

Webinar Series 2017-2018

Reaching the Undiagnosed

Innovative approaches for HIV, HCV and
other Sexually Transmitted Infection (STIs) Testing

Presented by:



National Collaborating Centre
for Infectious Diseases
Centre de collaboration nationale
des maladies infectieuses



HIV, HVC and STIs: why is this a global issue?

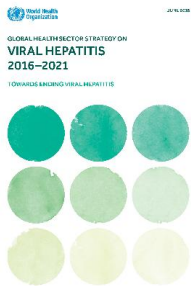
- **357.4 million new STIs** (CT, NG, Syphilis, TV) in 2012.
 - Pelvic inflammatory diseases, ectopic pregnancy, infertility, chronic pelvic pain, seronegative arthropathy, neurological and cardiovascular diseases, neonatal death.
- **71 million with chronic hepatitis C infection** in 2015
 - 1.7 millions new infections
 - 2.3 million HIV/HCV co-infected
 - 704,000 deaths attributed to HCV in 2013
- **1.8 million new HIV** in 2016
 - 36.7 million people living with HIV in 2016.
 - 53% accessing antiretroviral therapy in 2016.
 - 1 million died from AIDS-related illnesses in 2016.
- Adverse health consequences on individuals and substantial strain on health systems and budgets – important to intervene at early stages

HIV, HCV and STIs: why is this a national issue?



- **118,280 new STIs** in 2012
 - On the rise (2010-2015) ↑ **17%** CT; ↑ **65%** NG, ↑ **86%** infectious syphilis
 - 25 to 50% co-infection with HIV
- **Up to 245,987 with chronic hepatitis C infection** in 2011
- **2,570 new HIV infections** in 2014
 - 65,040 Canadians were living with HIV in 2014 .
- **Important inequality** in health and economic burden, for women, for First Nations and Inuit, for the chronically poor

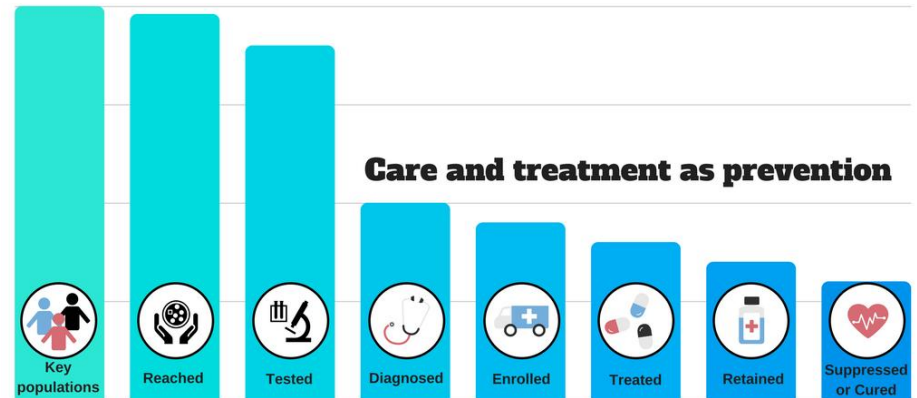
HIV, HCV and STIs: Towards elimination by 2030



90-90-90
An ambitious treatment target to help end the AIDS epidemic

UNAIDS

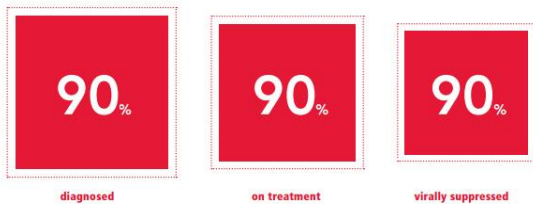
Prevention



Care and treatment as prevention

Global Targets : How are we doing in Canada?

By 2020

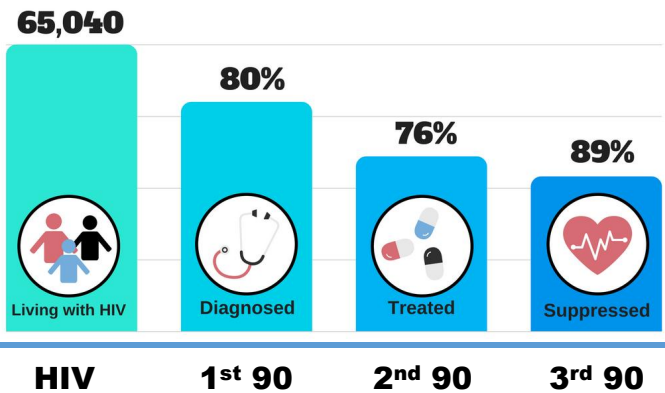


- Reducing by 30% new chronic HCV infections
- Reducing HCV mortality by 10%

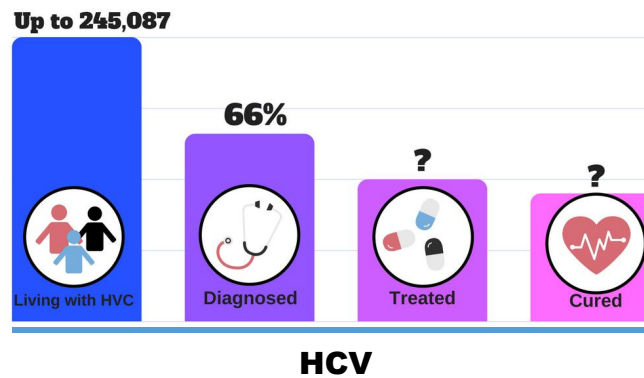


T. Pallidum with the elimination of congenital syphilis, which implies that **strong systems** are in place to ensure **screening and treatment** of all pregnant women and control of syphilis in **specific populations**.

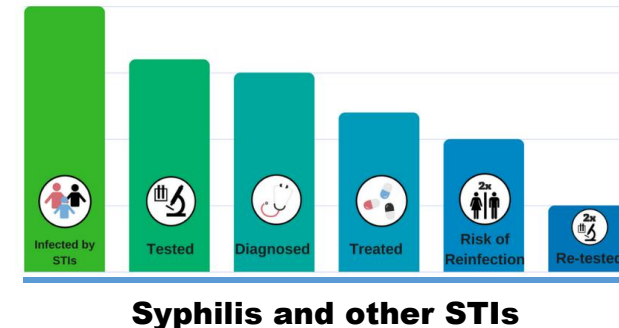
20%



44%



?



