

PICNet

PROVINCIAL INFECTION CONTROL
NETWORK OF BRITISH COLUMBIA

A program of the Provincial Health Services Authority

Clostridium difficile Infection (CDI) Surveillance

Quarterly data summary:
Q3 of Fiscal Year 2013/2014

Prepared by:

Provincial Infection Control Network of British Columbia (PICNet)

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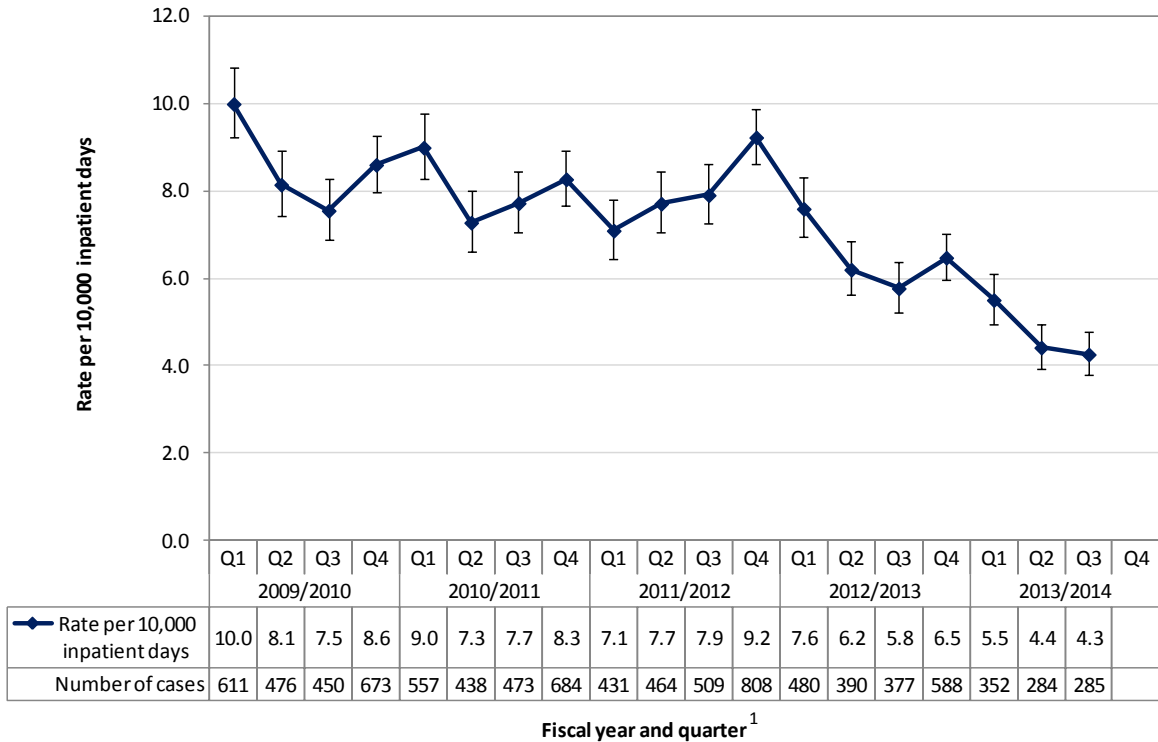
Clostridium difficile infection (CDI) is a leading cause of healthcare-associated infectious diarrhea, and is associated with increased healthcare costs, prolonged hospitalization, and higher morbidity and mortality. The provincial CDI surveillance program was established to monitor the incidence and trends of CDI among inpatients admitted to acute care facilities in British Columbia (BC). This summary updates the cases of CDI identified during the second fiscal quarter (Q3, September 13 – December 5, 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 533 cases of CDI were identified among acute care inpatients during Q3 of FY 2013/2014, of which 376 (70.5%) were defined as healthcare-associated, and 157 (29.5%) were defined as community-associated or of unknown association. Among the healthcare-associated cases, 285 cases (53.5% 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 4.3 [95% confidence interval (CI): 3.8-4.8] per 10,000 inpatient days in Q3 of FY 2013/2014, which is the lowest quarterly rate since the provincial CDI surveillance program was implemented in FY 2009/2010.
- The provincial rate in Q3 of FY 2013/2014 was statistically significantly lower than any of the previous quarters since FY 2009/2010, with the exception of Q2 of FY 2013/2014. The rates between Q2 and Q3 of FY 2013/2014 were not significantly different.
- The downward trend of the provincial quarterly CDI rate from Q1 of FY 2009/2010 to Q2 of FY 2013/2014 was statistically significant (trend $\chi^2 = 247.83$, $p < 0.001$).
- The continued decrease in the provincial rate in Q2 of FY 2013/2014 reflects decreasing CDI rates in certain health authorities.

