

PICNet

PROVINCIAL INFECTION CONTROL
NETWORK OF BRITISH COLUMBIA

A program of the Provincial Health Services Authority

Clostridium difficile Infection (CDI) Surveillance

Quarterly data summary:
Q1 of Fiscal Year 2013/2014

Prepared by:

Provincial Infection Control Network of British Columbia (PICNet)

October 2013



Quarterly data summary: Q1 of Fiscal Year 2013/2014

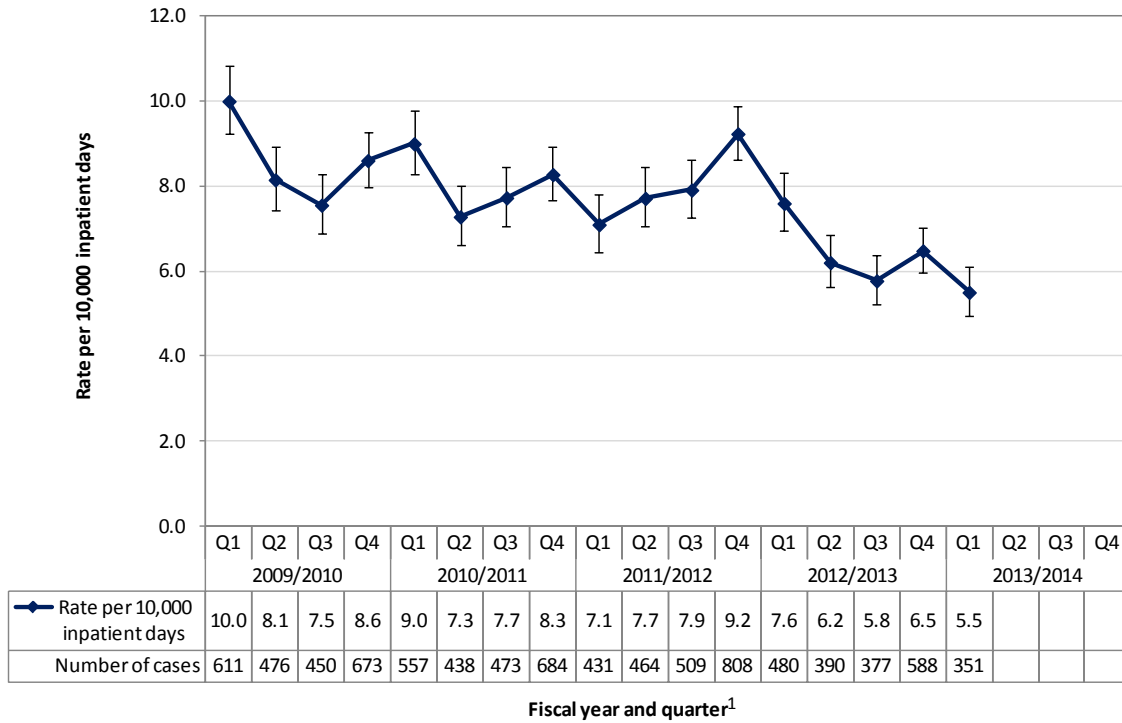
Clostridium difficile infection (CDI) is a leading cause of healthcare-associated infectious diarrhea, and is associated with increased healthcare costs, prolonged hospitalization, and higher morbidity and mortality. The provincial CDI surveillance program was established to monitor the incidence and trends of CDI among inpatients admitted to acute care facilities in British Columbia (BC). This summary updates the cases of CDI identified during the first fiscal quarter (Q1, April 1 – June 20, 2013) of fiscal year (FY) 2013/2014, with a focus on new cases of CDI associated with the reporting facility. Direct comparison of the numbers of cases and rates between health authorities (HA) is not recommended due to the variations and changes in laboratory testing for detection of *C. difficile*, application of case classification, and different at-risk populations served by each health authority. For details about this provincial surveillance program, case definition, and data limitations, please refer to the annual “*Clostridium difficile* Infection (CDI) Surveillance Report: For the Fiscal Year 2012/2013”, which can be found on the PICNet website (<http://s.picnet.ca/cdireports>).

