
RHODE ISLAND
DEPARTMENT OF HEALTH

Haemophilus Influenzae Invasive Disease Surveillance 2010-2014

Rhode Island Department of Health

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

Center for Acute Infectious Diseases Epidemiology

Summary: *Haemophilus Influenzae* Invasive Disease in RI, 2010-2014

- There were 16 cases of *Haemophilus influenzae* invasive disease in Rhode Island in 2014 with a rate of 1.5 cases per 100,000 people. This is a small increase from 2013 (13 cases).
- Due to few cases per year, data for some tables and figures are cumulative for the five-year period of 2010-2014.
- The highest burden of disease was among the elderly, with those age 80 or older having the highest rate of 9.0 cases per 100,000 people.
- The rates are similar for both females (1.4) and males (1.6).

Figure 1: Reported Cases of *Haemophilus Influenzae* Invasive Disease by Year, RI, 2010-2014

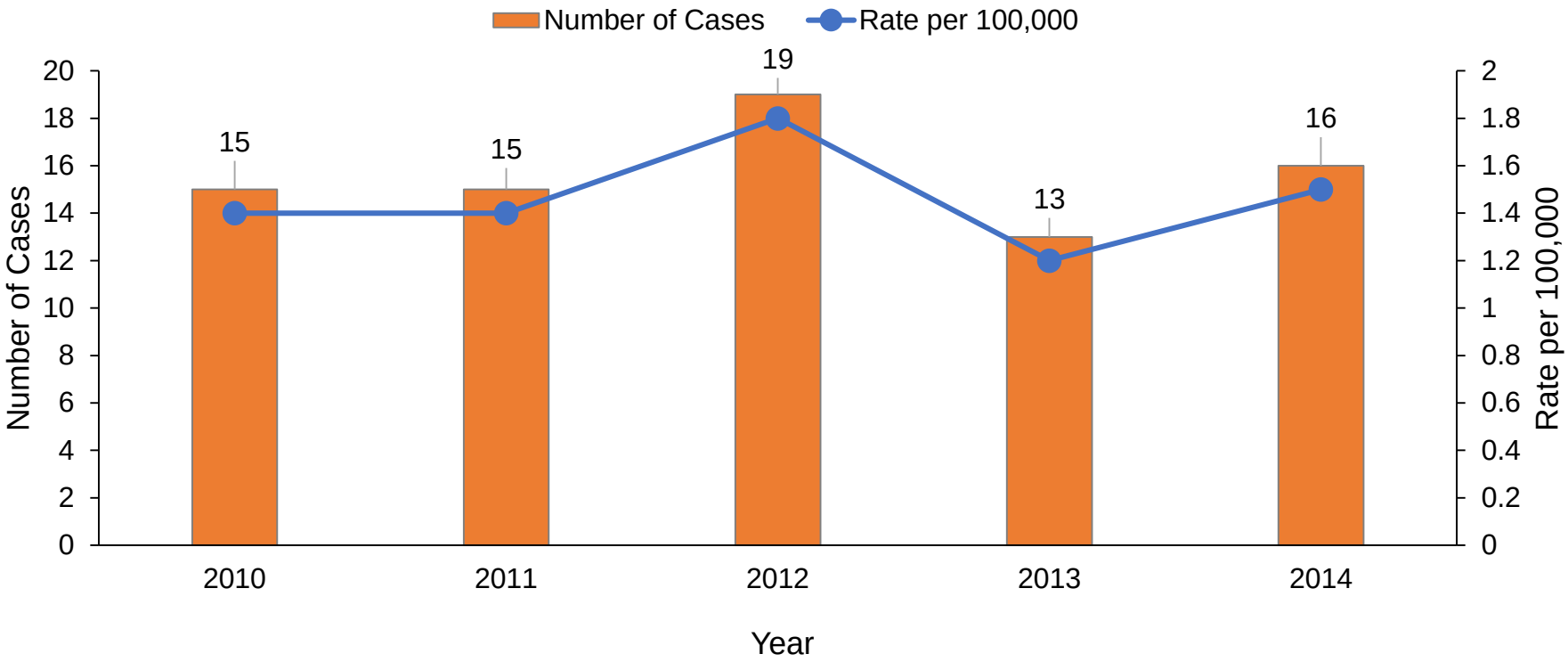

Figure 1: *Haemophilus influenzae* invasive disease is not common in Rhode Island. In 2014, there were 16 cases with a rate of 1.5 cases per 100,000 people. This is a small increase from 2013 (13 cases) but a decrease from 2012 (19 cases).

