
RHODE ISLAND
DEPARTMENT OF HEALTH

Listeriosis Surveillance 2012-2016

Rhode Island Department of Health

Division of Preparedness, Response, Infectious Disease and Emergency Medical Services

Center for Acute Infectious Disease Epidemiology

About Listeriosis

- Listeriosis is a serious infection of the bloodstream and/or the meninges caused by eating foods contaminated with the bacterium *Listeria monocytogenes.* The disease primarily affects older adults, pregnant women, newborns, and adults with weakened immune systems. Symptoms typically begin 3-70 days after exposure and vary from person to person.
- Symptoms can include headache, stiff neck, confusion, loss of balance, and convulsions in addition to fever and muscle aches. Pregnant women typically experience fever and other non-specific symptoms, such as fatigue and aches. However, infections during pregnancy can lead to miscarriage, stillbirth, premature delivery, or life-threatening infection of the newborn.
- Unpasteurized dairy products and food items that are not re-heated prior to consumption, such as deli meats, have been associated with listeriosis.
- CDC estimates there are approximately 1,600 illnesses and 260 deaths due to listeria each year in the United States.

Data Overview, Listeriosis

- In 2016, five cases of listeriosis were reported in Rhode Island for an incidence rate of 0.47 cases per 100,000 people. This is higher than the most recent national data, which estimated the 2015 rate of listeriosis to be 0.24 cases per 100,000 people.
- In Rhode Island from 2012 to 2016, the highest rate of listeriosis was observed among older adults ≥80 years old. The rate of listeriosis among females was slightly higher than males, and reports of listeriosis peaked in August through October. These findings are all consistent with what has been observed nationally.
- Rhode Island has low case counts of listeriosis. In order to ensure patient privacy, data from 2012-2016 have been combined or averaged for analysis by age group, sex, county, and month of illness onset.

