

Methicillin-Resistant *Staphylococcus aureus* (MRSA) Surveillance

**Quarterly data summary:
Q3 of Fiscal Year 2013/2014**

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Provincial Infection Control Network of British Columbia (PICNet)

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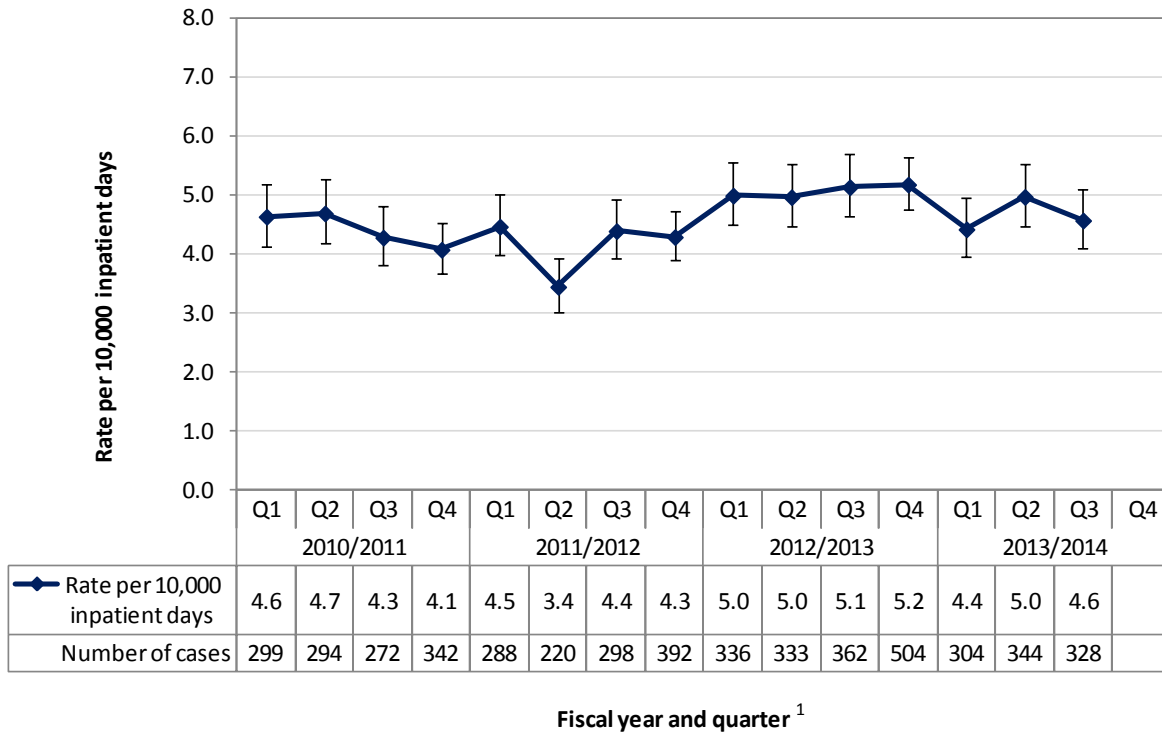
The emergence and spread of Methicillin-resistant *Staphylococcus aureus* (MRSA) in healthcare settings has become a major concern because MRSA infections are more difficult to treat than ordinary *S. aureus* infections, and may result in higher morbidity and mortality. The provincial MRSA surveillance program was established to monitor the incidence and trends of the cases of MRSA newly identified among acute care inpatients admitted to healthcare facilities in British Columbia (BC). This summary updates the cases of MRSA identified during the second fiscal quarter (Q3, September 13 – December 5, 2013) of fiscal year (FY) 2013/2014. Direct comparison of the numbers of cases and rates between health authorities (HA) is not recommended, as many factors can affect the rate of MRSA in healthcare facilities, such as the intensity of MRSA screening performed by the facility, the patients' exposure history to healthcare, and the prevalence of MRSA in the community. For details about this provincial surveillance program, case definition, and data limitations, please refer to the annual *Methicillin-Resistant Staphylococcus aureus (MRSA) Surveillance Report: For the Fiscal Year 2012/2013*, which can be found on the PICNet website (<http://s.picnet.ca/mrsareports>).

