





# **Invasive Group B Streptococcus Surveillance 2010-2014**

Rhode Island Department of Health

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

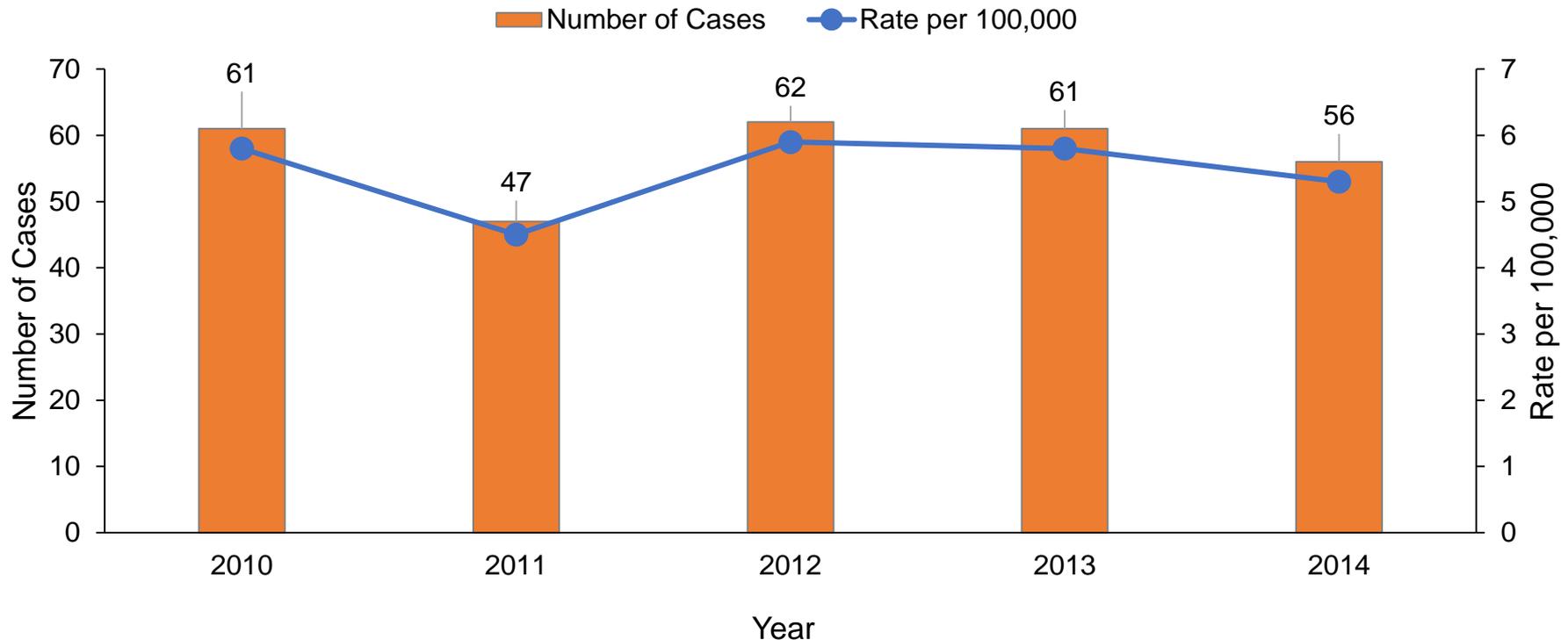
Center for Acute Infectious Diseases Epidemiology



# Summary: Invasive Group B Streptococcus, RI, 2010-2014

- Invasive group B Streptococcus (GBS) includes infections in normally sterile sites, such as blood, cerebral spinal fluid, pericardial fluid, pleural fluid, peritoneal fluid, and joint fluid.
- Group B Streptococcus is the most common cause of some life-threatening infections in newborns. However, it is preventable through screening and treatment of the pregnant mother.
  - During 2010-2014, there were 16 cases of newborn invasive GBS, of which two were early onset and 14 were late-onset cases.
- In 2014, there were 56 cases of invasive GBS with a rate of 5.3 cases per 100,000 people. This is a decrease from 2013 (61 cases) and 2012 (62 cases).
- In Rhode Island, invasive GBS affects the older population most with people age 80 or older having the highest rate of infection (25.3 cases per 100,000 people).
- In Rhode Island, males have higher rates of invasive GBS than females.