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 and pharmacies



DBS in remote communities

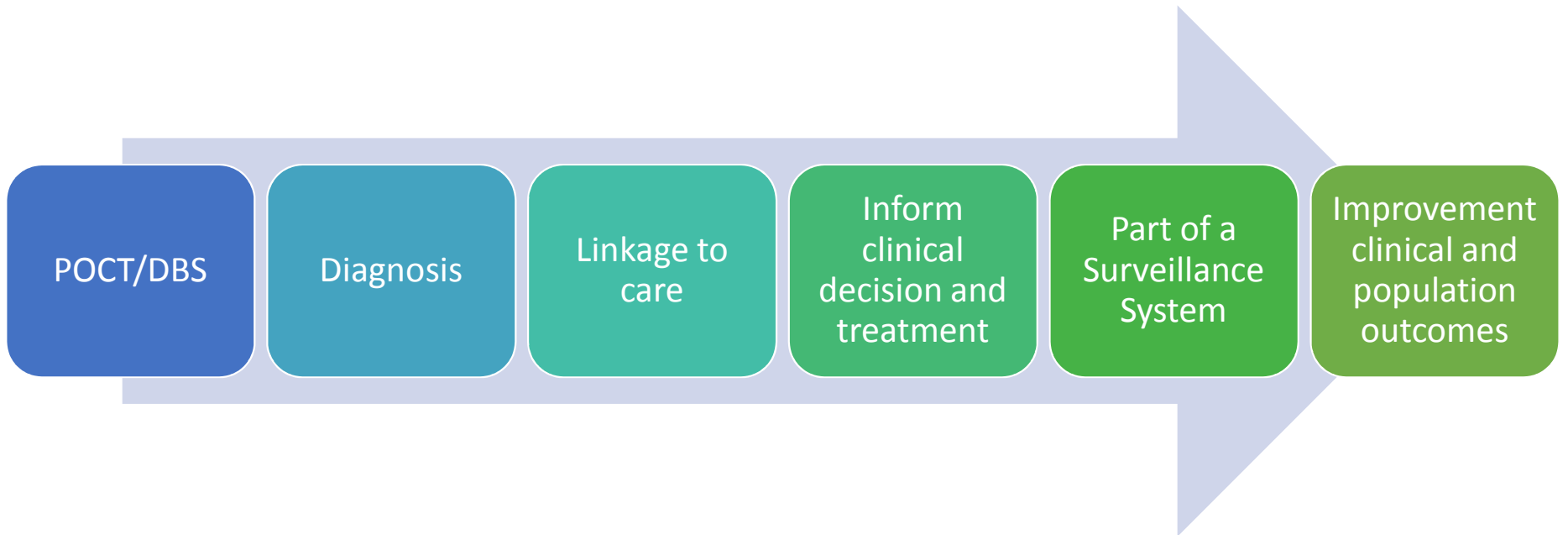


POCT Duo Test in Gay men's Clinic



Self-testing at home

Policy decisions matter more than individual behaviours for impact....

