

E.coli (shigatoxigenic)

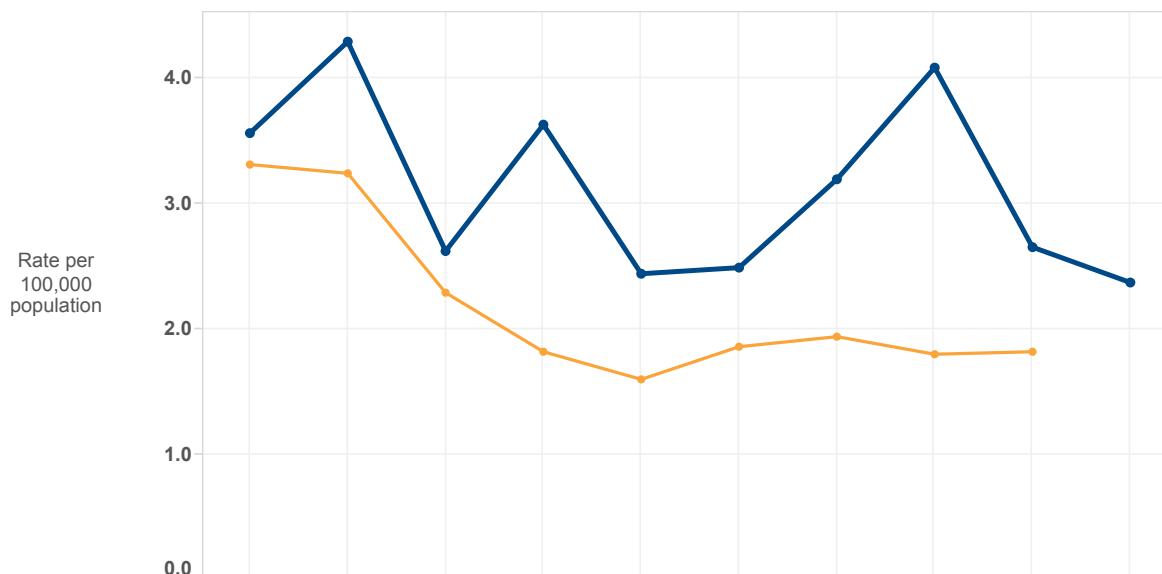
Shigatoxigenic *E. coli*, also known as verotoxigenic *E. coli* and enterohemorrhagic *E. coli*, causes the most serious type of *E. coli* infection which can lead to hemolytic uremic syndrome (or kidney failure) and death.

In 2015, 111 cases of shigatoxigenic *E. coli* infection were reported; 30.0% were associated with international travel. The incidence rate (2.4/100,000) was the lowest in ten years. This may be associated with improvements in food safety. Incidence rates were highest among children under 10 years of age, particularly in infants. This is similar to other enteric diseases and is due to lower immunity in infants and young children as well as behaviours that increase the risk of infection (e.g. use of diapers). Residents of North Vancouver Island and the Northwest had the highest rates, but these were associated with low case numbers. As in previous years, cases were reported throughout the year. The end of summer peak is similar to other enteric diseases and is believed to be associated with an increase in infection rates in reservoir animals and environmental load. No *E. coli* outbreaks were reported in 2015.

O157 continued to be the most common serogroup reported in BC. The proportion of O157 cases increased slightly compared to 2014 (35.0%), but remained lower than 2013 (76.9%) and 2012 (57.8%). The proportion of samples diagnosed as Shiga toxin-positive only decreased compared to 2014 (40.6%), but remained high; the reasons for this are unknown.

