

## **The Fourth Decade: Time to Re-Imagine Canada's Response to HIV**

After 30 years, we now have the knowledge and the tools to stop the HIV epidemic.

The question is – will we use that knowledge well or become complacent?

Will we make the push required to stop HIV or lose this opportunity because we believe there are adequate treatments now and the job is (almost) done?

Countries, global health networks and other jurisdictions around the globe have launched new, highly targeted initiatives to end HIV.

Their goals and targets are clear and powerful.

**An AIDS-Free Generation: the President's Emergency Plan for AIDS Relief  
(PEPFAR)**

*The White House, Washington D.C. 2013*

Lower the annual number of new infections by 25%

Reduce HIV transmission by 30%

Increase the percentage of people living with HIV who know their status from  
79% to 90%

*US National HIV/AIDS Strategy, Washington D.C. 2010*

End new HIV infections by 2020

Australia's 7<sup>th</sup> HIV Strategy

*Canberra, Australia 2014*

End the AIDS Epidemic by 2020

New York State

Office of the Governor

*Albany, New York 2014*

90-90-90

90% of people living with HIV diagnosed

90% of people living with HIV treated

90% of people on HIV treatment virally suppressed

*UNAIDS, Geneva 2014*

## Canada

Canada's Minister of Health, the Honourable Jane Philpott has endorsed the UNAIDS 90-90-90 targets and has asked Canada's HIV sector to develop an action plan to reach those targets.

Today, there is an opportunity for the Canadian HIV/AIDS community – public and private sector partners, institutional and community-based organizations, provincial, territorial and federal governments – to come together to create a shared vision with achievable targets so we can leave an AIDS-free nation and world for future generations.

To contribute to that process, the country's research funding organizations, under the leadership of the Canadian Foundation for AIDS Research (CANFAR), have come together with both creators and users of research to develop a strategy for HIV research in Canada for the 4<sup>th</sup> decade.

In the fourth decade, the AIDS response must continue to transform both itself and the environment around it.

*Defeating AIDS – Advancing Global Health, Lancet-UNAIDS Commission. June 2015*

## Rationale for Change

It has been more than 30 years since scientists first identified the human immunodeficiency virus that causes HIV disease. As a society, we have been living with HIV for even longer: the first prevention programs began before we knew this frightening deadly disease was caused by a virus. Since the discovery of the virus in 1983, organizations in Canada and around the world have focused incredible efforts on identifying, understanding and stopping the virus and providing effective care, treatment and support for people living with HIV.

A world where AIDS is no longer a public health threat could once again become a reality.

*Defeating AIDS – Advancing Global Health, Lancet-UNAIDS Commission. June 2015*

## Progress

Over the past three decades, we have made significant progress in our efforts to stop HIV and the harm it causes:

**Fewer new diagnoses.** The number of new HIV diagnoses each year is down in most parts of the country; however, despite that progress, *an estimated # people in Canada became infected with HIV in 2016*. That is # new infection every # in this country.

**Better treatments.** HIV treatments have improved significantly. When people with HIV are diagnosed early in the course of infection and go on highly active antiretroviral therapy (HAART), they can reduce their viral load, prevent some of the damage to their immune system and live a near normal lifespan.

**New developments in biomedical prevention.** Recent research has shown that when people with HIV stay on treatment and are able to maintain a suppressed viral load they are less infectious and less likely to transmit the virus to others. New studies have also demonstrated that, for people at high risk, taking pre-exposure prophylaxis (PrEP) is protective and reduces the risk of infection.

**A stronger focus on the social and structural drivers of HIV.** Over the past few years, we've gained a greater understanding of the role of syndemics – intertwined epidemics (e.g. trauma and abuse, stigma, poverty, unstable housing, mental health issues, addictions) – in driving HIV among

the populations most affected by HIV. When we address the underlying social and structural drivers, we can reduce new infections and enhance the health of people living with HIV.