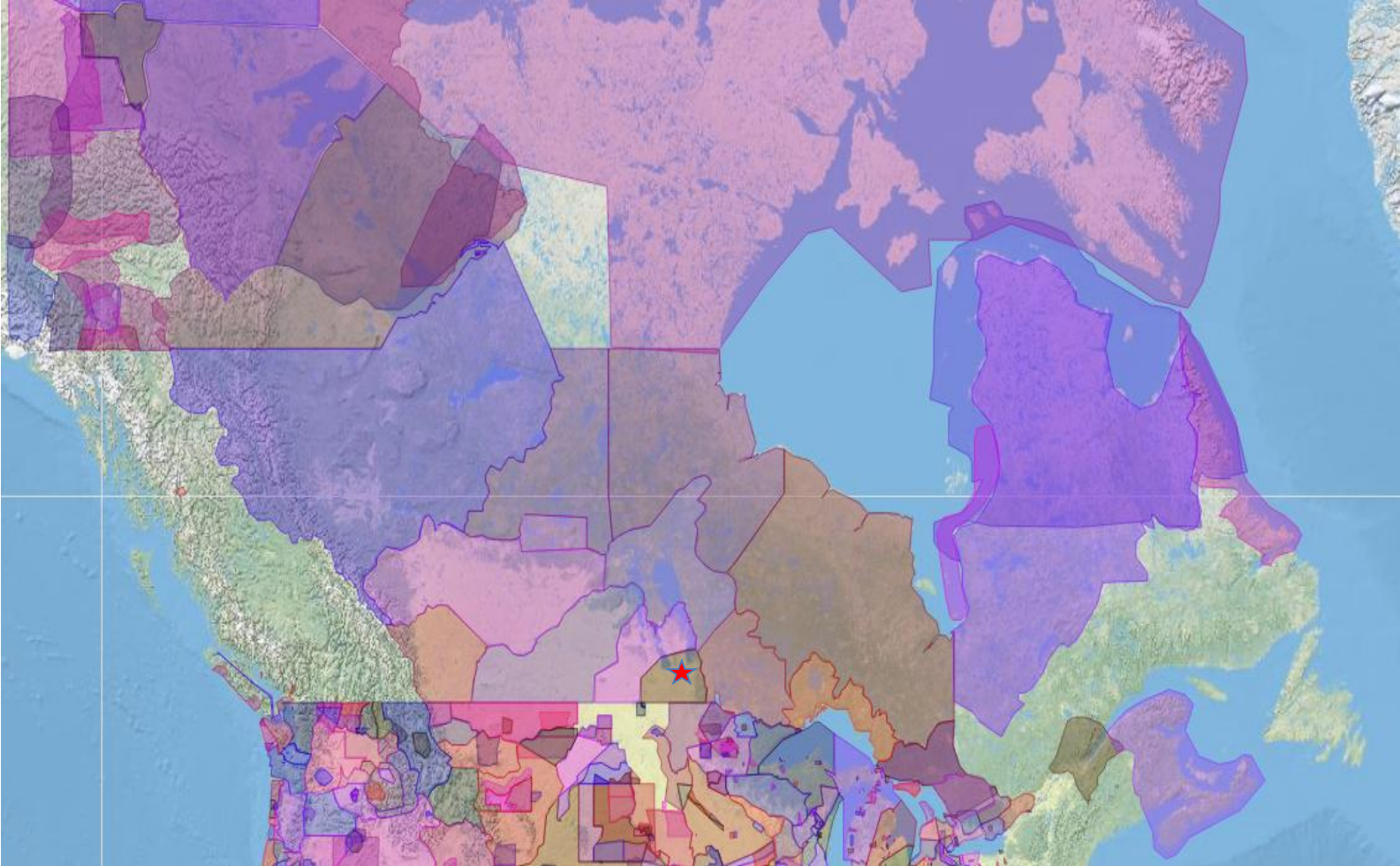


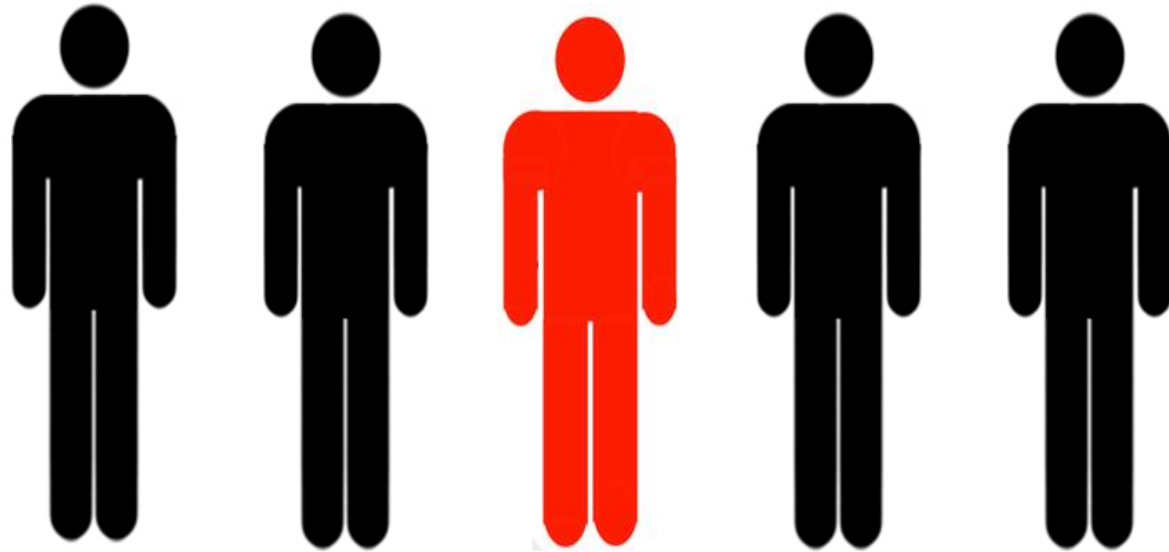
About this series....

- To explore new ways to reach the undiagnosed.
 - Focus on what has been done in Canada, and could be scaled-up for the benefits of all Canadians.
 - Create a space to understand and discuss barriers and opportunities for the scale-up of these new approaches, recognizing specificities and difference in contexts that exist in this country.
- Webinar 1
 - HIV/Hep C POCT projects in non-traditional settings: reaching people where they are.
- Webinar 2
 - Reflection on Canada's situation compare to other countries in regard to new technologies uptake
 - POC HIV/syphilis dual test: a trade-off between imperfect test and expanded reach; learning from LMIC experience
- Webinar 3
 - Dry Blood Spot - a new strategy option to expand the reach of HIV and hep C testing in communities

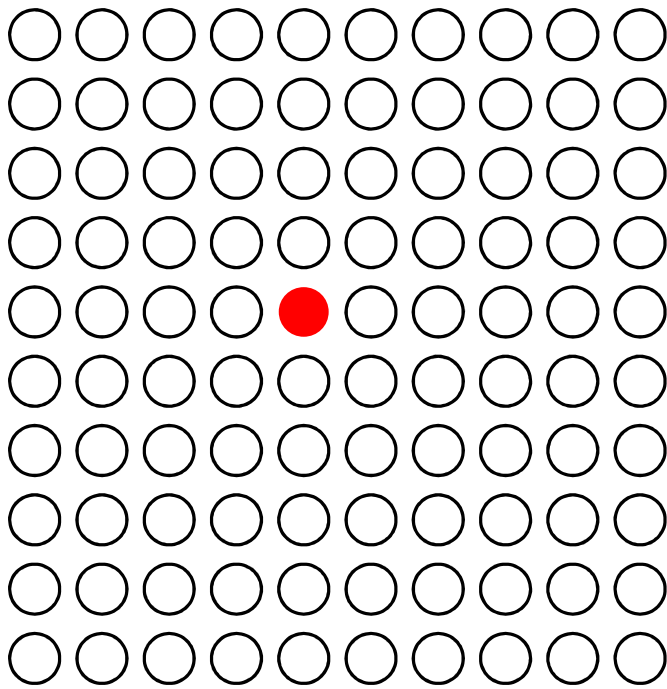


win-nipi (Winnipeg)

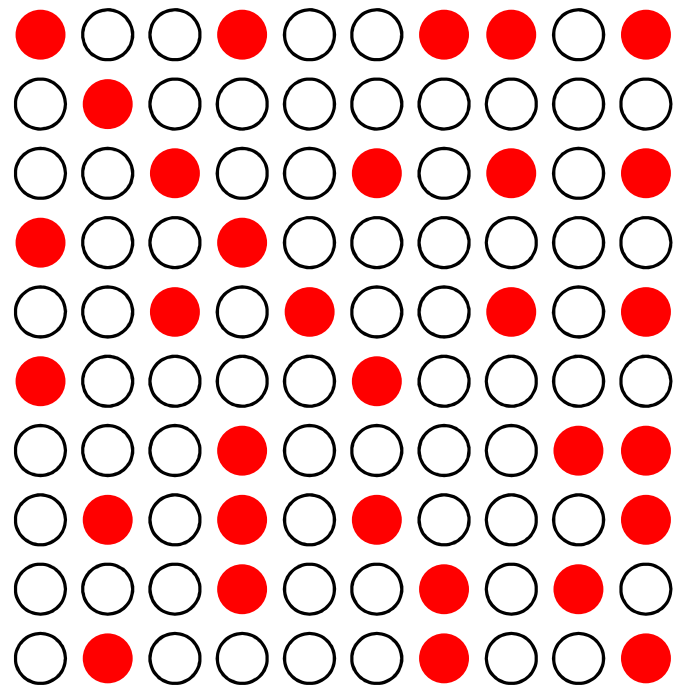




20 %



All Infections



New (Incident)



Public Health
Agency of Canada

Agence de la santé
publique du Canada

Canada



Innovation in Diagnostic Testing using Dried Blood Spots (DBS)

John – NHRL/NML



PROTECTING AND EMPOWERING CANADIANS
TO IMPROVE THEIR HEALTH

New HIV screening method leads to apparent spike in testing at Sask. First Nations

Doctor says problems with racism in healthcare system deter people from getting tested

