

# **Healthcare-associated infections** surveillance report

## Methicillin-resistant Staphylococcus aureus (MRSA) Update, Q2 2016/17

January 2017

### **Summary Table**

|  | Q2 2016/17    | Previous<br>quarter<br>(Q1 2016/17) | Same quarter of previous year (Q2 2015/16) |
|--|---------------|-------------------------------------|--|
| Total new MRSA cases identified  | 759           | 713                                 | 749  |
| Number of new MRSA cases associated with the reporting facility                        | 344           | 324                                 | 345  |
| Total inpatient days   | 692,786       | 655,086                             | 700,431                                    |
| Rate of MRSA associated with the reporting facility per 10,000 inpatient days (95% CI) | 5.0 (4.5-5.5) | 4.9 (4.4-5.5)                       | 4.9 (4.4-5.5)                              |

## **Highlights**

- The provincial rate of new MRSA cases associated with the reporting facility increased slightly in Q2 2016/17 compared to the previous quarter (Q1 2016/17); however, this change was not statistically significant.
- The MRSA rate in Q2 2016/17 was not statistically significantly different from the same quarter of the previous year (Q2 2015/16).
- The provincial MRSA rates did not change statistically significantly over the past seven quarters.

The provincial Methicillin-resistant Staphylococcus aureus (MRSA) surveillance program was established to monitor the incidence and trends of healthcare-associated MRSA (either colonization or infection) among patients who have been hospitalized in acute care facilities.

MRSA is a type of S. aureus that has become resistant to certain antibiotics such as methicillin, penicillin, amoxicillin, etc., and is thus more difficult to treat. MRSA often lives on the skin or in the nose of healthy people without causing symptoms (this is called colonization). It can, however, cause skin and other infections. Most infections are minor, such as pimples and boils. Serious infections — such as severe skin/wound infections, pneumonia, or septicaemia (infections getting into the bloodstream) — can result in life-threatening illness or, if left untreated, death. Those with weakened immune systems and chronic illnesses are more susceptible to developing an infection.

MRSA is primarily spread by skin-to-skin contact or through contact with items contaminated with the bacteria. It has been shown to spread easily in healthcare settings, therefore hospital patients and residents in residential care facilities, are at a higher risk of acquiring MRSA. In addition, MRSA has been found in community settings.

Hand hygiene is the most important measure to prevent the spread of MRSA in both healthcare settings and the community. Hospitals perform active surveillance (e.g., screening of high-risk individuals) to identify patients colonized with MRSA so that precautions can be taken to prevent transmission to other patients.

The PICNet website (www.picnet.ca) has general information about MRSA 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 MRSA, please contact your doctor or healthcare provider.













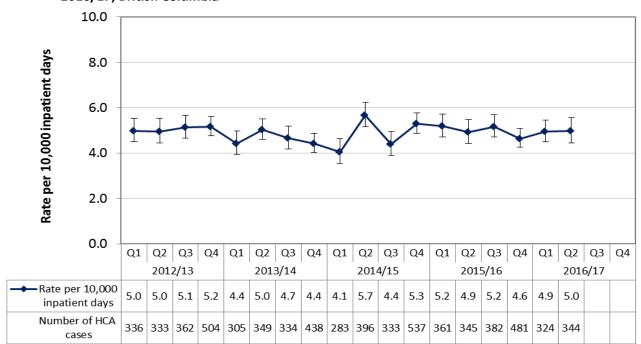
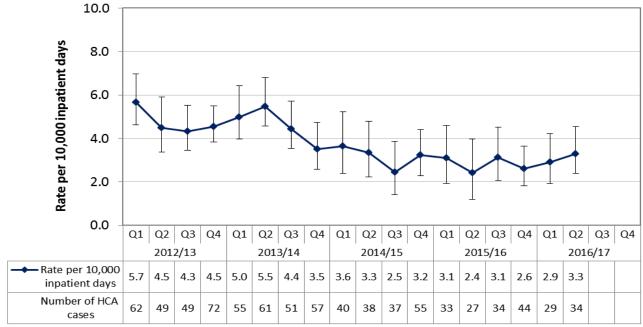


Figure 1. Provincial rate and number of new cases of MRSA associated with the reporting facility, 2012/13 - 2016/17, British Columbia 1

Fiscal year and quarter

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

Figure 2. Rate and number of new cases of MRSA associated with the reporting facility, 2012/13 - 2016/17, Interior Health<sup>2</sup>



Fiscal year and quarter

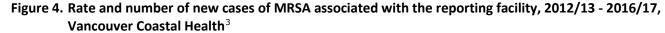
<sup>&</sup>lt;sup>1</sup> Data were aggregated by fiscal quarter for each health authority except PHSA, which aggregated the data by calendar quarter. The time frame of each fiscal quarter varied by fiscal year and there were more days in Q4 than in Q1, Q2, and Q3 each fiscal year. Case finding strategy and application of case classification for MRSA surveillance may vary over time and by health authority.

