



● Antimicrobial Resistance and Antimicrobial Use in Canada ●

# CARSS CANADIAN ANTIMICROBIAL RESISTANCE SURVEILLANCE SYSTEM

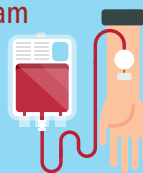
## Healthcare sector

**Antibiotic-resistant infections are driving increased mortality and increased costs to the healthcare system.**

The Canadian Nosocomial Infection Surveillance Program (CNISP) is a collaborative effort of the Association of Medical Microbiology and Infectious Disease Canada (AMMI Canada) and the Public Health Agency of Canada. Based on the most recent data available in 2019.

### RESISTANT BACTERIA

Rates of **resistant bloodstream infections (BSI)** associated with high mortality have significantly increased since 2014.



Methicillin-resistant *Staphylococcus aureus*-BSI increased by **↑28%**

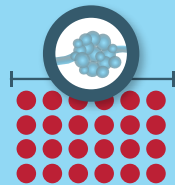
Vancomycin-resistant *Enterococcus*-BSI increased by **↑158%**

**Medical tourism** provides opportunities for resistant organisms to spread.



In 2019, some Canadians who travelled to other countries for medical procedures were exposed to highly drug-resistant bacteria that cause hard to treat infections.

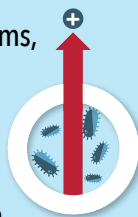
There have been **24 cases of *Candida auris*** reported to PHAC since 2014.



An emerging yeast pathogen associated with invasive infection.

### ANTIBIOTIC USAGE

The effectiveness of carbapenems, defined by the World Health Organization as an antibiotic of last resort, is threatened by the emergence of carbapenem-resistant bacteria.

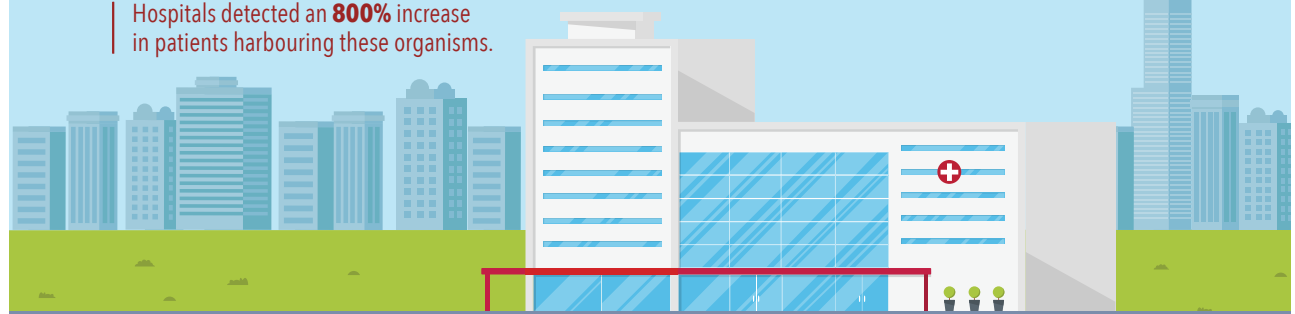


Hospitals detected an **800%** increase in patients harbouring these organisms.

Drugs previously reserved as last resort are being purchased more frequently by hospitals.



Daptomycin purchasing increased by nearly **60%** since 2014.



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