



## Canadian Nosocomial Infection Surveillance Program (CNISP)

### Surveillance for Methicillin-resistant *Staphylococcus aureus* (MRSA) 2006 Results

In 2006, 48 sentinel hospitals from 9 Canadian provinces participated in the CNISP surveillance for MRSA and submitted data on 'newly-identified' MRSA cases for hospitalized patients. The denominator data for the calculation of the MRSA rates, also submitted, included the number of patient admissions and the number of patient days for the individual facility.

There were a total of 5787 'newly identified' MRSA cases during the 2006 MRSA surveillance of which 3561 (62%) cases were healthcare-associated (nosocomial) to CNISP hospitals, 377 (7%) cases as healthcare-associated to other acute care hospitals, and 452 (8%) cases as healthcare-associated to long-term care facilities. Community-acquired MRSA (CA-MRSA) accounted for 893 (15%) of the cases and the remaining 404 (7%) cases were unknown.

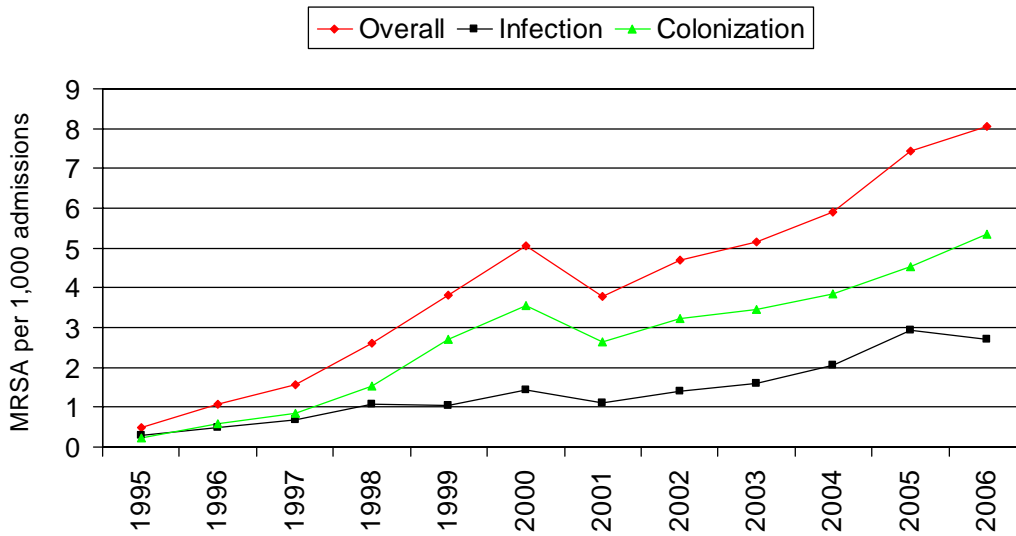
Of the total 48 participating CNISP hospitals, 17 were adult/pediatric hospitals (with both adult and pediatric patients), 23 were adult-only hospitals and 8 were pediatric-only hospitals.

**Table 1. MRSA\* incidence rate per 1,000 patient admissions and 10,000 patient days for 2006 by region**

	Rate per 1,000 admissions			Rate per 10,000 days		
	All	Infection	Colonization	All	Infection	Colonization
Western	6.33	3.56	2.78	9.44	5.30	4.15
Central	9.86	3.17	6.70	11.47	3.68	7.79
Eastern	6.39	2.66	3.72	6.72	2.80	3.92
<b>Overall</b>	<b>8.04</b>	<b>2.70</b>	<b>5.34</b>	<b>10.16</b>	<b>3.41</b>	<b>6.75</b>

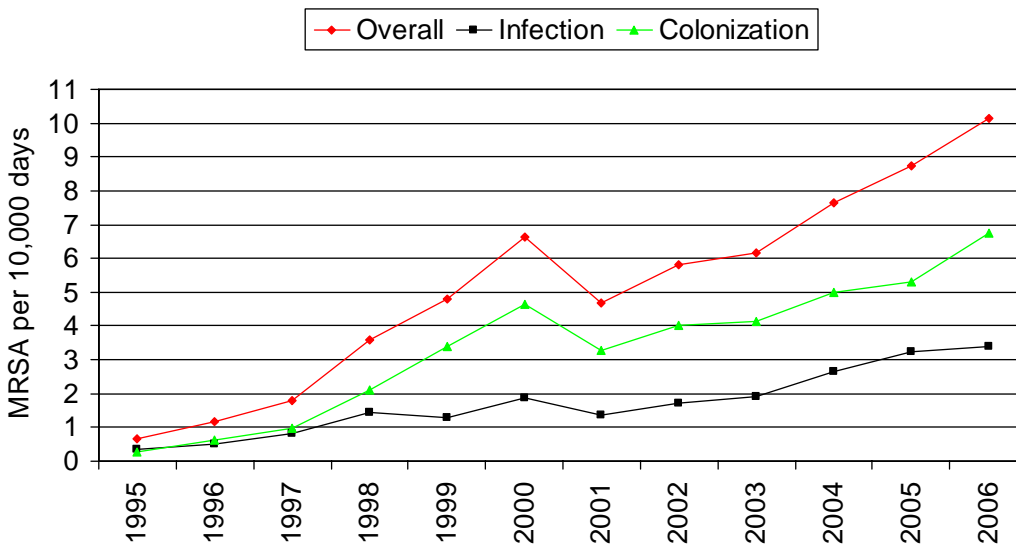
*\*MRSA rates includes all 'newly identified' MRSA cases i.e. healthcare-associated to CNISP hospitals, healthcare-associated to other acute care hospitals, healthcare-associated to long term care facilities, community acquired and those cases identified as unknown.*

