



# Preparing Public Health for New HIV Prevention Technologies: A Road Map for Comprehensive Action in Canada

## **EXECUTIVE SUMMARY**

Canadian Public Health Association

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## EXECUTIVE SUMMARY

In the absence of a cure for HIV, the development of vaccines and other new prevention technologies (NPTs) to prevent HIV infection offers one of the greatest promises for slowing the epidemic. Throughout 2010-2011, biomedical prevention technologies have begun to show great promise as several large efficacy trials recently demonstrated proof-of-concept or established efficacy for vaccines, oral pre-exposure prophylaxis, microbicides, and treatment-as-prevention.<sup>i</sup> While some of these products (i.e., vaccines, vaginal microbicides) are not currently available anywhere outside of clinical trials, other NPTs (i.e., treatment-as-prevention, pre-exposure prophylaxis) are currently available to Canadians. Though current levels of awareness and access vary greatly, these technologies have the potential to considerably reduce the impact of HIV in Canada and around the world.

Public health has been identified as a central mechanism in the effective and efficient delivery of NPTs nationwide. However, more needs to be done to “mobilize resources and develop the public health guidance, provider training and public health education needed to ensure rapid implementation of new prevention methods”.<sup>1</sup> The public health workforce needs not only to build its own preparedness, knowledge and capacity, but also to engage more meaningfully in NPT research, policy and planning. The success of NPTs in Canada will be measured by how they are introduced, communicated and adopted.

This document examines public health’s knowledge, information needs, roles, opportunities, challenges and capacity to introduce and deliver NPTs in Canada. The report presents the findings of various data collection methods including consultations, a literature search/review, key informant interviews and a nationwide online survey of public health stakeholders. There was considerable convergence of the data across the information-gathering approaches.

**Public health perceptions.** Throughout the project consultations, it was widely agreed among public health participants that not only was the introduction and delivery of NPTs the responsibility of public health but also that “public health should be engaged with new HIV prevention technologies at this point” (CPHA consultation). In the CPHA survey, 97.8% of public health unit respondents agreed or strongly agreed that NPTs will play an important role in reducing the spread of HIV in Canada. Interestingly, the perceptions with regard to the urgency of addressing NPTs were mixed and seemed to depend on the informants’ beliefs about how soon the technologies would be ready for “real-world” use and on their level of knowledge about NPTs.

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<sup>i</sup> Please see Table 2 in Chapter 3 for further information on trial design and efficacy

**Public health experience.** Canadian public health is seen by key informants and consultation participants as a credible authority that has extensive experience, understands the demographics, and has the resources and infrastructure in place to deliver NPTs. Many of the systems that are in place for the introduction of other interventions and vaccines were seen as helpful for public health delivery of NPTs. Public health's role in the delivery of other sexual and reproductive health technologies such as the Hepatitis B vaccine, HPV vaccine and condoms makes it uniquely qualified when considering the delivery of NPTs. The value of public health rests in its extensive experience in promoting other prevention and treatment technologies, and its knowledge of how other interventions have been received by communities from the perspectives of education, usability and marketing. Public health can leverage its substantial experience and infrastructure in delivering sexual and reproductive health and infectious disease prevention programs.

**Knowledge, education and training.** In order to prepare for the roll-out of NPTs, public health needs a clear understanding of existing information and policies, of their effectiveness, and of ongoing research around NPTs. The public health community has identified the need for further knowledge through education and training and for a knowledge transfer and exchange system among federal, provincial and regional levels of public health that will synthesize, translate and distribute information about ongoing HIV prevention clinical trials. Perceptions of the potential impact and importance of NPTs, and the sense of urgency to incorporate them into HIV prevention efforts were closely linked to NPT literacy levels. Making relevant research information available and accessible to stakeholders for use in practice, planning and policy-making is necessary to prompt public health action on NPTs.

**Leadership, policy and guidance.** Leadership is essential to spur action when discussing a sensitive public health issue like HIV. The public health community has indicated that there is a need to re-energize HIV prevention in Canada, specifically highlighting the importance of leadership around the implementation of NPTs. Increased public health leadership will strengthen government collaboration at the federal, provincial/territorial and regional levels and will ensure a clearer vision and a harmonized approach, and possibly achieve consensus. Public health stakeholders have called on the federal government to demonstrate leadership and commitment to comprehensive HIV prevention by strengthening existing policies and developing new policies relating to NPTs. Public health informants and consultation participants have highlighted the need for timely guidance around NPTs that will maximize their benefits as they are proven to be effective and become available, and minimize the harm that may be caused by improper or off-label use.

**Resources, capacity and research.** Addressing the procedures, policies, structures and practices of organizations is required to optimize and expand their

response to HIV. Public health stakeholders identified the need for increased capacity to deliver both existing and new HIV prevention interventions in a timely and equitable manner. Integrating NPTs into existing HIV prevention, sexual health and clinical care programs will be challenging due to competing priorities and will be ineffective if existing delivery challenges are not addressed first. Public health stakeholders understand the importance of working collaboratively with community partners which are often better situated to reach key populations, and of identifying and taking advantage of opportunities for synergy in order to make efficient use of limited resources and capacity. These partnerships are especially helpful in extending public health's reach to marginalized populations. Understanding the specifics of each NPT is critical for planning how to approach their implementation. Preliminary decisions on the availability of NPTs should largely be based on research, modeling and planning around the public health impact of specific NPTs, to identify scenarios, plans and recommendations for their use as well as monitoring and evaluation of their impacts.

