# Cryptosporidiosis Surveillance Project Annual Report 2023

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 2022:** During the fourth quarter of 2023, 41 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.

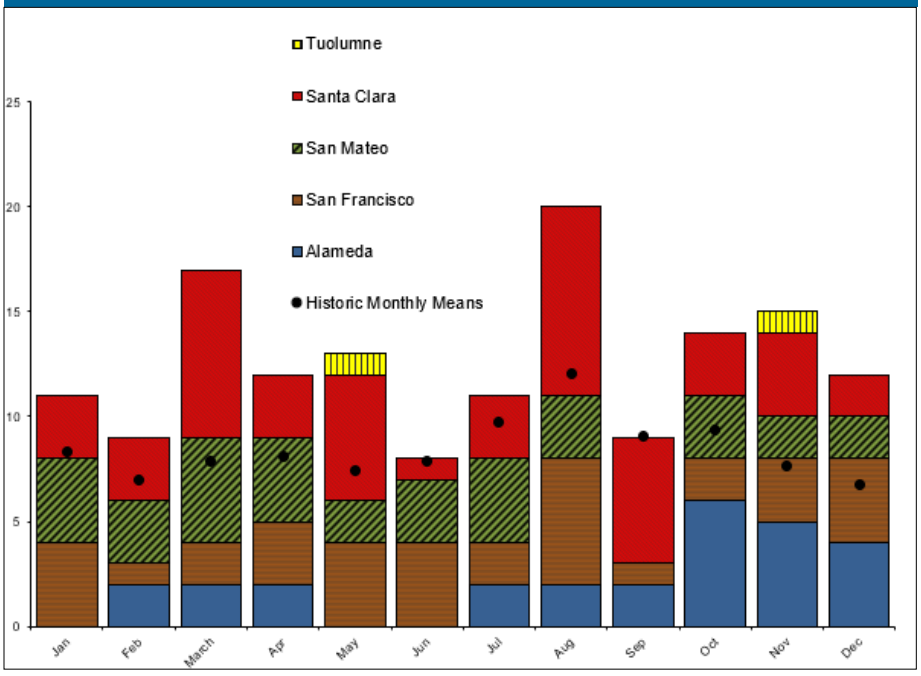
**2023 Surveillance:** In 2023 a total of 151 cases were reported. No system-wide, drinking water associated cryptosporidiosis outbreaks were detected, nor were any other common exposures identified. Case counts and cumulative incidence (CI) varied by county ranging from 2 cases in Tuolumne County to 51 cases in Santa Clara county and 1.65 cryptosporidiosis cases per 100,000 residents in Alameda county to 4.74 cryptosporidiosis cases per 100,000 residents in San Mateo county (Table 1). Compared to 2022, the incidence of cryptosporidiosis increased for Alameda, San Mateo, Santa Clara, and Tuolumne counties and decreased for San Francisco county. 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, 2023**

| County | N | Cumulative Incidence per 100,000‡ |
|---|---|---|
| Alameda | 27 | 1.65 |
| San Francisco | 36 | 4.33 |
| San Mateo | 35 | 4.74 |
| Santa Clara | 51 | 2.70 |
| Tuolumne | 2 | 3.66 |
| Total | 151 | 2.93 |

‡ 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, 2022 and 2023. Sacramento, California, May 2023

