

Foodborne and waterborne illnesses (FBI/WBI) are caused by contaminated food and water and commonly cause such symptoms as nausea, vomiting, and diarrhea. Food and water can be contaminated by a variety of different bacteria, viruses, parasites, and even chemicals. This report provides statistics on FBI/WBI reported in Sacramento County for the years 2014 through 2018.

In Sacramento County, the total number of cases reported to have bacterial-related foodborne/waterborne illnesses (FBI/WBI) increased by 66.1% between 2014 and 2018 [Table 1]. Among FBIs, cases of shigellosis increased the most by 352.9%. There were also increases among other FBIs, including shiga toxin-producing *Escherichia coli* (STEC) with a 111.4% increase, campylobacteriosis with a 62.9% increase, and salmonellosis with a 36.4% increase. Among WBIs, cases of legionellosis increased by 50.0%.

Parasitic-related FBI/WBI cases increased by 307.8% during this five-year period [Table 2]. Giardiasis accounted for the greatest increase by 341.8%. This increase is largely due to increased screening and testing among refugee populations. The number of cryptosporidiosis cases also increased by 150.0%.

Viral-related FBI/WBI cases increased by 250.0% between 2014 and 2018 [Table 3]. The 333.3% increase in hepatitis A cases largely attributed to the overall increase.

Data Source: California Reportable Disease Information Exchange (CalREDIE)

Notes: Data are provisional. Counts may be influenced by surveillance artifacts and outbreaks. Cases are classified according to the most recent case definitions as published by the Centers for Disease Control and Prevention or the Council of State and Territorial Epidemiologists. Case definitions were updated for the following diseases in the year indicated: campylobacteriosis (2015), STEC (2014), salmonellosis (2017), shigellosis (2017), *Vibrio* infections (2017), and trichinosis (2014).

**Table 1. Number of Cases with Bacterial Foodborne/Waterborne Illnesses, Sacramento County, 2014-2018**

Disease	2014	2015	2016	2017	2018
<b>Botulism, Foodborne<sup>2</sup></b>	0	0	0	4	0
<b>Campylobacteriosis<sup>2</sup></b>	240	317	328	409	391
<b><i>E. coli</i> shiga toxin producing (STEC)<sup>2</sup></b>	44	65	47	58	93
<b>Legionellosis<sup>4</sup></b>	12	16	15	11	18
<b>Listeriosis<sup>1</sup></b>	3	2	6	3	1
<b>Salmonellosis<sup>2</sup></b>	165	200	142	291	225
<b>Shigellosis<sup>2</sup></b>	17	77	34	91	77
<b>Typhoid Fever/Carrier<sup>2</sup></b>	3	1	2	4	6
<b><i>Vibrio</i> Infections<sup>2</sup></b>	7	5	2	4	4
<b>Yersiniosis<sup>1</sup></b>	1	5	6	1	2
<b>Total</b>	492	688	582	876	817

**Table 2. Number of Cases with Parasitic Foodborne/Waterborne Illnesses, Sacramento County, 2014-2018**

Disease	2014	2015	2016	2017	2018
<b>Amebiasis<sup>2</sup></b>	4	4	2	1	0
<b>Cryptosporidiosis<sup>2</sup></b>	6	6	11	19	15
<b>Cyclosporiasis<sup>2</sup></b>	0	0	0	0	2
<b>Cysticercosis or Taeniasis<sup>2</sup></b>	0	0	1	2	1
<b>Giardiasis<sup>3</sup></b>	79	183	298	562	349
<b>Trichinosis<sup>2</sup></b>	1	0	0	5	0
<b>Total</b>	90	193	312	589	367

**Table 3. Number of Cases with Viral Foodborne/Waterborne Illnesses, Sacramento County, 2014-2018**

Disease	2014	2015	2016	2017	2018
<b>Hepatitis A<sup>1</sup></b>	3	3	12	10	13
<b>Hepatitis E, Acute<sup>2</sup></b>	1	7	7	1	1
<b>Total</b>	4	10	19	11	14