Reported Cases of Listeriosis, Rhode Island, 2012-2016

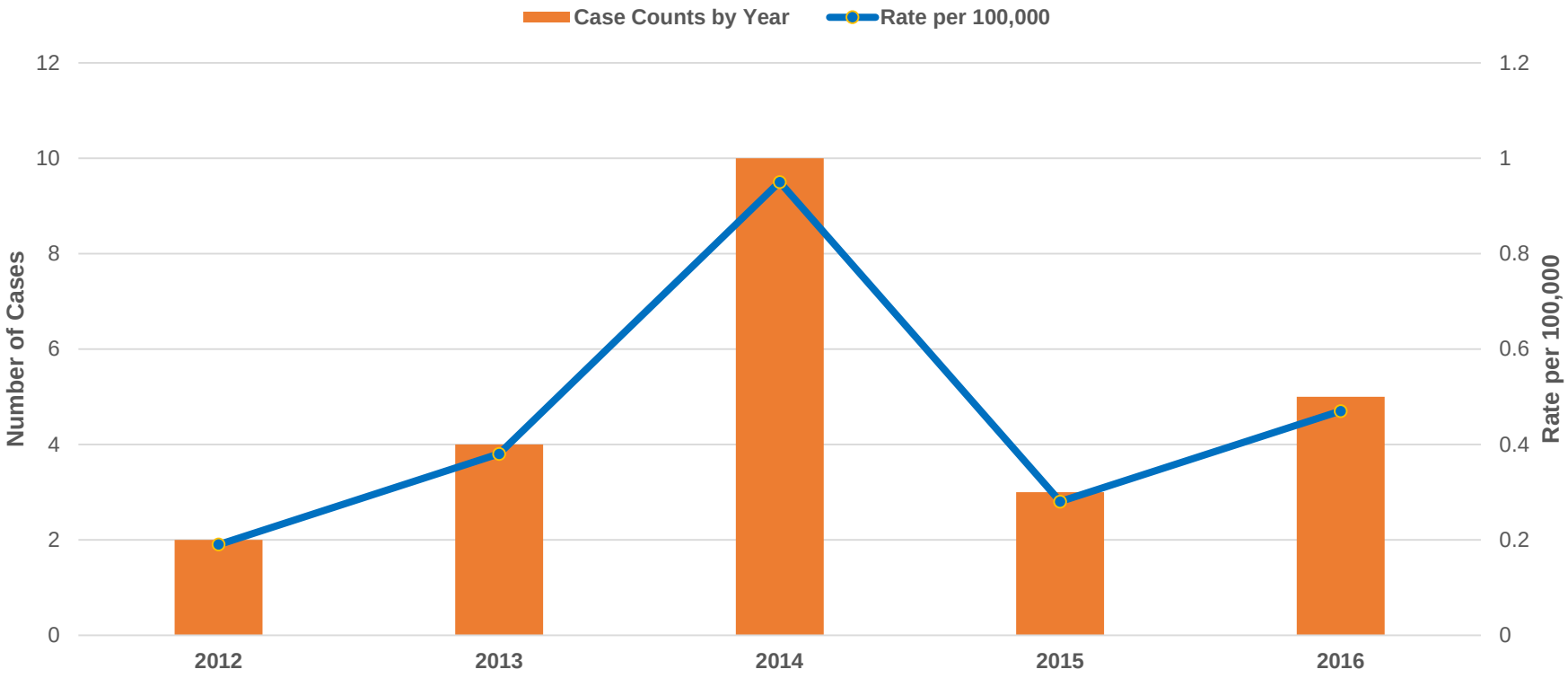

Figure 1: Five cases of listeriosis were reported in Rhode Island during 2016, for an incidence rate of 0.47 cases per 100,000 people. This rate is slightly higher than the national rate of listeriosis most recently reported in 2015, which was found to be 0.24 cases per 100,000 people. The number of listeriosis reports was consistent with what has been observed in Rhode Island in recent years, with the exception of 2014 when a spike in cases was observed. Although most of the 2014 cases were considered sporadic, three of the cases were associated with an outbreak at a restaurant. A case from 2013 was also associated with the same outbreak.

