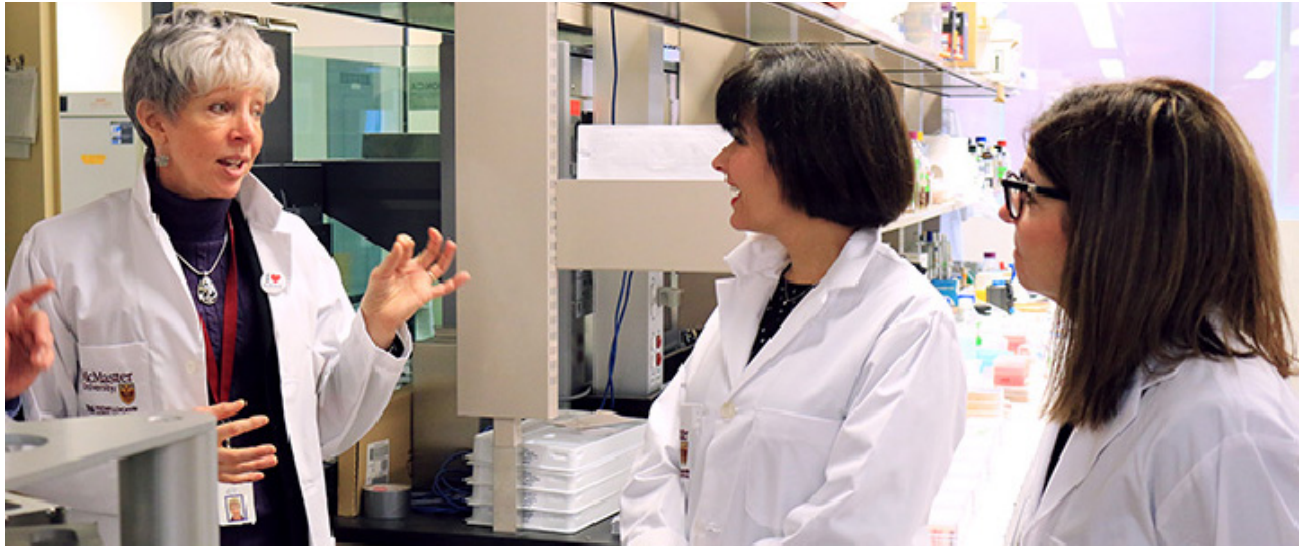


# ANTIMICROBIAL RESISTANCE: Update & Implications for Members



## PURPOSE

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After years of deliberations between federal and provincial/territorial governments, a pan-Canadian Action Plan on Antimicrobial Resistance (AMR) is due for publication in the fall of 2019. This policy brief serves to advise members on how they can prepare for the release of the Action Plan and contribute to national efforts in antimicrobial surveillance and stewardship that may flow from it.

## BACKGROUND

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Antimicrobial resistance is a pressing global health threat, characterized by the growing resilience of microbes (bacteria, viruses, fungi and protists) against antimicrobials.

Modern medicine relies on antimicrobials for all manner of health events from childbirth to surgery to the treatment of cancer. As resistance grows over time, the lion's share of interventions will become more and more risky until many become impossible. For this reason, growing resistance places global health and healthcare under serious threat. The United Kingdom's Review on Antimicrobial Resistance [estimates](#) that by 2050, deaths attributable to AMR every year will exceed 10 million – greater than cancer and road traffic accidents combined.

For four years HealthCareCAN has been advocating for greater public attention to AMR with a focus on antimicrobial stewardship – ensuring that current use of antimicrobials is appropriate. To-date, this work has included, among other things:

- Publishing an [Issue Brief](#) (2015) and [companion research](#) (2016) supporting development of an Action Plan;
- Convening an Action Roundtable on Antimicrobial Stewardship in June 2016;
- Co-authoring a stakeholder-led [Action Plan for Antimicrobial Stewardship](#) published in January 2017;
- Convening a group of stakeholders ('AMS Canada') in an early effort to deliver programming;
- [Advocating](#) for dedicated resources at the Public Health Agency of Canada to address AMR;
- [Advising](#) the House of Commons Standing Committee on Health in its study of AMR;
- [Spearheading advocacy](#) with signatures from 35 health organizations to elevate the priority of AMR at the G7 in 2017;
- [Participating in a national advocacy campaign](#) for 'Antibiotic Awareness Week' in 2017/2018; and
- Participating in the Chief Public Health Officer's Health Professions Subgroup on Antimicrobial Resistance.

One aim of these activities has been to support the development of a pan-Canadian Action Plan on AMR, which has been under consideration by the federal and provincial/territorial governments for some years. It is hoped that the Action Plan might dedicate resources to improving stewardship of antimicrobials and surveillance of antimicrobial prescribing and resistance patterns; some of which might accrue to healthcare organizations.

