## *Vibrio* Infection

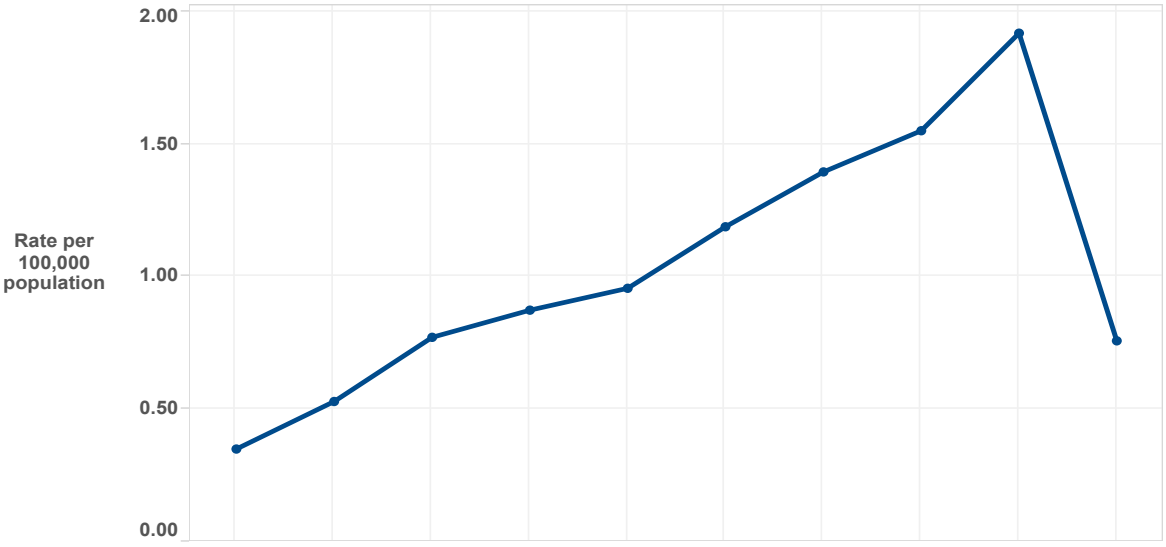
The incidence of *Vibrio* infections decreased in 2016 for the first time in a decade to 0.76/100,000. The decrease is attributable to *Vibrio parahaemolyticus* (Vp) which decreased from a high of 76 cases in 2015 to only 29 cases in 2016. Other *Vibrio* sp. rates remain low. Only 17.9% of cases were due to international travel. The reason for this decrease is unclear; it may be due to environmental changes (e.g. cooler ocean temperatures) or to improved awareness and industry practices following a large Vp outbreak in 2015.

In 2016, the highest number of cases was reported from Vancouver (8) and the highest incidence rates, from East Kootenay and North Shore/Coast Garibaldi.

Unlike previous years, the number of cases and rates reported from Island Health were very low; reasons for this are unknown. The majority of cases occurred in adults, with the highest incidence in males aged >40 years, consistent with demographic groups more likely to eat raw oysters.

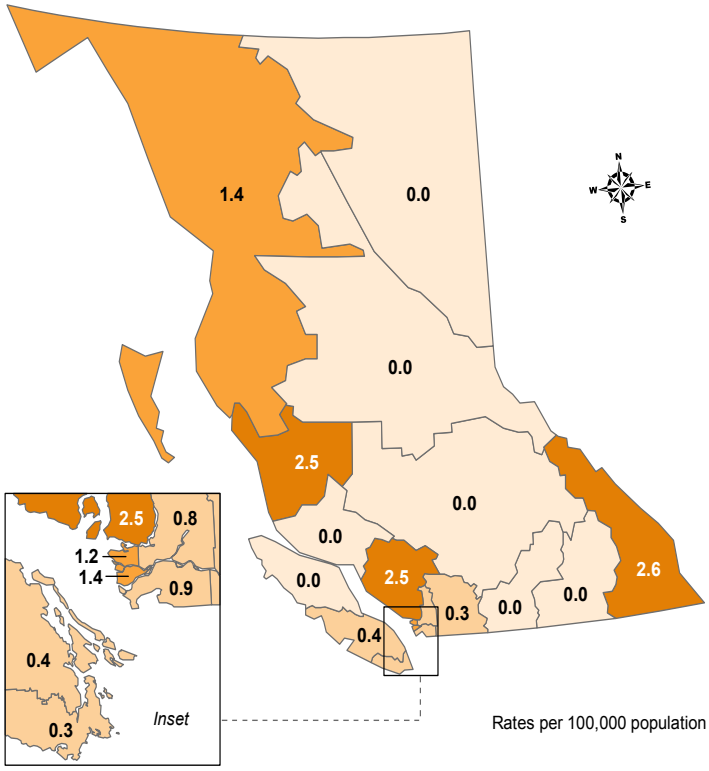
The majority of *V. parahaemolyticus* infections are caused by eating raw bivalve shellfish. Cases in children are rare and are often due to wound or ear infection following contact with ocean water.