5-Year Average Rate of Listeriosis, Age Group, Rhode Island, 2012-2016

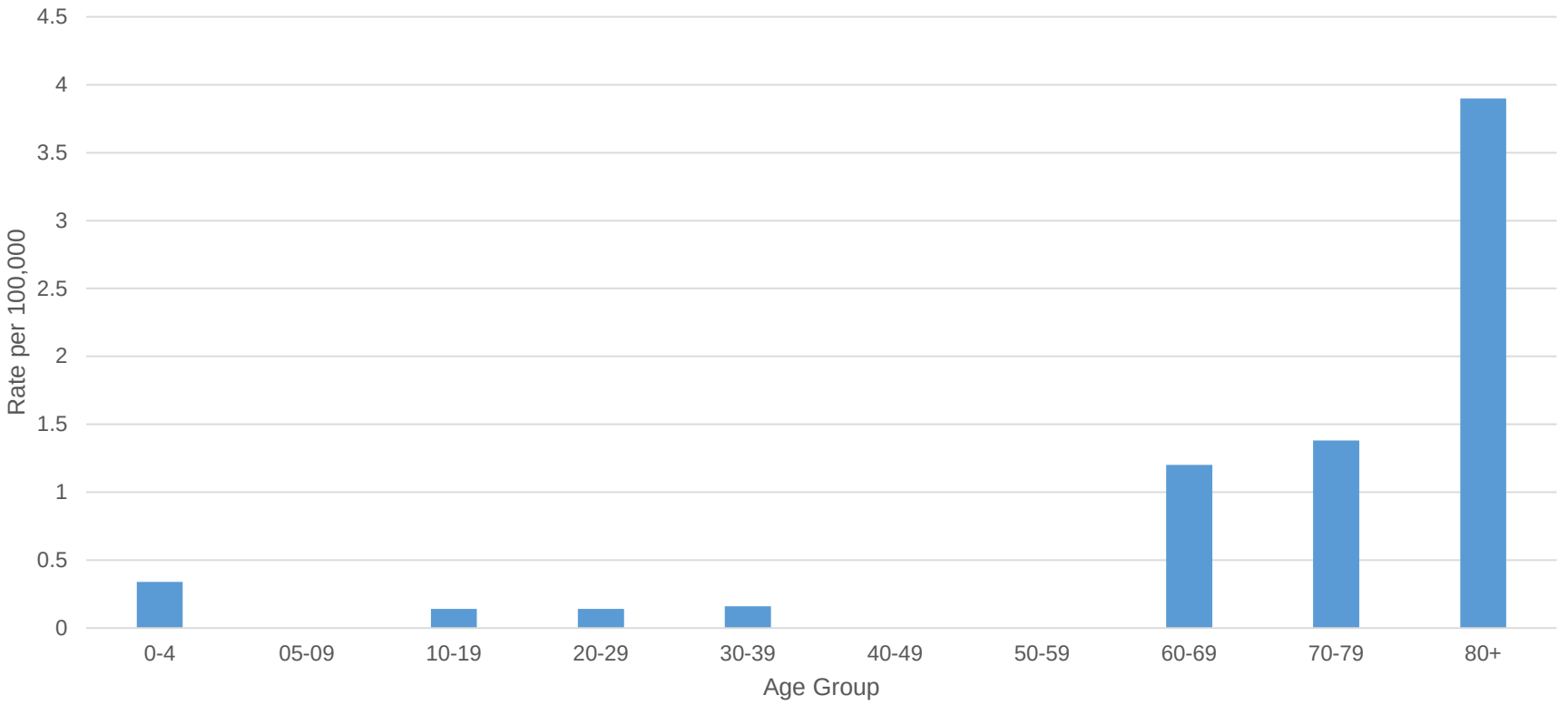

Figure 2: From 2012-2016, the highest incidence rates of listeriosis were observed among older adults over 60 years old and children less than 5 years old. Individuals in these groups are more likely to have weakened immune systems and tend to be most susceptible to listeria. These findings are also consistent with recent national data, which found that more than half of all listeriosis cases occur among adults aged 65 or older.