- A total of 639 cases of CDI were identified among acute care inpatients during Q1 of FY 2013/2014, of which 443 (69.3%) were defined as healthcare-associated, and 196 (30.7%) were defined as community-associated or of unknown association. Among the healthcare-associated cases, 351 cases (54.9% of total cases) were new cases of CDI associated with the reporting facility.
- The provincial rate of new cases of CDI associated with the reporting facility was 5.5 [95% confidence interval (CI): 5.0-6.1] per 10,000 inpatient days in Q1 of FY 2013/2014, which is the lowest quarterly rate since provincial CDI surveillance program was implemented in FY 2009/2010.
- The rate in Q1 of FY 2013/2014 was significantly lower than the rate in Q1 for the past four years (from FY 2009/2010 to FY 2012/2013), but was not significantly lower than the rates in the previous quarter (Q4 of FY 2012/2013).
- The downward trend of the provincial quarterly CDI rate from Q1 of FY 2009/2010 to Q1 of FY 2013/2014 was statistically significant (trend $\chi^2 = 101.82, p < 0.001$).
- The continued decrease in the provincial rate in Q1 of FY 2013/2014 reflects decreasing CDI rates in certain health authorities.

Figures

Figure 1. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter, British Columbia.....	3
Figure 2. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Interior Health	4
Figure 3. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Fraser Health	4
Figure 4. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Vancouver Coastal Health	5
Figure 5. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Island Health.....	5
Figure 6. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Northern Health	6
Figure 7. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and calendar quarter for Provincial Health Services Authority	6

Figure 1. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter, British Columbia



Notes: Bars in the line chart represent 95% confidence interval of the rates. There were changes and variations in the laboratory testing for confirmation of CDI diagnosis and application of case definition over time and by health authority; the same hereinafter.

1. Data were aggregated by fiscal quarter for each health authority except PHSA, which aggregated the data by calendar quarter (Q1, April 1 – June 30, 2013).