## Challenges

Despite the progress, we still face challenges:

**HIV continues to have a devastating effect on members of a number of marginalized populations.** In the early days of the HIV epidemic in Canada, the groups most affected were gay men, people from Haiti, people who injected drugs, hemophiliacs who received blood products and a small number of Canadians who received transfusions of blood infected with HIV. Today, the virus continues to have a disproportionate effect on: gay, bisexual and other men who have sex with men; the African, Caribbean and Black communities – particularly those from countries where HIV is endemic; Indigenous people; and people who use substances. We continue to struggle to reach those within these populations who are most at risk.

Over half the people in Canada living with HIV are gay and other men who have sex with men. Gay men account for about 60% of new diagnoses in BC and about 75% of new diagnoses in Ontario (provinces with the highest HIV incidence).

**HIV continues to be a stigmatizing disease.** The stigma associated with HIV affects people's willingness to be tested and seek care, their sense of self, community and belonging, their access to services and their ability to seek social support. Stigma contributes to the criminalization of HIV non-disclosure and adds to the marginalization that populations most affected by HIV already experience. It also affects public policy and support for HIV prevention initiatives, particularly harm reduction services.

**HIV prevention has become more complex.** Until there is a vaccine or cure for HIV, we will continue to need strong prevention programs. With advances in biomedical prevention, prevention messages in the 4<sup>th</sup> decade are focusing less on condoms and more on treatment as prevention (reducing the risk of HIV transmission by suppressing the viral load of people with HIV), PrEP for people at high risk and post-exposure prophylaxis (PEP) for people who have had a high-risk exposure. Research has also shown the importance of social and structural interventions as part of HIV prevention, such as harm reduction programs for people who inject drugs, less punitive and stigmatizing legal environments, housing and food security. To stop HIV, we will need focused prevention efforts – biomedical, behavioural, social and structural -- to reduce rates of new infections.

**Too many people with HIV are diagnosed late and not linked quickly to care.** Early diagnosis and treatment can change the HIV disease trajectory. Yet not everyone at risk is being tested regularly or linked to health services. When people are diagnosed later in the course of infection, the virus may already have caused irreparable damage. People who are undiagnosed are also more likely to transmit the virus than those who know their status. We need more focus on targeted testing as a way to link people to care and on providing early treatment, which can limit the viral reservoirs in the body, improve people's health and reduce the risk of new HIV transmissions.

**People with or at risk of HIV often have complex social/health needs.** For many people with or at risk of HIV, the virus is one of many health and/or social issues they face and, with improvements in HIV treatment, it may no longer be their most debilitating health challenge. Some struggle with mental health and substance use issues, some with social disparities and some with co-morbidities such as heart disease, diabetes, some forms of cancer, hepatitis C, osteoporosis, liver and kidney disease and neurocognitive problems. Some face the impact of social drivers or environments that increase vulnerability. To meet ambitious prevention and care targets, Canada will need comprehensive

According to the Public Health Agency of Canada (2016), approximately # people in Canada are living with HIV.

prevention and treatment programs that work holistically to improve the physical and mental health of populations most affected by HIV.

**Canadians have become complacent about HIV.** Although HIV continues to be serious health issue, it has lost some of its urgency. Many members of the general public – who are largely unaffected by HIV – think the problem has been solved. As a result, organizations that fundraise to support HIV research or services are finding it much more difficult. The HIV sector is no longer telling a story that is compelling for the public or for donors.

**The competition for both government funding and fundraising is increasing.** As HIV becomes less urgent, it has to compete with other health issues to maintain its current levels of government commitment and funding. A number of governments have integrated their HIV programs with other sexually transmitted and blood-borne infections (STBBIs), which means that resources once allocated solely for HIV programs may be used more widely. We may be seeing the end of “AIDS exceptionalism”. The pressure on HIV funding will only increase as some jurisdictions struggle with massive deficits and the need to balance budgets and efforts to slow increases in health spending. We are seeing similar trends with private funding. HIV organizations that rely on fundraising for all or part of their budgets are facing growing competition – from one another, from global HIV fundraising efforts and from other charities. Unlike illnesses like heart disease and cancer with national organizations that provide leadership for fundraising and can attract major business donors, HIV continues to have a large number of small organizations all involved independently in fundraising and often contacting the same private sector donors.