Figure 2: Average Rate of *Haemophilus Influenzae* Invasive Disease by Age Group, RI, 2010-2014

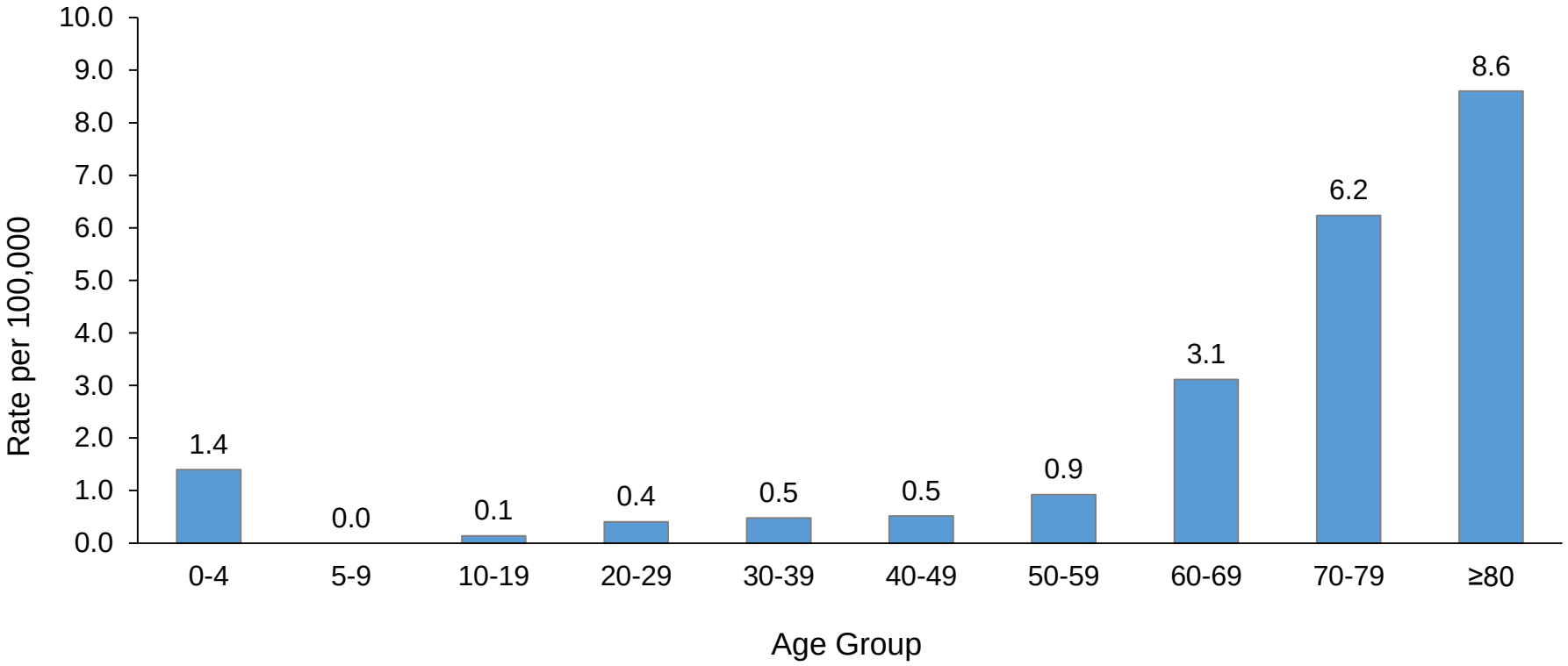

Figure 2: During 2010-2014, those age 60 or older had the highest average incidence rate, those age 80 or older had a rate of 8.6 cases per 100,000. In this five-year period, 72% of all cases were in people age 60 or older. This mirrors the national trend in which the highest rate of disease occurs in those age 65 or older and those younger than age 5.

