



Foodborne illness (FBI) is a common, costly—yet preventable—public health problem. Each year, 1 in 6 Americans gets sick by consuming contaminated foods or beverages, according to the Centers for Disease Control and Prevention. More than 250 different foodborne diseases have been described. Most of these diseases are infections, caused by a variety of bacteria, viruses, and parasites that can be foodborne or waterborne. Waterborne illness (WBI) can result during bathing, washing, drinking, or in food preparation. This report includes information about some of the most frequently reported foodborne/waterborne (FBI/WBI) illnesses in Sacramento County.

Table 1 lists FBI/WBI caused by bacterial agents from 2012 to 2015 in the County. In 2015, there were 426 bacterial-related FBI/WBI for select diseases, which is a 45.4% increase compared to 2012. Most notably, shiga toxin-producing *Escherichia coli* (STEC) and shigellosis incidents more than tripled from 2012 to 2015.

Parasitic-related FBI/WBI for select diseases also significantly increased by 68.1%, from 72 cases in 2012 to 121 cases in 2015. Giardiasis incidents almost doubled in 2015 compared to 2012 (Table 2).

Viral-related FBI/WBI for select diseases increased 25.0% in 2015 compared to 2012. Hepatitis E incidents dramatically increased in 2015, but Hepatitis A incidents decreased more than half in 2015 compared to 2012 (Table 3).

Increases in the number of FBI/WBI cases reported from 2012 to 2015 may be partially attributable to changes in surveillance practices; the expansion of Electronic Lab Reporting, changes in diagnostic criteria, increased provider awareness, and improved access to care may have contributed to this increase.

The occurrence of foodborne outbreaks may greatly influence the total cases in a single year for the disease(s) that caused the outbreak(s).

Climate impacts (e.g., drought, average temperatures) may change the abundance of infectious agents in the environment. They may also influence behaviors that make people more likely to come into contact with these agents (e.g., swimming, BBQs, animal contact).

Table 1. Select Foodborne/Waterborne Bacterial Infections, Sacramento County, 2012-2015

FBI/WBI (Bacterial Agents)	2012	2013	2014	2015
Campylobacteriosis - Confirmed	134	165	170	138
Salmonellosis - Confirmed and Probable	102	113	134	144
E. coli, shiga toxin producing (STEC) - Confirmed and Probable	18	15	40	59
Shigellosis - Confirmed and Probable	22	17	16	70
Vibrio - Confirmed and Probable	5	5	7	5
Listeriosis - Confirmed and Probable	3	1	3	2
Typhoid/Carrier - Confirmed and Probable	1	7	3	1
Yersiniosis - Confirmed	5	2	1	5
Listeriosis - Confirmed and Probable	3	1	3	2
Total	293	326	377	426

Table 2. Select Foodborne/Waterborne Parasitic Infections, Sacramento County, 2012-2015

FBI/WBI (Parasitic Agents)	2012	2013	2014	2015
Giardiasis - Confirmed and Probable	57	67	56	111
Cryptosporidiosis - Confirmed and Probable	8	7	6	6
Amebiasis - Confirmed	7	7	4	4
Trichinosis (Trichinellosis) - Confirmed, Probable and Suspect	0	0	1	0
Total	72	81	67	121

Table 3. Select Foodborne/Waterborne Viral Infections, Sacramento County, 2012-2015

FBI/WBI (Viral Agents)	2012	2013	2014	2015
Hepatitis A - Confirmed	7	4	3	3
Hepatitis E, Acute - Confirmed	1	6	0	7
Total	8	10	3	10

Data Source: California Reportable Disease Information Exchange (CaREDIE) 2015



Graph 1 to Graph 4 show epidemiologic curves for select FBI/WBI incidents in 2015 by month. FBI/WBI incidents are reported year-round in the County, but tend to peak during hotter times of the year.

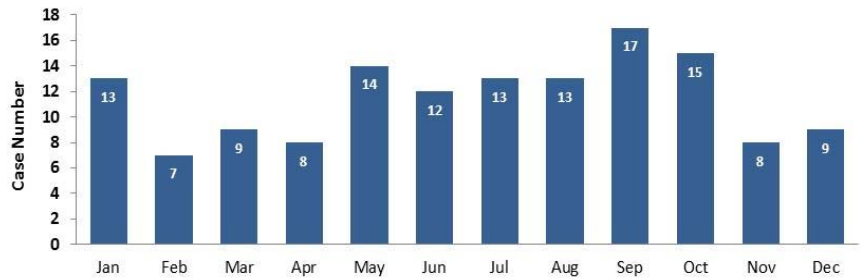
Campylobacteriosis is an infectious disease caused by bacteria of the genus *Campylobacter*. The symptoms include diarrhea, cramping, abdominal pain, and fever within two to five days after exposure to the organism. *Campylobacteriosis* affected all months in 2015, with peak months in September and October (Graph 1).