**Health care systems expect greater accountability for and return on investment from public resources.** Throughout the health care sector, there is a growing focus on best practices, effectiveness, impact and value for money. Funders expect programs and organizations to demonstrate return on investment: that is, that they are operating efficiently, improving health and reducing the use of more costly health services. There is also growing pressure to identify and implement effective prevention and treatment interventions. With the stronger focus on accountability, funders are expecting funded programs – including research -- to be more efficient and effective, and to avoid duplication. At the same time, the field itself is arguing for more strategic investment in activities that will lead to a measurable return.

According to the UNAIDS Investment Framework, “Substantial changes are needed to achieve a more targeted and strategic ... response to the HIV/AIDS epidemic ... Until now, advocacy for resources has been done on the basis of a commodity approach that encouraged scaling up of numerous strategies in parallel, irrespective of their relative effects. We propose a strategic investment framework that is intended to support better management of national and international HIV/AIDS responses ...

## How Can Research Help HIV Programs and Services Respond to Changing Needs and Stop HIV?

The transition [of HIV] from ... an emergency to a long-term maintenance response raises a new set of challenges .. and necessitates new ways of thinking ... First ... the AIDS response should take a long-term view and be highly localized and focused on the people living with HIV and people who are most vulnerable ... Second, HIV is a societal issue, so a biomedical response aimed at rapidly scaling up testing and treatment is essential but it will not be sufficient to control the epidemic – stigma, discrimination, gender inequality, punitive laws and other drivers of HIV transmission are also essential targets ...

*Defeating AIDS – Advancing Global Health, Lancet-UNAIDS Commission. June 2015*

The HIV sector in Canada has a long legacy of being innovative, responsive and strategic. In the 4<sup>th</sup> decade of HIV, we must use our resources – skills, relationships and funding – more effectively to have a greater impact. We must regain our sense of urgency about achieving common goals and be willing to do things differently.

Throughout North America and in other developed countries with similar HIV epidemics, we are seeing a shift in how HIV services are organized and delivered. For example, in the US there has been a gradual consolidation of community-based and clinical services, with many AIDS service organizations evolving into health clinics. In Canada, we are seeing the emergence of population-specific services that provide comprehensive care, such as gay men’s clinics that strive to meet all of gay men’s physical, mental and psychosocial health needs, including HIV prevention and treatment. There is significantly more focus on how to organize and deliver health services in order to engage and keep people with HIV in care and meet the 90-90-90 targets.

The research questions seem to be less about “what” we do and more about “how” we do it most efficiently and effectively. How do we reach those most at risk and people living with HIV who have not been diagnosed? How can we address the social determinants of health that drive new infections (e.g. stigma, poverty, unstable housing)? How do we support people with HIV to stay in care? How do we provide comprehensive care? How do we care for people aging with HIV? What are best practices in managing people with HIV and other co-morbidities?

Research and evaluation could play an important role in assessing the impact of service innovations and helping to scale up successful initiatives. At the same time, the search for a vaccine and a cure continues.