Alicia Bridges · CBC News · Posted: Feb 16, 2018 1:56 PM CT | Last Updated: February 16



The Saskatoon Tribal Council has introduced dried blood spot testing in an effort to reduce stigma and improve anonymity for people who want to get tested for HIV. (Ron Boileau/CBC)



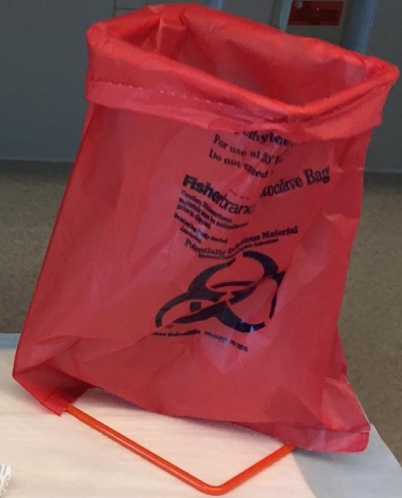
STP-310

Caution—waste sharps.
Do not overfill.
Attention—déchets piquants et tranchants.
Ne pas remplir au-dessus de cette ligne.

Stericycle
Protecting People. Reducing Risk.
1-866-783-7422 | www.stericycle.ca



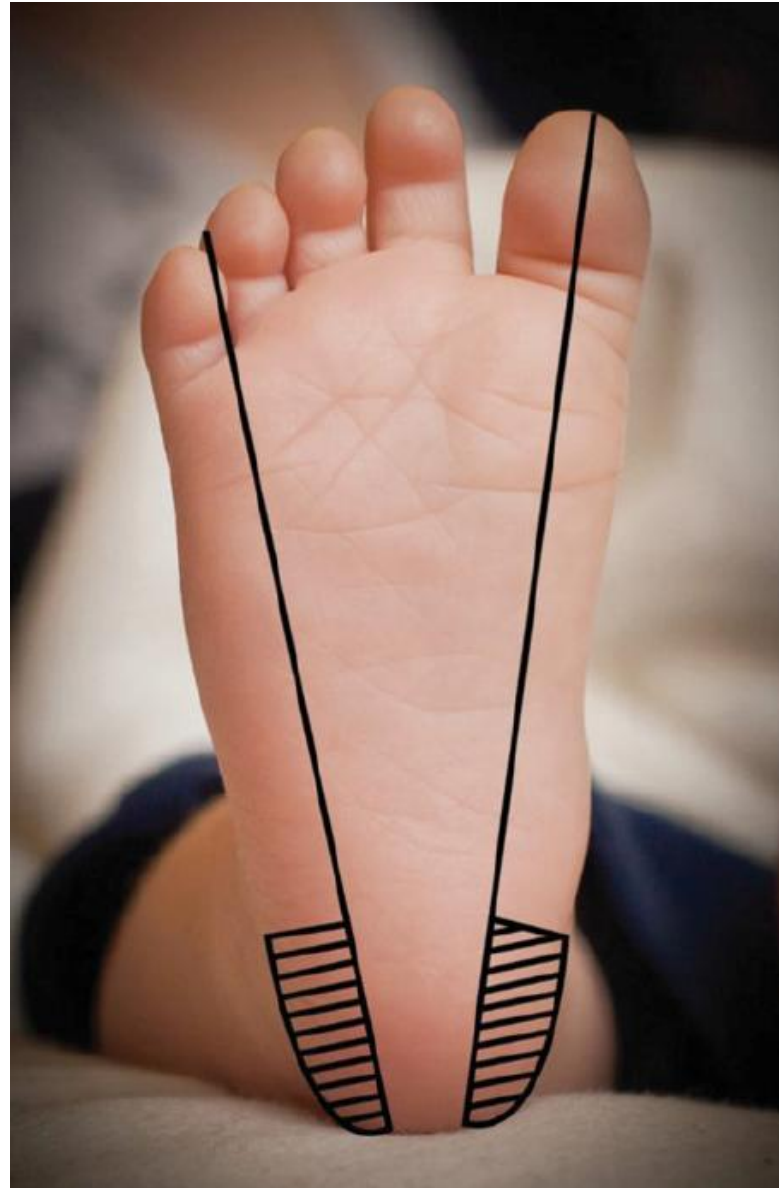
Intertek
4003105



Spec # _____
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Whitman 9031™ For Research Use Only © 2019-05
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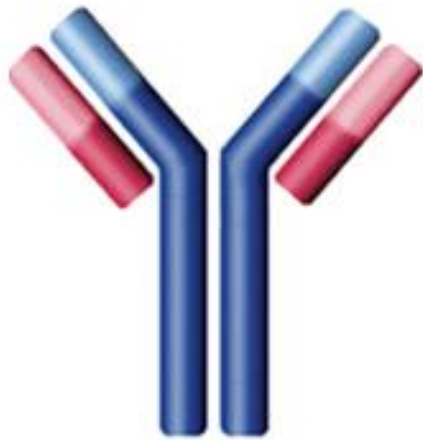




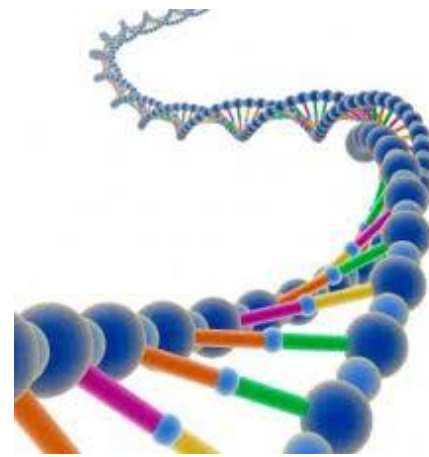
Mei, J (2014)

DBS Testing

Serological (Antibody)



