



PRINCE EDWARD ISLAND Infection Prevention and Control Surveillance Data Summary 2016

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Introduction

Surveillance is a key component of the Infection Prevention and Control Program. Relevant data are gathered on health care and community-associated infections and the information is used to improve infection control outcomes. Surveillance data for community associated and health care associated Methicillin-resistant *Staphylococcus aureus* (CA-MRSA and HA-MRSA), and *Clostridium difficile* infections (CDI), are presented in this report. Each section contains a short discussion about the data and provides a year to year comparison. PEI does not compare rates of MRSA (colonization/infection) and *C. difficile* infection to other provinces due to the diversity of data collection. Provincial data is compared based on previous years of reported data.

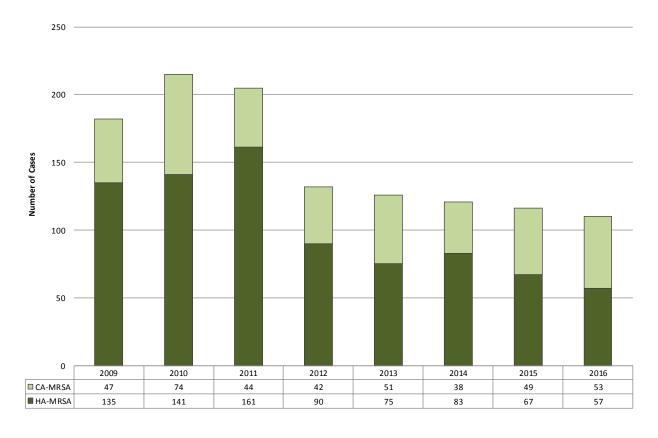
Methicillin-resistant Staphylococcus aureus (MRSA)

The overall incidence of MRSA infection/colonization on PEI has been decreasing since 2010 (Figure 1). Identifying cases of MRSA and putting measures in place to prevent the spread of infections from person to person contributes to the decrease in cases. The MRSA Guidelines¹ are developed and available on the Department of Health and Wellness website.

In 2016 the proportion of MRSA that were community associated (CA-MRSA) or health care associated (HA-MRSA) were evenly split. There has been a decreasing trend in the number of new MRSA cases associated with health care since 2011.

Figure 1

MRSA Incidence by Attributable Setting, PEI 2009-2016



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¹ Provincial Infection Prevention and Control Guidelines for MRSA (2009)

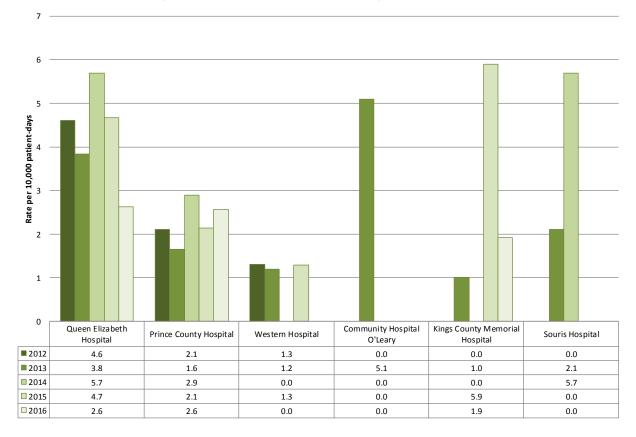
Incidence rates of HA-MRSA cases in 2015 and 2016 for long term and acute care facilities on PEI are presented in Table 1; additionally, changes in the incidence rate of HA-MRSA per 10,000 patient days by facility are illustrated in Figure 2. Overall incidence of HA-MRSA is decreasing. Changes in the incidence of HA-MRSA over time in smaller facilities should be interpreted with caution due to the relatively small number of new cases each year; a very small change in the number of new MRSA cases may cause a change in the rate that appears alarming, when in fact it is not.