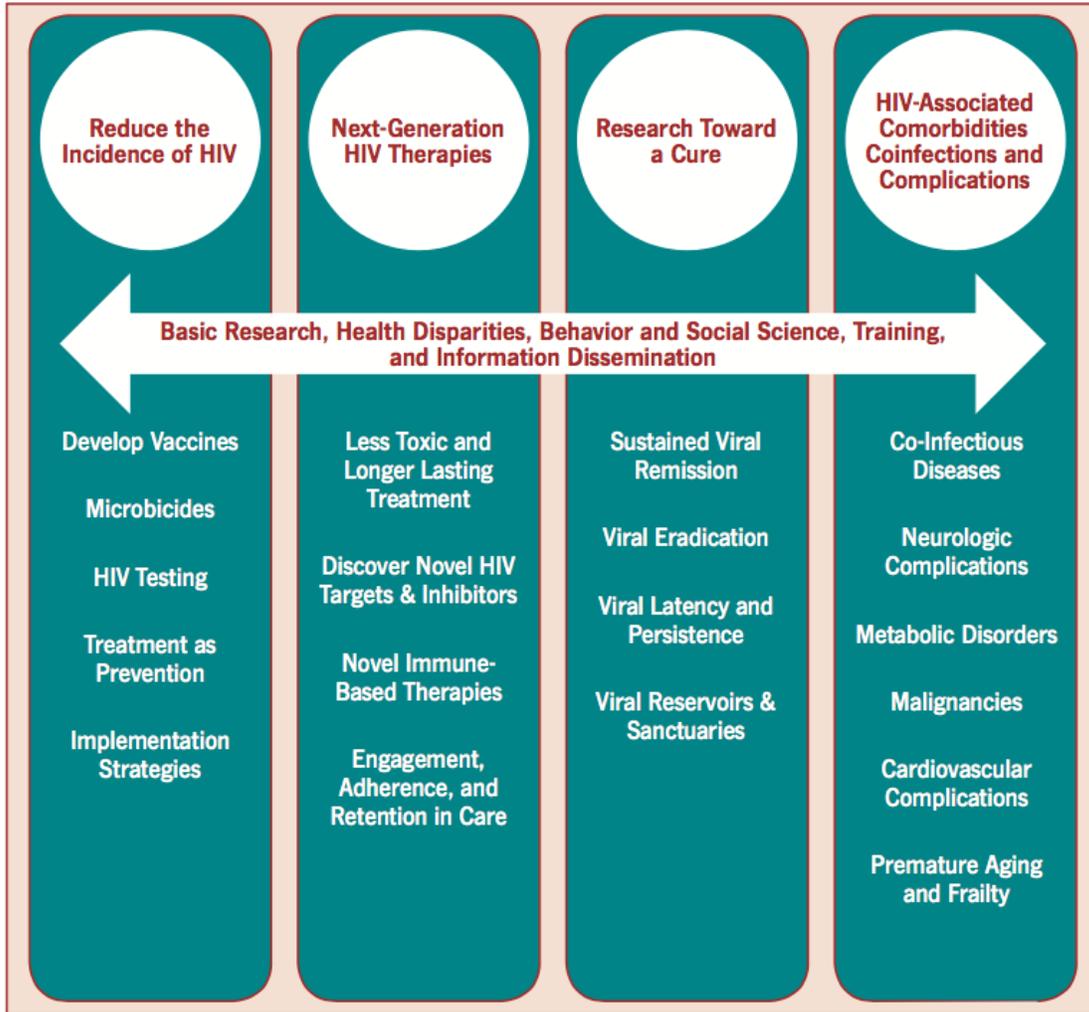
### Canada’s Role in the International HIV Research Endeavour

To chart a course for HIV research in Canada, it’s important to have a picture of the larger HIV research endeavor. Compared to many other countries, such as the US, Canada’s investment in HIV research is relatively small. To ensure that investment has the greatest possible impact, we must avoid duplicating research that is already being done elsewhere and focus instead on where Canadian researchers can contribute to global knowledge.

The following is a brief summary of the priorities of other HIV research funders, including any recent efforts to refocus their funding:

**The National Institutes of Health**

In 2015, the NIH established new HIV research priorities for the next three to five years:



In 2014, the NIH AIDS research budget totaled \$2.98 billion, which was invested in 5,243 unique extramural grant, 435 intramural projects and 68 contracts. Of those, 1,207 extramural projects, 56 intramural projects and 11 contracts were eligible to re-compete for funding in 2016. In 2015, the NIH reviewed and assessed the projects eligible to re-compete to determine whether they were aligned with the new priorities and assigned each a priority rating (i.e. low, medium, high).

