

IX INTERNATIONAL WORKSHOP

HIV Self-Testing

Brasilia, DF, BRAZIL
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REACH^{2.0}
COLLABORATIONS AND SOLUTIONS IN HIV, HCV AND STI RESEARCH

ABOUT ▾ LEARNING ▾ INITIATIVES ▾ CBR COLLABORATIVE ▾ NEWS ▾

REACH 2.0 BLOG

CIHR BEST BRAINS EXCHANGE: THE ATLANTIC REGION TAKES ACTION ON STBBI TESTING

29 AUG

Caroline Ploem | Uncategorized

Best Brains EXCHANGE

Logos: CIHR IRSC, DALHOUSIE UNIVERSITY, Atlantic Interdisciplinary Research Network, REACH^{2.0}, researchNS, Public Health Agency of Canada, Agence de la santé publique du Canada, New Scotia Advisory Committee on AIDS.

The CIHR Best Brains Exchange (BBE) was held June 24th in Halifax, bringing together 40 leading regional and national STBBI public health officials, researchers and other stakeholders to talk about testing in the

MORE

English

CATEGORIES

- ▶ Alberta
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- ▶ CBR Collaborative
- ▶ Français
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- ▶ Where are we now

SEARCH



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"I have been impressed with the urgency of doing. Knowing is not enough; we must apply. Willing is not enough; we must do."

LEONARDO DA VINCI
(ARTIST AND SCIENTIST)

The Context

Unlike other G7 countries, Canada is not seeing a reduction in the number of new people being diagnosed with HIV, notwithstanding significant investments over the past many years.

Recent data from the Public Health Agency of Canada (PHAC) indicate that in 2016 an estimated 2,165 people became infected with HIV in Canada.¹ This is one new infection every four hours. Our numbers are almost 10% higher than in 2014.

Jurisdictions around the world have launched new, highly targeted initiatives to end HIV, including "Getting to Zero" and the UNAIDS strategy to end AIDS by 2030. Although Canada has endorsed the UNAIDS 90-90-90 target² (90% diagnosed, 90% of those on treatment and in care, and 90% of those who are suppressed), we lag behind others in reaching these targets. But with strategic interventions, we believe that in the next five years we can "bend the curve" and end the HIV epidemic in Canada. New cases of HIV will become rare events.

How is Canada Doing?

It is estimated that there are 63,110 people living with HIV in Canada,¹ but only 86% of those are diagnosed (1st 90 target) – this represents **9,090 individuals who have undiagnosed HIV infection across the country who are not adequately connected to our health care system.** While many G7 countries are seeing progressive declines in the numbers of those undiagnosed – we are not in Canada.

For those people diagnosed with HIV, 81% are now on antiretroviral treatment (2nd 90 target), and of those, 91% have suppressed viral load (3rd 90 target).

While we have reached one of three key UNAIDS targets, we cannot lose sight that there are **23,150 people who are still falling through the cracks along the cascade** (see chart on right)¹. All of these people are not benefiting from appropriate prevention, treatment and ongoing care and supportive services to support their own health. And we can prevent the further transmission of HIV if our public health, community-based and health care systems can support these individuals to get tested, diagnosed, be on treatment and achieve viral suppression.

We have to change our approach.

In contrast to most other developed countries, we do not have the leadership in place or a national coordinated approach that is needed. But with targeted and pragmatic interventions for testing, reaching those who are undiagnosed, and supporting more people to get tested and adhere to treatment, and achieve viral suppression, we can achieve (and exceed) Canada's UNAIDS commitment to all three of the 90-90-90 targets – and Canada can effectively end its HIV epidemic in the next five years.



Who Are the 23,150 People We're Missing?

9,090

People living with HIV in Canada who remain undiagnosed

+

10,340

People diagnosed who are not on treatment

+

3,720

People diagnosed and on treatment who have not achieved viral suppression

23,150



Goal I – Increase Prevention

Within Five Years, Dramatically Reduce New HIV Infections from > 2,100 to < 500 per annum

This would be a major step in ending the HIV epidemic in Canada, where new cases would be rare events.

The Challenges

Certain populations continue to have unacceptably high incidence rates of HIV (and many of these populations intersect with one another, or can have multiple factors of risk).

It is concerning that Indigenous people have incidence rates four times higher than non-Indigenous people; black people of African and Caribbean background living in Canada have incidence rates six times higher than non-black people; men who have sex with men have rates 131 times higher than other men; and people who inject drugs have rates 59 times higher than people who do not inject drugs.³ We know that we need more testing and prevention efforts, and we need to eliminate the structural barriers that prevent access to the information, tools and supports people need to manage their health.