*13.1 Vibrio Infection Rates by Year, 2007-2016*

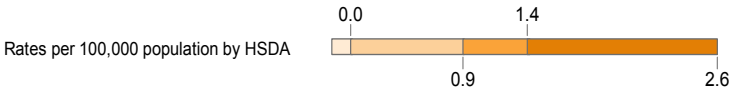



| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|
| Reports | 15 | 23 | 34 | 39 | 43 | 54 | 64 | 72 | 90 | 36 |
| BC Rate | 0.35 | 0.53 | 0.77 | 0.87 | 0.96 | 1.19 | 1.39 | 1.55 | 1.92 | 0.76 |

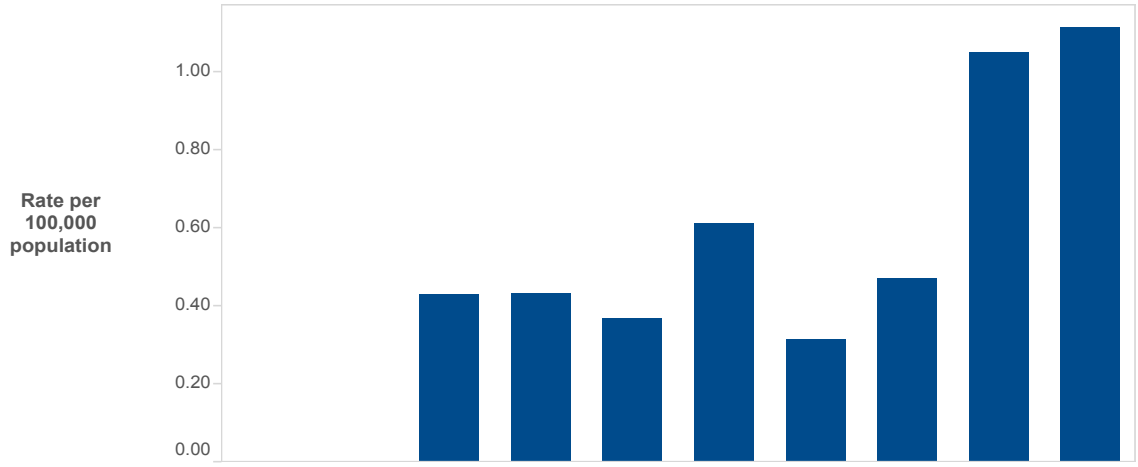
## 13.2 Vibrio Infection Rates by HSDA, 2016




| ID | Health Service Delivery Area | Cases | Rate |
|---|---|---|---|
| 11 | East Kootenay | 2 | 2.6 |
| 12 | Kootenay Boundary | 0 | 0.0 |
| 13 | Okanagan | 0 | 0.0 |
| 14 | Thompson Cariboo Shuswap | 0 | 0.0 |
| 21 | Fraser East | 1 | 0.3 |
| 22 | Fraser North | 5 | 0.8 |
| 23 | Fraser South | 7 | 0.9 |
| 31 | Richmond | 3 | 1.4 |
| 32 | Vancouver | 8 | 1.2 |
| 33 | North Shore/Coast Garibaldi | 7 | 2.5 |
| 41 | South Vancouver Island | 1 | 0.3 |
| 42 | Central Vancouver Island | 1 | 0.4 |
| 43 | North Vancouver Island | 0 | 0.0 |
| 51 | Northwest | 1 | 1.4 |
| 52 | Northern Interior | 0 | 0.0 |
| 53 | Northeast | 0 | 0.0 |




## 13.3 Vibrio Infection Rates by Age Group, 2016




| | | <1 | 1-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-39 | 40-59 | 60+ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Reports | Female | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 4 | 5 |
| | Male | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 10 | 8 |
| | Total | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 3 | 14 | 13 |
| BC Rate | Female | 0.00 | 0.00 | 0.89 | 0.89 | 0.00 | 1.28 | 0.00 | 0.00 | 0.59 | 0.82 |
| | Male | 0.00 | 0.00 | 0.00 | 0.00 | 0.71 | 0.00 | 0.63 | 0.95 | 1.52 | 1.44 |
| | Total | 0.00 | 0.00 | 0.43 | 0.43 | 0.37 | 0.61 | 0.32 | 0.47 | 1.05 | 1.11 |

*13.4 Vibrio Species Distribution, 2016**

| Rank | Species | Number of Cases | Proportion |
|---|---|---|---|
| 1 | *Parahaemolyticus* | 29 | 80.6% |
| 2 | *Fluvialis* | 4 | 11.1% |
| 3 | *Other/Unknown* | 3 | 8.3% |
| | *Total* | 36 | 100.0% |

*Species distribution is based on Panorama data.

*13.5 2016 Vibrio Infection by Week*