Figure 1. MRSA\* incidence rates per 1,000 patient admissions from 1995 to 2006



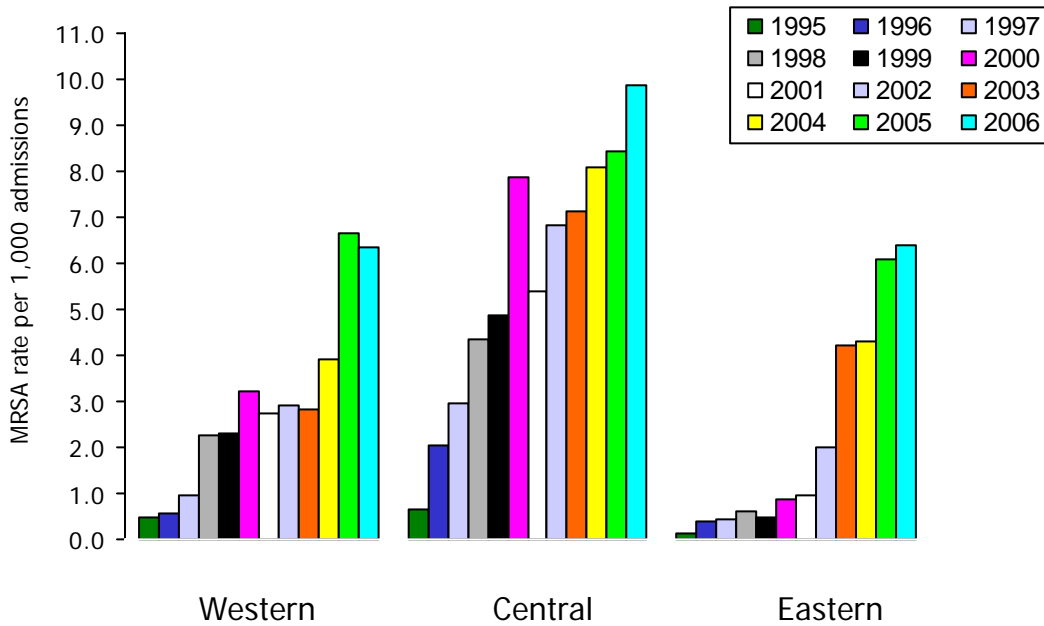
\*MRSA rates includes *all* 'newly identified' MRSA cases i.e. healthcare-associated to CNISP hospitals, healthcare-associated to other acute care hospitals, healthcare-associated to long term care facilities, community acquired and those cases identified as unknown.

Figure 2. MRSA\* incidence rates per 10,000 patient days from 1995 to 2006



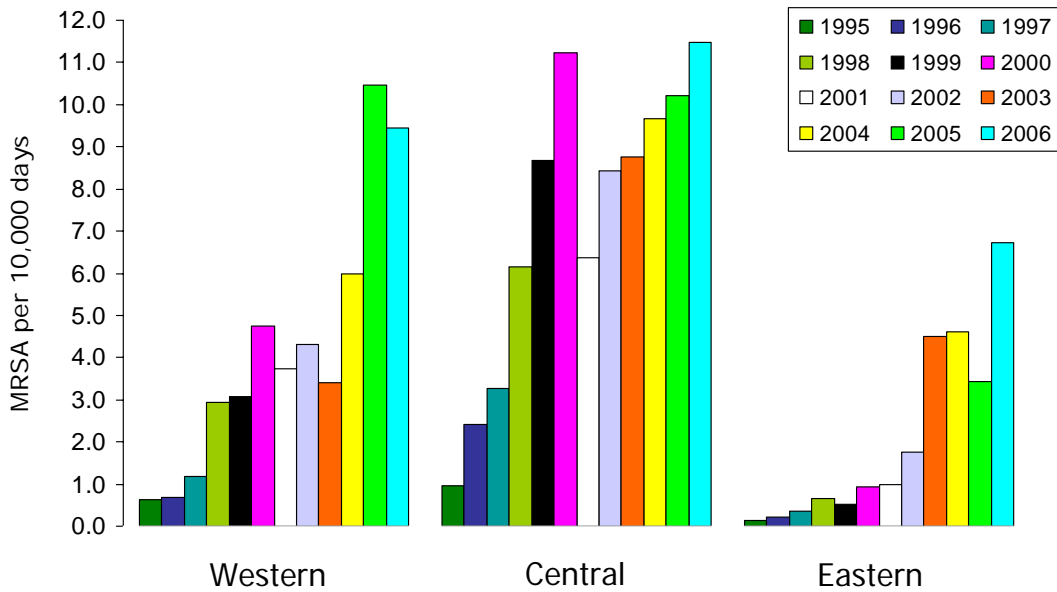
\*MRSA rates includes *all* 'newly identified' MRSA cases i.e. healthcare-associated to CNISP hospitals, healthcare-associated to other acute care hospitals, healthcare-associated to long term care facilities, community acquired and those cases identified as unknown.