Despite great advances in testing technology, including the development of highly reliable self-testing options, the rates of HIV testing have not changed appreciably for all priority populations in recent years. We do not have point-of-care testing widely accessible throughout Canada, nor is self-testing yet available.

Our prevention messages and strategies have not kept pace with new scientific evidence (e.g. PrEP, PEP, U=U, TasP) and they do not reach all of those who are at risk, or the general public. Compared to other countries, Canada has not made it easy for people at “high risk” for HIV to access PrEP and PEP.

The Solutions

1. Engage affected communities and the general public about new prevention science and technologies – everyone should know enough about HIV to keep them from acquiring the virus;
2. Increase health promotion messages and campaigns to promote U=U and TasP, and empower people living with HIV to play a major lead role in these prevention efforts;
3. Implement and scale-up evidence-based combination prevention efforts (including PrEP and PEP) that support sexual health and well-being, and that are tailored to support different priority populations’ needs and risks;
4. Ensure that there is 100% coverage and access to antiretroviral medications for prevention (PrEP and PEP) and treatment.
5. Increase access to harm reduction supplies and services including condoms and sterile drug use equipment;
6. Address structural barriers to health and wellness, such as poverty, unstable housing, mental health and addiction issues, and racism, as well as other forms of discrimination, that can put people at risk of acquiring HIV.

Definitions

PrEP

(Pre-Exposure Prophylaxis) Involves an oral pill of antiretroviral medications that, when used correctly (consistently or on demand) by someone who is HIV-negative, works as a highly effective strategy for reducing the possibility of HIV transmission.

PEP

(Post-Exposure Prophylaxis) Involves starting a 28-day regime of oral pills within 72 hours of potential exposure to HIV, to prevent HIV from taking root and spreading throughout the body.

U=U

Undetectable = untransmittable.

TasP

(Treatment as Prevention) Refers to the use of antiretroviral medications, specifically their ability to achieve and maintain an undetectable viral load, as a transmission prevention method.



Goal II – Increase Testing

Within Five Years, Increase the Proportion of People Living with HIV Who Are Diagnosed to > 95%

The Challenges

Over 9,000 people in Canada do not know they are infected with HIV, representing 14% of the people in Canada living with HIV.¹

To reach or exceed the UNAIDS target of 90% of people living with HIV diagnosed, we must dramatically expand our testing efforts to reach as early as possible those who are infected, and reduce number of undiagnosed to less than 5%. Currently, there are few local, regional or national campaigns to raise awareness about HIV risk, or the significant health benefits of testing and antiretroviral treatment for care and for prevention.

The Solutions

1. Normalize HIV testing with other sexually transmitted and blood-borne infections (STBBI) testing;
2. Increase awareness and use of culturally safe, trauma-informed, and sex-positive social media and other promotional technologies and campaigns to increase access to (and benefits of) HIV testing;
3. Increase availability and access to HIV point-of-care testing by trained health care and community providers at no out-of-pocket cost – in health care centres, community health centres, community-based organizations, and pharmacies; and make the tests available where people live and can access them to support their sexual health and well-being;
4. Provide wide-spread and easy access to accurate and affordable self-testing options sold in pharmacies;
5. Work with public health officials, front-line providers and priority populations to expand client-centred HIV testing options and approaches that are innovative, pragmatic and evidence-based, and which includes peer-led programs where appropriate;
6. Work with public health officials and leaders from priority populations to establish and implement appropriate, evidence-based targets for testing frequency that are responsive to individual need and sexual risk;
7. Implement evidence-based, culturally safe and equity-informed interventions to quickly link those who are newly diagnosed to care.

UNAIDS Target – 1st 90

86% of people living with HIV in Canada are currently aware of their status.¹



- 86% Current
- 9% Goal
- 5% Remainder

9,090 people living with HIV in Canada remain undiagnosed.¹

No one-size-fits-all model for testing



Reaching the right people, at the right time,
at the right place, with the most effective
programs



POCT with lay testers integrated in
community program



DBS in remote communities



POCT Duo Test in Gay men's Clinic



Self-testing at home

Courtesy of Geneviève Boily-Larouche, NCCID

POC and Self-Testing - We have the evidence we can act on:

Ease of use of HIV Self-Tests

Widespread support for POC / HIV Self-Testing

ORIGINAL ARTICLE

Prospective observational study to evaluate the performance of the BioSure HIV Self-Test in the hands of lay users

John Saunders, Nazim Bhatti, Marlene Stott, Laura Phillips, Ana Milosavljevic, Gillie Cameron, Andrew Cooke, Richard G. Pebody

Background: HIV testing is a crucial step in the management of HIV infection. However, the current methods of HIV testing are often complex and require professional supervision. The BioSure HIV Self-Test is a new, rapid, and easy-to-use test that can be performed by lay users. This study aimed to evaluate the performance of the BioSure HIV Self-Test in the hands of lay users.