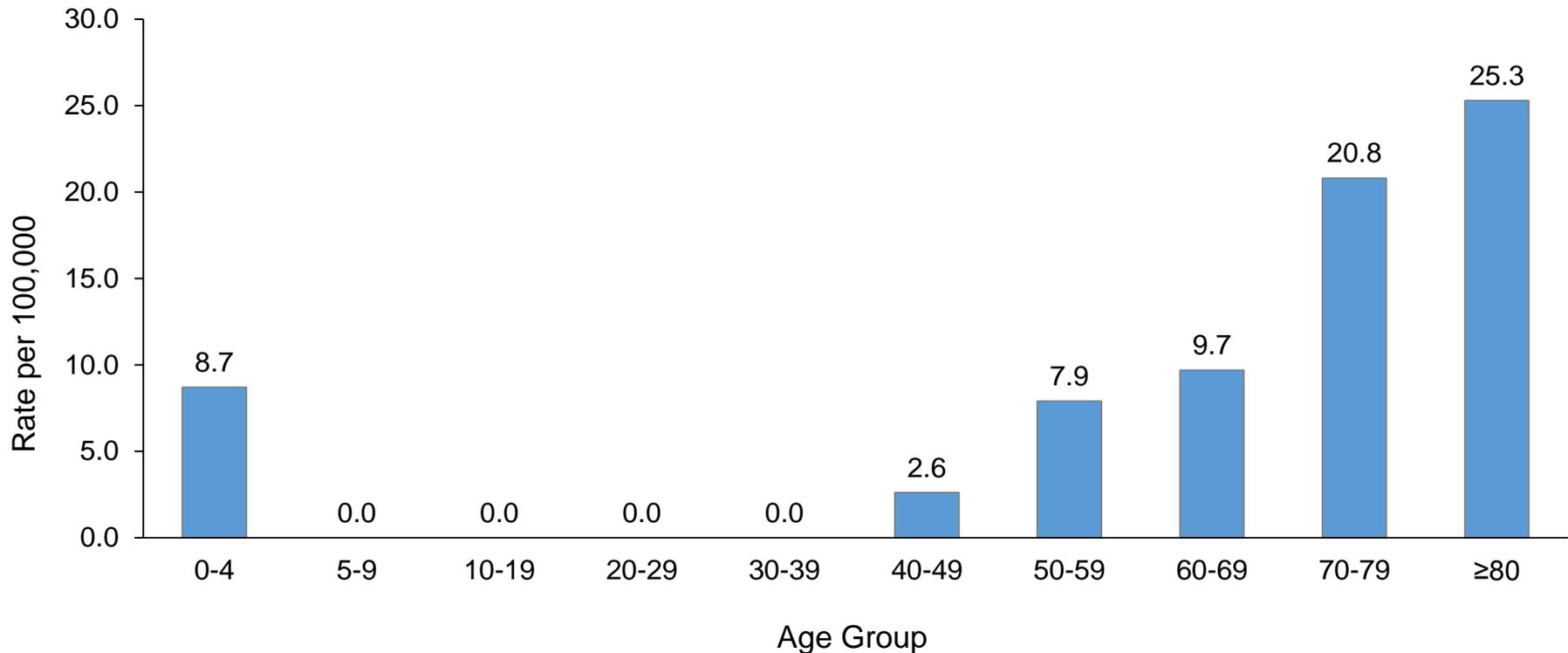
# Figure 1: Reported Cases of Invasive Group B Streptococcus by Year, RI, 2010-2014



**Figure 1:** In 2014, 56 cases of invasive GBS cases were reported, which is a decrease from 2013 (61) and 2012 (62). The rate in 2014 was 5.3 cases per 100,000 people, which is lower than the national rate of 8.3 cases per 100,000 people.