**Figure 3. MRSA\* (infection and colonization) incidence rates per 1,000 patient admissions by region from 1995 to 2006**



*\*MRSA rates includes all 'newly identified' MRSA cases i.e. healthcare-associated to CNISP hospitals, healthcare-associated to other acute care hospitals, healthcare-associated to long term care facilities, community acquired and those cases identified as unknown.*

**Figure 4. MRSA\* (infection and colonization) incidence rates per 10,000 patient days by region from 1995 to 2006**



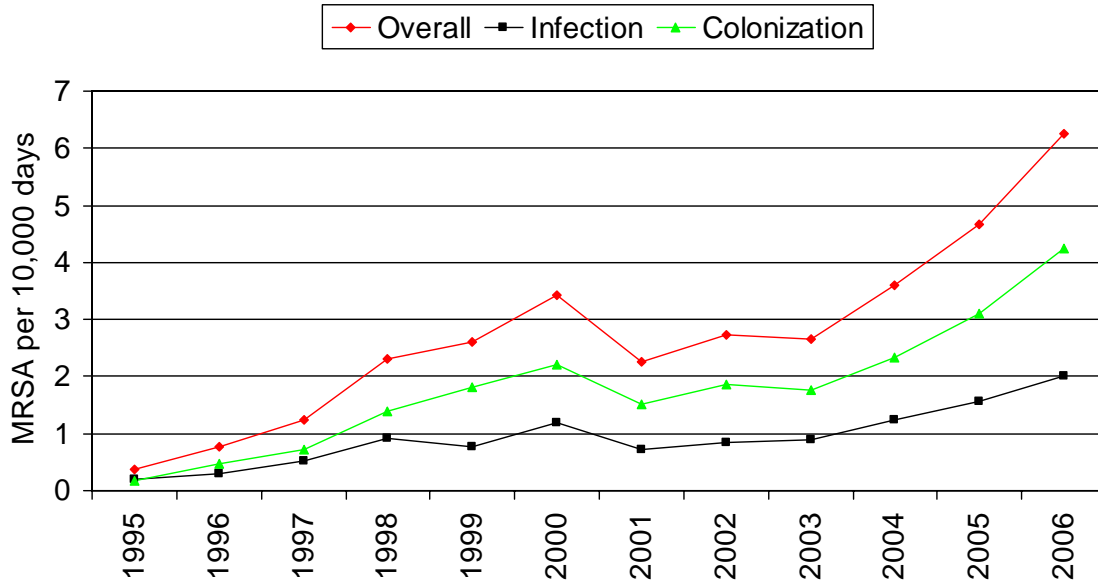
*\*MRSA rates includes all 'newly identified' MRSA cases i.e. healthcare-associated to CNISP hospitals, healthcare-associated to other acute care hospitals, healthcare-associated to long term care facilities, community acquired and those cases identified as unknown.*