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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. Excluded from this report were certain acute care facilities in Interior Health from Q3 of FY 2011/2012 to Q2 of FY 2012/2013 due to information system upgrades in progress during those periods. Data were aggregated by fiscal quarter for each health authority except PHSA, which aggregated the data by calendar quarter. The time frame in each fiscal quarter varied by fiscal year and the Q4 has more days than Q1, Q2 and Q3 each year.

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

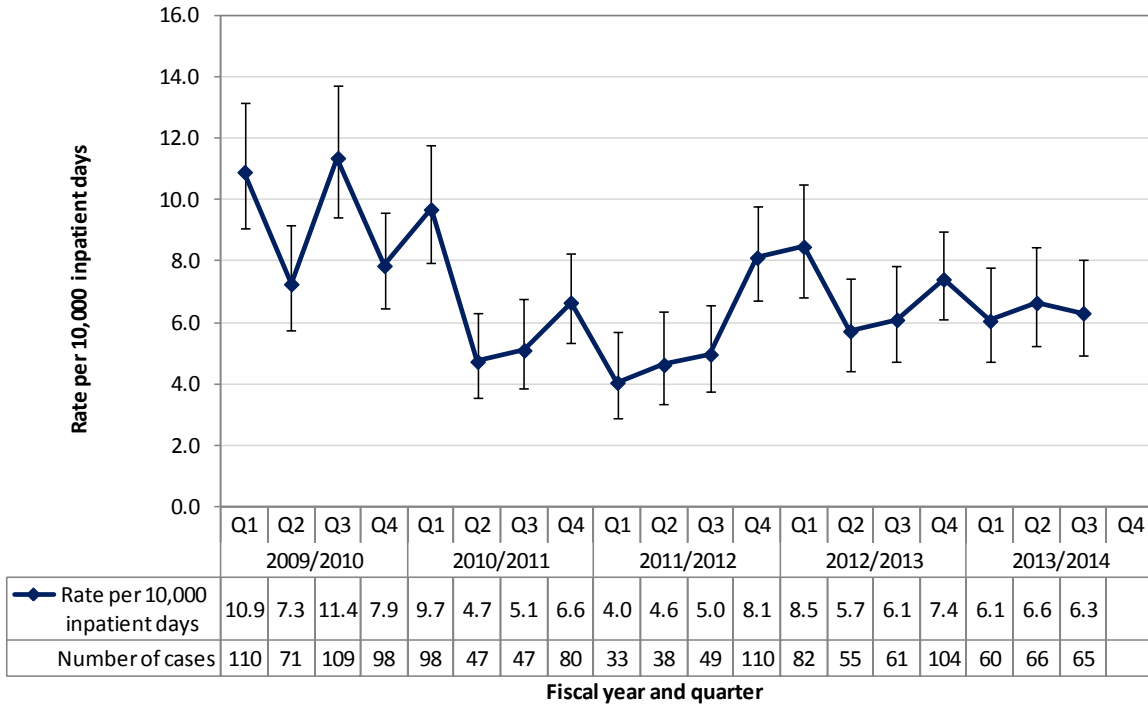


Figure 3. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Fraser Health

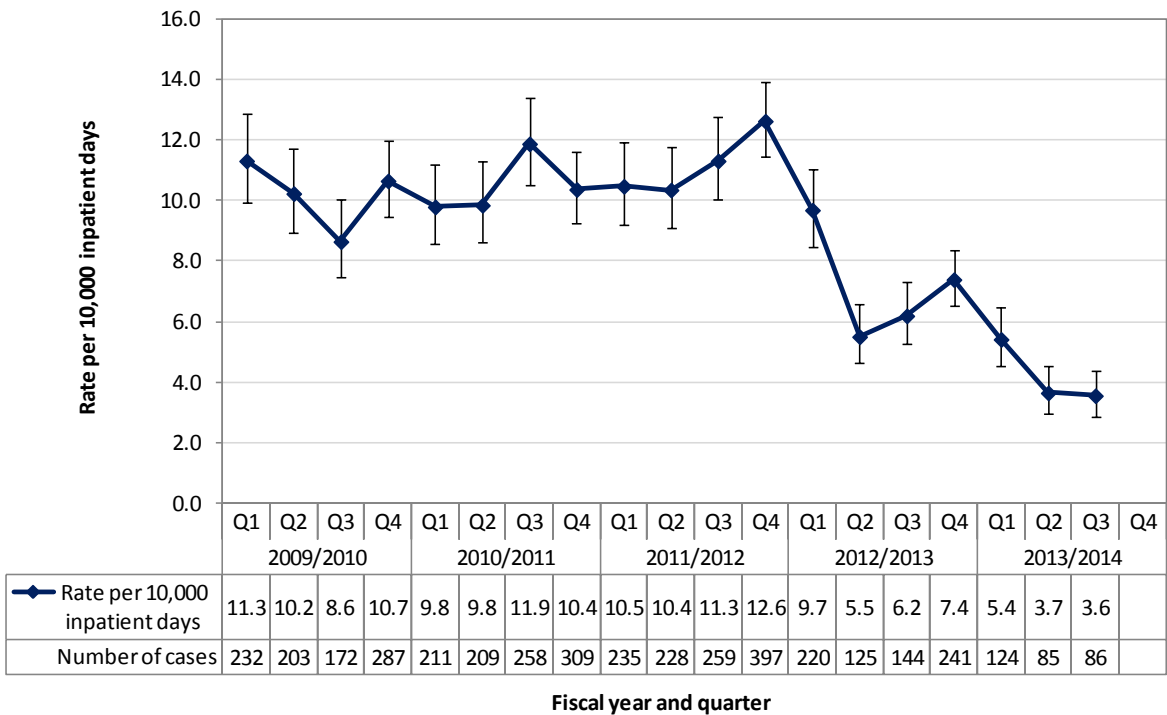


Figure 4. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Vancouver Coastal Health²