<sup>1</sup>Includes confirmed cases

<sup>2</sup>Includes confirmed and probable cases

<sup>3</sup>Includes confirmed, probable, and suspect cases

<sup>4</sup>Includes confirmed and suspect cases

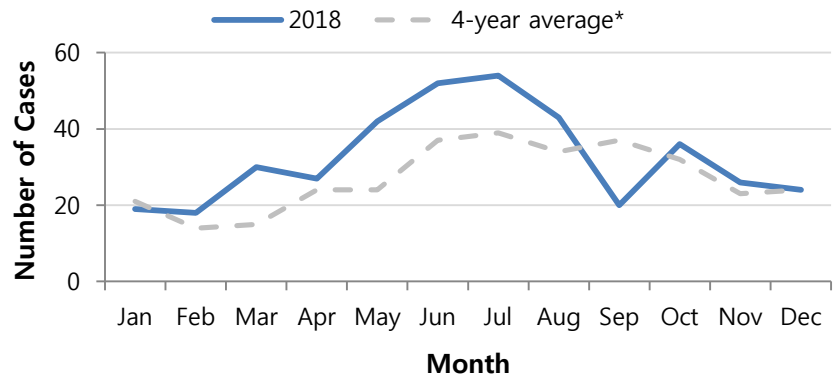
The four-year (2014-2017) average trend shows that the most common FBIs tend to occur in the summer. However several outbreaks in 2018 altered this trend.

In 2018, the highest number of campylobacteriosis cases were reported in the summer months of June (N=52) and July (N=54), which follow the general average trend [Figure 1]. The least number of cases were reported in the winter months of January (N=19) and February (N=18).

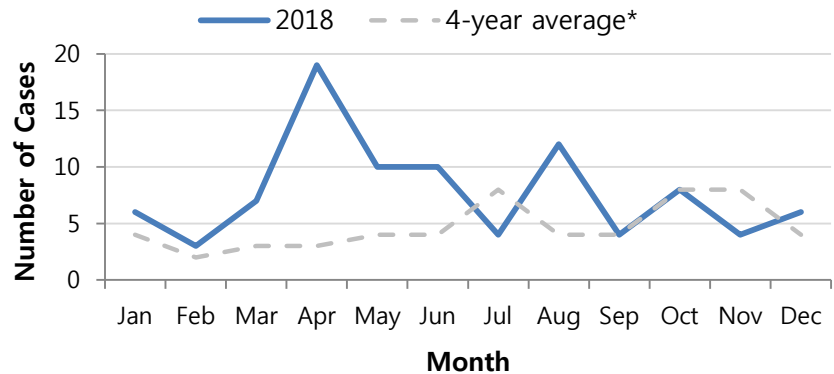
In 2018, the most STEC cases were reported in April (N=19). County residents were identified as part of a multi-state outbreak linked to romaine lettuce with most outbreak cases developing symptoms in April. On average, the most STEC cases were generally reported in the summer month of July (N=8) and the fall months of October (N=8) and November (N=8) [Figure 2].

In 2018, there were peaks in cases of salmonellosis at several points throughout the year [Figure 3]. County residents were identified to be part of several multi-county (within California) and multi-state outbreaks and investigations, including one linked to ground beef and another linked to turkey products. On average, the most salmonellosis cases were reported in the summer month of August (N=27).

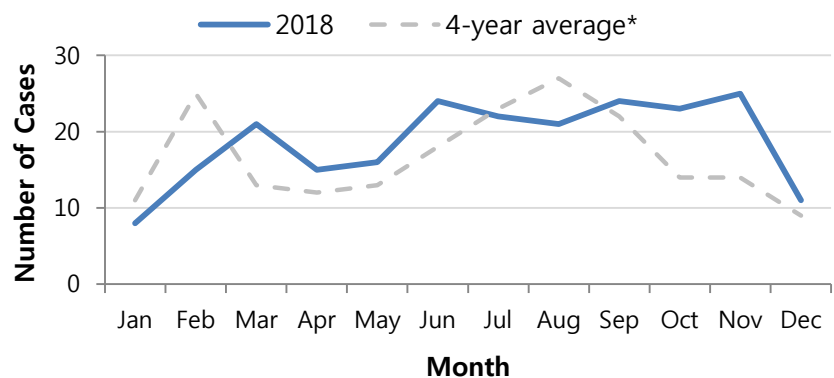
**Figure 1. Number of Campylobacteriosis Cases by Month, Sacramento County, 2018**



**Figure 2. Number of Shiga Toxin-Producing Escherichia coli (STEC) Cases by Month, Sacramento County, 2018**



**Figure 3. Number of Salmonellosis Cases by Month, Sacramento County, 2018**



\*4-year average includes data from 2014-2017.

Refer to the following resources for more information on FBI/WBI:

- Centers for Disease Control and Prevention (<https://www.cdc.gov/foodsafety/foodborne-germs.html>)
- California Department of Public Health (<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/IDB.aspx>)
- Sacramento County Public Health (<http://www.dhs.saccounty.net/PUB/Pages/Communicable-Disease-Control/SP-Communicable-Diseases.aspx>)