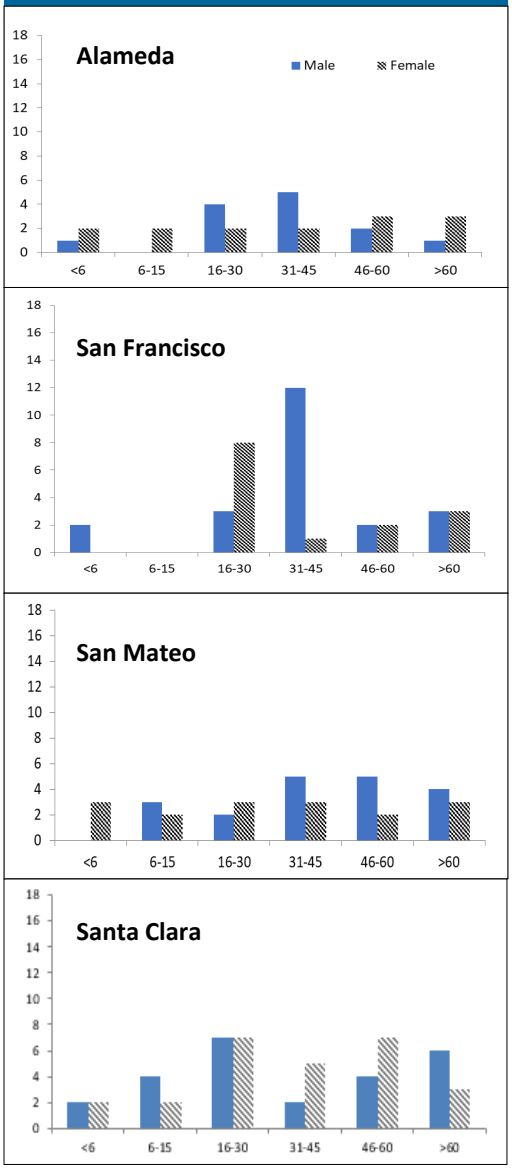
**Figure 1: Cryptosporidiosis Cases by Month and County, January 2023—December 2023**




Points represent monthly mean case counts since 2000 to date. 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 (>2) by County, Age and Sex, January–December 2023**



**Cryptosporidiosis Case Demographics and Risk Factors**

In 2023, 78 (52%) of cryptosporidiosis cases were white and 80 (53%) were male. Data on race/ethnicity were not collected for 1 (1%) 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 2023, 19 (13%) reported contact with a suspected case during the incubation period. Thirty-seven (25%) cases over age 15 reported sexual contact during the incubation period; fourteen (9%) adult male cases reported MSM activity. Forty-two (28%) cases reported compromised immune status. Fifty-nine (39%) cases reported contact with animals during the incubation period; seven (5%) had contact with farm or non-domesticated animals. Fifty-six (37%) cases reported foreign travel. Forty-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 (Cases>2), 2023**

| | N | (%) by County |
|---|---|---|
| **Alameda** | | |
| Male | 13 | (48%) |
| White | 12 | (44%) |
| Black | 1 | (4%) |
| Asian | 4 | (15%) |
| Hispanic | 8 | (30%) |
| Unknown/Missing | 2 | (7%) |
| **San Francisco** | | |
| Male | 22 | (61%) |
| White | 26 | (72%) |
| Black | 2 | (6%) |
| Asian | 3 | (8%) |
| Hispanic | 5 | (14%) |
| **San Mateo** | | |
| Male | 19 | (54%) |
| White | 17 | (49%) |
| Black | 1 | (3%) |
| Asian | 5 | (14%) |
| Hispanic | 8 | (23%) |
| Other Race | 4 | (11%) |
| **Santa Clara** | | |
| Male | 25 | (49%) |
| White | 21 | (41%) |
| Asian | 20 | (39%) |
| Hispanic | 8 | (16%) |
| Native Hawaiian/ Pacific Islander | 1 | (2%) |
| Unknown/Missing | 1 | (2%) |

