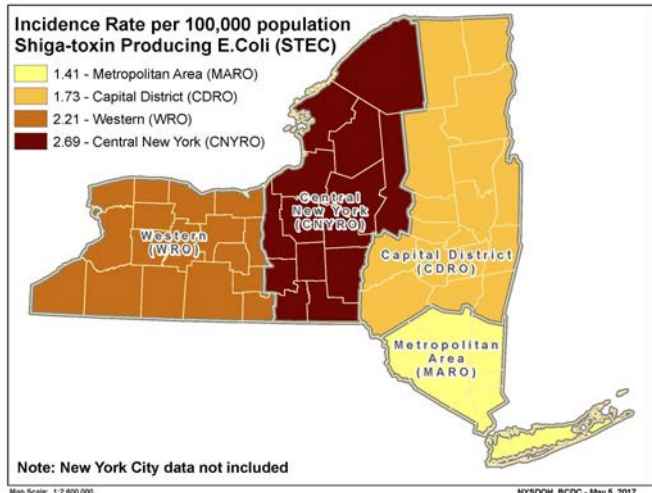


Shiga toxin-Producing E. coli (STEC) Infection

STEC Annual Incidence Rate by Year and Region, NYS (excluding NYC), 2011-2015



Escherichia coli (*E.coli*) are bacteria that normally live in the intestines. Although most strains of this bacteria are harmless, several strains produce toxins that can cause severe diarrhea and kidney damage. The type of *E. coli* bacteria that most commonly produces toxins causing illness is Shiga toxin-producing *E. coli* (STEC).

Hemolytic uremic syndrome (HUS) is a rare but serious disease that can occur as a complication of an STEC infection. The disease can cause kidney damage/failure and affect blood clotting functions. Typically, HUS occurs more commonly in children under 5 years of age than in other age groups.

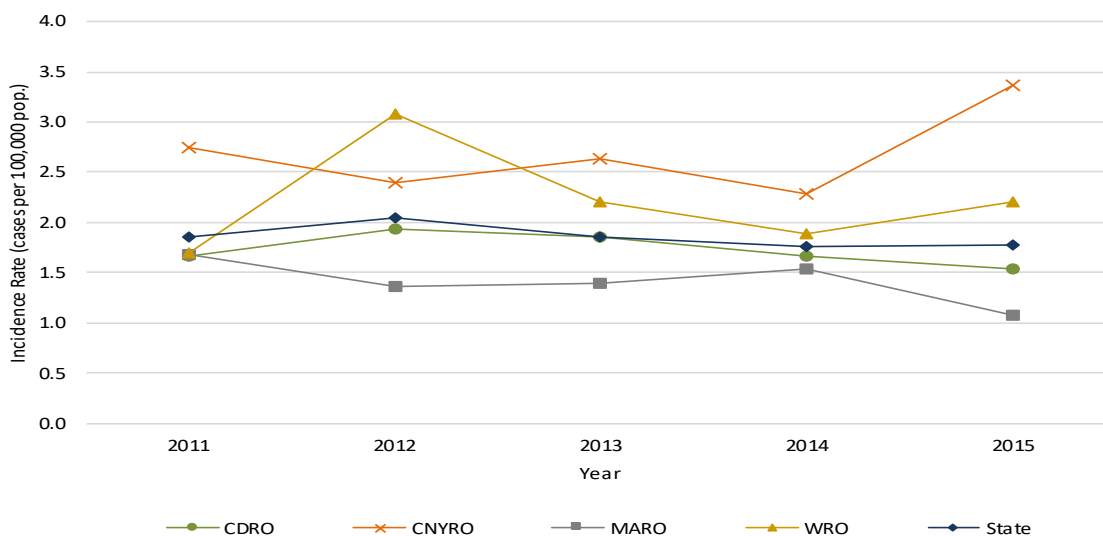
To learn more about STEC please visit our [website](#).

Across most of New York State, exclusive of New York City, STEC incidence has remained relatively steady between 2011 and 2015, with a five year average annual incidence rate of 1.85 cases per 100,000 population.

Of the 1,038 cases,

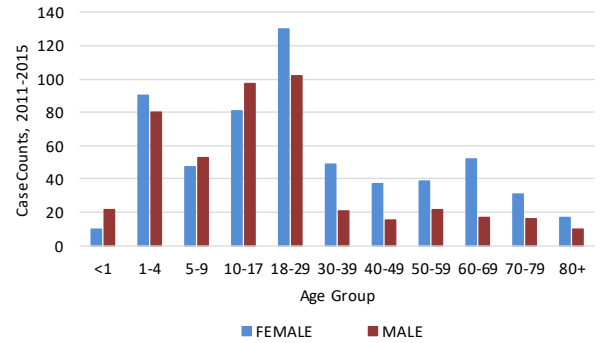
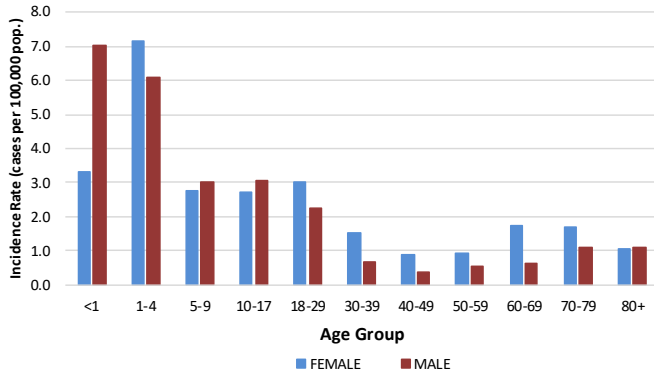
- 9.8% had traveled outside of the U.S. in the seven days prior to symptom onset;
- 4.1% resulted in HUS;
- 27.0% were hospitalized;
- 0.7% resulted in death.