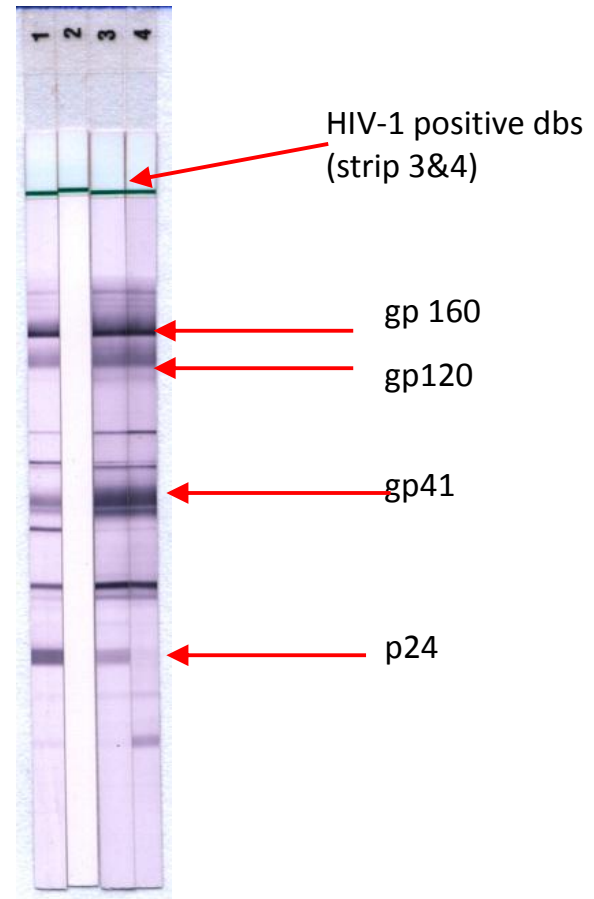
Molecular (DNA/RNA)



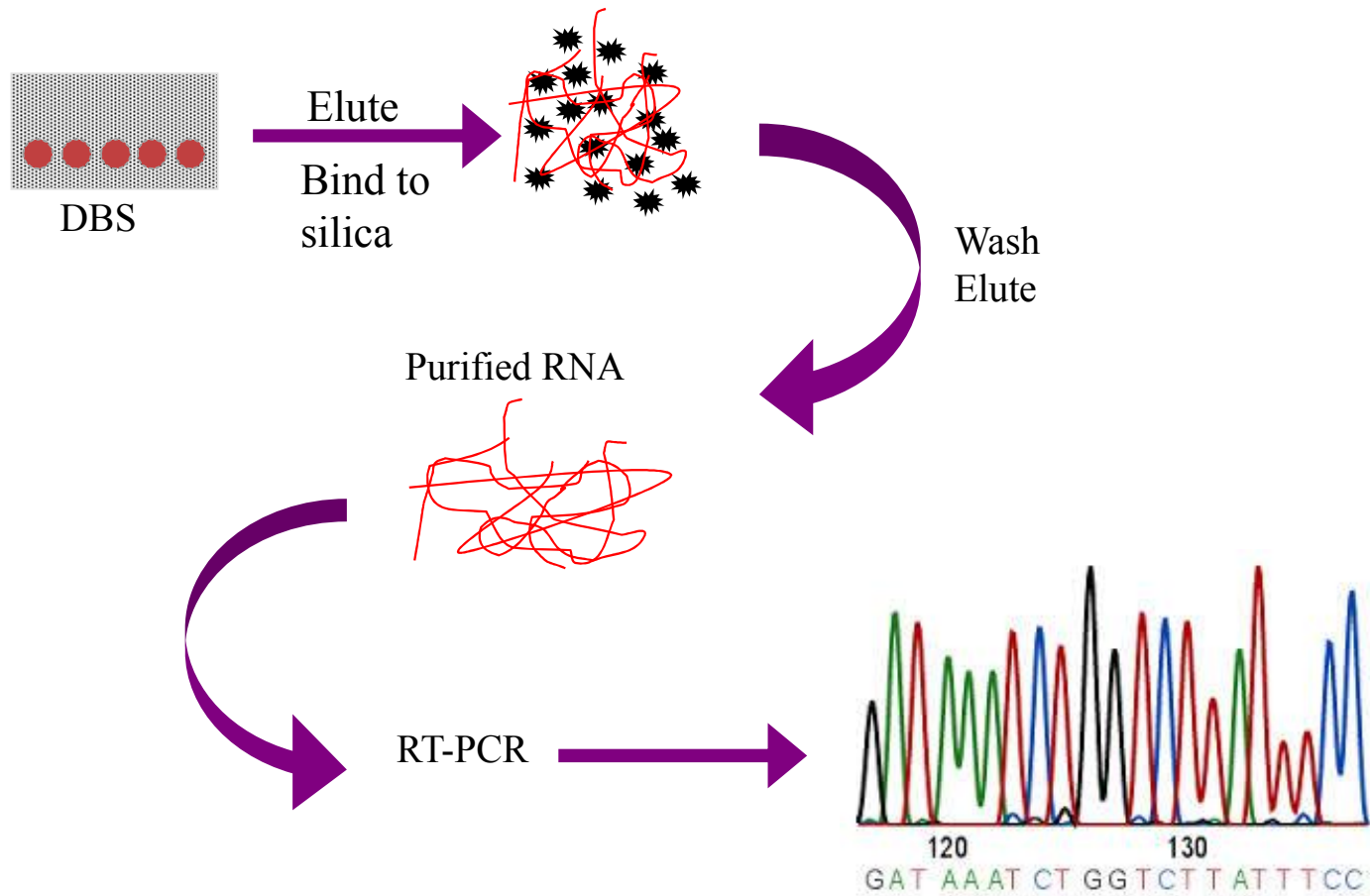
AVIOQ HIV-1 Microelisa System Delivers

- FDA Approved for
 - Serum
 - Oral Fluid
 - Plasma
 - Dried Blood Spot
- Proven HIV-1 Whole Viral Lysate Antigens + native gp160
- Detects IgG, IgA, and IgM Antibodies
- High Crossreactivity with HIV-2

anti-HIV-1 in sample + *ABTS substrate*
HIV-1 viral lysate + native gp160 + *anti-human enzyme conjugate (HRP)* → *Color*



DBS - Molecular Analysis



Lababstract – February 2013

HIV-1 Qual Test using Dried Blood Spots (DBS) by Cobas Ampliprep/Cobas Taqman

Lababstract – July 2017

Hepatitis C Virus (HCV) RNA detection using Dried Blood Spots (DBS)



Public Health
England

Health Protection Report
weekly report

Infection report / Immunisation

Volume 11 Number 5 Published on: **3 February 2017**

Testing of infants born to hepatitis B infected mothers: a three-year review of the national DBS testing service