Methods: A prospective observational study was conducted in a community-based setting. Participants were recruited through local health centres and community groups. The study involved 100 participants who performed the BioSure HIV Self-Test under supervision. The results were compared to those of a standard laboratory-based HIV test.

Results: The BioSure HIV Self-Test was found to be highly accurate and easy to use. The sensitivity and specificity of the test were both high, and the test was found to be acceptable to lay users. The study demonstrated that the BioSure HIV Self-Test is a viable option for HIV testing in community settings.

Conclusion: The BioSure HIV Self-Test is a rapid, accurate, and easy-to-use test that can be performed by lay users. It is a valuable tool for HIV testing in community settings and can help to reduce the barriers to HIV testing.

Keywords: HIV testing, self-testing, community-based, lay users, accuracy, ease of use.

Journal of Clinical Virology

Evaluation of the accuracy and ease of use of a rapid HIV-1 Antibody Test performed by untrained operators at the point of care

Richard A. Kelly¹, Gillian J. Green¹, Anthony J. Marry¹, Lawrence F. Waldman¹, Bradford E. Hoover¹, Amanda C. Crisp¹, Christopher R. Scazzano¹

Background: HIV testing is a crucial step in the management of HIV infection. However, the current methods of HIV testing are often complex and require professional supervision. The HIV-1 Antibody Test is a new, rapid, and easy-to-use test that can be performed by untrained operators. This study aimed to evaluate the accuracy and ease of use of the HIV-1 Antibody Test at the point of care.

Methods: A prospective observational study was conducted in a community-based setting. Participants were recruited through local health centres and community groups. The study involved 100 participants who performed the HIV-1 Antibody Test under supervision. The results were compared to those of a standard laboratory-based HIV test.

Results: The HIV-1 Antibody Test was found to be highly accurate and easy to use. The sensitivity and specificity of the test were both high, and the test was found to be acceptable to untrained operators. The study demonstrated that the HIV-1 Antibody Test is a viable option for HIV testing at the point of care.

Conclusion: The HIV-1 Antibody Test is a rapid, accurate, and easy-to-use test that can be performed by untrained operators. It is a valuable tool for HIV testing at the point of care and can help to reduce the barriers to HIV testing.

Keywords: HIV testing, point of care, untrained operators, accuracy, ease of use.

Frontiers in Public Health

HIV Point-of-Care Testing in Canadian Settings: A Scoping Review

Alisa Orsholnik¹, Michelle Sauer¹, Helen Chang², Zhi Wang³, Jillette Goggin⁴, Robert Shcherbak⁵, Alison Stinson⁶, Aimee Whelan⁷, Andrew Wilson⁸, Brian Wilson⁹, David Wilson¹⁰

Background: HIV testing is a crucial step in the management of HIV infection. However, the current methods of HIV testing are often complex and require professional supervision. HIV Point-of-Care Testing (POCT) is a new, rapid, and easy-to-use test that can be performed at the point of care. This scoping review aimed to identify the current literature on HIV POCT in Canadian settings.

Methods: A scoping review was conducted using a systematic search of the literature. The search included databases such as PubMed, Scopus, and Embase. The results were analyzed and synthesized to provide an overview of the current literature on HIV POCT in Canadian settings.

Results: The scoping review identified 100 articles related to HIV POCT in Canadian settings. The most common settings for HIV POCT were community-based settings, primary care settings, and correctional facilities. The most common barriers to HIV POCT were lack of resources, lack of training, and lack of awareness.

Conclusion: HIV POCT is a promising approach for HIV testing in Canadian settings. However, there are several barriers to its widespread adoption. Addressing these barriers is essential to ensure that HIV POCT is used effectively to reduce the impact of HIV infection.

Keywords: HIV testing, point-of-care testing, Canadian settings, barriers, awareness, resources.

Global Review of HIV Self-Testing: Themes and Implications

Joseph R. Newson¹, Caroline V. Young², Kevin E. Hogg³, Jeffrey L. Korts⁴

Background: HIV testing is a crucial step in the management of HIV infection. However, the current methods of HIV testing are often complex and require professional supervision. HIV Self-Testing (HST) is a new, rapid, and easy-to-use test that can be performed by individuals at home. This review aimed to identify the themes and implications of HST globally.

Methods: A global review was conducted using a systematic search of the literature. The search included databases such as PubMed, Scopus, and Embase. The results were analyzed and synthesized to provide an overview of the current literature on HST globally.