- A total of 595 cases of MRSA (either colonization or infection) were newly identified among acute care inpatients during Q3 of FY 2013/2014, of which 328 (55.1%) were defined as healthcare-associated with the reporting facility.
- The provincial rate of new cases of MRSA associated with the reporting facility was 4.6 [95% confidence interval (CI): 4.1-5.1] per 10,000 inpatient days in Q3 of FY 2013/2014.
- Compared to the provincial rate of 5.0 (95% CI: 4.5-5.5) per 10,000 inpatient days in the previous quarter (Q2 of FY 2013/2014), the rate in Q3 of FY 2013/2014 decreased, but the difference was not statistically significant.
- The provincial rate in Q3 of FY 2013/2014 was also not significantly different from the rate in the same quarter (Q3) of past three years (FY 2010/2011, 2011/2012, and 2012/2013).

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



Note: Bars in the line chart represent 95% confidence interval of the rates. Case finding strategy and application of case classification for MRSA surveillance may vary over time and by health authority; the same hereinafter.

1. Excluded from this report was Northern Health in FY 2010/2011, which did not apply the PICNet's case definition retrospectively to their MRSA cases identified during FY 2010/2011, and 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 (Q2, July 1 – September 30, 2013). The time frame in each fiscal quarter varied by fiscal year and the Q4 has more days than Q1 - Q3.

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

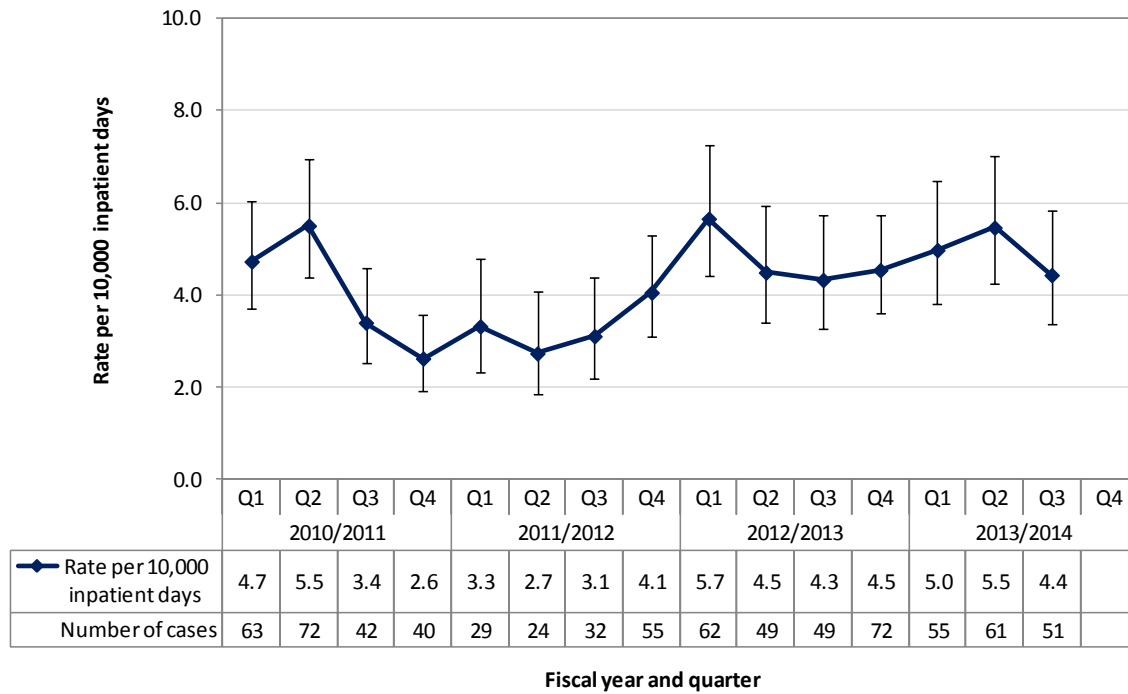


Figure 3. Number of new cases and rate of MRSA associated with the reporting facility, by fiscal year and quarter for Fraser Health