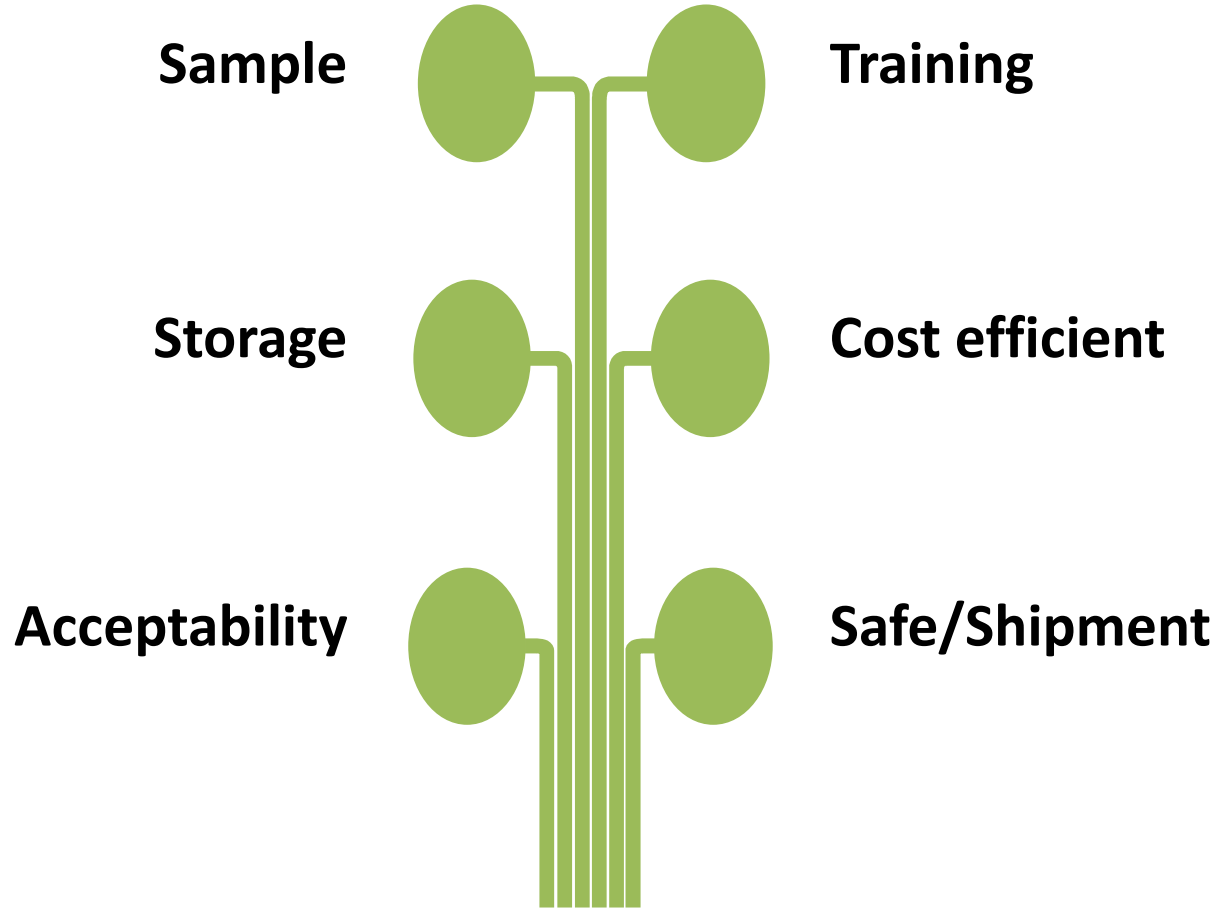
HIV-1 Serologic Test Results for One Million Newborn Dried-Blood Specimens: Assay Performance and Implications for Screening

*Marta Gwinn, *Martha A. Redus, *Timothy C. Granade, †W. Harry Hannon, and
*J. Richard George

Sensitivity - 100%
Specificity – 99.8%
FPR – 0.15%

Sensitivity 92-100%
Specificity 95-100%
FPR/NPR

ADVANTAGES





merci !

miigwetch !

thank you !

Dr. Jordan Feld

Toronto General Hospital, the Toronto Centre for Liver Disease and the
McLaughlin-Rotman Centre for Global Health