Table 1. MRSA Incidence and Rate by Attributable Facility, 2015-2016

| | | 2016 | | | 2015 | |
|--|---------------------------|--------------------------------------|-----------------------------------|---------------------------|--------------------------------------|-----------------------------------|
| Facility | Number of Cases (n=83) | Rate (per 10,000 patient-days) | Rate (per 1,000 admissions) | Number of Cases (n=75) | Rate (per 10,000 patient-days) | Rate (per 1,000 admissions) |
| Long Term Care | | | | | | |
| Private Nursing Homes | 14 | n/a | n/a | 8 | n/a | n/a |
| Colville Manor | 0 | 0.0 | n/a | 1 | 0.5 | n/a |
| Riverview Manor | 4 | 2.3 | n/a | 2 | 1.1 | n/a |
| Beach Grove Home | 0 | 0.0 | n/a | 2 | 0.4 | n/a |
| Prince Edward Home | 1 | 0.3 | n/a | 0 | 0.0 | n/a |
| Provincial Palliative Care Centre | 0 | 0.0 | n/a | 0 | 0.0 | n/a |
| Sherwood Home | 0 | 0.0 | n/a | 0 | 0.0 | n/a |
| Maplewood Manor | 0 | 0.0 | n/a | 0 | 0.0 | n/a |
| M. Stewart Ellis Wing (CHO) | 0 | 0.0 | n/a | 0 | 0.0 | n/a |
| Summerset Manor | 0 | 0.0 | n/a | 0 | 0.0 | n/a |
| Wedgewood Manor | 0 | 0.0 | n/a | 0 | 0.0 | n/a |
| Stewart Memorial | 0 | 0.0 | n/a | 0 | 0.0 | n/a |
| Total Public Long Term Care | 5 | 0.2 | n/a | 5 | 0.2 | n/a |
| Acute Care | | | | | | |
| Queen Elizabeth Hospital | 21 | 2.6 | 2.3 | 34 | 4.7 | 3.8 |
| Prince County Hospital | 9 | 2.6 | 2.1 | 7 | 2.1 | 1.6 |
| Western Hospital | 0 | 0.0 | 0.0 | 1 | 1.3 | 2.0 |
| Community Hospital O'Leary | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Kings County Memorial Hospital | 2 | 1.9 | 2.9 | 6 | 5.9 | 9.9 |
| Souris Hospital | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Hillsborough Hospital | 1 | 0.4 | 5.7 | 0 | 0.0 | 0.0 |
| Other | | | | | | |
| Community Care Facilities | 3 | n/a | n/a | 5 | n/a | n/a |
| Provincial Corrections Facility | 0 | n/a | n/a | 0 | n/a | n/a |
| Provincial Addictions Treatment Facility | 1 | n/a | n/a | 1 | n/a | n/a |

Figure 2

HA-MRSA Incidence by Attributable Acute Care Facility, 2012-2016

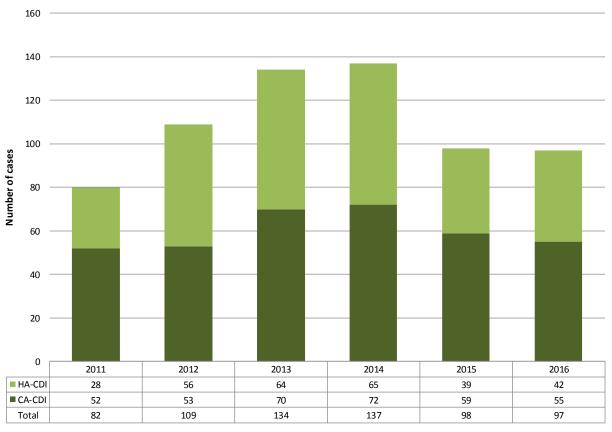


Clostridium difficile Infection (CDI)

The 2016 data showed no change (Figure 3) in new cases of health care- and community-associated CDI; C. difficile Guidelines² are developed and available on the Department of Health and Wellness website. In the health care environment, CDI can spread from person to person by the fecal-oral route. All cases of CDI in Health PEI facilities are investigated.

Figure 3

CDI Incidence by Attributable Setting, 2011-2016



² Provincial Infection Prevention and Control Guidelines for *Clostridium difficile (2010)*