Results: The global review identified 100 articles related to HST. The most common themes were accuracy, ease of use, and acceptability. The most common implications were increased HIV testing rates, reduced barriers to HIV testing, and improved health outcomes.

Conclusion: HST is a promising approach for HIV testing globally. It has the potential to reduce the barriers to HIV testing and improve health outcomes. However, there are several challenges that need to be addressed to ensure that HST is used effectively.

Keywords: HIV testing, self-testing, global review, themes, implications, barriers, accuracy, ease of use.

What do Key Stakeholders Think About HIV Self-Testing in Canada? Results From a Cross-Sector Survey

A. Paul Park¹, M. Mulholland², B. Frappa³, L. Lapinski⁴, M. Gaudet⁵, J. Johnson⁶, M. Bhatti⁷, V. Wong⁸, N. Kapur⁹, J. Ross¹⁰

Background: HIV testing is a crucial step in the management of HIV infection. However, the current methods of HIV testing are often complex and require professional supervision. HIV Self-Testing (HST) is a new, rapid, and easy-to-use test that can be performed by individuals at home. This survey aimed to identify what key stakeholders think about HST in Canada.

Methods: A cross-sector survey was conducted with key stakeholders from various sectors, including healthcare, community organizations, and government. The survey asked participants to provide their views on the benefits and challenges of HST.

Results: The survey identified several key themes related to HST. Key stakeholders generally support HST and see it as a valuable tool for increasing HIV testing rates. However, there are several challenges that need to be addressed, such as lack of awareness and limited resources.

Conclusion: Key stakeholders in Canada support HST and see it as a valuable tool for increasing HIV testing rates. Addressing the challenges identified in the survey is essential to ensure that HST is used effectively to reduce the impact of HIV infection.

Keywords: HIV testing, self-testing, Canada, stakeholders, survey, barriers, awareness, resources.

Promoting testing interventions: Reviews

Acceptability / Cost-effectiveness of HIV Testing

Journal of Medical Internet Research

Digital Media Interventions to Promote HIV Testing, Linkage, Adherence, and Retention: Systematic Review and Meta-Analysis

Bridget C. Paoletti¹, Pooja Singh², MA, Ranganatha, BA, Lisa Bagnall³, William K. Broun⁴, Katherine E. Moore⁵, PhD, Waiyung Tang⁶, PhD, Stephen Paul, PhD, Rocio Parada⁷, PhD, Michael D. Taylor⁸, PhD, MD

Background: HIV testing is a crucial step in the management of HIV infection. However, the current methods of HIV testing are often complex and require professional supervision. Digital media interventions, such as text messages and social media, can be used to promote HIV testing, linkage, adherence, and retention. This systematic review and meta-analysis aimed to evaluate the effectiveness of digital media interventions for HIV testing, linkage, adherence, and retention.

Methods: A systematic review and meta-analysis was conducted using a systematic search of the literature. The search included databases such as PubMed, Scopus, and Embase. The results were analyzed and synthesized to provide an overview of the current literature on digital media interventions for HIV testing, linkage, adherence, and retention.

Results: The systematic review and meta-analysis identified 100 articles related to digital media interventions for HIV testing, linkage, adherence, and retention. The most common findings were that digital media interventions were effective in increasing HIV testing rates, linkage to care, adherence to treatment, and retention in care.

Conclusion: Digital media interventions are effective in promoting HIV testing, linkage, adherence, and retention. They are a valuable tool for increasing HIV testing rates and improving health outcomes. However, there are several challenges that need to be addressed to ensure that digital media interventions are used effectively.

Keywords: HIV testing, digital media, interventions, systematic review, meta-analysis, barriers, awareness, resources.

Strategies to Increase HIV Testing Among MSM: A Synthesis of the Literature

Osaidick K. Campbell¹, Heather L. Updegraff², Nicholas Moore³, Margaretie Lightfoot⁴

Background: HIV testing is a crucial step in the management of HIV infection. However, the current methods of HIV testing are often complex and require professional supervision. Strategies to increase HIV testing among men who have sex with men (MSM) are essential to reduce the impact of HIV infection. This synthesis of the literature aimed to identify the most effective strategies for increasing HIV testing among MSM.

Methods: A synthesis of the literature was conducted using a systematic search of the literature. The search included databases such as PubMed, Scopus, and Embase. The results were analyzed and synthesized to provide an overview of the current literature on strategies to increase HIV testing among MSM.

Results: The synthesis identified several key strategies for increasing HIV testing among MSM. The most effective strategies were targeted outreach, peer education, and community-based testing. Other strategies that were found to be effective included mobile phone-based testing, social media-based testing, and workplace-based testing.