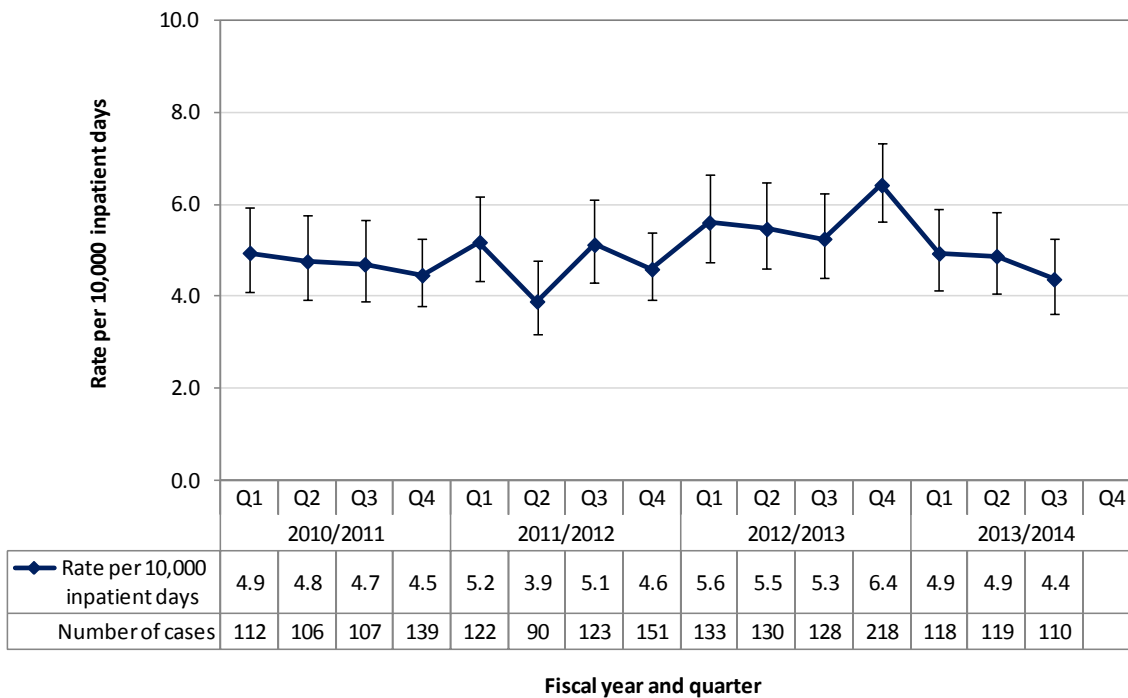


Figure 4. Number of new cases and rate of MRSA associated with the reporting facility, by fiscal year and quarter for Vancouver Coastal Health³