**Table 3: Percentage of Cases by County with Known Risk Factors During the Incubation Period, 2023**

| Risk Factor | County | (%) |
|---|---|---|
| Contact with Suspect Case | Alameda | (16%) |
| | San Francisco | (11%) |
| | San Mateo | (26%) |
| | Santa Clara | (47%) |
| Daycare | San Francisco | (29%) |
| | San Mateo | (36%) |
| | Santa Clara | (36%) |
| Sexual Activity* | Alameda | (14%) |
| | San Francisco | (46%) |
| | San Mateo | (14%) |
| | Santa Clara | (22%) |
| | Tuolumne | (5%) |
| MSM** | Alameda | (7%) |
| | San Francisco | (64%) |
| | San Mateo | (14%) |
| | Santa Clara | (7%) |
| | Tuolumne | (7%) |
| Contact with Farm or Non-Domesticated Animals | Alameda | (14%) |
| | San Mateo | (14%) |
| | Santa Clara | (71%) |
| Immune Suppression | Alameda | (21%) |
| | San Francisco | (19%) |
| | San Mateo | (19%) |
| | Santa Clara | (38%) |
| | Tuolumne | (2%) |
| Foreign Travel | Alameda | (23%) |
| | San Francisco | (13%) |
| | San Mateo | (25%) |
| | Santa Clara | (38%) |
| | Tuolumne | (2%) |
| Recreational Water Contact *** | Alameda | (16%) |
| | San Francisco | (29%) |
| | San Mateo | (29%) |
| | 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 2023, CSP received case notification of positive *Cryptosporidium* laboratory results for 85% of the 150 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 83% of cases in 2023. Interviews were completed within one business day of notification for 49% of all interviewed cases.

*These numbers do not reflect additional case reports received in subsequent years.

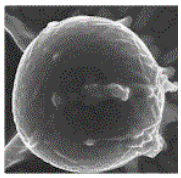


**Table 4: Median Days between Specimen Collection and Report to CSP, 2023**

| | | N | Median | Min | Max |
|---|---|---|---|---|---|
| **2023** | | 150 | 4 | 1 | 39 |
| **Quarter** | | | | | |
| | Quarter 1 | 36 | 4 | 1 | 39 |
| | Quarter 2 | 33 | 5 | 1 | 12 |
| | Quarter 3 | 40 | 4 | 1 | 20 |
| | Quarter 4 | 41 | 4 | 1 | 21 |
| **County** | | | | | |
| | Alameda | 27 | 5 | 1 | 11 |
| | San Francisco | 36 | 3 | 1 | 39 |
| | San Mateo | 35 | 5 | 1 | 33 |
| | Santa Clara | 50 | 4 | 1 | 12 |
| | Tuolumne | 2 | 8 | 7 | 9 |

**Table 5: Median Days Between Specimen Collection and Report to CSP by County (Cases>2), Informant and Quarter, 2023**

| County | Informant/Quarter | N | Median | Min | Max |
|---|---|---|---|---|---|
| | Alameda County Public Health Department | 27 | 5 | 1 | 11 |
| **Alameda** | Quarter 1 | 4 | 4 | 1 | 5 |
| | Quarter 2 | 2 | 6 | 5 | 7 |
| | Quarter 3 | 6 | 4 | 2 | 8 |
| | Quarter 4 | 15 | 5 | 1 | 11 |
| | San Francisco Communicable Disease Control | 36 | 3 | 1 | 39 |
| **San Francisco** | Quarter 1 | 7 | 3 | 1 | 39 |
| | Quarter 2 | 11 | 4 | 1 | 9 |
| | Quarter 3 | 9 | 4 | 1 | 20 |
| | Quarter 4 | 9 | 2 | 1 | 21 |
| | San Mateo County Health Services Agency | 35 | 5 | 1 | 33 |
| **San Mateo** | Quarter 1 | 12 | 5 | 1 | 33 |
| | Quarter 2 | 9 | 5 | 1 | 7 |
| | Quarter 3 | 7 | 4 | 2 | 7 |
| | Quarter 4 | 7 | 4 | 2 | 8 |
| | Santa Clara County Public Health Department | 50 | 4 | 1 | 12 |
| **Santa Clara** | Quarter 1 | 13 | 4 | 1 | 7 |
| | Quarter 2 | 10 | 3 | 1 | 12 |
| | Quarter 3 | 18 | 6 | 1 | 10 |
| | Quarter 4 | 9 | 4 | 1 | 7 |

This report was created in February 2023 by the San Francisco Department of Public Health Environmental Health Branch in partnership with the San Francisco Public Utilities Commission. This report was updated in 2026 by the Applied Research , Community Health Epidemiology, and Surveillance Branch. These data are subject to change due to ongoing data cleaning efforts
For more information, contact mina.mohammadi@sfdph.org or visit our website at :
https://www.sf.gov/resource/2023/cryptosporidiosis-surveillance-project-reports-and-resources