Figure 3: Average Rate of *Haemophilus Influenzae* Invasive Disease by Sex, RI, 2010-2014

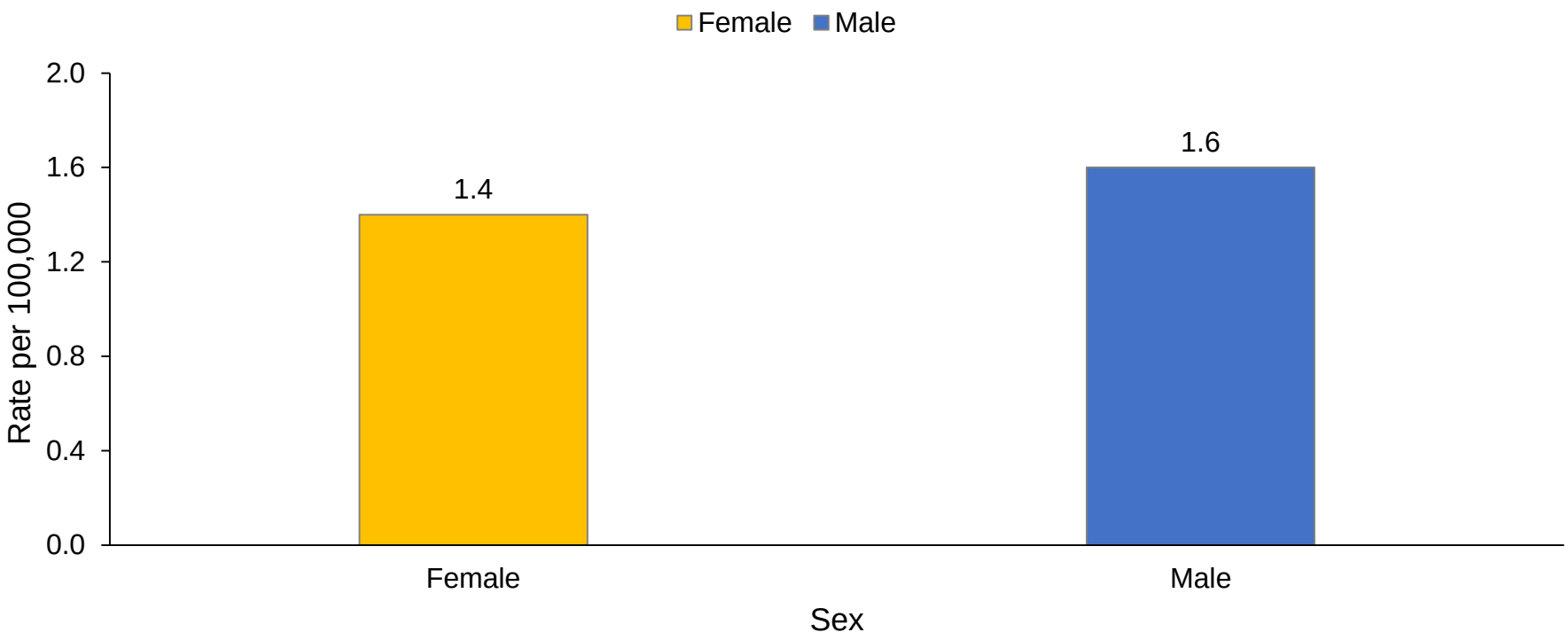

Figure 3: Though rates for males and females have fluctuated in the past five years, the rate for males is often higher than for females, but the difference is small. This mirrors the national data, with the most recent data from 2013 showing incidence rates of 0.6 cases per 100,000 people for both males and females.