**Table 2. Nosocomial\*\* MRSA incidence rates per 10,000 patient days**

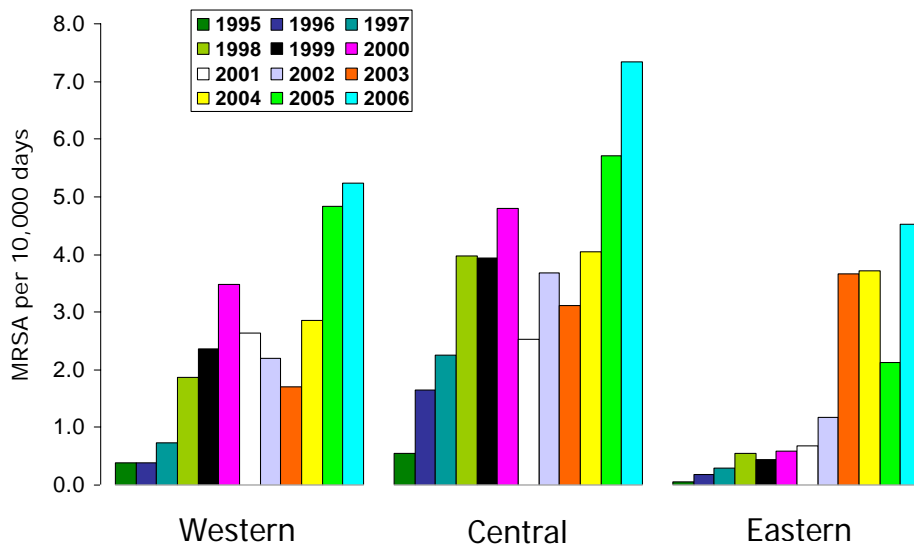
	Rate per 10,000 days		
	All	Infection	Colonization
Western	5.24	2.70	2.54
Central	7.35	1.60	5.75
Eastern	4.52	1.70	2.82
<b>Overall</b>	<b>6.25</b>	<b>2.00</b>	<b>4.52</b>

\*\* Nosocomial MRSA includes all 'newly identified' cases nosocomial to CNISP hospitals only.

**Figure 5. Nosocomial\*\* MRSA incidence rates per 10,000 patient days from 1995 to 2006**



**Figure 6. Nosocomial\*\* MRSA incidence rates (infection and colonization) per 10,000 patient days by region from 1995 to 2006**



\*\* Nosocomial MRSA includes all 'newly identified' cases nosocomial to CNISP hospitals only.

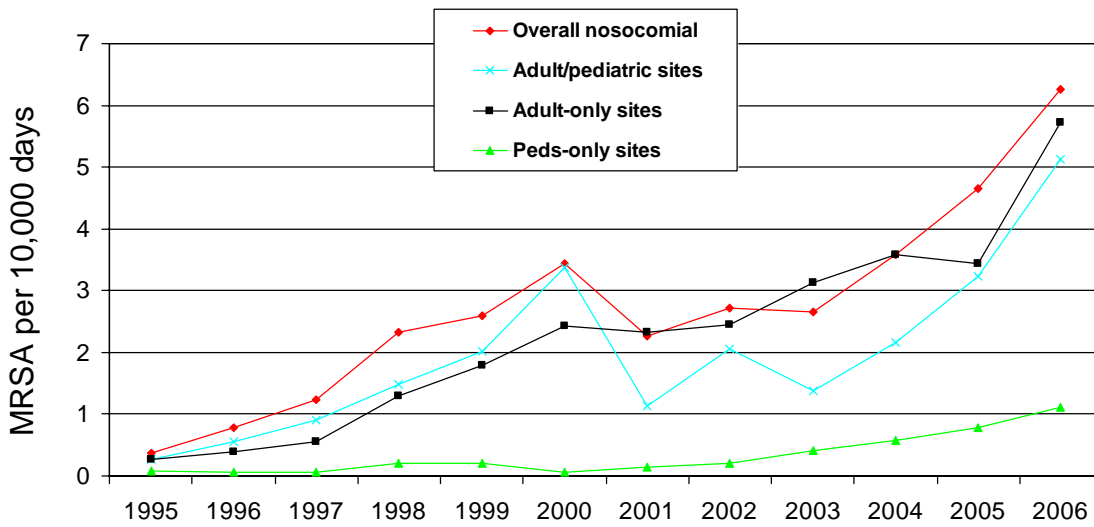
**Table 3. Nosocomial\*\* MRSA incidence rates per 10,000 patient days in 2006 for adult/pediatric<sup>†</sup>, adult-only and pediatric-only CNISP hospitals**

	Rate per 10,000 days		
	All	Infection	Colonization
Adult/peds	5.13	1.59	3.54
Adult-only	5.72	1.82	3.90
Peds-only	1.12	0.76	0.36
<b>Overall</b>	<b>6.25</b>	<b>2.00</b>	<b>4.25</b>

\*\* Nosocomial MRSA includes all 'newly identified' cases nosocomial to CNISP hospitals only.

<sup>†</sup> Adult/pediatric hospitals include hospitals for both adult and pediatric patients.

**Figure 7. Nosocomial\*\* MRSA incidence rates (infection and colonization) per 10,000 patient days for adult/pediatric<sup>†</sup>, adult-only and pediatric-only CNISP hospitals from 1995 to 2006**



\*\* Nosocomial MRSA includes all 'newly identified' cases nosocomial to CNISP hospitals only.

<sup>†</sup> Adult/pediatric hospitals include hospitals for both adult and pediatric patients.