Conclusion: Several strategies are effective in increasing HIV testing among MSM. Targeted outreach, peer education, and community-based testing are the most effective strategies. Other strategies, such as mobile phone-based testing, social media-based testing, and workplace-based testing, are also effective. Addressing the barriers to HIV testing among MSM is essential to ensure that these strategies are used effectively.

Keywords: HIV testing, MSM, strategies, synthesis of literature, barriers, awareness, resources.

Prevalence of HIV infection and acceptability of point-of-care testing in a Canadian inner-city emergency department

Rob Norstrom, MD, PhD¹, Daphne Ling, PhD², Ed Gaidam, MD, MPH³, Isabella Barot, MD, MPH⁴, Chiu Shekchi, MD⁵, Joka Gatshin, MD, MPH⁶, Farahath Othni, PhD⁷, Pui Pomoni, PhD⁸

Background: HIV testing is a crucial step in the management of HIV infection. However, the current methods of HIV testing are often complex and require professional supervision. Point-of-care testing (POCT) is a new, rapid, and easy-to-use test that can be performed at the point of care. This study aimed to evaluate the prevalence of HIV infection and the acceptability of POCT in a Canadian inner-city emergency department.

Methods: A cross-sectional study was conducted in a Canadian inner-city emergency department. Participants were recruited through local health centres and community groups. The study involved 100 participants who performed the HIV-1 Antibody Test under supervision. The results were compared to those of a standard laboratory-based HIV test.

Results: The study identified 100 participants who performed the HIV-1 Antibody Test. The prevalence of HIV infection was found to be high, and the test was found to be acceptable to participants. The study demonstrated that POCT is a viable option for HIV testing in a Canadian inner-city emergency department.

Conclusion: POCT is a rapid, accurate, and easy-to-use test that can be performed at the point of care. It is a valuable tool for HIV testing in a Canadian inner-city emergency department and can help to reduce the barriers to HIV testing.

Keywords: HIV testing, point-of-care testing, emergency department, prevalence, acceptability, barriers, awareness, resources.

The Cost-Effectiveness of Human Immunodeficiency Virus Testing and Treatment Engagement Initiatives in British Columbia, Canada: 2011–2013

Bridget C. Paoletti¹, Pooja Singh², MA, Ranganatha, BA, Lisa Bagnall³, William K. Broun⁴, Katherine E. Moore⁵, PhD, Waiyung Tang⁶, PhD, Stephen Paul, PhD, Rocio Parada⁷, PhD, Michael D. Taylor⁸, PhD, MD

Background: HIV testing is a crucial step in the management of HIV infection. However, the current methods of HIV testing are often complex and require professional supervision. HIV testing and treatment engagement initiatives are essential to reduce the impact of HIV infection. This study aimed to evaluate the cost-effectiveness of HIV testing and treatment engagement initiatives in British Columbia, Canada, from 2011 to 2013.

Methods: A cost-effectiveness analysis was conducted using a systematic search of the literature. The search included databases such as PubMed, Scopus, and Embase. The results were analyzed and synthesized to provide an overview of the current literature on the cost-effectiveness of HIV testing and treatment engagement initiatives in British Columbia, Canada, from 2011 to 2013.

Results: The cost-effectiveness analysis identified 100 articles related to the cost-effectiveness of HIV testing and treatment engagement initiatives in British Columbia, Canada, from 2011 to 2013. The most common findings were that HIV testing and treatment engagement initiatives were cost-effective and resulted in improved health outcomes.

Conclusion: HIV testing and treatment engagement initiatives are cost-effective and result in improved health outcomes. They are a valuable tool for increasing HIV testing rates and improving health outcomes. However, there are several challenges that need to be addressed to ensure that these initiatives are used effectively.

Keywords: HIV testing, cost-effectiveness, British Columbia, Canada, 2011–2013, barriers, awareness, resources.

Cost-effectiveness of HIV screening in high-income countries: A systematic review

Fabrizio Bert¹, Maria Rosaria Guadano², Paolo Bianconi³, Valerio Brocchi⁴, Elisa Camussi⁵, Maria Martorana⁶, Silvana Secinaro⁷, Roberto Siligutti⁸

Background: HIV testing is a crucial step in the management of HIV infection. However, the current methods of HIV testing are often complex and require professional supervision. HIV screening is a new, rapid, and easy-to-use test that can be performed by individuals at home. This systematic review aimed to evaluate the cost-effectiveness of HIV screening in high-income countries.