Figure 4: Average Rate of *Haemophilus Influenzae* Invasive Disease by County, RI, 2010-2014

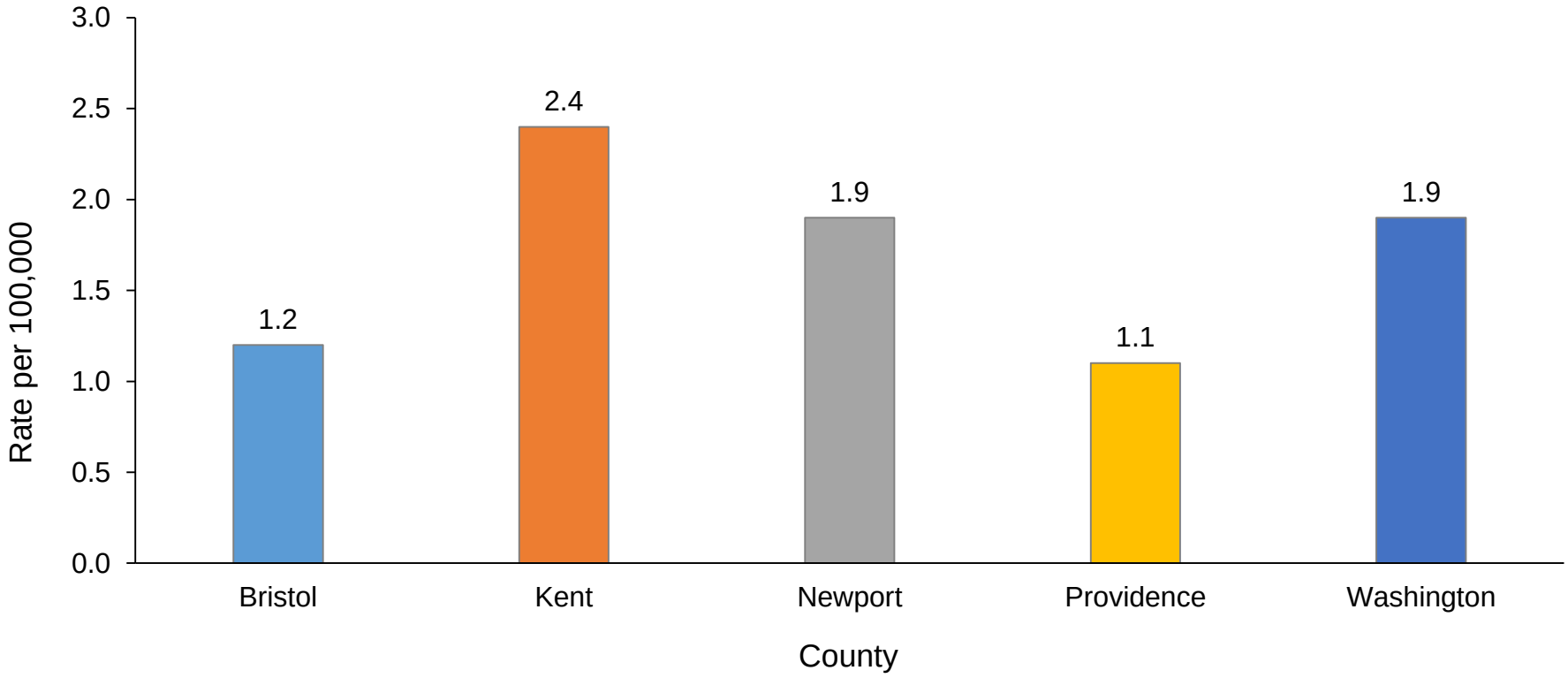

Figure 4: During 2010-2014, the highest average incidence rate of *Haemophilus influenzae* invasive disease was in Kent County and the lowest average rate was in Providence County.

Figure 5: Reported Cases of *Haemophilus Influenzae* Invasive Disease by Serotype, RI, 2010-2014

