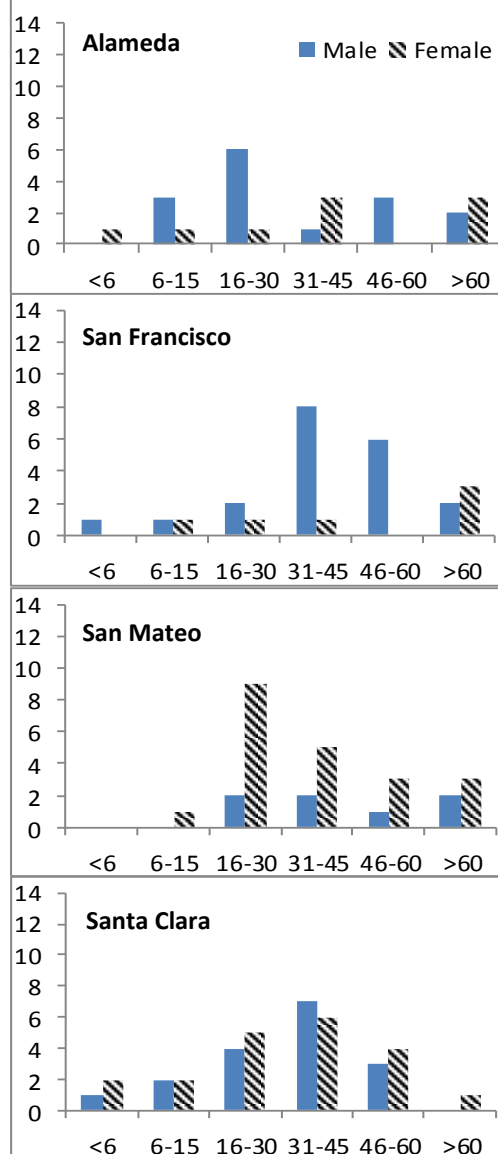


No cases reported in Tuolumne County.

Points represent monthly mean case counts 2000-2005, 2007-2008, and 2010-2014.

[†] Historical data obtained through the cooperation of the California Emerging Infections Program.

Figure 2: Case Counts by County, Age and Sex, January–December 2017



Cryptosporidiosis Case Demographics and Risk Factors

In 2017, 43 (37%) of cryptosporidiosis cases were white and 59 (51%) were male. Data on race/ethnicity were not collected for 30 (26%) of cases. Table 2 presents case demographic data by county.

Known risk factors for acquiring cryptosporidiosis infection include contact with animals, day care attendance or work, health care work, travel to developing countries, consumption of untreated water, sexual contact with another case, and having a compromised immune system. Among cases with a specimen collected in 2017, 10 (9%) reported contact with a suspected case during the incubation period. Twenty-seven (27%) cases over age 15 reported sexual contact during the incubation period; eight (8%) adult male cases reported MSM activity. Twenty-five (22%) cases reported compromised immune status. Forty-one (36%) cases reported contact with animals during the incubation period; ten (9%) had contact with farm or non-domesticated animals. Thirty-six (31%) cases reported foreign travel. Thirty-five (30%) cases reported any recreational water exposure. Table 3 presents selected risk factors for cryptosporidiosis infection by county.

Table 2: Cryptosporidiosis Case Demographics by County, 2017

	N	(%) by County
Alameda		
Male	15	(63%)
White	7	(29%)
Black	4	(17%)
Asian	4	(17%)
Hispanic	2	(8%)
Unknown/Missing	7	(29%)
San Francisco		
Male	20	(77%)
White	9	(35%)
Black	3	(12%)
Hispanic	3	(12%)
Other	2	(8%)
Unknown/Missing	9	(35%)
San Mateo		
Male	7	(25%)
White	10	(36%)
Asian	6	(21%)
Hispanic	5	(18%)
Unknown/Missing	7	(25%)
Santa Clara		
Male	17	(46%)
White	17	(46%)
Asian	5	(14%)
Hispanic	8	(22%)
Unknown/Missing	7	(19%)