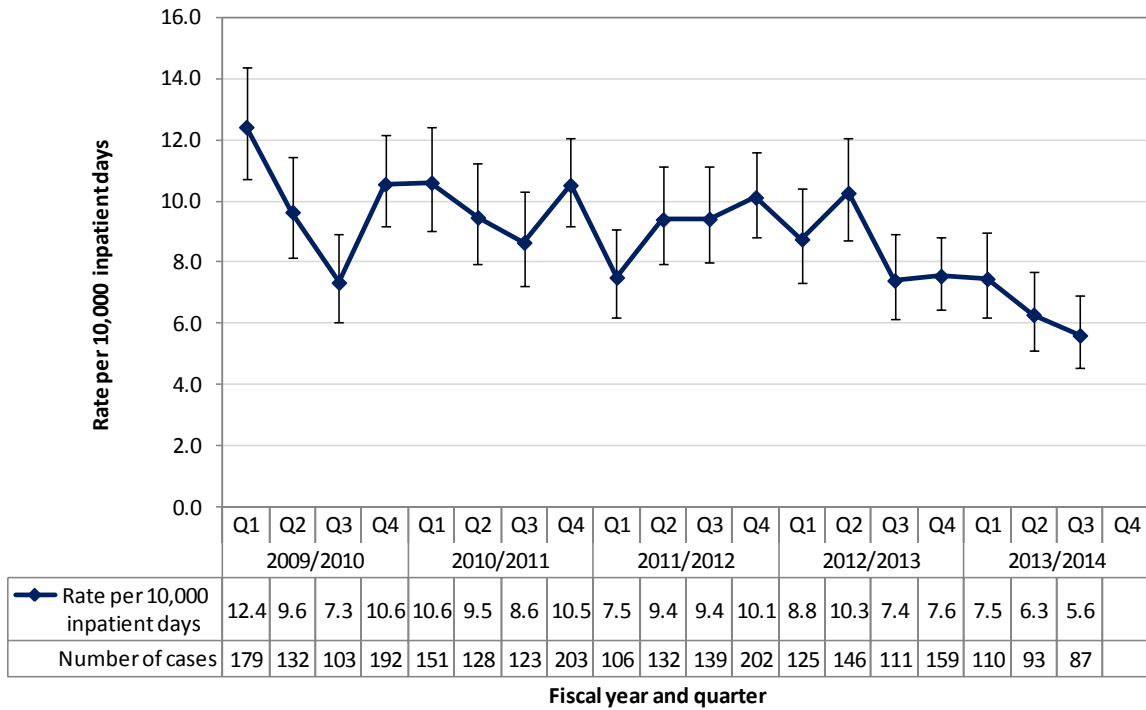
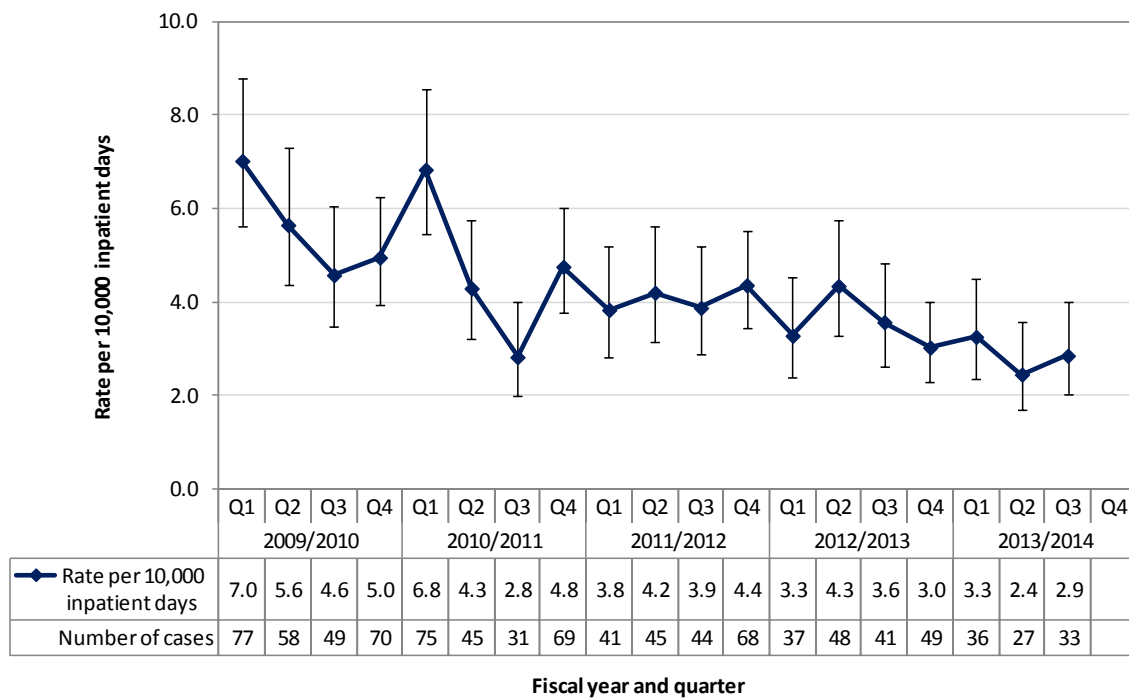