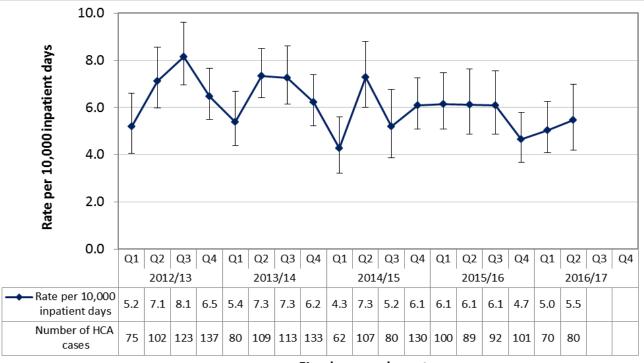
<sup>&</sup>lt;sup>2</sup> Excluded certain acute care facilities from Q1 to Q2 of FY 2012/2013

10.0 Rate per 10,000 inpatient days 8.0 6.0 4.0 2.0 0.0 Q2 Q3 Q4 Q1 | Q2 | Q3 Q4 Q1 | Q2 | Q3 | Q4 Q1 | Q2 | Q3 | Q4 Q1 | Q2 | Q3 | 2012/13 2013/14 2014/15 2015/16 2016/17 Rate per 10,000 5.6 5.0 5.5 5.3 5.0 4.7 5.6 5.2 7.9 7.7 7.9 6.7 7.0 7.2 6.8 6.4 5.8 6.9 inpatient days Number of HCA 133 | 130 | 128 | 218 | 119 | 121 | 116 | 193 | 125 | 194 | 147 | 276 | 188 | 167 189 257 164 162 cases

Figure 3. Rate and number of new cases of MRSA associated with the reporting facility, 2012/13 - 2016/17, Fraser Health

Fiscal year and quarter





Fiscal year and quarter

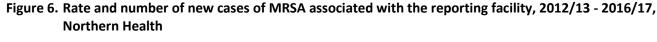
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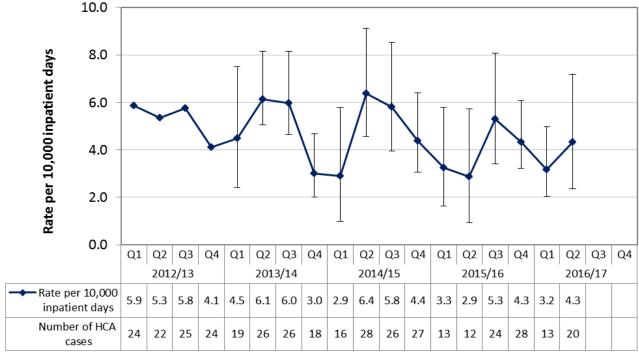
<sup>&</sup>lt;sup>3</sup> Includes acute care facilities of Providence Health Care (PHC)

10.0 Rate per 10,000 inpatient days 8.0 6.0 4.0 2.0 0.0 Q2 Q3 Q4 Q1 | Q2 | Q3 Q4 Q1 | Q2 | Q3 | Q4 Q1 | Q2 | Q3 | Q4 Q1 | Q2 | Q3 | Q4 Q1 2012/13 2013/14 2014/15 2015/16 2016/17 Rate per 10,000 3.2 2.7 2.2 2.3 2.7 2.3 2.4 2.1 2.0 2.9 2.1 2.5 2.3 3.2 2.8 2.2 3.3 1.8 inpatient days Number of HCA 38 29 27 42 37 26 30 50 30 28 36 36 34 43 23 42 39 43 cases

Figure 5. Rate and number of new cases of MRSA associated with the reporting facility, 2012/13 - 2016/17, Island Health<sup>4</sup>

Fiscal year and quarter





Fiscal year and quarter

<sup>&</sup>lt;sup>4</sup> Formerly known as Vancouver Island Health Authority

10.0 8.0 Rate per 10,000 inpatient days 6.0 4.0 2.0 0.0 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 | Q2 | Q3 | Q4 Q1 Q2 Q3 Q4 2012/13 2013/14 2014/15 2015/16 2016/17 - Rate per 10,000 1.8 3.1 1.2 0.8 0.0 0.4 1.7 2.2 4.3 2.0 3.9 2.0 2.9 5.3 1.8 1.3 2.8 3.8 inpatient days Number of HCA 7 3 3 2 4 4 0 1 4 2 9 6 4 8 4 8 6 11 cases

Figure 7. Rate and number of new cases of MRSA associated with the reporting facility, 2012/13 - 2016/17, Provincial Health Services Authority

Fiscal year and calendar quarter

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#### 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.