Figure 2. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Interior Health

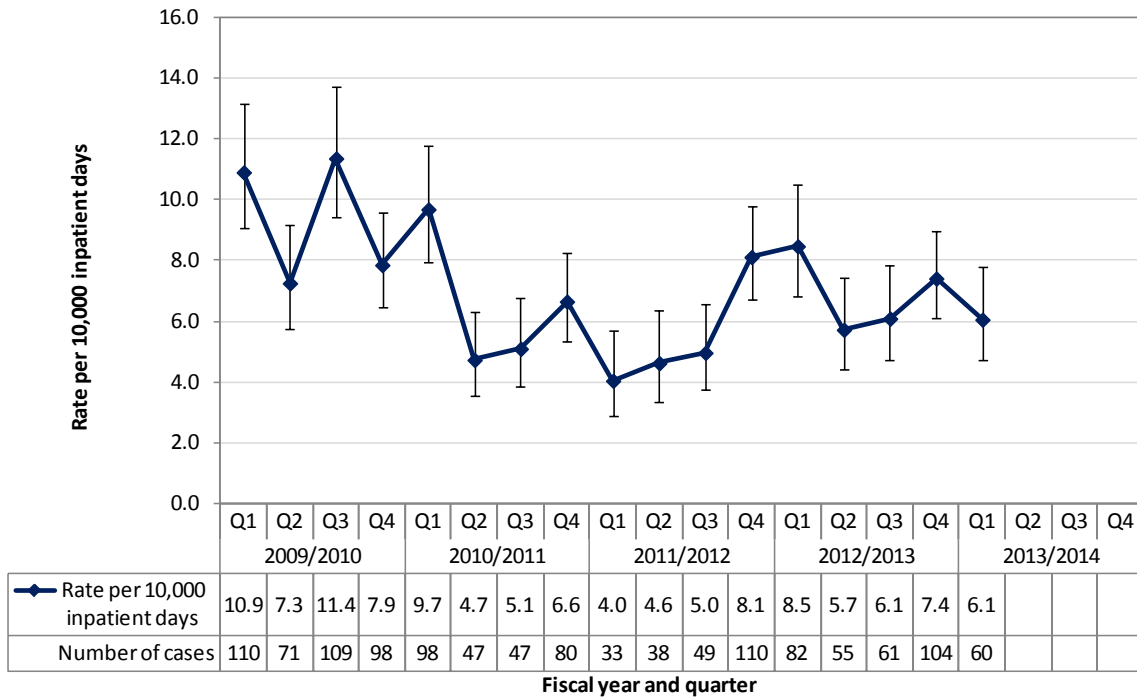


Figure 3. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Fraser Health

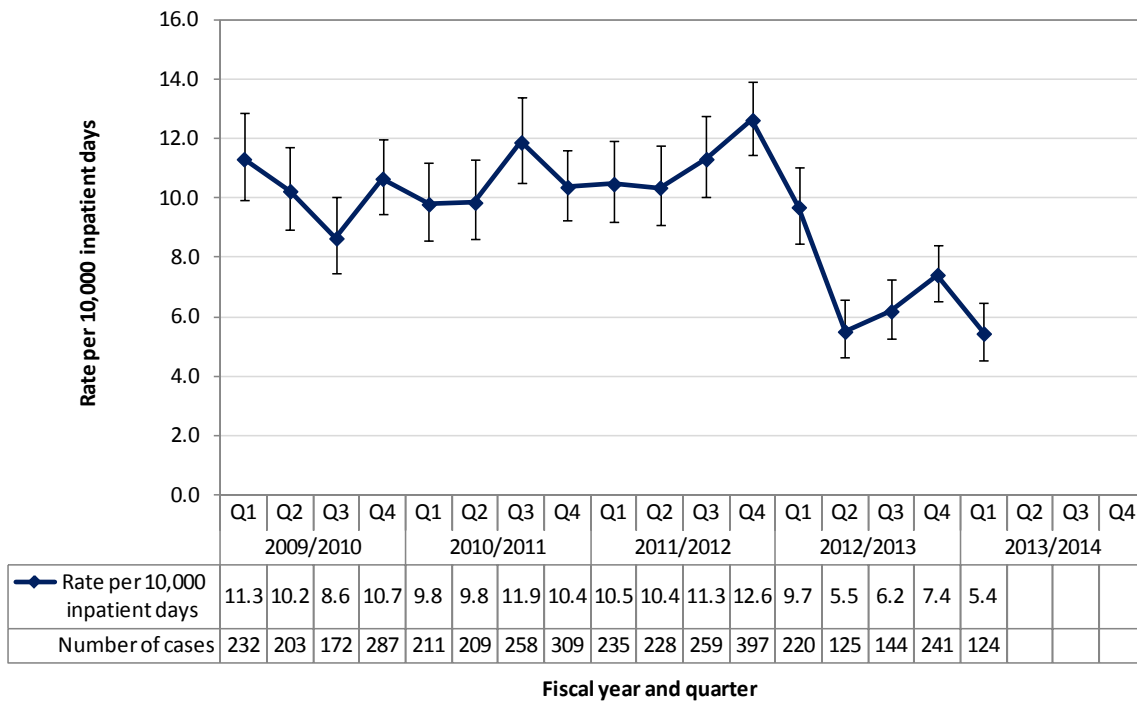


Figure 4. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Vancouver Coastal Health²