Figure 5. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Island Health³



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

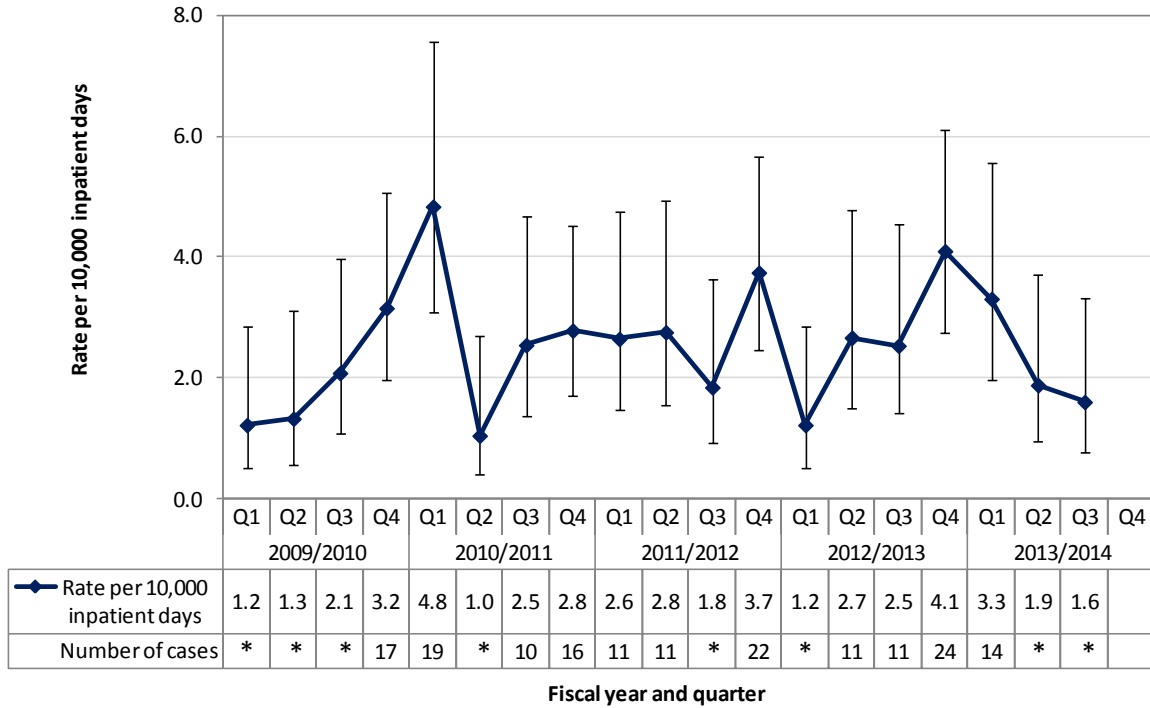
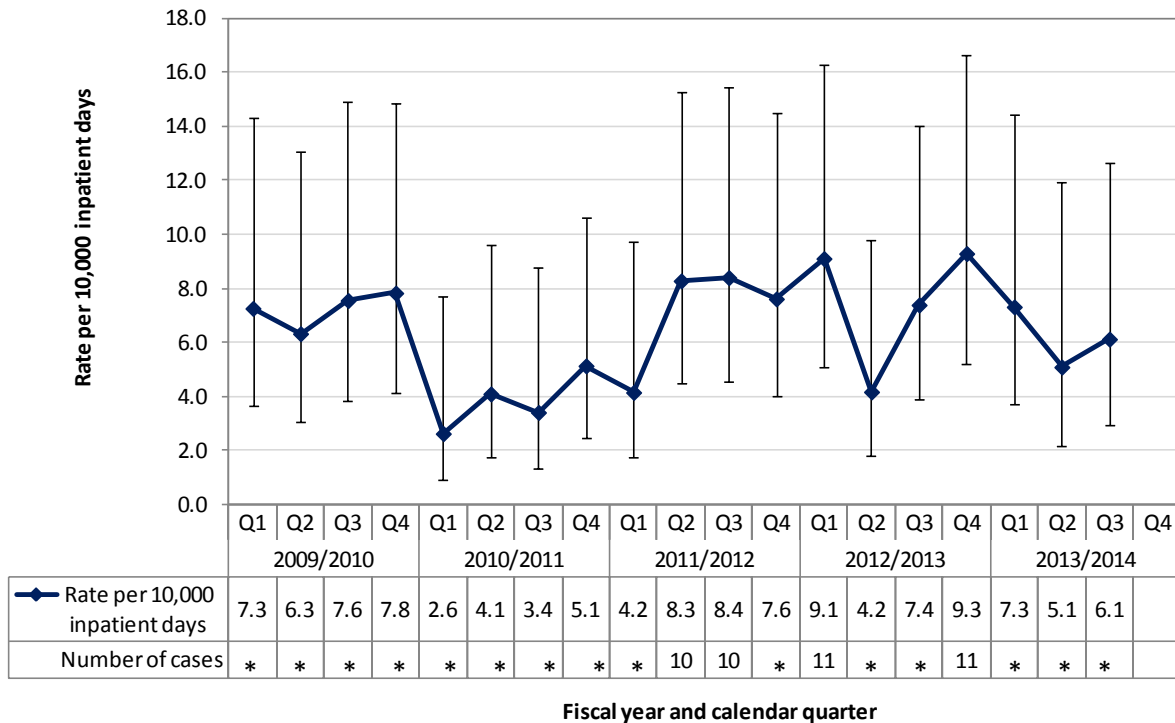


Figure 7. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and calendar quarter for Provincial Health Services Authority



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