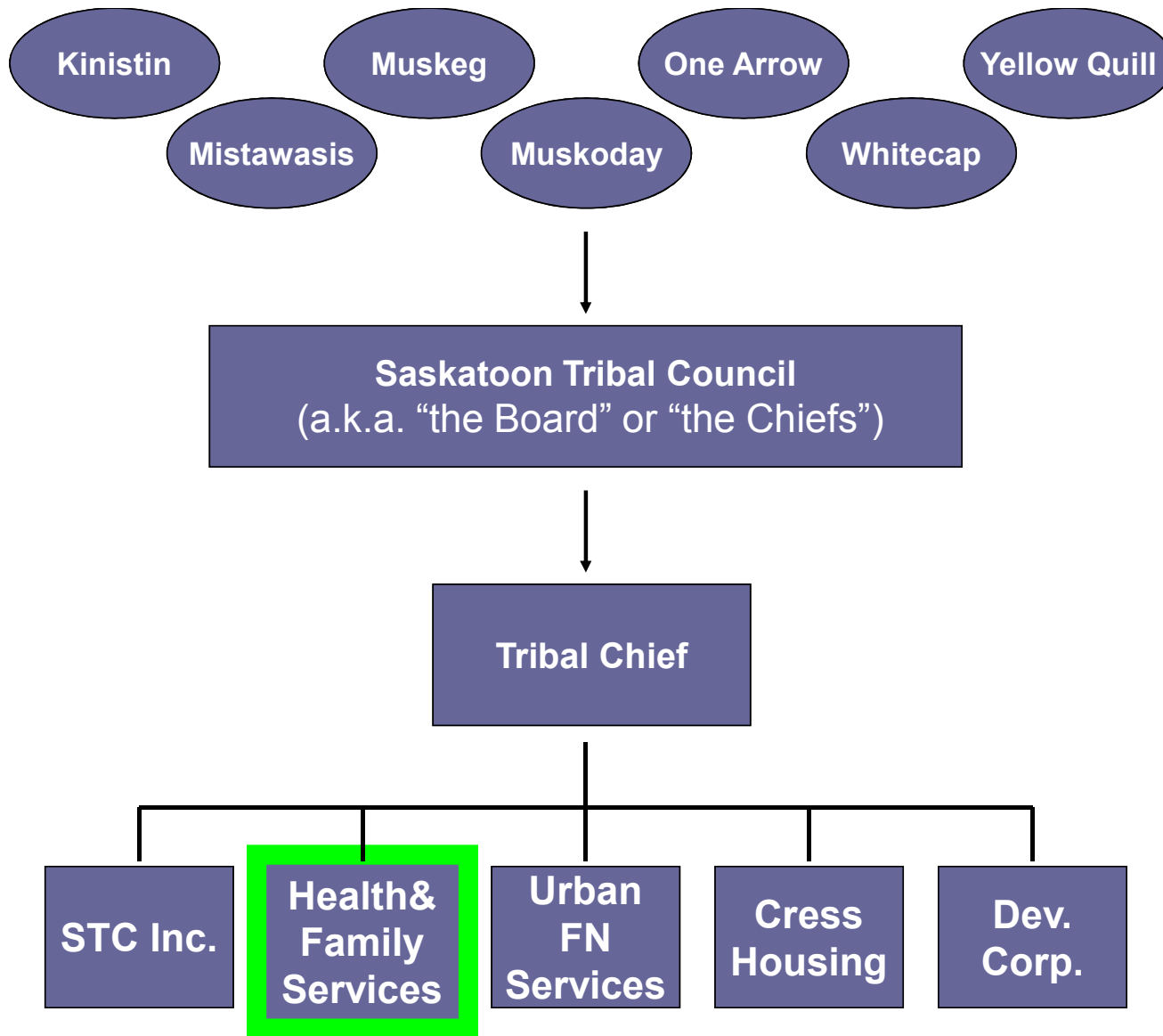


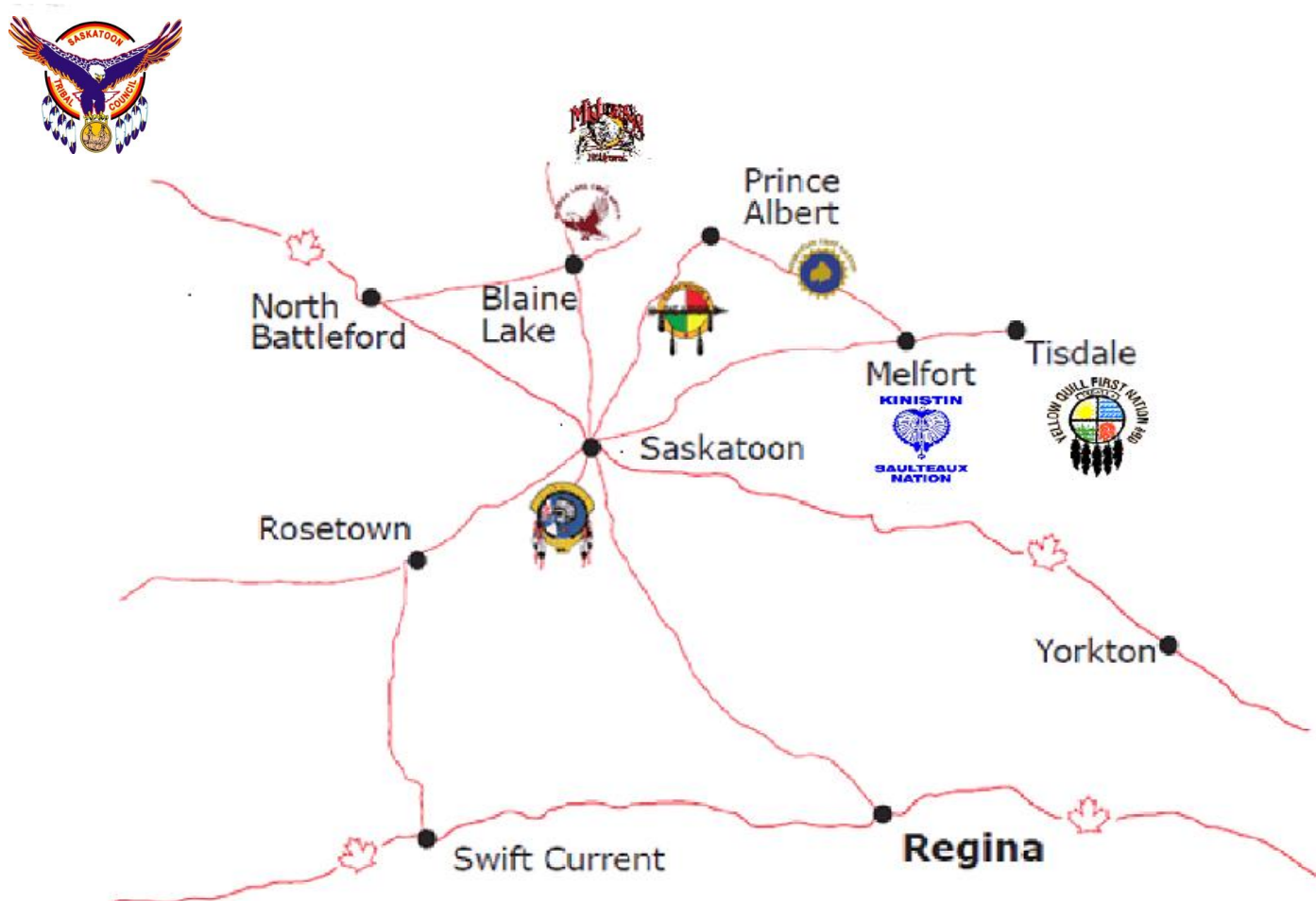
Saskatoon Tribal Council

*Gathering together, honouring the past, building the future;
Saskatoon Tribal Council is a catalyst for success.*