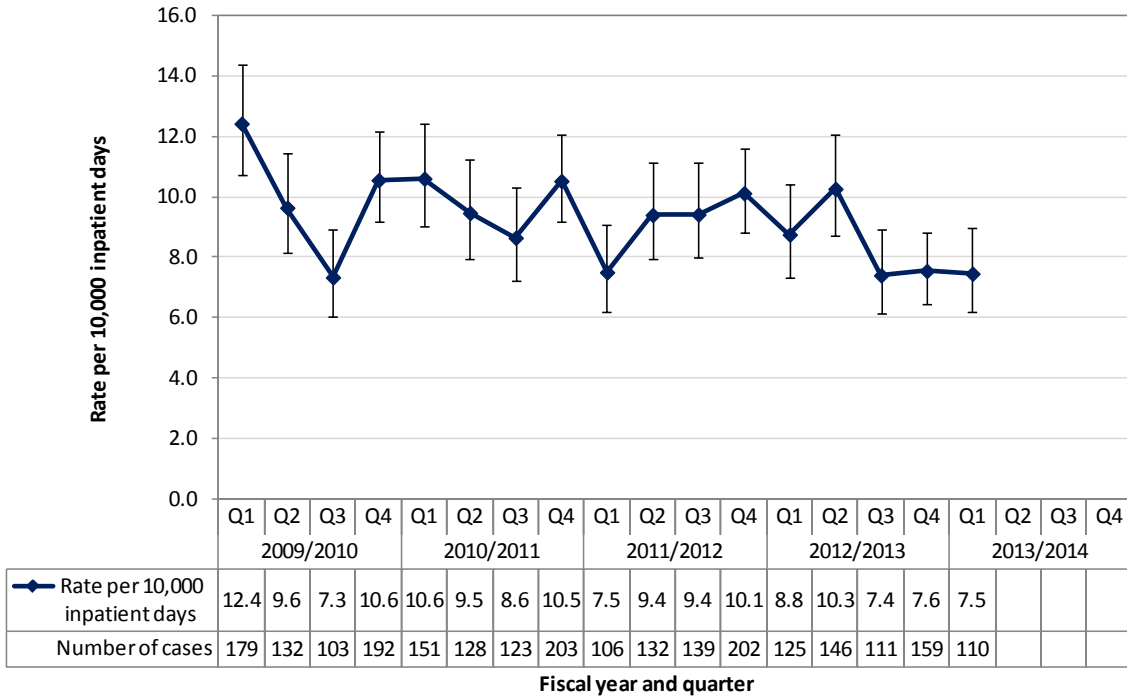
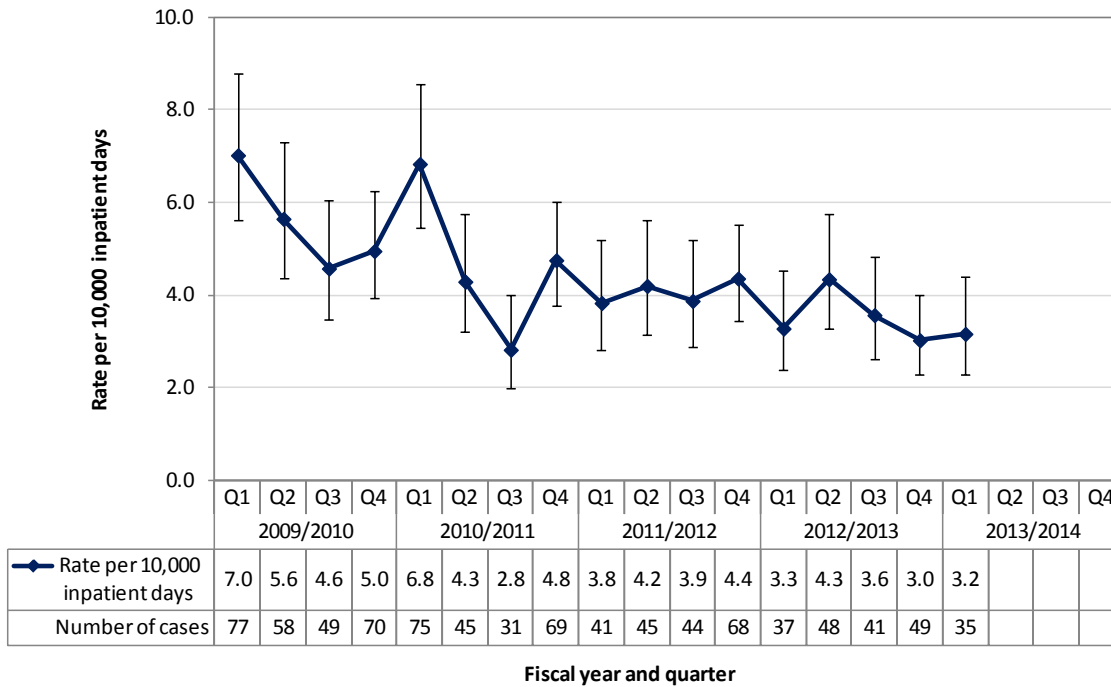


Figure 5. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Island Health³



Note: 2. Includes Providence Health Care (PHC)
 3. Formerly known as Vancouver Island Health Authority

