

**Healthcare-associated infections surveillance report**

**Clostridium difficile Infections (CDI) Update, Q1 2015/2016**

October 2015

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### Summary Table

<table>
<thead>
<tr>
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<th>Q1 2015/2016</th>
<th>Previous quarter</th>
<th>Last 4 quarters</th>
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</thead>
<tbody>
<tr>
<td>Total CDI cases identified</td>
<td>637</td>
<td>831</td>
<td>2,260</td>
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<tr>
<td>Number of new CDI associated with the reporting facility</td>
<td>339</td>
<td>465</td>
<td>1,206</td>
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<tr>
<td>Total inpatient days</td>
<td>649,497</td>
<td>946,826</td>
<td>2,903,390</td>
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<tr>
<td>Provaline rate per 10,000 inpatient days (95% CI)</td>
<td>5.2 (4.7-5.8)</td>
<td>4.9 (4.5-5.4)</td>
<td>4.2 (3.9-4.4)</td>
</tr>
</tbody>
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Note: there were more days in the previous fiscal quarter Q4 (117 days) than current fiscal quarter Q1 (79 days).

### Highlights

- The provincial rate of new cases of CDI associated with the reporting facility continued to increase in Q1 of 2015/2016.
- The rate in Q1 of 2015/2016 was not significantly higher than the previous quarter (Q4 of 2014/2015), but was significantly higher than the average rate of the last four quarters (Q1 – Q4 of 2014/2015).
- The increase was observed in most acute care facilities in the Lower Mainland and two facilities in Vancouver Island. The respective health authorities have been monitoring and addressing the increase of CDI in their facilities.

The provincial CDI surveillance program was established to monitor the incidence and trends of healthcare-associated CDI among patients who have been hospitalized in acute care facilities.

*Clostridium difficile or C. difficile* is a germ that can live in the bowel without causing harm. However, if the normal bacteria in the gut are destroyed by taking certain antibiotics in high doses or over a prolonged period of time, *C. difficile* can grow to unusually high levels and produce toxins that can damage the bowel and cause diarrhea, fever, abdominal cramping, dehydration, and even death.

*C. difficile* bacteria and their spores are shed in feces. People can acquire the bacteria if they touch surfaces (e.g., toilets, commodes, bathing tubs, and electronic rectal thermometers) contaminated with feces, and then touch their mouth. For healthy people, *C. difficile* does not often pose a health risk. The elderly and those with other illnesses or who are taking antibiotics are at a greater risk of developing infections.

Regular hand hygiene by healthcare providers and patients is the most effective way of preventing the transmission of *C. difficile* in the healthcare setting. Using antibiotics wisely, keeping the environment as clean as possible (especially around ill patients), and good hand hygiene can help reduce the risk of *C. difficile* spreading to patients and visitors.

The PICNet website ([www.picnet.ca](http://www.picnet.ca)) has general information about CDI prevention and control, as well as the case definition, data sources, and limitations used to generate this report. If you have questions or suspect that you have CDI, please contact with your doctor or healthcare provider.
Figure 1.  Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter, British Columbia¹

Note: vertical bars on the line represent 95% confidence interval of the rates

¹ Data were aggregated by fiscal quarter for each health authority except PHSA, which aggregated the data by calendar quarter. The time frame of each fiscal quarter varied by fiscal year and there were more days in Q4 than in Q1, Q2, and Q3 each fiscal year. 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.
Figure 2. Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Interior Health

![Graph showing rate per 10,000 inpatient days and number of cases for Interior Health over multiple fiscal years and quarters.]

- Rate per 10,000 inpatient days:
  - 2009/2010: 10.7, 11.7, 10.9, 9.4, 7.5, 1.6, 4.6, 5.0, 8.1, 8.5, 5.7, 6.1, 7.4, 6.1, 6.6, 6.3, 4.7, 5.3, 3.0, 4.3, 4.9, 3.9
  - 2010/2011: 10.0, 8.6, 10.3, 9.6, 8.8, 11.1, 10.1, 10.1, 11.2, 9.7, 5.5, 6.2, 7.3, 5.4, 3.7, 3.6, 4.2, 4.3, 3.8, 3.0, 5.4, 5.6

- Number of cases:

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

![Graph showing rate per 10,000 inpatient days and number of cases for Fraser Health over multiple fiscal years and quarters.]

- Rate per 10,000 inpatient days:
  - 2009/2010: 11.0, 10.8, 10.9, 9.8, 11.1, 10.1, 10.1, 11.2, 9.7, 5.5, 6.2, 7.4, 5.4, 3.7, 3.6, 4.2, 4.3, 3.8, 3.0, 5.4, 5.6

- Number of cases:

2 Excluded certain acute care facilities from Q3 of FY 2011/2012 to Q2 of FY 2012/2013
**Figure 4.** Number of new cases and rate of CDI associated with the reporting facility, by fiscal year and quarter for Vancouver Coastal Health

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

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3 Includes acute care facilities of Providence Health Care (PHC)

4 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

* represents that the number of cases is <10 to ensure patient confidentiality
Disclaimer

The purpose of this report is to provide information on healthcare-associated infections identified among the patients admitted to the acute care facilities to healthcare providers, decision-makers, patients, and the public. This report may be used, in whole or in part, as the basis for infection prevention and control practices to improve the quality of healthcare services. PICNet does not warrant or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any information in the report; neither does it intend to provide specific medical advice. Commercial uses are prohibited without express written permission.