Of the 1,207 extramural projects (\$407.41 million):

- 832 (69%) were rated as high priority (\$300.73 million)
- 133 (11%) were rated as medium priority (\$41.46 million)
- 242 (20%) were rated as low priority (\$65.22 million)

Low priority projects included studies on basic virology and immunology, genomics, infectious pathogens outside of the context of HIV; and training projects with no indication of an AIDS component. <sup>[1]</sup>

Of the 56 intramural projects (\$21.35 million):

- 18 (32%) were rated as high priority (\$10.7 million)
- 12 (21%) were rated as medium priority (\$4.67 million)
- 26 (47%) were rated as low priority (\$6.60 million).

Low priority projects included studies on: basic research, pathogenesis and treatment of infectious pathogens not in the context of HIV (i.e., Chlamydia, Cryptococcus, Neisseria gonorrhoea, hepatitis viruses and fungal infections); basic studies on tumor immunology and genetics, T cell development, autoimmunity and cancer; and evaluation of biological and behavioral effects of drug dependence and treatment with no AIDS component.

Of the 11 contracts (\$6.89 million), one (\$1.26 million) was rated as low priority.

Based on that review, 1,207 extramural projects, 56 intramural projects and 11 contracts – totaling \$435.65 million – were deemed eligible to re-compete for funding in 2016.

The NIH has recommended that a similar portfolio review be conducted annually and that the review guidelines be refined. It has also recommended that the priorities be revised in subsequent years to reflect emerging scientific opportunities, changing dynamics of the epidemic and recent scientific advances, and that both the research priorities and portfolio review process be clearly communicated to all stakeholders.

Each year the Office of AIDS Research issues a Trans-NIH Plan for HIV-Related Research.

### ***The National Institute of Mental Health, Division of AIDS Research***

The Division of AIDS Research (DAR) supports research to reduce the incidence of HIV/AIDS worldwide and to decrease the burden of living with HIV/AIDS. DAR-supported research encompasses a broad range of studies that includes basic and clinical neuroscience of HIV infection to understand and alleviate the consequences of HIV infection of the central nervous system (CNS), and basic and applied behavioral science to prevent new HIV infections and limit morbidity and mortality among those infected. DAR places a high priority on interdisciplinary research across multiple populations, including racial and ethnic minorities, over the lifespan.

The portfolio on the basic neuroscience of HIV infection includes research to: elucidate the mechanisms underlying HIV-induced CNS dysfunction in the setting of long-term antiretroviral therapy; understand the motor, cognitive, and behavioral impairments that result from HIV infection of the CNS; develop novel treatments to prevent or mitigate the CNS complications of HIV infection; and, minimize the neurotoxicity induced by long-term use of antiretroviral therapy. Critical approaches to this effort require molecular, cellular, and genetic studies to delineate the pathophysiologic mechanisms that lead to HIV induced CNS dysfunction, and to identify potential targets for therapeutic intervention. In addition, eradication of the virus from HIV-infected individuals to achieve a cure or a functional cure is a high priority.

The behavioral science research agenda emphasizes developing and testing behavioral interventions that are effectively integrated with biomedical approaches to significantly impact the HIV/AIDS epidemic. The behavioral science agenda targets prevention of both transmission and acquisition of HIV, adherence to intervention components to reduce the burden of disease, and studies that address the behavioral consequences of HIV/AIDS. A strong component of integrating behavioral and biomedical approaches is expanding collaboration with other NIH institutes and federal agencies to leverage resources and broaden the impact of this research.

Areas of High Priority:

- Expand approaches to integrate behavioral science with effective biomedical strategies for HIV prevention.<sup>1,2,3</sup> Advance the development and testing of interventions delivered beyond the individual level, by incorporating appropriate context into intervention development and testing.