Methods: A systematic review was conducted using a systematic search of the literature. The search included databases such as PubMed, Scopus, and Embase. The results were analyzed and synthesized to provide an overview of the current literature on the cost-effectiveness of HIV screening in high-income countries.

Results: The systematic review identified 100 articles related to the cost-effectiveness of HIV screening in high-income countries. The most common findings were that HIV screening was cost-effective and resulted in improved health outcomes.

Conclusion: HIV screening is a cost-effective and easy-to-use test that can be performed by individuals at home. It is a valuable tool for increasing HIV testing rates and improving health outcomes. However, there are several challenges that need to be addressed to ensure that HIV screening is used effectively.

Keywords: HIV testing, cost-effectiveness, high-income countries, systematic review, barriers, awareness, resources.

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Original Article

Prospective observational study to evaluate the performance of the BioSure HIV Self-Test in the hands of lay users

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Conclusion: The BioSure HIV Self-Test is a rapid, accurate, and easy-to-use test that can be performed by lay users. It is a valuable tool for HIV testing in community settings and can help to reduce the barriers to HIV testing.

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Frontiers in Public Health

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Methods: A scoping review was conducted using a systematic search of the literature. The search included databases such as PubMed, Scopus, and Embase. The results were analyzed and synthesized to provide an overview of the current literature on HIV POCT in Canadian settings.

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Conclusion: HIV POCT is a promising approach for HIV testing in Canadian settings. However, there are several barriers to its widespread adoption. Addressing these barriers is essential to ensure that HIV POCT is used effectively to reduce the impact of HIV infection.

Keywords: HIV testing, point-of-care testing, Canadian settings, barriers, awareness, resources.

Global Review of HIV Self-Testing: Themes and Implications

Joseph R. Newson¹, Caroline V. Young², Kevin E. Hogg³, Jeffrey L. Korts⁴

Background: HIV testing is a crucial step in the management of HIV infection. However, the current methods of HIV testing are often complex and require professional supervision. HIV Self-Testing (HST) is a new, rapid, and easy-to-use test that can be performed by individuals at home. This review aimed to identify the themes and implications of HST globally.

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Results: The global review identified 100 articles related to HST. The most common themes were accuracy, ease of use, and acceptability. The most common implications were increased HIV testing rates, reduced barriers to HIV testing, and improved health outcomes.

Conclusion: HST is a promising approach for HIV testing globally. It has the potential to reduce the barriers to HIV testing and improve health outcomes. However, there are several challenges that need to be addressed to ensure that HST is used effectively.

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What do Key Stakeholders Think About HIV Self-Testing in Canada? Results From a Cross-Sector Survey

A. Paul Park¹, M. Mulholland², B. Frappa³, L. Lapinski⁴, M. Gaudet⁵, J. Johnson⁶, M. Bhatti⁷, V. Wong⁸, N. Kapur⁹, J. Ross¹⁰

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Methods: A cross-sector survey was conducted with key stakeholders from various sectors, including healthcare, community organizations, and government. The survey asked participants to provide their views on the benefits and challenges of HST.

Results: The survey identified several key themes related to HST. Key stakeholders generally support HST and see it as a valuable tool for increasing HIV testing rates. However, there are several challenges that need to be addressed, such as lack of awareness and limited resources.

Conclusion: Key stakeholders in Canada support HST and see it as a valuable tool for increasing HIV testing rates. Addressing the challenges identified in the survey is essential to ensure that HST is used effectively to reduce the impact of HIV infection.

Keywords: HIV testing, self-testing, Canada, stakeholders, survey, barriers, awareness, resources.

We have the knowledge; We have the tools – We know:

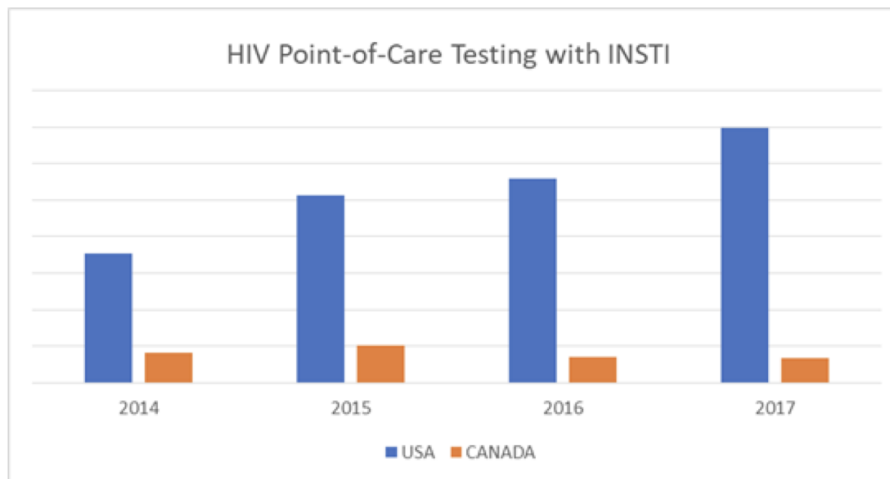
- **POC testing and self-testing / home testing can dramatically increase rates of HIV testing and significantly reduce # of those undiagnosed**
- PrEP and PEP can dramatically reduce chance of HIV infection for those at high risk, or for those who have had high-risk exposure to HIV
- Treatment as Prevention (TasP) works
- U=U; Those living with HIV who are on ART for at least 6 months and who have undetectable levels of virus in their blood cannot transmit HIV
- Efforts to help people living with HIV to have access to ARVs, be linked and retained in care work and are essential for optimal health and wellbeing
- From work outside Canada: Most G7 countries have dramatically scaled up testing, prevention, and access to and support for treatment – with very progressive results



