Pan-Canadian Action Plan on Antimicrobial Resistance and Antimicrobial Use

Update to the National Farmed Animal Health and Welfare Council

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Purpose

• To provide an update on the development of the pan-Canadian Action Plan.

• To discuss how the NFAHWC can help support Action Plan development.
Context

- AMR is reducing the effectiveness of treatment for infections in Canada and internationally. Without effective antimicrobials, rates of infection increase, resulting in:
  - Prolonged illness and risk of death
  - Increased economic (health care systems/agricultural sector) and social (families, workforce) costs

- By 2050, annual deaths due to AMR could reach 317,000 in North America alone and 10 million worldwide, overtaking deaths due to diabetes and cancer combined
  - The global economy could fall between $2 and $6 trillion USD by 2050 as a result of AMR

What Canada has achieved to date

Surveillance

- Enhanced integrated surveillance activities (e.g. Canadian Antimicrobial Resistance Surveillance System), which integrates data from multiple systems (e.g. CIPARS).
- Released three annual CARSS Reports to provide integrated picture of AMR and AMU in Canada.
- Enrolled in Global Antimicrobial Resistance Surveillance System (GLASS).

Stewardship

- Implementing regulatory and policy changes for veterinary antimicrobials.
- Ad Hoc Committee for Antimicrobial Stewardship in Agriculture and Veterinary Medicine held a two day workshop that focused on “Building the Antimicrobial Stewardship Leadership Plan for Animal Health in Canada”.
- Awareness campaigns and learning activities, and updated clinical guidelines aimed at practitioners.
- Support to HealthCareCAN and the National Collaborating Centre for Infectious Diseases (NCCID) in their work on stakeholder engagement primarily in human health on Antimicrobial Stewardship.
What Canada has achieved to date

Research and Innovation

- Genomics Research and Development Initiative (GRDI) continues to look at food production and how it relates to AMR in humans.
- Joint Programming Initiative on Antimicrobial Resistance (JPIAMR) is a collaboration of 26 member states, which coordinates international research funding and supports collaborative action to fill knowledge gaps on AMR in key areas.

International Action

- Global Action Plan on AMR (2015) applies a coordinated, collaborative, multidisciplinary and cross sectoral approach to address AMR.
- Worked to align our domestic action with that of key international organizations:
  - Food and Agriculture Organization (FAO) Action Plan on AMR (2016)
- UN, G7 and G20 have all expressed interest in addressing AMR.

Addressing AMR in Canada

- There are already numerous actions underway by F/P/T governments and external stakeholders within the public health, healthcare and agriculture sectors to address AMR in Canada.
- However, efforts are often undertaken independently instead of as part of a coordinated and strategic approach.
Domestic Action – Pan-Canadian Framework on AMR/AMU

  
  – High level policy document that identifies AMR as a key area needing concerted and sustained action, outlines federal, provincial and territorial governments’ response, in working with external stakeholders to address the threat of AMR.
  
  – Broad stakeholder support for collective action.

• Outlines strategic objectives, outcomes and opportunities for action under **four components**:
  
  1. Surveillance
  2. Stewardship
  3. Infection Prevention and Control
  4. Research and Innovation

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Pan-Canadian Action Plan on AMR/AMU

• Will operationalise the *pan-Canadian Framework on AMR*.

• F/P/T governments and stakeholders will each need to identify specific, concrete actions that they can undertake within their sphere of responsibility to address AMR.

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*See Annex A for the full list of Outcomes and Opportunities for Action*
Path Forward

- F/P/T AMR Steering Committee have started work on the action plan from a One Health perspective.

- We will continue to work with F/P/T partners to leverage and engage the animal health sector networks in the development of the action plan development.
  
  - i.e., John Prescott's presentation on Building the Antimicrobial Stewardship Leadership Plan for Animal Health in Canada.

- PHAC is mulling ideas (i.e. workshop, forum) to bring human and animal health stakeholders together along side government to solicit contributions to the action plan from a One Health perspective.

Annex A:

**PAN-CANADIAN FRAMEWORK ON ANTIMICROBIAL RESISTANCE AND ANTIMICROBIAL USE**

**SURVEILLANCE**

To contain the spread of resistance organisms and to face AMR and AMI; standardization of infection prevention and control approaches, programs and policies must be in place.

**INFECTION PREVENTION AND CONTROL**

Programs and policies that highlight education, awareness raising as well as professional and regulatory oversight will be required to reduce inappropriate prescribing, dispensing and use of antimicrobials in humans and animals and to enhance the effectiveness of new and existing antimicrobials.

**STEWARDSHIP**

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.

**RESEARCH AND INNOVATION**

**OPPORTUNITIES FOR ACTION**

- Engage with stakeholders to ensure coordination at all levels to move towards robust and comprehensive surveillance systems with defined objectives and the required capacity for AMR and AMI data collection.
- Establish coordinated platforms and mechanisms to link AMR and AMI data, in particular from human health, animal health and agriculture sectors.
- Enhance coordinated scientific guidance for data collection, collation and computation, including developing standardized definitions of AMR and priority microbes in humans and animals.
- Engage all levels of government and stakeholders to take action within their realm of responsibility.
  - A. Deliver communication, education training programs and tools on evidence-based IPC practices and strategies for all stakeholders and professionals in human and animal health.
  - B. Facilitate and promote the application and oversight of IPC best practices, including immunization, through policy guidelines, development, standard setting and knowledge translation.
  - C. Work with communities and stakeholders to build capacity and reduce inequalities in delivering comprehensive and effective IPC programs in the human and animal health sectors.
  - D. Invest in IPC research to expand knowledge all and improve the effectiveness and sustainability of IPC practices across human and animal health.
- Support the development of a pan-Canadian antimicrobial stewardship network to provide ongoing leadership and coordination across human and animal health sectors, while respecting the roles and responsibilities of each level of government.
- Implement a robust system for collecting AMR data to support continuous improvement of stewardship across the human and animal health sectors.
- Develop governance tools such as regulations and organizational accountability requirements as well as consistent standards for prescribing, dispensing and distribution of medically important antimicrobials for medical and veterinary use, while respecting the roles and responsibilities of each level of government.
- Build knowledge about antimicrobial stewardship through enhanced and coordinated educational curricula/prescriptions (including continuing education opportunities), dispensing and end use of antimicrobials as well as public awareness programs and activities, which highlight the impact of AMR and AMI.