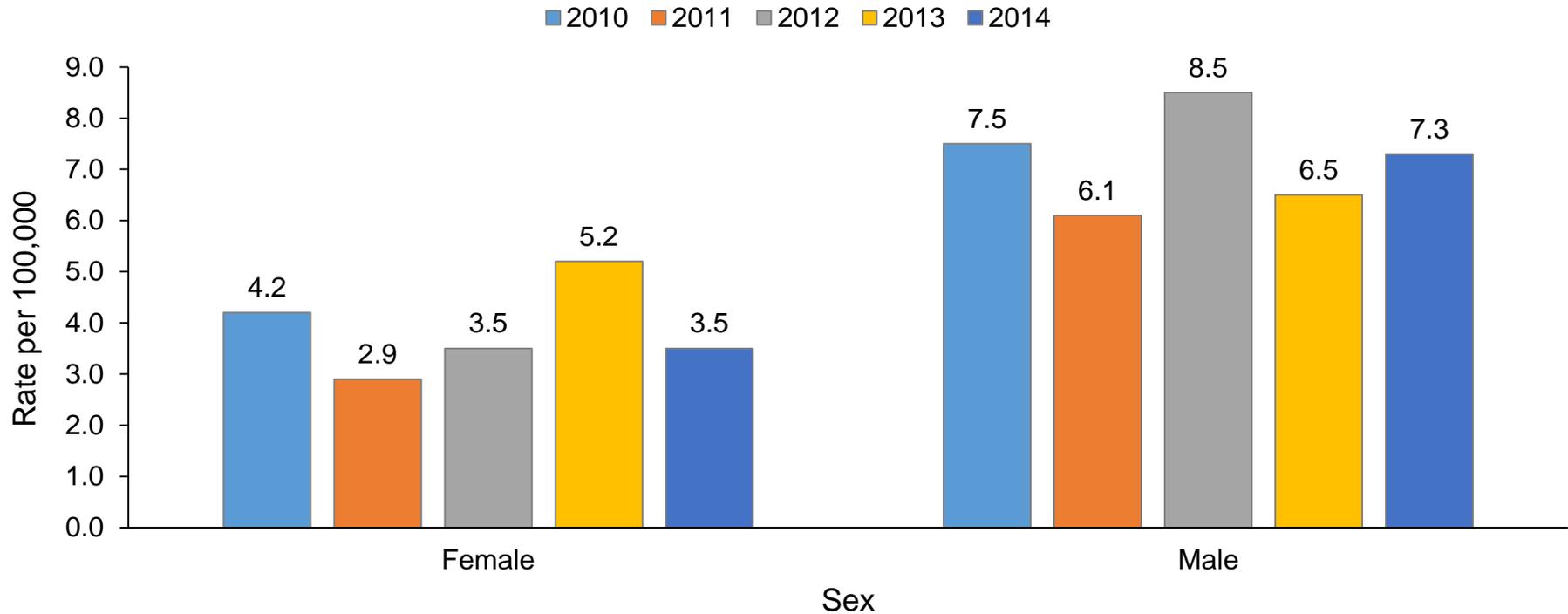


# Figure 2: Rate of Invasive Group B Streptococcus by Age Group, RI, 2014



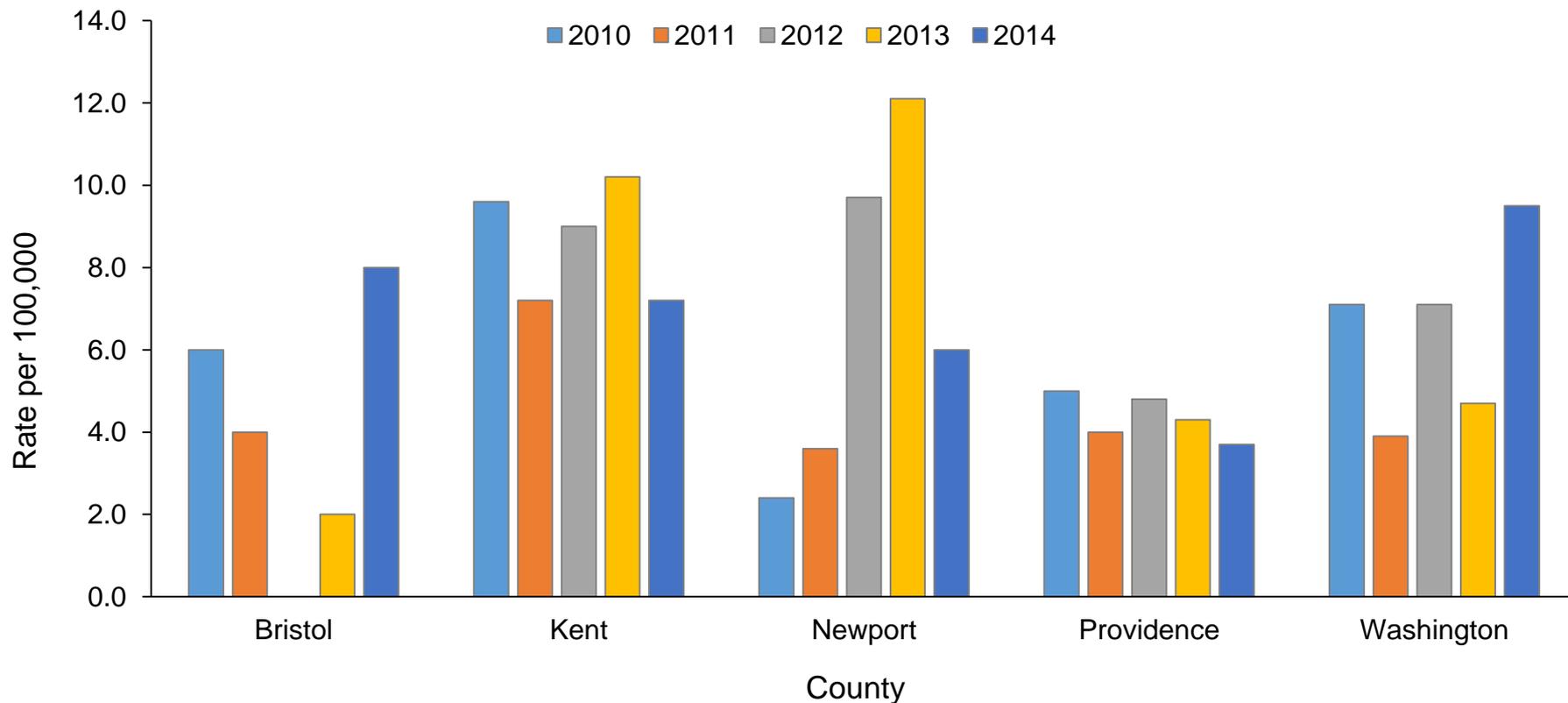
**Figure 2:** In 2014, the highest rate of disease was among people age 60 or older, with people age 80 or older having the highest rate (25.3 cases per 100,000 people). In 2014, there were fewer than five reported cases of newborn invasive GBS disease in children three months of age or younger.