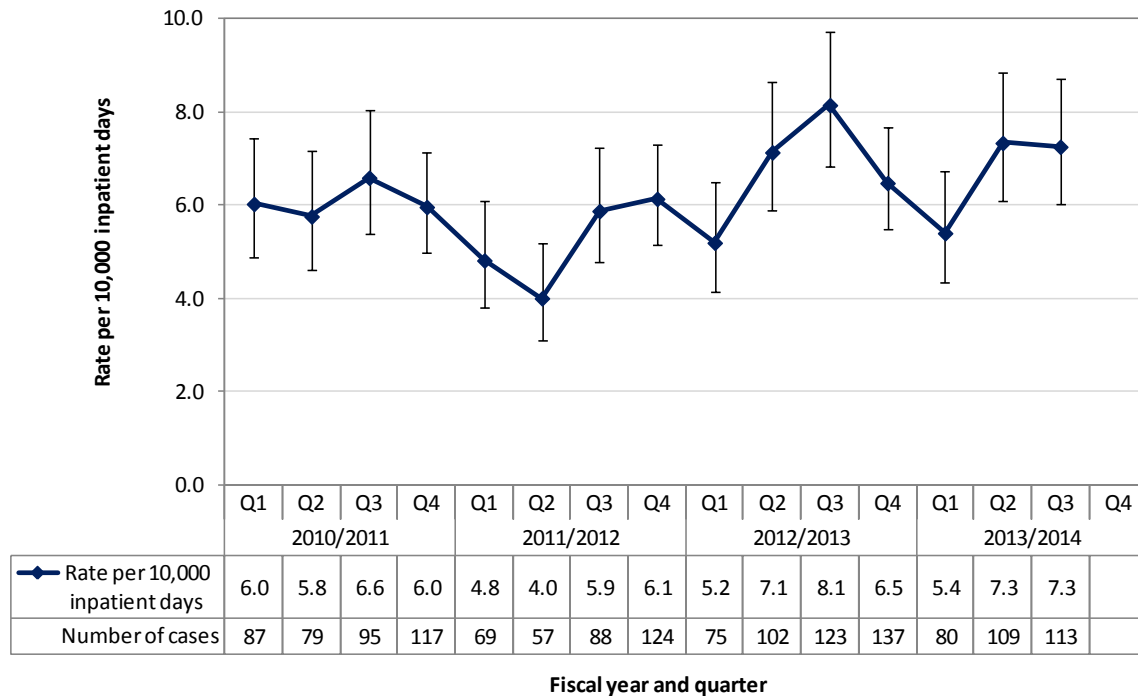
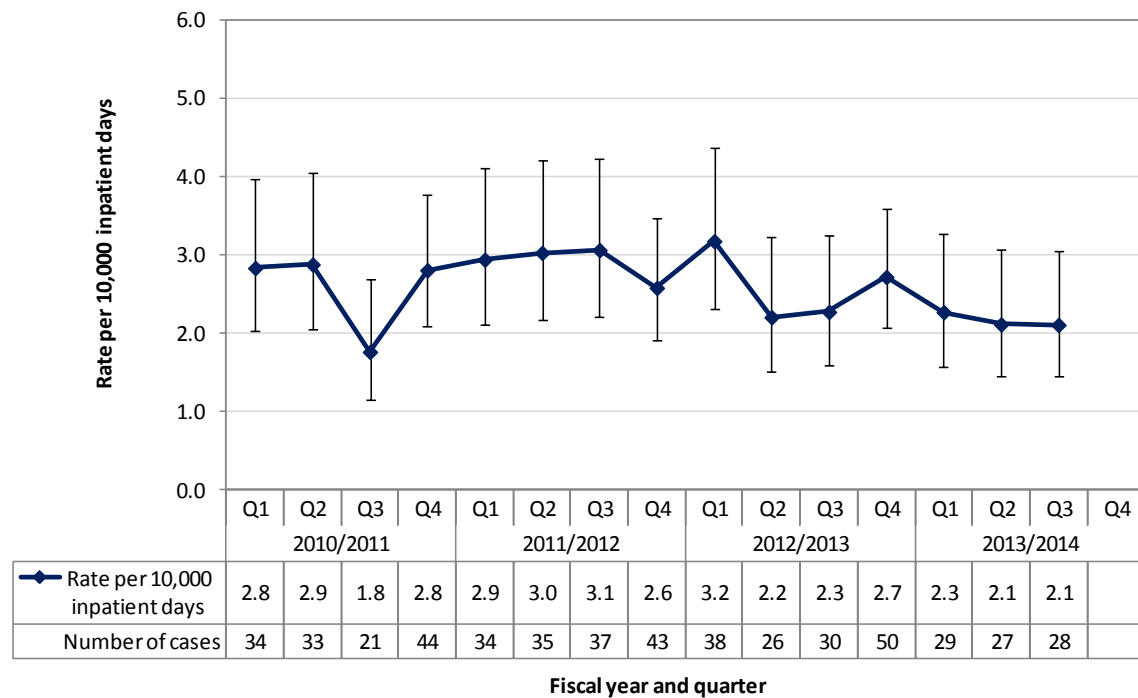


Figure 5. Number of new cases and rate of MRSA associated with the reporting facility, by fiscal year and quarter for Island Health⁴



Note: 3. Includes Providence Health Care (PHC)

4. Formerly known as Vancouver Island Health Authority

Figure 6. Number of new cases and rate of MRSA associated with the reporting facility, by fiscal year and quarter for Northern Health⁵