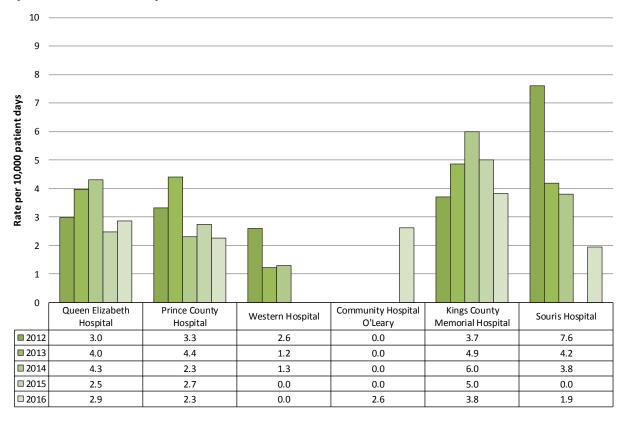
Incidence rates of HA-CDI cases in 2015 and 2016 for long term and acute care facilities on PEI are presented in Table 2; additionally, changes in the incidence rate of HA-CDI per 10,000 patient days by facility are illustrated in Figure 4. Given differences in hospital patient acuity and services provided, it is important to note that comparisons between acute care centers in the province should not be made. In addition, caution should be taken when interpreting facility rates given the small numbers of infections per facility; a very small change in the number of new CDI cases may cause a change in the rate that appears alarming, when in fact it is not.

Table 2. CDI Incidence and Rate by Attributable Facility, 2015-2016

| | 2016 | | | | 2015 | | |
|--|---------------------------|--------------------------------------|-----------------------------------|---------------------------|--------------------------------------|-----------------------------------|--|
| Facility | Number of Cases (n=38) | Rate (per 10,000 patient-days) | Rate (per 1,000 admissions) | Number of Cases (n=38) | Rate (per 10,000 patient-days) | Rate (per 1,000 admissions) | |
| Long Term Care | | | | | | | |
| Private Nursing Homes | 1 | n/a | n/a | 3 | n/a | n/a | |
| Colville Manor | 0 | 0.0 | n/a | 0 | 0.0 | n/a | |
| Riverview Manor | 2 | 1.1 | n/a | 1 | 0.6 | n/a | |
| Beach Grove Home | 1 | 0.2 | n/a | 1 | 0.2 | n/a | |
| Prince Edward Home | 0 | 0.0 | n/a | 0 | 0.0 | n/a | |
| Provincial Palliative Care Centre | 0 | 0.0 | n/a | 0 | 0.0 | n/a | |
| Sherwood Home | 0 | 0.0 | n/a | 0 | 0.0 | n/a | |
| Maplewood Manor | 0 | 0.0 | n/a | 1 | 0.6 | n/a | |
| M. Stewart Ellis Wing (CHO) | 0 | 0.0 | n/a | 0 | 0.0 | n/a | |
| Summerset Manor | 0 | 0.0 | n/a | 0 | 0.0 | n/a | |
| Wedgewood Manor | 0 | 0.0 | n/a | 1 | 0.4 | n/a | |
| Stewart Memorial | 0 | 0.0 | n/a | 0 | 0.0 | n/a | |
| Total Public Long Term Care | 3 | 0.1 | n/a | 4 | 0.2 | n/a | |
| Acute Care | | | | | | | |
| Queen Elizabeth Hospital | 23 | 2.9 | 2.5 | 18 | 2.5 | 2.0 | |
| Prince County Hospital | 8 | 2.3 | 1.9 | 9 | 2.7 | 2.1 | |
| Western Hospital | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | |
| Community Hospital O'Leary | 1 | 2.6 | 8.1 | 0 | 0.0 | 0.0 | |
| Kings County Memorial Hospital | 4 | 3.8 | 5.9 | 5 | 4.9 | 8.2 | |
| Souris Hospital | 1 | 1.9 | 3.6 | 0 | 0.0 | 0.0 | |
| Hillsborough Hospital | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | |
| Total Acute Care | 37 | 2.2 | 2.4 | 32 | 2.4 | 2.2 | |
| Other | | | | | | | |
| Community Care Facilities | 1 | n/a | n/a | 0 | n/a | n/a | |
| Provincial Corrections Facility | 0 | n/a | n/a | 0 | n/a | n/a | |
| Provincial Addictions Treatment Facility | 0 | n/a | n/a | 0 | n/a | n/a | |

Figure 4

HA-Clostridium Difficile Infection Incidence per 10,000 Patient Days by Attributable Facility, 2012-2016



References

- Provincial Infection Prevention and Control Guidelines for MRSA. Prince Edward Island
 Department of Health and Wellness. May 2016.
 https://www.princeedwardisland.ca/sites/default/files/publications/pei-mrsa-guideline-sep-2-016.pdf
- 2) Provincial Infection Prevention and Control Guidelines for Clostridium difficile. Prince Edward Island Department of Health and Wellness. September 2010.
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