Region	Cases and Incidence Rates (per 100,000 pop.), NYS (excluding NYC), 2011-2015											
	2011		2012		2013		2014		2015		Total	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
CDRO	25	1.66	29	1.93	28	1.86	25	1.66	23	1.53	130	1.73
CNYRO	48	2.74	42	2.40	46	2.63	40	2.29	59	3.37	235	2.69
MARO	86	1.68	70	1.37	71	1.39	79	1.54	55	1.07	361	1.41
WRO	48	1.70	87	3.08	62	2.20	53	1.88	62	2.20	312	2.21
State	207	1.85	228	2.04	207	1.85	197	1.76	199	1.78	1,038	1.85



**STEC 5-Year Cumulative Frequency
by Age Group and Gender, NYS (excluding NYC), 2011-2015**

The highest number of cases is seen in females 18-29 years of age. Higher numbers of STEC infections occur among females than males in nearly all age groups.



**STEC 5-Year Average Incidence Rate
by Age Group and Gender, NYS (excluding NYC), 2011-2015**

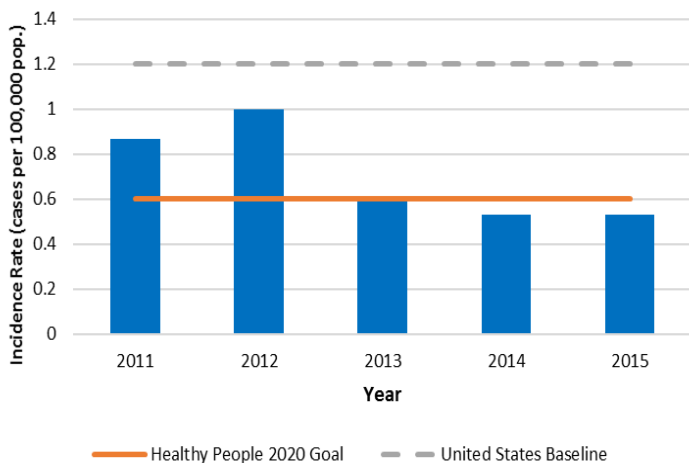
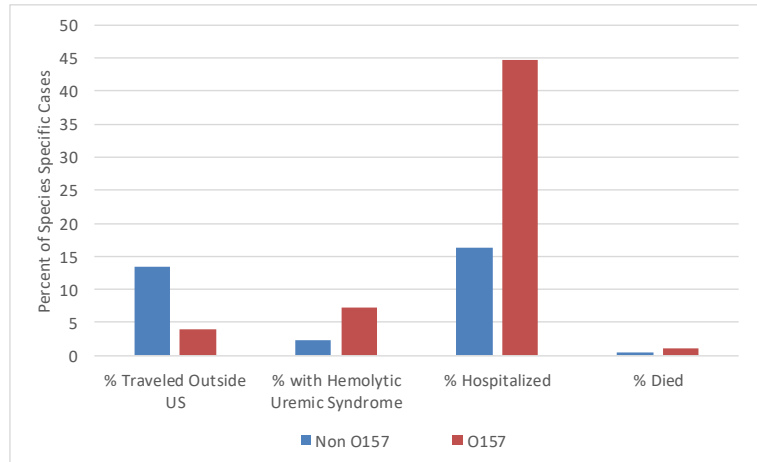
Incidence of STEC is highest among children under five years of age. Of the 1,038 cases of STEC between 2011 and 2015, 4.1% (n=43) developed hemolytic uremic syndrome. Of these, 53% (n=23) were under ten years of age.

**Non-O157 and O157 STEC
by Travel, HUS, Hospitalization and Death Status,
NYS (excluding NYC), 2011-2015**

One particular STEC strain, called O157:H7 can cause severe diarrhea and sometimes kidney damage. People of any age can become infected with STEC O157:H7, but young children and the elderly are more likely to develop serious health problems. Since 2011, 37% of STEC cases were caused by O157:H7 specifically.

Compared to cases with STEC O157 infection, cases with illness caused by a non-O157 strain of STEC were more likely to have recently traveled outside the U.S. (13.4% vs 3.8%).

When compared to illnesses caused by non-O157, O157-related illnesses were more likely to develop hemolytic uremic syndrome (7.2% vs 2.3%), much more likely to have been hospitalized (44.7% vs 16.3%) and more likely to have resulted in death (1% vs 0.7%).



**STEC O157 Annual Incidence Rate NYS (excluding NYC),
Healthy People 2020 Goal, and United States Baseline
Average by Year, 2011-2015**

In 2010, U.S. Department of Health and Human Services developed Healthy People 2020, the nation's 10-year goals and objectives for health promotion and disease prevention. The target set for STEC O157 is to reduce incidence to 0.60 cases per 100,000 population.

The five-year average incidence rate in the U.S. is 1.20 cases per 100,000 population. New York State (excluding NYC) has consistently been below the U.S. baseline average incidence rate and met the Healthy People 2020 goal for the first time in 2013.