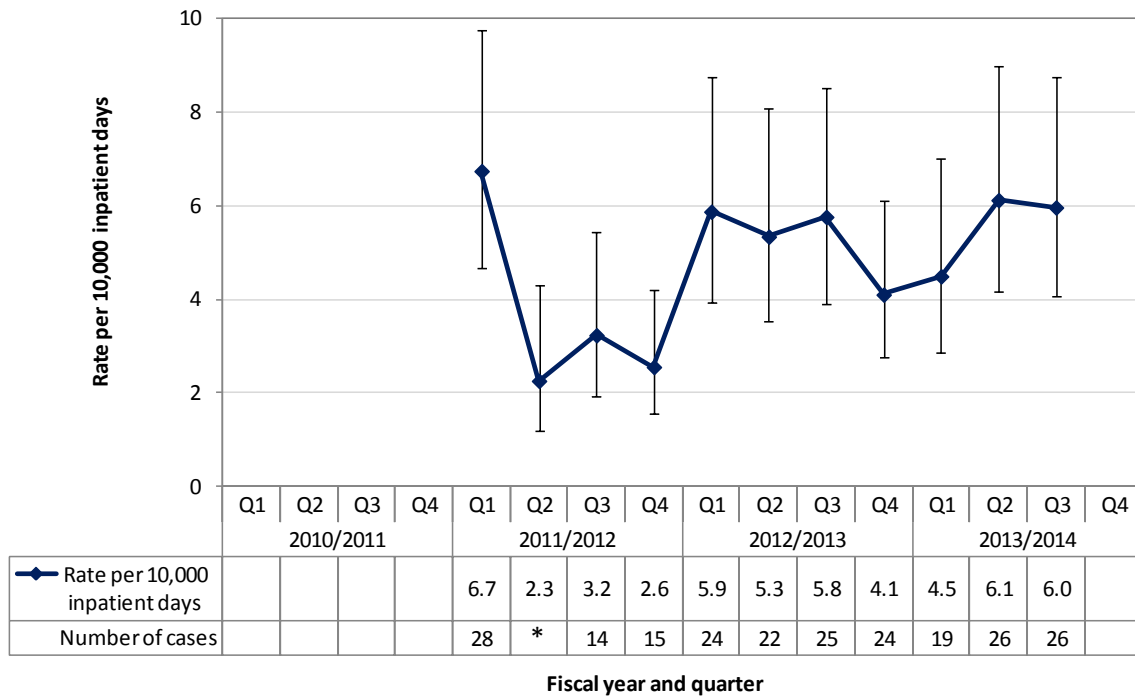
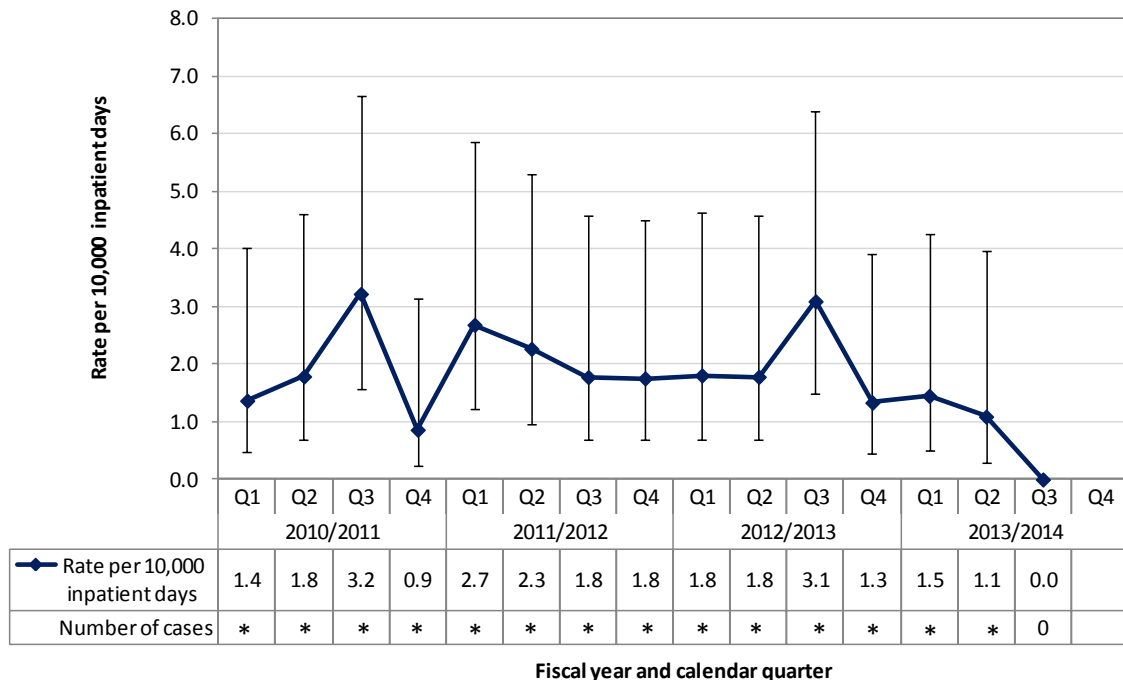


Figure 7. Number of new cases and rate of MRSA associated with the reporting facility, by fiscal year and calendar quarter for Provincial Health Services Authority



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

5. Northern Health did not apply the PICNet's MRSA case definition retrospectively to their MRSA cases identified in 2010/2011.