Keynote Address:
Canada’s Approach to Antimicrobial Resistance

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MRSA – Health Care Associated Infection Rates in Canada
1995-2014
MRSA – Community Associated Infection Rates in Canada 1995-2014

Medically important antimicrobials – Animal Use

Medically important antimicrobials, measured as kg active ingredient and mg active ingredient, adjusted for populations and weights, 2006-2014 – CARSS 2016
How does Canada compare internationally?

**Human Health:** Canada's AMU middle to low relative to European countries

- **Canadian Antimicrobial Resistance Surveillance System Report 2016**

How does Canada compare internationally?

**Agri-Food Sector:** Canada's AMU is higher relative to Europe

- **Canadian Antimicrobial Resistance Surveillance System Report 2016**
AMR Affects Multiple Sectors/Interests

- Agriculture/agri-food industries
- Aquaculture
- Wildlife and birds
- Farm/industry run-off/waste
- Pesticides and crops
- Land/air/water
- International standards/protocols
- Indigenous communities
- Seniors
- Veterans/military
- Immigrants/refugees
- Travel/tourism
- Security and emergency preparedness
- International trade/competitiveness
- Import/export
- Incentivization for R&D
- Support to developing countries (global spread)

PAN-CANADIAN FRAMEWORK ON ANTIMICROBIAL RESISTANCE AND ANTIMICROBIAL USE

OUTCOMES

Strong, integrated surveillance systems are needed to support a comprehensive program of AMR and AMI in Canada.

- Programs and policies that highlight education, awareness raising as well as professional and regulatory oversight will be expected to reduce inappropriate prescribing, dispensing and use of antimicrobials in humans and animals and to contain the emergence and spread of antimicrobial resistance.
- Responses to AMR must be evidence-based and will require increased knowledge, innovative tools, and collaborative approaches to better understand resistance and the development of new treatments and strategies.

OPPORTUNITIES FOR ACTION

- Engage with stakeholders to ensure coordination of efforts to move towards a national and comprehensive surveillance system that meets the required capacity for antimicrobial resistance.
- Establish coordinated platforms and mechanisms to link AMI and AMR data, in particular from human health, animal health, and environment.
- Enhance coordination and technical support for data collection, analysis and reporting, including developing and standardizing definitions of AMI and AMR and promoting comparability in humans and animals.
- Engage all levels of government and stakeholders to take action within their own areas of responsibility.
- Deliver communication, education and learning programs and tools on evidence-based IPC guidelines and strategies for all healthcare and professionals in human and animal health.
- Institute and promote the application and oversight of IPC best practices, including implementation through policies, guidelines, development, standard setting and knowledge translation.
- Work with communities and stakeholders to build capacity and reduce inequities in obtaining comprehensive and effective IPC programs in the human and animal health sectors.
- Foster a shift in research to expand knowledge about and improve the effectiveness and sustainability of IPC practices across human and animal health.
- Support the development of a pan-Canadian antimicrobial stewardship service to provide ongoing support and information to health professionals and patients, while respecting the roles and responsibilities of all levels of government.
- Implement a system for collecting and disseminating surveillance data on antimicrobial resistance across the human and animal health sectors.
- Develop governance tools, such as regulations and organizational accreditation requirements, as well as consensus standards, for prescribing, dispensing and distributing of minimally appropriate antimicrobials, for the medical, veterinary and animal health sectors, and responsibilities of each level of government.
- Build knowledge about antimicrobial stewardship through web-based and enhanced educational curricula for service providers, including continuing education opportunities, to improve awareness of antimicrobial resistance and its impacts across sectors and jurisdictions.
- Explore mechanisms to develop the capacity and appropriate infrastructure to expand and further support the development of human and veterinary antimicrobials and alternate tools.
- Establish a result-based cost-effective process for testing antimicrobial drug, allergy, and resistance to antimicrobials and new diagnostic tools in Canada to limit broad spectrum antibiotic treatment without compromising safety, efficacy and quality.