5-Year Average Rate of Listeriosis, Gender, Rhode Island, 2012-2016

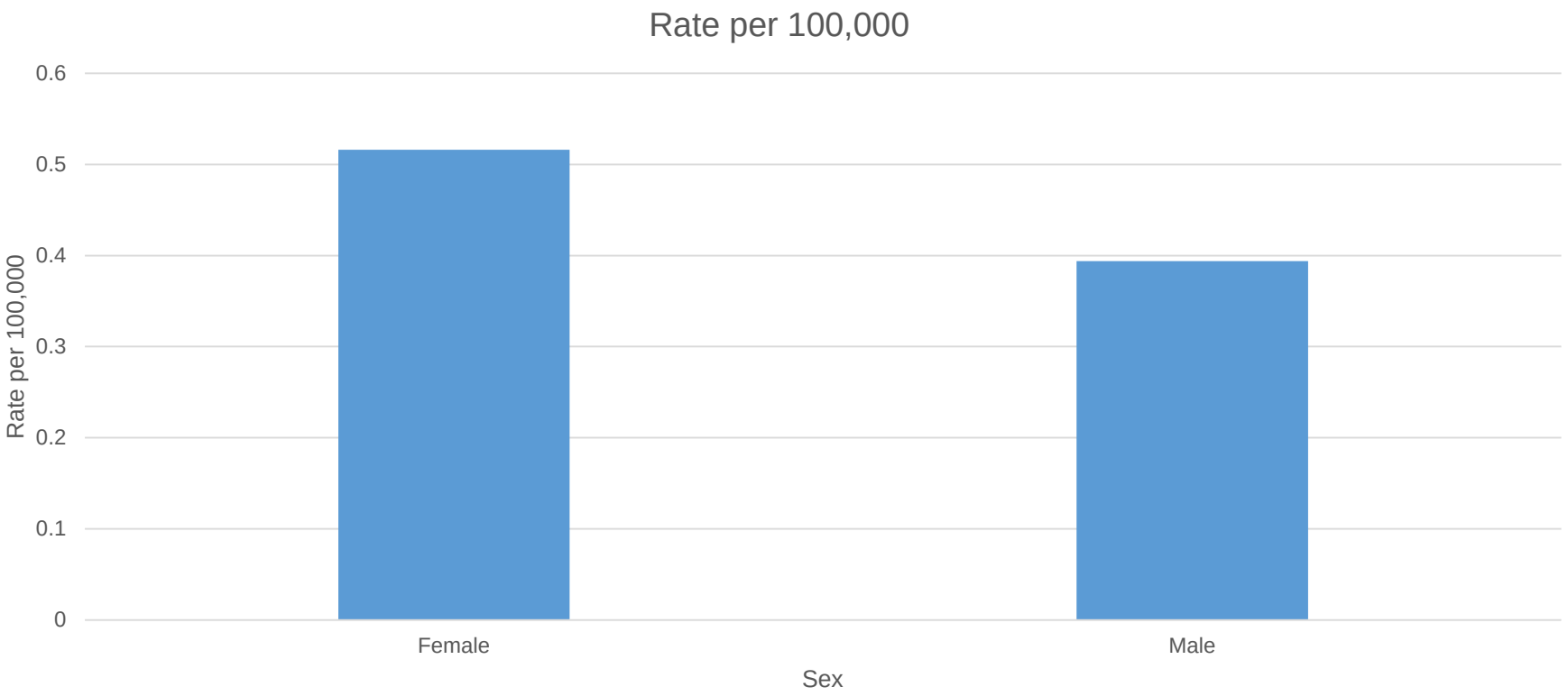

Figure 3. The five-year average rate of listeriosis in Rhode Island was observed to be similar between males and females. This finding is consistent with recent national data, where similar rates of listeriosis have been observed between sexes.