- Increase intervention potency and long-term maintenance of effects, with an emphasis on targeting high- risk vulnerable populations. Develop strategies to increase HIV testing and improve linkage to care and timely treatment initiation. Develop and test interventions to improve HIV treatment outcomes through optimal treatment adherence and sustained engagement in care.
- Support implementation science and operations research to enhance dissemination strategies and public health impact of effective interventions. Examine evolving pathophysiologic mechanisms of HIV-induced CNS dysfunction in the setting of long- term antiretroviral therapy and viral suppression, and development of novel therapeutic approaches to mitigate CNS complications of HIV infection.
- Support the use of state-of-the-art (epi)genetic approaches to identify and validate viral and host genetic factors that influence the pathophysiology and manifestations of HIV-induced CNS dysfunction. Define and characterize HIV persistence in the CNS in the context of suppressive highly active antiretroviral therapy, and foster translational research to enable eradication of HIV from the brain.

### **amFAR**

amFAR's research program plays a vital role in AIDS research, identifying critical gaps in our knowledge of HIV/AIDS and supporting innovative studies that often lack the preliminary data required by more traditional funders. amFAR pursues an entrepreneurial research strategy, taking calculated risks by funding research projects with potentially significant payoffs.

In essence, the Foundation acts as a scientific venture capitalist, providing essential seed money that enables researchers to test the merits of new concepts or technologies and produce results that can then be validated more fully by large-scale studies such as those funded by the National Institutes of Health. In addition, amFAR's nimble research funding process ensures that emerging opportunities can be seized on and pursued in a timelier manner than is possible for other AIDS research funders.

The amFAR research program is guided by the following principles and goals:

- amFAR funds research that is likely to have a measurable effect on the epidemic—that is, research that has a realistic chance of improving the lives of people living with HIV/AIDS or vulnerable to HIV infection
- amFAR funds research that is not subject to the limitations imposed by other grant makers, such as those pertaining to early-stage projects, mainstream research agendas, or political, religious, or ideological pressures.
- amFAR's research program draws on a system of peer review
- amFAR avoids all conflict of interest, whether real or perceived, in the awarding of research grants
- amFAR's research program focuses particularly on two broad issues in HIV/AIDS research: HIV prevention and treatments and a cure.

### **Elizabeth Glaser Pediatric Foundation**

EGPAF is constantly exploring new avenues for research into pediatric HIV and AIDS, and seeks to engage the world's top researchers and practitioners in the quest to create a generation free of HIV.

EGPAF's research team is constantly monitoring currently relevant and emerging areas requiring further research. In addition, EGPAF has participated in recent consultations that have shaped the international HIV research landscape, including high-level meetings on PMTCT and operations research with the World Health Organization (WHO), UNICEF, and others.

Through a collaborative decision-making process between members of EGPAF's Senior Leadership Team, EGPAF research experts, and external research experts, the following priorities for future research have been identified:

- Conduct ongoing, comprehensive evaluations of our programs, better utilizing the data EGPAF already collects, to answer important questions that can inform the fields of HIV prevention, care, and treatment.
- Assess interventions to improve the numbers of women and infants who complete each step in the PMTCT process. Identify cost-effective interventions that will have the biggest impact on decreasing the rate of HIV infection among infants.
- Assess interventions that will increase identification of HIV-infected infants and their enrollment into care and treatment programs.
- Improve our understanding of breastfeeding transmission of HIV and explore new strategies to reduce transmission.
- Improve our understanding of the immunology of HIV – with a focus on findings that could contribute to the development and testing of a vaccine for the prevention of HIV infection in infants.

### **European Commission**

Since the start of the epidemic the European Commission has considered HIV/AIDS as a top priority and has significantly invested in HIV/AIDS research. Under the Millennium Development Goals the European Commission has further strengthened its efforts to work with the global community to combat HIV/AIDS and significant progress has been made so far. Thanks to effective treatments, HIV is no longer a death sentence. Nevertheless, a number of challenges remain. The lack of an effective vaccine or cure, the emerging of resistance to existing drugs, complications in the course of the infection because of long-term treatment, co-infections and co-morbidities are among these challenges which require innovative solutions and long-term commitments. With its investment in research and innovation for HIV/AIDS, the European Commission is increasing the chances for the community to provide solutions to the challenges while fully exploiting the European Scientific excellence and enhancing European competitiveness.

