ipac Infection Prevention and Control Canada

pci Prévention et contrôle des infections Canada

PROTECTING CANADA'S **PUBLIC HEALTH ADVANTAGE**

By 2050, the cumulative cost of Antimicrobial resistance to Canada is estimated at:

- **396,000 lives**
- **$120 billion in hospital costs**
- **$388 billion in GDP**

Source: Council of Canadian Academies

→ THE PROBLEM

Indifference and misinformation are growing threats to Canada's public health advantage. These concerns are difficult to quantify, but they also play a role in exacerbating challenges that Canadians and health professionals grapple with on a daily basis.

For Infection Control Professionals the most pressing of these challenges are **Antimicrobial Resistance** (AMR) and **Vaccine Hesitancy.**

Vaccines and antimicrobials are vital to effective public health and healthcare in Canada. Their success has been profound, but their effectiveness is being limited, which is cause for great concern among Infection Control Professionals (ICPs). ICPs come from many different backgrounds within the health care field. These include disciplines such as nursing, medicine, microbiology, medical technology and epidemiology. All are committed to the fight against AMR and vaccine hesitancy.

ANTIMICROBIAL RESISTANCE

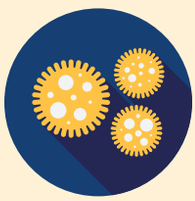
The World Health Organization has recently declared AMR to be one of the greatest threats to global health in this decade. The Council of Canadian Academies has recently measured the economic and social impacts of AMR and found that the impact is profound and expected to grow tremendously over the next three decades if urgent action is not taken.

Antibiotic resistance causes people to be sick for longer and increases the risk of death.

World Health Organization

AMR costs Canada's healthcare system $1.8 billion per year.[1] This cost is the reality when 26% of infections are resistant to the drugs that are commonly used to treat them. That rate is expected to grow to 40% of infections by 2050. The cost of AMR to the healthcare system will be approximately $7.6 billion if that threshold is reached.[2] Each year, 5,400 Canadians die as a result of AMR, and that number could grow to 13,700 if the 40% threshold is reached.[3] The current rate of deaths directly attributable to AMR is comparable to Alzheimer's disease, which has been addressed by the federal government with a national strategy and $50 million in new funding.

Despite its wealth, Canada continues to have gaps in its ability to understand national trends in antimicrobial resistance. **The lack of a national, accessible database with up-to-date information on microorganisms that have become resistant to certain drugs, the factors that led to resistance and how to best combat them is leaving our healthcare professionals at a disadvantage to help Canadian patients.**



In 2018 there were 980,000 bacterial infections in Canada. Of these, 250,000 were resistant.

Council of Canadian Academies

[1] Council of Canadian Academies. *When Antibiotics Fail: The Expert Panel on the Potential Socio-Economic Impacts of Antimicrobial Resistance in Canada*. 2019. https://cca-reports.ca/wp-content/uploads/2018/10/When-Antibiotics-Fail-1.pdf

[2] Ibid.

[3] Ibid.

Most isolates of carbapenemase-producing Enterobacteriaceae (CPE) are resistant to all commonly used orally available antimicrobial drugs.

Centers for Disease Control and Prevention

The problem of AMR must be solved proactively. The development of antimicrobial agents is not keeping pace with the spread of AMR and we may not be able to mobilize a sufficient response in an emergency situation. The Public Health Agency of Canada (PHAC) is working to address the issue of antimicrobial resistance in Canada. PHAC has noted, "Ongoing surveillance gaps present a challenge to developing a comprehensive picture in both the community and hospital settings."[4] These gaps need to be closed.

Since the United States created the National Healthcare Safety Network, which provides over 17,000 healthcare facilities with the data needed to treat and prevent healthcare-associated infections, there has been a drastic decrease in the number of infections. This decrease can best be identified in the 50 per cent decrease in central line-associated bloodstream infections between 2008 and 2014.

It is imperative that the federal government play a role in **Canada-wide surveillance to ensure that all Canadians, regardless of jurisdiction, are protected against the spread of infectious diseases.** We need a national solution.

We recommend that Health Canada collaborate with provincial health ministries to develop a National Surveillance System for Antibiotic Resistant Organisms, with consistent case definitions across the country. Canada can't afford to leave health care workers, their patients, and the public at a disadvantage in the fight against antimicrobial resistance.

VACCINE HESITANCY

Vaccines are most effective when nearly everyone is vaccinated. Compared with pre-vaccination rates from 1954, Measles, Mumps and Rubella cases have decreased by 99%.[5] Without a high rate of immunity, many Canadians are left vulnerable to preventable infectious diseases. The national average vaccination rates for MMR remain below[6] the 2025 Federal Vaccination Coverage goal of 95%.[7]

In recent years a troubling trend of vaccine hesitancy has been on the rise. No credible, science-based evidence exists to demonstrate that vaccines pose any danger to children or adults, yet misinformation is rampant and online communities continue to perpetuate falsehoods. In many cases, untrained and misinformed celebrities are driving these trends and their substantial influence and audiences has proven difficult to overcome.

[4] Public Health Agency of Canada. *Canadian Antimicrobial Resistance Surveillance System Report 2016*. September 12, 2016. https://www.canada.ca/en/public-health/services/publications/drugs-health-products/canadian-antimicrobial-resistance-surveillance-system-report-2016.html

[5] https://www.canada.ca/en/public-health/services/publications/healthy-living/vaccines-work-infographic.html

[6] http://publications.gc.ca/collections/collection_2018/aspc-phac/HP40-156-2018-eng.pdf

[7] https://www.canada.ca/en/public-health/services/immunization-vaccine-priorities/national-immunization-strategy/vaccination-coverage-goals-vaccine-preventable-diseases-reduction-targets-2025.html#1.1

The World Health Organization notes that "given the potential for hesitancy to rapidly undermine vaccination coverage in specific settings, it is important that all countries take steps to understand both the extent and nature of hesitancy at a local level."[8]

In response, some provincial governments have begun requiring school-aged children to produce vaccination reports upon enrolment each year. While conscience and choice are important, it is also important for governments to actively promote one of the most successful public health measures in human history.

IPAC Canada supports the WHO recommendation that countries "should develop a strategy to increase acceptance and demand for vaccination, which should include ongoing community engagement and trust-building, active hesitancy prevention, regular national assessments of concerns, and crisis response planning."

We look forward to working with health sector partners, Health Canada and the Provincial and Territorial Health Ministers to reach the 2025 Federal Vaccination Coverage goal of 95%. **The federal government should implement a national promotion campaign that goes beyond posting factual information and actively promotes the benefits of vaccines and evidence of their safety to all Canadians.**

[8] https://www.who.int/immunization/programmes_systems/vaccine_hesitancy/en

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Gerry Hansen,
Executive Director

PO Box 46125, RPO Westdale
Winnipeg, MB R3R 3S3

T (204) 897-5990 / (866) 999-7111
executivedirector@ipac-canada.org
ipac-canada.org