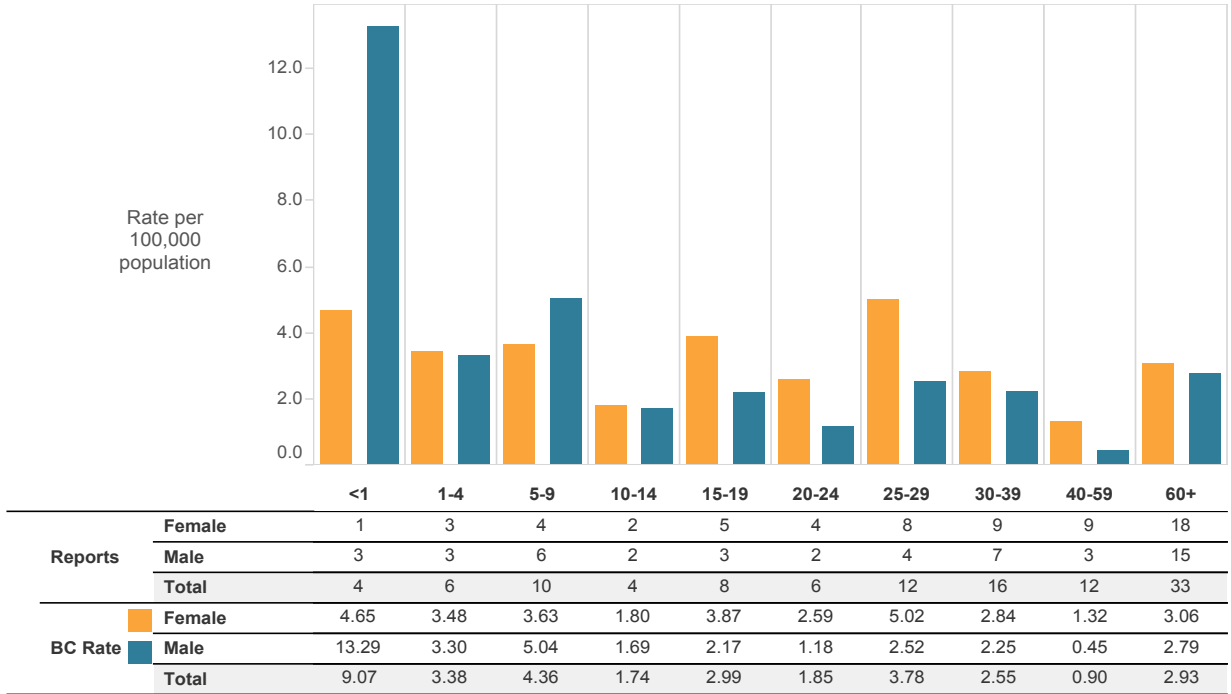


7.1 Shigatoxigenic *E. coli* by Year, 2006-2015

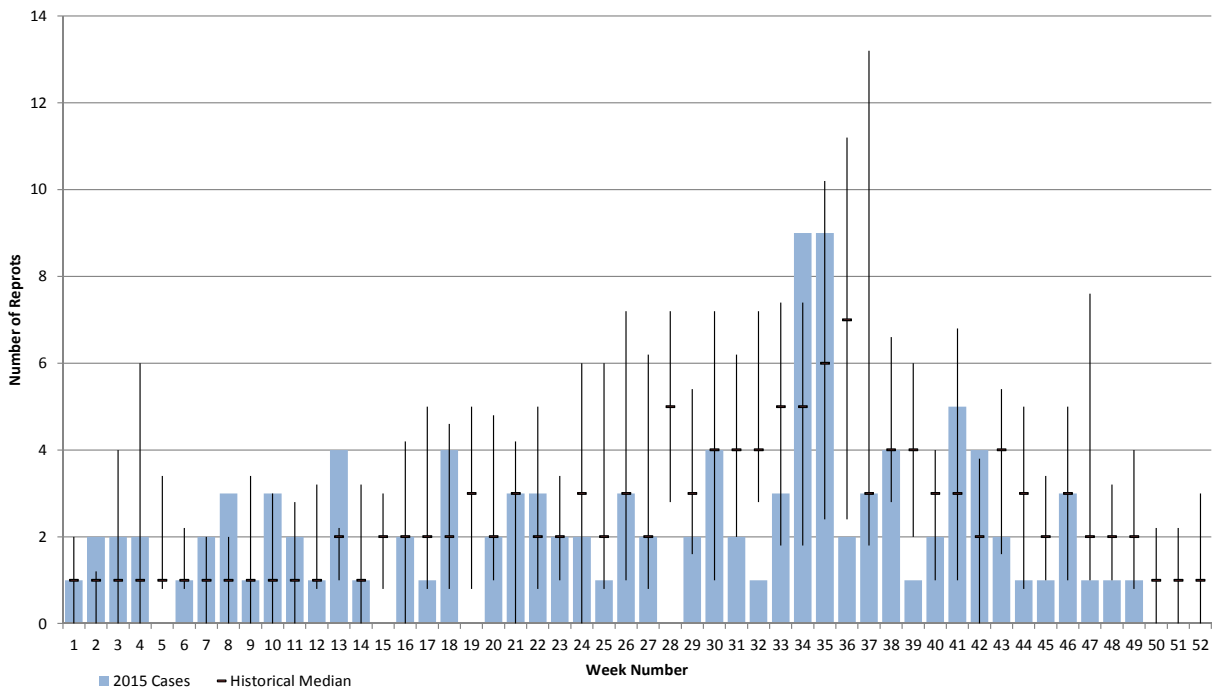


	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Reports	151	184	114	160	109	112	145	187	123	111
BC Rate	3.56	4.29	2.62	3.63	2.44	2.49	3.19	4.08	2.65	2.37
Canadian Rate	3.31	3.24	2.29	1.82	1.60	1.86	1.94	1.80	1.82	1.82

7.2 Shigatoxigenic E. coli Rates by Age Group and Sex, 2015



7.3 2015 Shigatoxigenic E. coli Reports Compared to Historical Median and the 10th and 90th Percentiles Around the Median (2006 to 2014)



7.4 2014 Shigatoxigenic *E. coli* Serogroup Distribution, 2015

Rank	Serogroup	Number of Isolates	Proportion
1	O157	47	46.5%
2	O26	8	7.9%
3	O121	6	5.9%
4	O117	5	5.0%
5	O103	3	3.0%
5	O111	3	3.0%
	Other	2	2.0%
	Shiga toxin positive only	27	26.7%
	Total	101	100.0%

Note: Serogroup distribution is based on BCCDC Public Health Laboratory (BCCDC PHL) data. Numbers may vary from those reported in Panorama.