# Figure 3: Rate of Invasive Group B Streptococcus by Sex and Year, RI, 2010-2014



**Figure 3:** Invasive GBS affects men more than women in Rhode Island. The majority of all cases of invasive GBS occur in adults, but the source of infection in non-pregnant adults is unknown due to limited research on the subject.

# Figure 4: Rate of Invasive Group B Streptococcus by County and Year, RI, 2010-2014



**Figure 4:** The highest rate of invasive GBS cases in 2014 was in Washington County (9.5) cases per 100,000 people. The highest average rate during a five-year period (2010-2014) was in Kent County (8.7 cases per 100,000 people).

# Invasive Group B Streptococcus Frequency and Rate by Year, RI, 2010-2014



**Table 1. Frequency by Year**

	2010	2011	2012	2013	2014
<b>Number of Cases</b>	61	47	62	61	56

**Table 2. Rate by Year**

	2010	2011	2012	2013	2014
<b>Rate per 100,000</b>	5.8	4.5	5.9	5.8	5.3



# Invasive Group B Streptococcus Data by Age Group, RI, 2010-2014

**Table 3. Data by Age Group, 2010-2014**

<b>Age Group</b>	<b>5-Year Cumulative Frequency</b>	<b>5-Year Average Rate</b>
<b>0-4</b>	22	7.7
<b>5-9</b>	0	0.0
<b>10-19</b>	<5	0.1
<b>20-29</b>	10	1.4
<b>30-39</b>	14	2.2
<b>40-49</b>	24	3.1
<b>50-59</b>	56	7.4
<b>60-69</b>	53	10.3
<b>70-79</b>	54	18.7
<b>≥80</b>	53	20.6
<b>Total</b>	<b>287</b>	

# Invasive Group B Streptococcus Frequency and Rate by Sex and Year, RI, 2010-2014



**Table 4. Frequency by Sex and Year**

	2010	2011	2012	2013	2014
<b>Female</b>	23	16	19	28	19
<b>Male</b>	38	31	43	33	37
<b>Total</b>	<b>61</b>	<b>47</b>	<b>62</b>	<b>61</b>	<b>56</b>

**Table 5. Rate by Sex and Year**

	2010	2011	2012	2013	2014
<b>Female</b>	4.2	2.9	3.5	5.2	3.5
<b>Male</b>	7.5	6.1	8.5	6.5	7.3

# Invasive Group B Streptococcus Frequency By County and Year, RI, 2010-2014



**Table 6. Frequency by County and Year**

	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>Bristol</b>	<5	<5	0	<5	<5
<b>Kent</b>	16	12	15	17	12
<b>Newport</b>	<5	<5	8	10	5
<b>Providence</b>	31	25	30	27	23
<b>Washington</b>	9	5	9	6	12
<b>Total</b>	<b>61</b>	<b>47</b>	<b>62</b>	<b>61</b>	<b>56</b>

# Invasive Group B Streptococcus Rates by County and Year, RI, 2010-2014



**Table 7. Rate by County and Year**

	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>Bristol</b>	6.0	4.0	0.0	2.0	8.0
<b>Kent</b>	9.6	7.2	9.0	10.2	7.2
<b>Newport</b>	2.4	3.6	9.7	12.1	6.0
<b>Providence</b>	5.0	4.0	4.8	4.3	3.7
<b>Washington</b>	7.1	3.9	7.1	4.7	9.5



# Notes on Data

- Case counts include patients classified as confirmed.
- “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.
- Invasive group B Streptococcus is not nationally reportable. Surveillance is done through the Active Bacterial Core surveillance (ABC) program in which counties in several states conduct surveillance and report to CDC. Any reference to national data refers to ABC data.