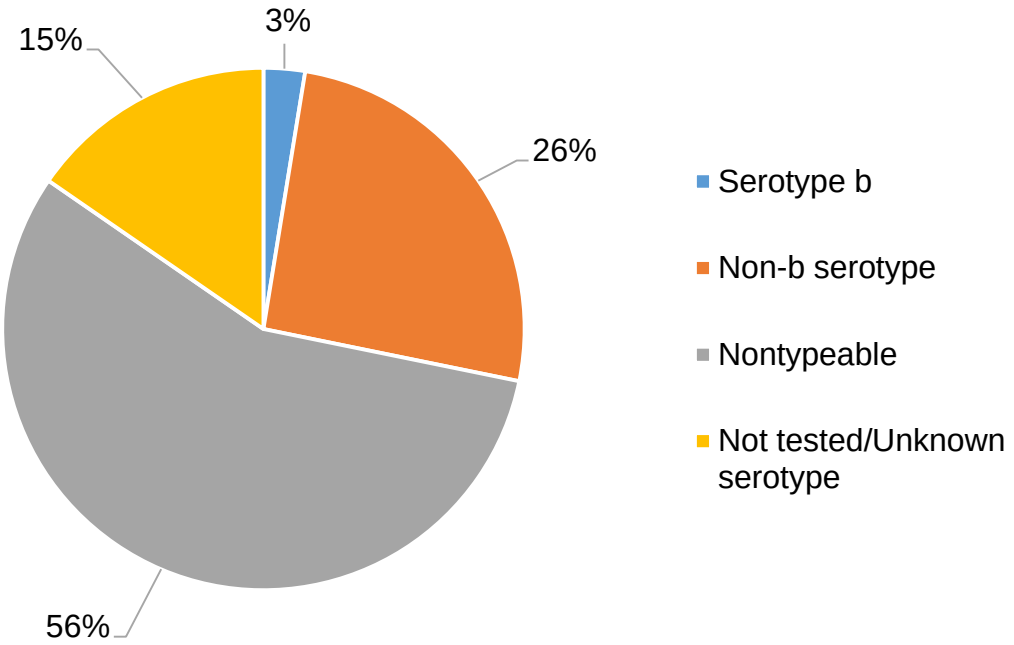

Figure 5: *Haemophilus influenzae* bacteria are classified as either typeable or nontypeable based on their bacterial structure. Of those that are typeable, there are six serotypes (letters a-f). Serotype b (commonly known as Hib) is currently the only type of *H. influenzae* for which a vaccine exists. From 2010 - 2014, most of the cases in Rhode Island (56%) were nontypeable and only 1.3% were serotype b. This data is similar to the national trends in which nontypeable *H. influenzae* is the most common type identified.

Haemophilus Influenzae Invasive Disease Data by Year, RI, 2010-2014

Table 1. Frequency and Rate by Year, 2010-2014					
	2010	**2011**	**2012**	**2013**	**2014**
Number of Cases	15	15	19	13	16
Rate per 100,000	1.4	1.4	1.8	1.2	1.5

Haemophilus Influenzae Invasive Disease, 5-Year Average by Age Group, RI, 2010-2014

Table 2. Data by Age Group, 2010-2014		
Age Group	**5-Year Cumulative Frequency**	**5-Year Average Rate**
0-4	≤5	1.39
5-9	0	0.00
10-19	≤5	0.14
20-29	≤5	0.41
30-39	≤5	0.48
40-49	≤5	0.52
50-59	≤5	0.92
60-69	16	3.11
70-79	18	6.24
≥80	22	8.96
Total	**78**	

Haemophilus Influenzae Invasive Disease, 5-Year Average by Sex, RI, 2010-2014

Table 3. Data by Sex, 2010-2014		
	5-Year Cumulative Frequency	**5-Year Average Rate**
Female	38	1.4
Male	40	1.6
Total	**78**	

Haemophilus Influenzae Invasive Disease, 5-Year Average by County, RI, 2010-2014

Table 4. Data by County, 2010-2014		
	5-Year Cumulative Frequency	**5-Year Average Rate**
Bristol	3	1.2
Kent	20	2.4
Newport	8	1.9
Providence	35	1.1
Washington	12	1.9
Total	**78**	

Haemophilus Influenzae Invasive Disease, 5-Year Average by Month, RI, 2010-2014

Table 5. Data by Month and Year	
	5-Year Cumulative Frequency
Jan	7
Feb	5
Mar	9
Apr	4
May	5
Jun	8
Jul	8
Aug	5
Sep	2
Oct	11
Nov	4
Dec	10
Total	**78**

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 people. The population denominator is based on 2010 US Census Population.
- In order to preserve confidentiality, data with one to five cases has been suppressed and is shown in tables as <5.