Figure 6. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Northern Health

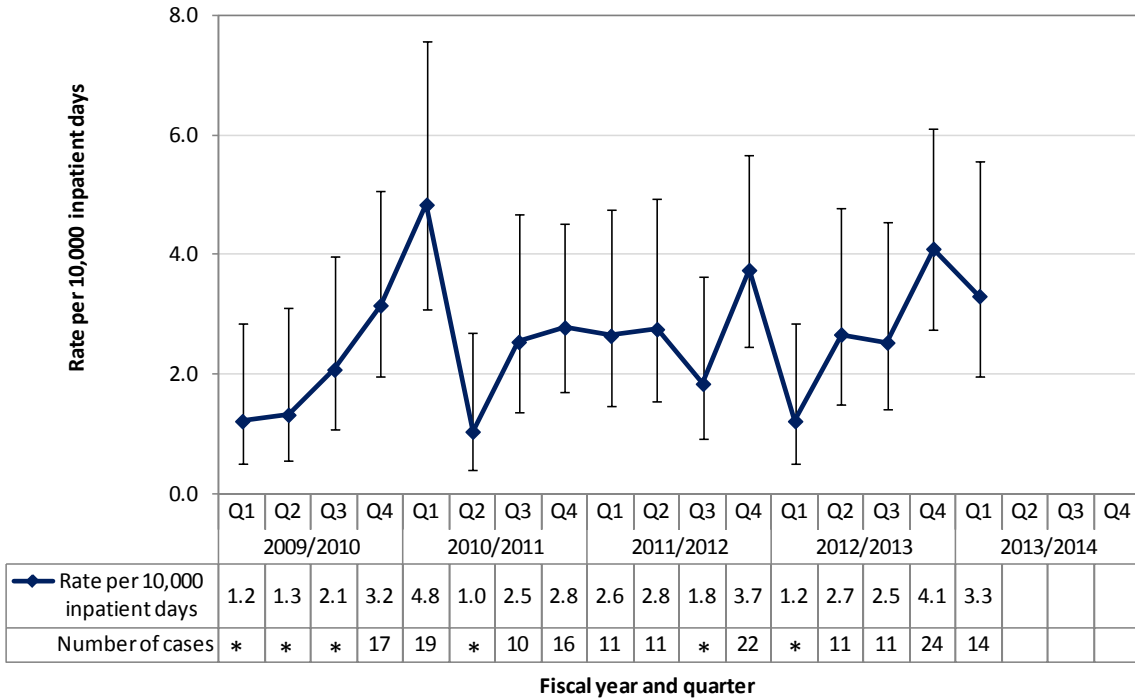
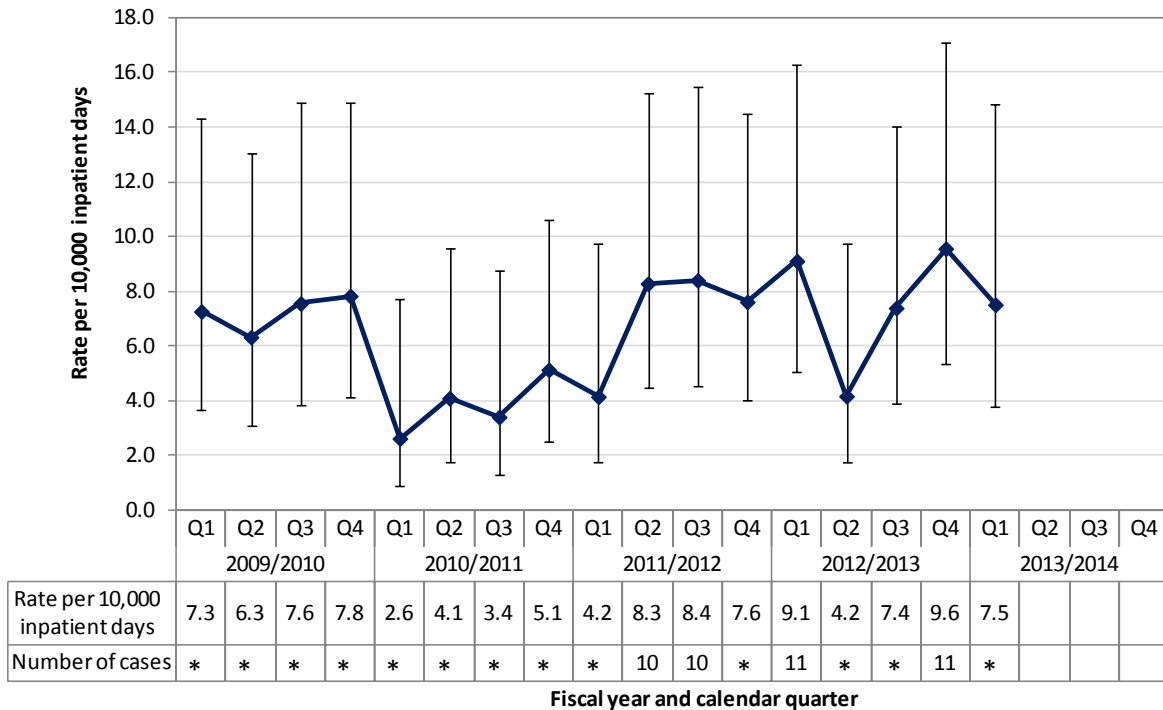


Figure 7. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and calendar quarter for Provincial Health Services Authority



Note: * data are masked to ensure patient confidentiality where the number of cases is <10.