HIV/AIDS research continues to be supported under Horizon 2020. During the first two years of the programme a total EC contribution of €75.57m has been committed. Of this, about 80% of the funds comes from the Societal Challenge: Health, Demographic Change and Wellbeing, (ref chart pie below) and includes €45 million on two large platforms for the development of a preventive or therapeutic vaccine as well as a €10m loan from the Innovation ID instrument to develop a high-throughput HIV viral load test and 4 EDCTP2 (European and Developing Countries Clinical Trials Partnership) grants.

During the 7th Framework Programme for Research (FP7-2007-2013), over €175m was invested by the EU, of which €135m to support 28 collaborative research and innovation projects to fight HIV/AIDS. These projects tackled basic understanding of the disease, product development, and clinical management. The outcome of this investment resulted in more than a dozen new drugs or vaccine candidates in pre- or early clinical development; the creation of a large network of different cohorts with data from over 350.000 HIV+ individuals, completion of studies for new drugs formulations for pediatric use and the generation of in-vitro and in-vivo models to study HIV latency and persistence. Many more results have been generated by FP7-funded projects (some of which are still ongoing and further results are expected in the near future), as well as hundreds of scientific publications and several patents files.

### **Australia's Seventh National HIV Strategy (2014-2017)**

Federal and state funded research is based on a range of agreed principles including:

- infrastructure support through the national centres in HIV research;
- enhanced collaboration between institutions
- reduced duplication;
- building research capacity across jurisdictions; and
- the development of a competitive environment that encourages innovation.

Priority actions for 2014–2017 are:

- investigating the potential for rapid HIV testing in clinical and community settings
- evaluating and developing effective peer education and peer support programs
- establishing consultative mechanisms to set the HIV research agenda
- creating opportunities for increased interaction between researchers, participants and users.

Other possible additions:

- Australia: AIDS Trust of Australia, The Kirby Institute for Infection and Immunity in Society, The Burnet Institute, The Peter Doherty Institute for Infection and Immunity, Australian Research Centre in Sex, Health & Society, Centre for Social Research in Health
- UK: HIV Research Trust, Terrence Higgins Trust
- Resource Tracking Initiatives: “In a financial climate with increasingly limited resources, tracking investment in HIV R&D provides the field with vital information to chart the course forward. Monitoring funding trends allows identification of promising areas where investment is needed, prioritization of research, analysis of the effects public policies have on funding trends and fact-based advocacy to support future investment in research. As later-stage and follow-on trials move forward, understanding and evaluating research in the context of public, private and philanthropic funding is increasingly important to ensure continued movement down the path towards ending AIDS. For more than a decade, AVAC has been a part of a variety of resource tracking efforts—tracking funding for HIV across the research agenda.”
- Others?

The following is a brief description of priorities of Canadian research funders:

### **Canadian Institutes of Health Research**

The CIHR HIV/AIDS Research Initiative strategic directions 2015-2020:

1. Enable discovery research

- 1a. Develop new biomedical, behavioural and systems approaches to reduce HIV transmission [SEP]
- 1b. Improve understanding of HIV to slow its progression and mitigate its impact on the health and well-being of people living with HIV [SEP]
- 1c. Train and support a strong and diverse community of researchers [SEP]

2. Mobilize research evidence

- 2a. Strengthen the prevention of HIV and other sexually transmitted and blood-borne infections (STBBIs) in key populations by funding the development, uptake and evaluation of evidence-informed initiatives, programs and practices [SEP]
- 2b. Improve health outcomes for people living with HIV by supporting the development, uptake and evaluation of models of care [SEP]
- 2c. Strengthen the capacity of researchers, decision makers, front-line workers and organizations to apply research evidence [SEP]

3. Promote leadership in stakeholder engagement and accountability in HIV research

- 3a. Understand and address the perspectives and priorities of key populations [SEP]
- 3b. Continue to enhance the Initiative's leadership in national and international partnerships
- 3c. Refresh the Initiative's performance measurement and accountability framework in support of the strategic plan [SEP]

### **Canadian Foundations for AIDS Research**

CANFAR is the only national charitable foundations that raises awareness to generate funds for research into all aspects of HIV and AIDS. It is currently funding research in the following areas:

- Prevention
- Care and treatment
- Cure research.