## CURRENT SITUATION

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A Pan-Canadian Action Plan for Antimicrobial Resistance is expected in fall of 2019. The timing of the release suggests that it will be a relatively low-key affair, given that its expected immediately after the 2019 federal election. That being said, the Public Health Agency of Canada has taken steps in recent months to seed the soil for the Action Plan, including:

- Funding small-scale advocacy efforts for Antibiotic Awareness Week;
- Providing funding for a [course](#) on primary care antimicrobial stewardship based out of the University of Waterloo;
- Inviting a proposal to develop a network for AMR in Canada at a cost of \$500,000, which has included HealthCareCAN;
- Publishing a [spotlight report](#) by the Chief Public Health Officer with strong pro-stewardship messaging.

Our intelligence to-date leads us to believe that the Action Plan may contain provisions that would benefit healthcare organizations. The Action Plan will be built around four pillars: (1) Innovation, (2) Infection Prevention and Control, (3) Surveillance, and (4) Stewardship. Of these, the Surveillance and Stewardship pillars may contain provisions that will benefit healthcare organizations specifically.

**Surveillance:** In the language of the Action Plan, 'Surveillance' refers to both surveillance of antimicrobial consumption and surveillance of pathogens and resistance patterns. Healthcare organizations contribute to both of these, albeit at different levels and to varying degrees.

**Stewardship:** Antimicrobial stewardship is an accreditation requirement in Canada; however, the criteria allow for different approaches to stewardship. Taken broadly, an antimicrobial stewardship program usually involves an effort to ensure prescribing is appropriate (for instance, by rotating consultation with specially trained infectious disease physicians and/or pharmacists), and to communicate the results of these activities across the organization.

The Innovation and Infection Prevention and Control pillars are also very germane to the activities of healthcare organizations; however, at the time of writing they seem less likely to be the subject of supportive funding for healthcare organizations through the Action Plan.

## IMPLICATIONS

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Healthcare leaders would be well advised to consider their current programming on Surveillance and Stewardship in order to position their organizations for success in the aftermath of the Action Plan's publication in the fall.

### SURVEILLANCE: STANDARDIZED CASE DEFINITIONS

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Expanding surveillance of antimicrobial resistance is likely to involve growing the [Canadian Nosocomial Infection Surveillance Program](#) (CNISP). CNISP is a surveillance program that involves partnerships between select healthcare facilities and the Public Health Agency of Canada. The program involves federal compensation in exchange for healthcare organization's efforts to track and report infections and resistance trends to the Agency's epidemiologists, who use that data to inform public policy. Individual site data are anonymous; rates and trends are disclosed only at regional or national levels.

At present, 54 sentinel hospitals from 10 provinces participate in the CNISP network. It has been argued that this can paint a misleading picture of the state of AMR in the country, and some advocacy has been devoted to growing the number of contributors in the network. If your organization already participates in CNISP, this may mean expanding participation to include additional hospital sites. If your organization does not participate in CNISP, this expansion may provide you the opportunity to expand your lab's capacity with an injection of federal funds.

In order for a surveillance program to be effective, each of its contributors must be using the same case definitions for infections. CNISP [publishes standardized case definitions](#) that have been validated by the Association of Medical Microbiology and Infectious Disease (AMMI Canada) but these are not necessarily in use at every lab across the country. This means that labs using CNSIP case definitions will have preferential access to membership in the CNISP network.

**Healthcare organizations interested in joining the CNISP network are therefore advised to check with their lab to determine whether the lab uses CNISP's standardized case definitions, and to gauge the lab's interest in using the definitions if they are not currently the standard.**

### STEWARDSHIP: PROGRAM MATURITY

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92% of antimicrobial use in Canada takes place outside of hospitals; the result of prescriptions generated by general practitioners, specialty physicians, pharmacists, nurse practitioners, and dentists. It is likely that the majority of funding for stewardship arising from the Action Plan will go to support community stewardship efforts, including education, research, and program infrastructure. This is necessary, reasonable, and appropriate. At the same time, healthcare organizations are often their community's knowledge hub for best practices in antimicrobial stewardship. As we have argued in several fora – notably our stakeholder-led [Action Plan](#) – governments would be wise to invest generously in antimicrobial stewardship programming in healthcare organizations like yours.

Members seeking to familiarize themselves with the general structural elements common to stewardship programs may wish to consult Ontario Public Health’s [ASP Comparison Tool](#), which offers an interactive report of antimicrobial stewardship programs in Ontario hospitals. The Chief Public Health Officer’s recent [spotlight report](#) has advised that health system leaders can further contribute by (1) promoting positive antibiotic prescribing practices, (2) sharing knowledge, skills, and training, and (3) continuing to invest in research and surveillance.

**Healthcare leaders seeking to secure supportive funding through the Action Plan may wish to familiarize themselves with the current structure and maturity of their organization’s antimicrobial stewardship program and to develop plans for where that program could go with further funding support.**

Members should be aware that if supportive funding materializes, it is likely to be dispensed at the provincial/territorial level rather than the federal level.

## FOR FURTHER INFORMATION

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HealthCareCAN remains attentive to developments in the healthcare landscape as they relate to AMR and will keep members apprised of any developments along these lines. If your organization has any questions, concerns, or feedback in connection with these developments we encourage you to contact us so we can ensure your voice is heard.

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