5-Year Average Rate of Listeriosis, by County, Rhode Island, 2012-2016

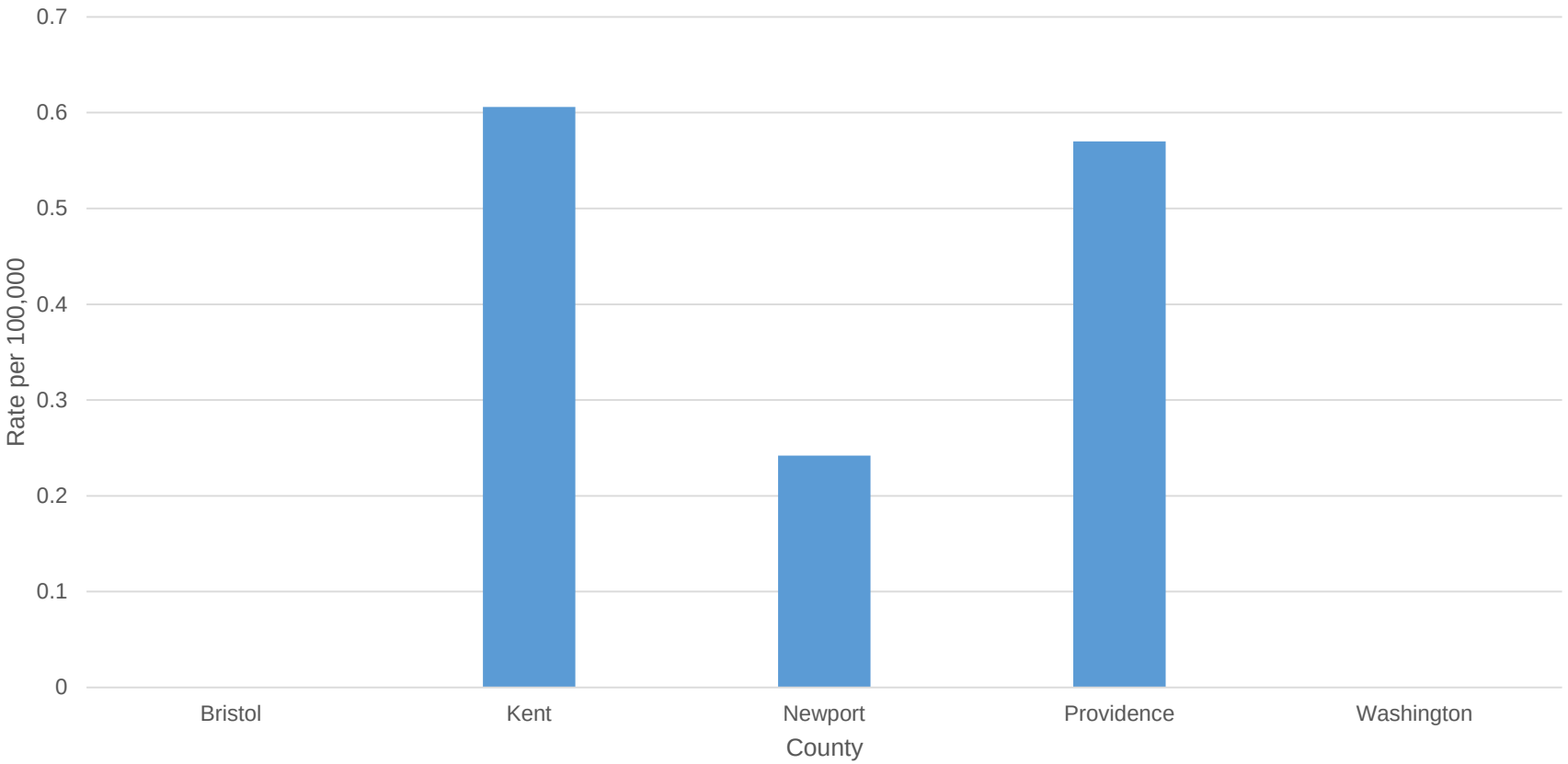

Figure 4: From 2012-2016, the incidence rate of listeriosis was highest in Providence and Kent counties, followed by Newport County. No listeriosis cases were reported in Bristol or Washington counties.