Salmonellosis is an infectious disease caused by bacteria of the genus *Salmonella*. Most persons infected with *Salmonella* develop diarrhea, fever, and abdominal cramps 12 to 72 hours after infection. Graph 2 shows that *Salmonella* incidents peaked in August 2015 in Sacramento County.

Giardia lamblia is a microscopic parasite that causes the diarrheal illness known as giardiasis. *Giardia* is found on surfaces or in soil, food, or water that has been contaminated with feces (poop) from infected humans or animals. The incidents appeared all the month in the year, the highest number in 2015 occurred in October.

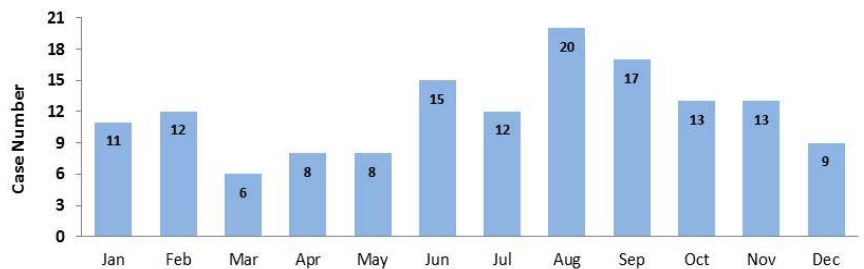
Escherichia coli (E. coli) bacteria normally live in the intestines of people and animals. Most *E. coli* are harmless. However, some *E. coli* are pathogenic, meaning they can cause illness, either diarrhea or illness outside of the intestinal tract. Foodborne outbreaks are most commonly associated with shiga toxin-producing *E. coli* (STEC) strains. In 2015, the most STEC cases occurred in October and July in Sacramento County (Graph 4).

Graph 1. Campylobacteriosis in Sacramento County by Month, 2015



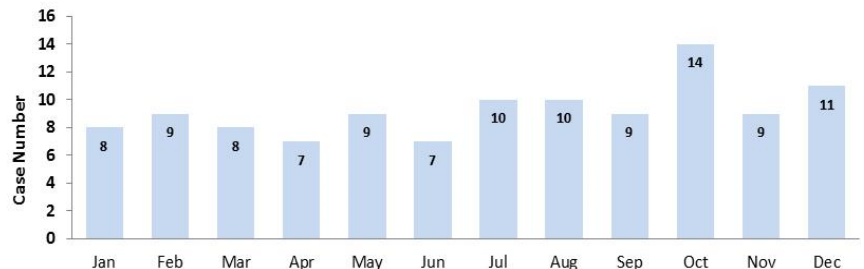
Includes confirmed cases only.

Graph 2. Salmonellosis in Sacramento County by Month, 2015



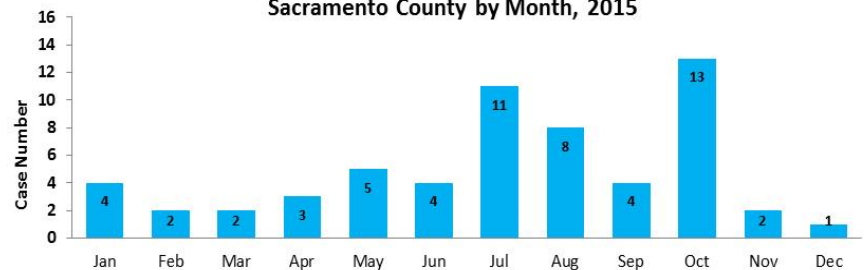
Includes confirmed and probable cases.

Graph 3. Giardiasis in Sacramento County by Month, 2015



Includes confirmed and probable cases.

Graph 4. Shiga Toxin-Producing Escherichia Coli (STEC) in Sacramento County by Month, 2015



* Include: E. coli, shiga toxin producing (STEC) - Confirmed and probable cases.