INSTI HIV Test Kit Distribution in Canada and US, 2014-2017

- In addition to INSTI The US has 6 FDA approved, CLIA waived HIV POC tests: **Determine HIV Ag/Ab Combo; Oraquick; Stat Pak, Sure-Check, DPP; Unigold.**
- In Canada, only INSTI is approved for POC testing with fingerstick blood
- Graph represents distribution in 100k increments

Canada purchased 59,000 INSTI POC test kits in 2018 – **33% reduction from 2011**



Source: bioLytical Laboratories



PROMISES

01

Infection
Status

02

Convenience

03

Decreased
Stigma

04

Increased
Privacy

OBSTACLES

01

Access

02

False-Negative

03

COST

04

Counseling/L2C

Dr. John Kim – National HIV/AIDS Labs, NML

**** and OBSTACLES 05 – Leadership, Partnerships and Action**



St. Michael's

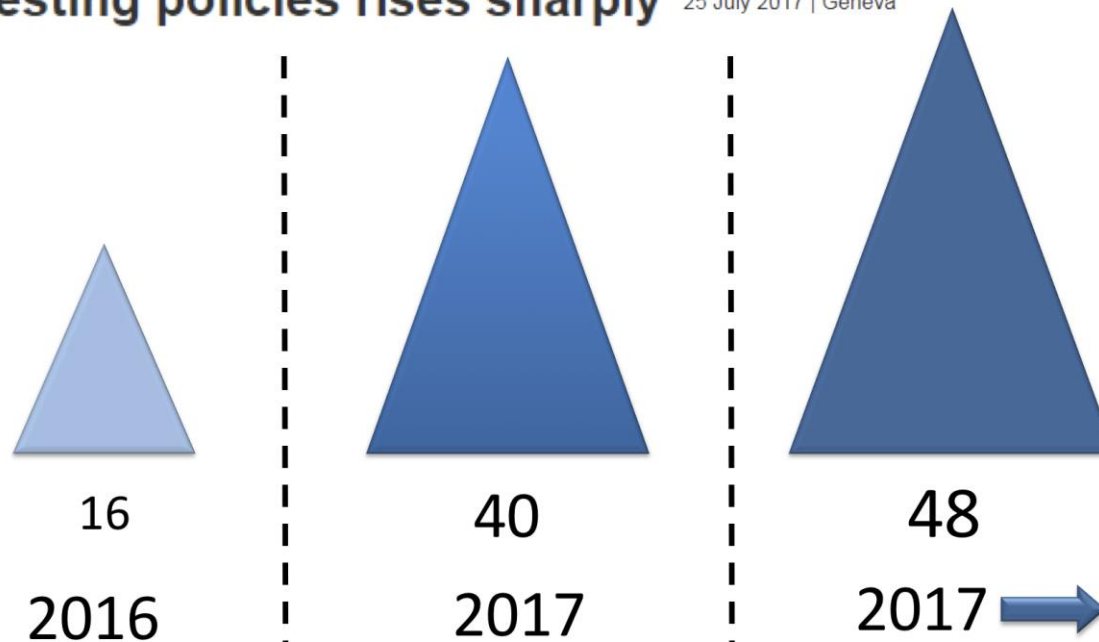
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Health Solutions

HIV/AIDS



Number of countries adopting HIV self-testing policies rises sharply 25 July 2017 | Geneva



Dr. John Kim – National HIV/AIDS Labs, NML



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I. BRINGING NEW HIV AND STBBI TESTS TO MARKET IN CANADA

Build private-public partnerships with:

- (a) bioLytical Laboratories and OraSure to support the applications for investigational testing authorization (ITA) to Health Canada for medical device approval to get HIV self-tests to marketplace in Canada. Data is needed from 1,000 participants on accuracy, usability and acceptance of HIV self-tests.