In describing some of the opportunities and challenges public health currently is facing, we begin to appreciate some of the issues that will be encountered in delivering NPTs in a timely and equitable manner as they are proven to work, are approved and become available. While Canada's response to HIV has realized great successes in reducing the spread of HIV, public health's unpreparedness to capitalize on the success of recent research is concerning. This report is designed to provide guidance for public health and civil society organizations working in HIV prevention to develop policies, resources and programs that address issues of equity and accessibility of new HIV prevention technologies by identifying clear roles that public health should be assuming in a number of areas of action to prepare for NPTs in Canada.

## **Areas for Public Health Action**

### **1. Building Awareness: Public Health Knowledge, Information and Education around NPTs**

#### **1.1 Develop Appropriate Education and Training Opportunities**

- i. Develop and deliver an ongoing education and training strategy for public health workers to raise their awareness of the state of NPT science and its implications for Canadian HIV prevention efforts in order to reinforce existing prevention approaches, and to promote combination prevention. This strategy includes:
  - o Developing and delivering training opportunities for the public health workforce, offered as professional development through workshops, in-person or online e-learning courses, webinars and making use of existing conferences and training opportunities.
  - o Provide public health with ongoing opportunities in their everyday practice to interact with new HIV prevention education materials through information and resource access such as listservs, mailing lists and newsletters.

#### **1.2 Ensure the Application of Information and Evidence**

- ii. Public health should actively support the development of a knowledge exchange working group for federal, provincial and regional levels of public health. Possible distribution mechanisms include the Canadian Microbicides Action Plan (CMAP) Implementation Committee, or the MAG-Net listserv. This working group would include public health representation and would:
  - o Regularly review, translate and distribute relevant trial information, and stimulate dialogue, to improve knowledge exchange around NPTs.
  - o Develop knowledge synthesis tools for partners and clients that identify best practices and lessons learned in the roll-out of sexual and reproductive health technologies, identifying sub-topics such as delivery preparedness, messaging, communicating efficacy, and counseling to avoid risk compensation.

### **2. Creating an Enabling Environment: Public Health Leadership, Policies and Guidance Regarding NPTs**

#### **2.1 Provide Leadership for a Harmonized Approach**

- i. In response to calls from stakeholders for a strengthened national response, and consistent with its mandate, public health at the national level should provide timely leadership around NPT delivery. This includes:
  - Establishing priorities
  - Developing policy and guidance

- Provincial/Territorial coordination
  - Allocating resources
  - Scenario planning
  - Engaging stakeholders
- ii. The F/P/T-AIDS Committee should engage in discussions to understand jurisdictional roles and responsibilities with respect to NPTs, and to support uniform guidance and coordination between jurisdictions.

## **2.2 Support Necessary Policy Development**

- iii. The federal government should adjust, update and develop key documents and commitments to more explicitly refer to and integrate NPTs as part of a comprehensive HIV prevention approach (e.g., the Federal Initiative, Leading Together).
- iv. Public health stakeholders and other partners should ensure public policy/decision-makers are well informed about HIV and NPTs to facilitate timely development of supportive policy and funding decisions.

## **2.3 Provide Timely Evidence-Based Guidance**

- v. Develop and disseminate evidence-based and timely public health guidance for NPT implementation, including interim guidelines in advance of regulatory approval. This guidance should be initiated at federal levels, and subsequently adapted to provincial and regional levels.
- vi. Full guidelines should be immediately developed for non-occupational post-exposure prophylaxis and the use of treatment-as-prevention and interim guidelines should be developed for pre-exposure prophylaxis to build inter-jurisdictional consistency in NPT awareness and access.

## **3. Preparing for Delivery: Public Health Resource Capacity and Planning around NPTs**

### **3.1 Build Organizational and Resource Capacity**

- i. In anticipation of NPT availability, the public health sector should make a case for dedicated funding, additional infrastructure and human resources to avoid overstressing the existing public health system as NPTs are integrated into comprehensive HIV prevention programs.
- ii. Public health should optimize existing public health programs to ensure appropriate resource distribution, and:
- o Extend service delivery points (e.g., pharmacies, harm reduction programs, HIV/STI testing clinics, etc.) to key populations at high risk to ensure NPT access.
  - o Further address stigma, discrimination and issues of criminalization that may impede NPT access.

### 3.2 Expand and Develop Strategic Collaboration and Partnerships

- iii. Public health stakeholders should strengthen existing programs through the development of partnerships with other organizations (community-based organizations, AIDS service organizations, primary care providers, HIV specialists) and with vulnerable communities to extend the breadth and cultural appropriateness of existing HIV prevention interventions and address delivery barriers in a coordinated and comprehensive manner.
- iv. Commit to, and build on, formal mechanisms for collaboration and consensus between levels of government to implement NPTs consistently across jurisdictions.

### 3.3 Support Modeling, Planning and Implementation Research

- v. Public health at the national level should support social science research and the development of a multi-sectoral steering committee that will monitor promising HIV technologies and develop modeling, scenarios, plans and recommendations regarding the introduction and delivery of NPTs.
  - o Develop modeling around a monitoring and evaluation system for prevention programming to measure the impact of existing interventions and to prepare for measuring and comparing the impacts of NPTs.
  - o Examine how to integrate NPTs into a comprehensive prevention approach and develop HIV prevention messaging to optimize uptake, access and adherence but minimize safety concerns and risk compensation of both existing interventions as well as NPTs.
- vi. Engage multiple public health jurisdictions with other partners (researchers, community-based service providers, clinicians) in scenario planning and demonstration projects to develop knowledge about the delivery of NPTs for specific populations, to provide cost-benefit analyses, to gauge their possible impact, and to optimize delivery methods to specific communities.

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<sup>1</sup> Global HIV Prevention Working Group. (2006). *New Approaches to HIV Prevention: Accelerating Research and Ensuring Future Access*. Retrieved from <http://www.paho.org/English/AD/FCH/AI/New%20Approaches%20to%20HIV%20Prevention.pdf>