Table 3: Percentage of Cases by County with Known Risk Factors During the Incubation Period, 2017

Risk Factor	County	(%)
Contact with Suspect Case	Alameda	(17%)
	San Francisco	(4%)
	San Mateo	(11%)
	Santa Clara	(5%)
Daycare	Alameda	(8%)
	San Francisco	(4%)
	San Mateo	(14%)
	Santa Clara	(8%)
Sexual Activity*	Alameda	(17%)
	San Francisco	(19%)
	San Mateo	(36%)
	Santa Clara	(22%)
MSM**	Alameda	(8%)
	San Francisco	(12%)
	Santa Clara	(11%)
Contact with Farm or Non-Domesticated Animals	Alameda	(8%)
	San Francisco	(4%)
	San Mateo	(11%)
	Santa Clara	(11%)
Immune Suppression	Alameda	(36%)
	San Francisco	(19%)
	San Mateo	(7%)
	Santa Clara	(24%)
Foreign Travel	Alameda	(21%)
	San Francisco	(15%)
	San Mateo	(43%)
	Santa Clara	(41%)
Recreational Water Contact ***	Alameda	(25%)
	San Francisco	(35%)
	San Mateo	(36%)
	Santa Clara	(27%)

* Denominator includes cases over 15 years

** Denominator includes male cases over 15 years

***Includes treated and untreated recreational water exposure

Cryptosporidiosis Surveillance Timeliness

The Cryptosporidiosis Surveillance Project receives case reports through cooperation with clinical diagnostic laboratories, county health departments, and the California Emerging Infections Program.

In 2017, CSP received case notification of positive *Cryptosporidium* laboratory results for 70% of the 115 cases within 7 days of specimen collection. This figure does not adjust for weekends, holidays or time required for specimen processing. According to Title 17 of the California Code of Regulations, *Cryptosporidium* infections are required to be reported to county health departments within 1 day of identification. Table 5 presents county-specific cryptosporidiosis case reporting characteristics.

CSP completed case interviews for 72% of cases in 2017. Interviews were completed within one business day of notification for 32% of all interviewed cases.

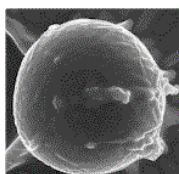


Table 4: Median Days between Specimen Collection and Report to CSP, 2017

	N	Median	Min	Max
2017	115	4	1	273
Quarter				
Quarter 1	17	4	1	74
Quarter 2	25	3	1	273
Quarter 3	49	4	1	223
Quarter 4	24	7	1	130
Informant				
California Emerging Infections Program	7	130	6	273
County Health Department	108	4	1	74
County				
Alameda	24	10	1	74
San Francisco	26	7	1	273
San Mateo	28	4	1	15
Santa Clara	37	2	1	9

Table 5: Median Days Between Specimen Collection and Report to CSP by County, Informant and Quarter, 2017

County	Informant/Quarter	N	Median	Min	Max
Alameda	California Emerging Infections Program	2	10	1	74
	Alameda County Public Health Department	22	38	8	67
	Quarter 1	5	15	7	74
	Quarter 2	3	18	3	67
	Quarter 3	11	8	2	39
San Francisco	Quarter 4	5	14	1	49
	California Emerging Infections Program	5	223	6	273
	San Francisco Communicable Disease Control	21	6	1	67
	Quarter 1	3	6	4	67
	Quarter 2	8	5	1	273
San Mateo	Quarter 3	10	7	1	223
	Quarter 4	5	17	6	130
	San Mateo County Health Services Agency	28	4	1	15
	Quarter 1	5	3	2	5
	Quarter 2	1	3	3	3
Santa Clara	Quarter 3	17	4	1	15
	Quarter 4	5	6	5	9
	Santa Clara County Public Health Department	37	2	1	9
	Quarter 1	4	3	1	4
	Quarter 2	13	2	1	6
	Quarter 3	11	2	1	7
	Quarter 4	9	1	1	9

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