5-Year Cumulative Cases of Listeriosis, by Month, Rhode Island, 2012-2016

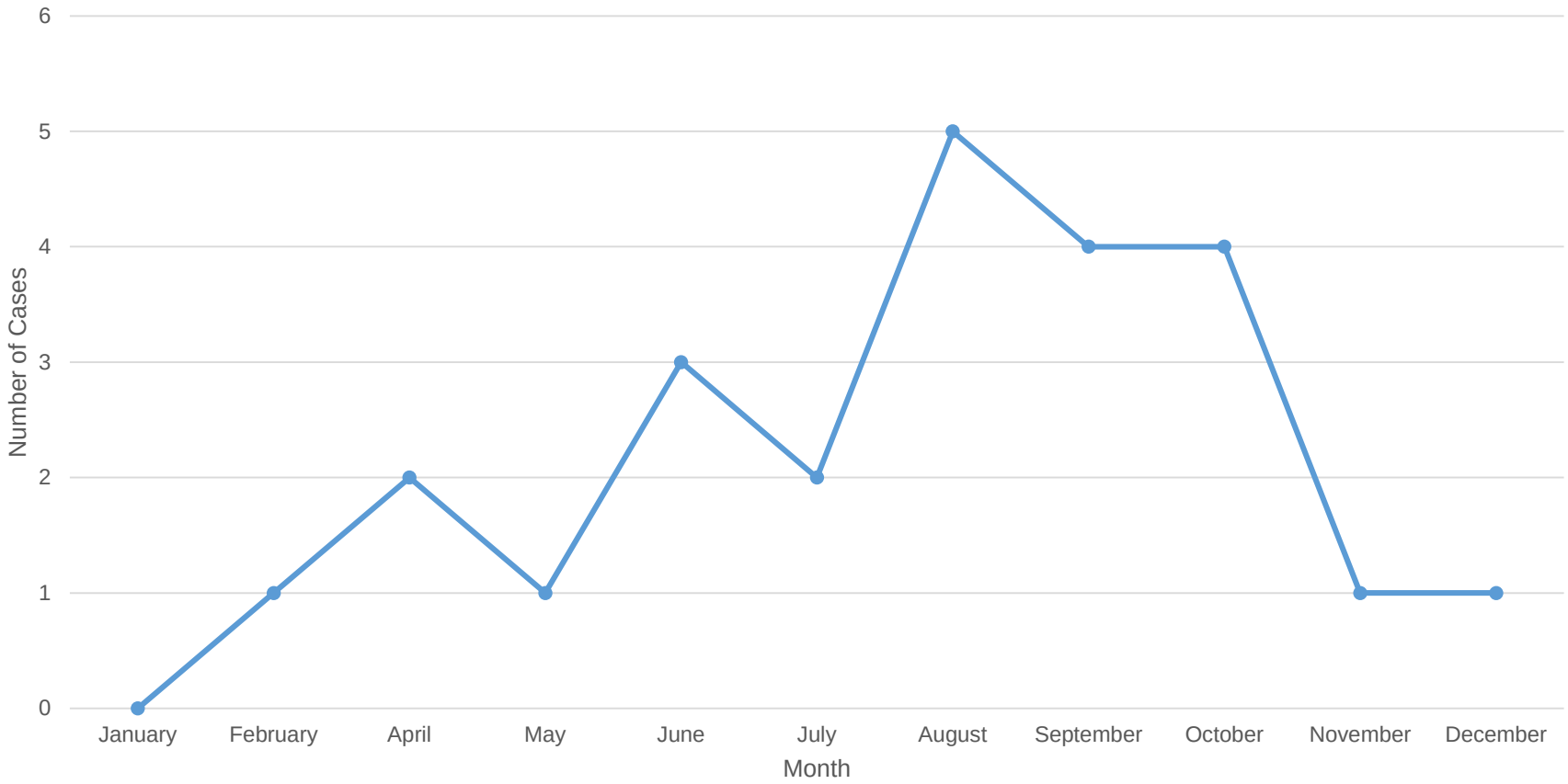

Figure 5: From 2012-2016, the majority of listeriosis cases occurred between August and October. This trend is consistent with what has been observed nationally.

Listeriosis Frequency and Rates by Year, Rhode Island, 2012-2016

Table 1. Frequency by Year					
	2012	**2013**	**2014**	**2015**	**2016**
Number of Cases	2	4	10	3	5

Table 2. Rate by Year					
	2012	**2013**	**2014**	**2015**	**2016**
Rate per 100,000	0.2	0.4	1.0	0.3	0.5

5-Year Cumulative Listeriosis Frequency, by Age Group, Rhode Island, 2012-2016

Table 3. 5-Year Cumulative Frequency by Age Group	
	2012-2016
0-4	1
5-9	0
10-19	1
20-29	1
30-39	1
40-49	0
50-59	0
60-69	6
70-79	4
≥80	10

5-Year Average Listeriosis Rates, by Age Group, Rhode Island, 2012-2016

Table 4. 5-Year Average Rate by Age Group	
	2012-2016
0-4	0.34
5-9	0.00
10-19	0.14
20-29	0.14
30-39	0.16
40-49	0.00
50-59	0.00
60-69	1.20
70-79	1.38
≥80	3.90

5-Year Cumulative Listeriosis Frequency and Average Rates, by Gender, Rhode Island, 2012-2016

Table 5. 5-Year Cumulative Frequency by Sex	
	2012-2016
Female	14
Male	10
Total	24

Table 6. 5-Year Cumulative Rate by Sex	
	2012-2016
Female	0.5
Male	0.4

5-Year Cumulative Listeriosis Frequency, by County, Rhode Island, 2012-2016

Table 7. 5-Year Cumulative Frequency by County	
	2012-2016
Bristol	0
Kent	5
Newport	1
Providence	18
Washington	0
All	24

5-Year Average Listeriosis Rates, by County, Rhode Island, 2012-2016

Table 7. 5-Year Average Rate by County	
	2012-2016
Bristol	0.00
Kent	0.61
Newport	0.24
Providence	0.57
Washington	0.00

5-Year Cumulative Listeriosis Frequency, Month, Rhode Island, 2012-2016

Table 9. 5-Year Cumulative Frequency by Month	
	2012-2016
Jan	0
Feb	1
Mar	0
Apr	2
May	1
Jun	3
Jul	2
Aug	5
Sep	4
Oct	4
Nov	1
Dec	1
All	24

Notes on Data

- Case counts include patients classified as confirmed and probable cases.
- “Event Date” (used to classify cases by month and year) is generated based on the availability of data in the following order:
  1. Illness onset date
  2. Specimen collection date
  3. Date of report to public health agency
- Rate is calculated per 100,000 population. The population denominator is based on 2010 US Census Population.

References

- https://www.cdc.gov/listeria/index.html
- http://www.cdc.gov/foodnet/reports/index.html