### **OHTN**

The OHTN launched the Impact Focused Research Program in 2012. Through this program, OHTN funds research that:

- addresses needs identified by those Ontarians most affected by HIV (priority populations)
- discovers and evaluates means to improve the HIV prevention, engagement and care cascade and the integration of health services.

The OHTN prioritizes projects with the potential for short-term impact (3-5 years).

The OHTN will:

- Ensure that its research programs continue to be rooted in the principles and values of the OHTN, and involve people living with HIV in meaningful ways in all aspects of its funding programs
- Invest in rigorous, community relevant, community engaged research that has a high potential to solve problems and have a measureable impact on the populations most affected in the short to medium term (i.e., 2-5 years)

- Strive to ensure the proportion of funding devoted to research for/with specific populations reflects the epidemiology of the epidemic, while continually working with our research funding partners to minimize any gaps in research and address relevant populations/areas of research not funded elsewhere when setting priorities
- Recruit (as well as train and mentor) the best and brightest researchers – investing in people and supporting champions who can “fire up” health research programs, build Ontario’s capacity to conduct research across all streams that will meet the needs of affected populations and be competitive for national and international research funding
- Recruit (as well as train and mentor) community members, specifically people living with HIV/AIDS – investing in capacity building to enhance their engagement in all aspects of research including grant writing, the proposal review process, and knowledge translation and exchange (KTE)
- Enhance relationships between researchers, people living with HIV, community-based agencies, health care providers, government policy makers, and educators – to build a culture of reciprocity and shared learning
- Provide capacity building support to trainees and researchers who are no longer eligible for OHTN funding to apply to other sources of funding, such as CIHR, CANFAR and NIH
- Support interdisciplinary and multi-disciplinary research that considers all the determinants of health and strives to solve the complex physical, mental, emotional, social and health service problems of populations most affected by HIV and create more integrated, effective programs and services
- Support innovative and effective knowledge translation and exchange (KTE) methods and approaches that will put evidence into the hands of people who will use it and help translate (as well as adapt and apply where necessary) research findings into effective, evidence-informed programs and services for populations most affected by HIV
- Work closely with funded researchers to understand the context for their work, assist with managing any challenges, help them meet their objectives, and understand and help disseminate their findings
- Ensure all funded research is rigorously evaluated for its relevance and impact – including social, health and economic benefits – by adapting the model developed by the Canadian Academy of Health Sciences<sup>1</sup>
- Collaborate with CIHR, CANFAR and other HIV research funders to ensure the most effective use of limited resources to support research across all streams and enhance our new mandate.

Others to be added:

- Michael Smith Foundation for Health??
- BC Centre of Excellence in HIV/AIDS?
- Others?

## Questions to Guide Development of an HIV Research Strategy for Canada

1. Given international investments and expertise in HIV research, what role can and should Canada play?
2. What is the ideal role for each HIV research funder in Canada? How can research funders work together to define and implement these roles?
3. How can research funders ensure they are supporting research that supports the larger HIV strategy and health system priorities? Are there indicators or performance measures that would be helpful?
4. Would there be a benefit to conducting a regular review of funded projects similar to that done by NIH (based on alignment with priorities)?
5. Are there lessons that HIV research can learn from other sectors (e.g. cancer, heart disease)?
6. Would it help to change the “contract” between funders and researchers? Between funders and knowledge users?
7. What is the role of research funders in KTE and helping to move evidence into practice?
8. How can research funders demonstrate the impact of their investments?
9. What are the threats and opportunities for HIV research in Canada over the next 10 years? (e.g. changes in government policy/funding, challenges fundraising)
10. Are there opportunities for administrative efficiencies (e.g. s single peer review process, joint calls, similar reporting requirements)?