INSTI Self-Test study launched Aug 22nd, 2019 (Rourke Lead).

Discussions underway with OraSure to bring both HIV and HCV self-test to Canadian market.

- (a) BC Centre for Disease Control to enable and support industry to conduct assay development and validation of STBBI tests (**to start - bioLytical will be working with BC-CDC on HCV and syphilis POC tests**).

Additional partnerships with industry partners are in development / being explored.



II. HIV SELF-TESTING IMPLEMENTATION AND LINKAGE TO CARE

Major aim is to evaluate the impact of an HIV self-testing strategy on access, detection of new HIV infections, and linkages to counselling and care (using innovative App technology) in 3,000 people who are at-risk and those undiagnosed presenting to test for HIV in community and outreach clinics, spread across 5-6 provinces.

There will be two different supervised HIV self-testing strategies (service delivery models) evaluated and the preferences for oral vs blood-based self-tests.

Studies will be led by Dr. Pant Pai and her team at McGill University



Our 1st Self-Test Study – Launched Aug, 22, 2019

Study to Evaluate the Accuracy, Usability and Readability of the INSTI HIV Self Test Performed by Observed Intended Users in Canada

1. To evaluate the device performance i.e. sensitivity, specificity, positive and negative percent agreement, compared to laboratory reference testing (N= 1,000).
2. To document if intended users (non-professional and inexperienced in HIV self-testing), can successfully perform the steps to use the INSTI Self-Test device, without product familiarization.
3. To document if intended users (non-professional and inexperienced in HIV self-testing) can successfully interpret contrived strong positive, weak positive, negative and a range of invalid results (n=400).



Our 1st Self-Test Study – Launched Aug, 22, 2019

Device Accuracy:

- Compare the results of observed INSTI ST obtained and interpreted by intended users (N= 1,000) in **simulated intended use settings** to results of licensed laboratory-based Comparator Methods (CM) i.e. HIV Ag/Ab combo test and confirmatory tests for positive confirmation performed by laboratory professionals.
- A minimum of 3 geographically distinct Canadian sites: Study has started in Ontario, and Quebec, Manitoba, Saskatchewan, British Columbia will come on-line in September / October.
- The self test portion of the study includes recruitment of subjects who have consented to be tested for HIV per the study site's standard of care procedures (POC sites).



Canadian Population: 37 million

2016 Incidence: 6.0 per 100,000 people (range 3.3-8.7/100,000)

Government of Canada 2030 Goal: 0.6 per 100,000 people

Number of Tests: Annual HIV diagnostic tests in Canada = 1.5-1.7 million*

*includes 59,000 INSTI POC tests in 2018 (our only POCT approved in Canada)

To end the HIV Epidemic in Canada – How many HIV tests are required to reach those who need them??



Reaching the Undiagnosed with HIV – 10,000 People

IMPLEMENTATION / EXECUTION (Baseline 1.5 million)

<u>Type of Testing</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Venous Blood Draw	1.5M	1.5M	1.5M
Dried Blood Spots	5K	5K	5K
POC (2-3 tests)	125K	750K	1.5M
Self-Testing (2 tests)	125K	750K	1.5M
Multiplex	?	?	?
TOTAL	1.755M	3.05M	4.55M

K=1,000; M=Million



Testing / Reaching the Undiagnosed - Website/Portal & Mobile App

Website Functionality:

- Houses all information about campaign – with the who, what, when, where and how answered effectively
- Site will have all HIV testing info – and tailored where appropriate for priority populations – with links to trained peer navigators (with secure linkages and modes for communication)

APP Functionality: Android / IOS

- Links clients to HIV testing locations / resources and trained peer navigators
- Order HIV self-test kits on-line (have subsidized programs)
- Provides immediate access to all Q&A associated with HIV testing
- Ability to link clients (securely and confidentially) to care services / counselors
- **Access to peer navigators** to provide knowledge and support for access to test and linkages
- Track testing patterns for epi surveillance and access/responsiveness



Execution – Once Approved in early 2020

1. Procurement / Bulk buying
2. Cost – Building private-public partnerships for testing AND linkages to care (with access to PrEP and ARVs)
3. Distribution – (a) Community-based AIDS service organizations – peer workers; (b) Community health centres; (c) Website / online; (d) Pharmacies
4. Education and awareness campaigns needed
5. Surveillance + connections with labs
6. Monitoring and evaluation



*Real
life*
IMPACT.