CATIE Webinar

February 2018





Saskatoon Tribal Council

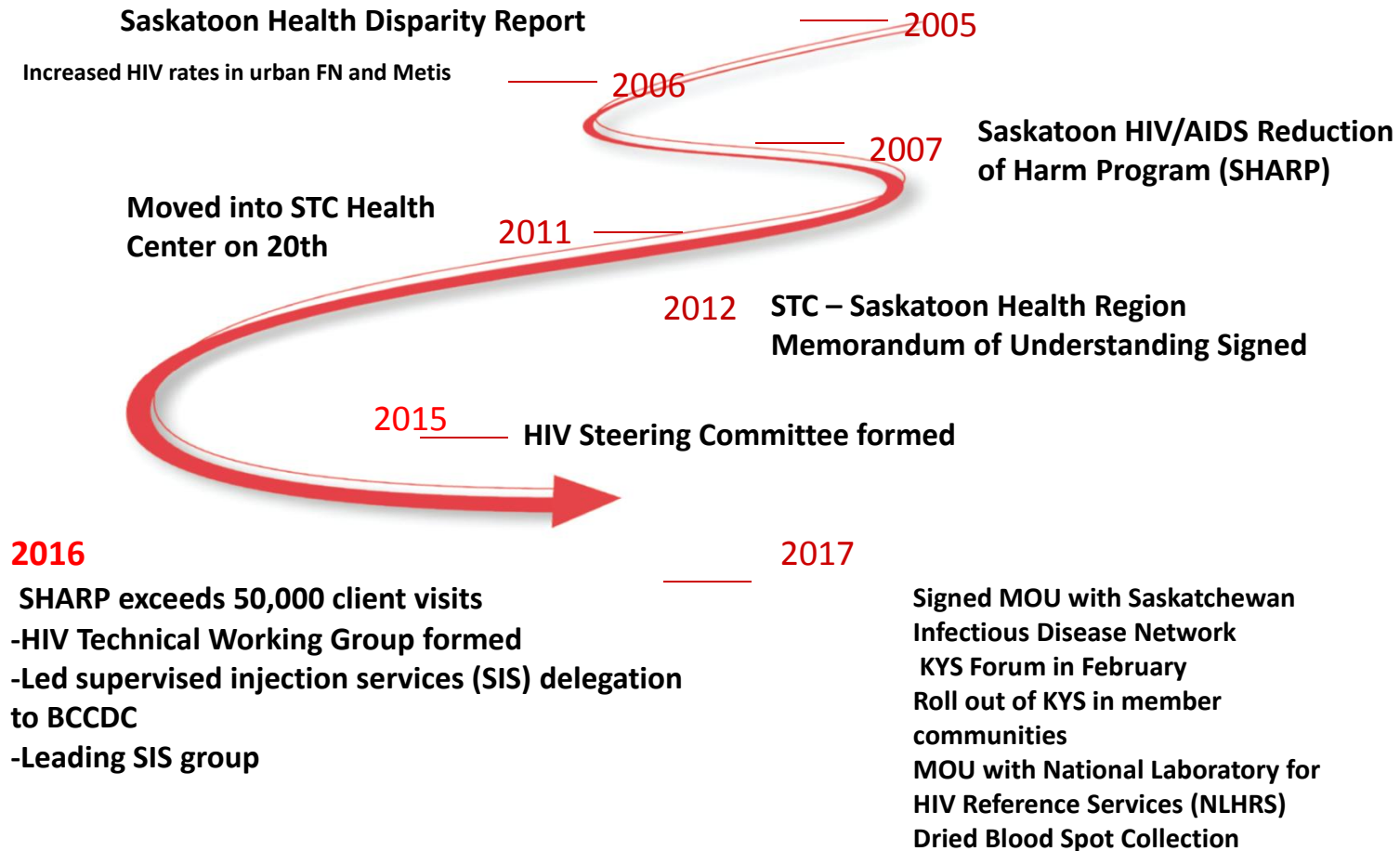
7 First Nation Bands

Culturally diverse populations:

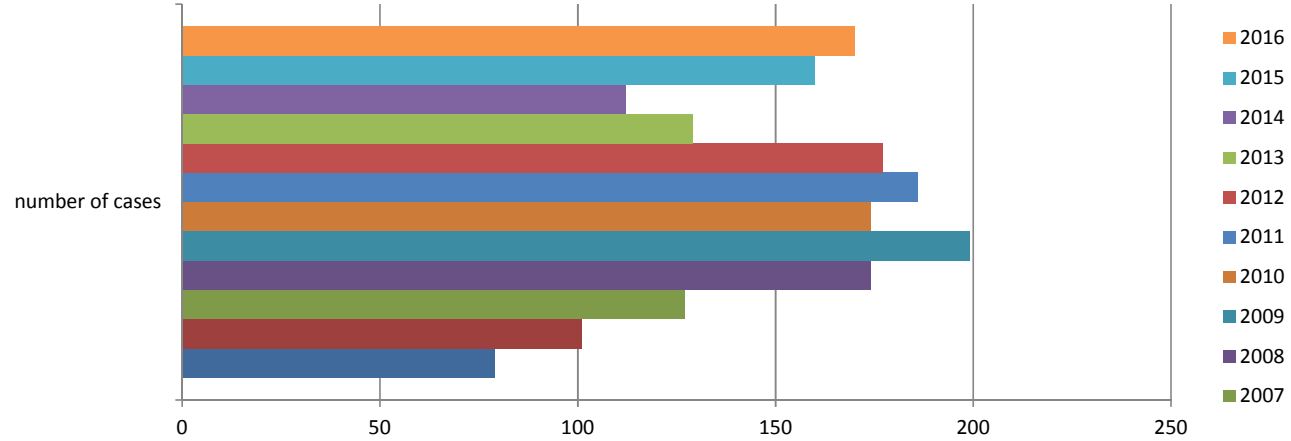
Dakota Sioux ; Sauteaux ; Cree and Non-aboriginals



STC: Urban Harm Reduction and Health Services Delivery



Number of HIV Cases in Saskatchewan





STBBI cases in STC communities 2011 to 2016

Sexually Transmitted Infections on STC communities excluding Whitecap 2011 to 2016		
HIV	7 cases	
Hepatitis C	37 cases	
Chlamydia	163 cases	
Gonorrhea	28 cases	
Syphilis	1 case	



Because YOU Matter



PERSONAL ASSESSMENT

- 1) Have you ever had sex without a condom?
- 2) Have you ever shared a needle?
- 3) Have you ever shared spoons, pipes, cookers or other equipment for drug use?
- 4) Have you ever shared tattoo or body piercing equipment ?
- 5) Have you received home or prison tattoos?

Know Your Status *Because You Matter*

Community Readiness

Leadership	Education process started and action plan approved
Health committee	Education process started and action plan approved
Health Staff	Actively working on action plan, education process
Elders	Education process started
Testing	Available in communities for HIV
Harm Reduction	Process varies in each community
Link to Care	Actively working to engage care providers in neighbouring communities

Challenges

Access to services

Care closer to home

Stigma even in our own communities

Discrimination in health care system

Progress

MOU with Saskatchewan Infectious Disease Doctors

More education sessions done in communities

Working with neighboring communities to provide services

MOU with National HIV Reference Laboratory in Winnipeg

Exciting new opportunity – Dried Blood Spot Collection

STC will be first Tribal Council to use this method

Normalizing testing

What can Dried Blood Spot Testing do for STC?

Assist STC communities to reach goal of 90/90/90

Remove stigma

Bring care closer to home



QUESTIONS?



HCV Testing and Treatment:
DBS in Remote Sites: The
Lac Seul First Nation Pilot

Leroy Quoquat, Health Director, Lac Seul First Nation
David Smooker, Research Associate, Toronto Centre for Liver Disease

CATIE Webinar Feb 21 2018

Overview

- How the community was approached
- DBS training
- Community preparation for testing
- Turn-out in numbers and demographics
- Did the testing drive reach all at-risk individuals?
- Relevance for other communities

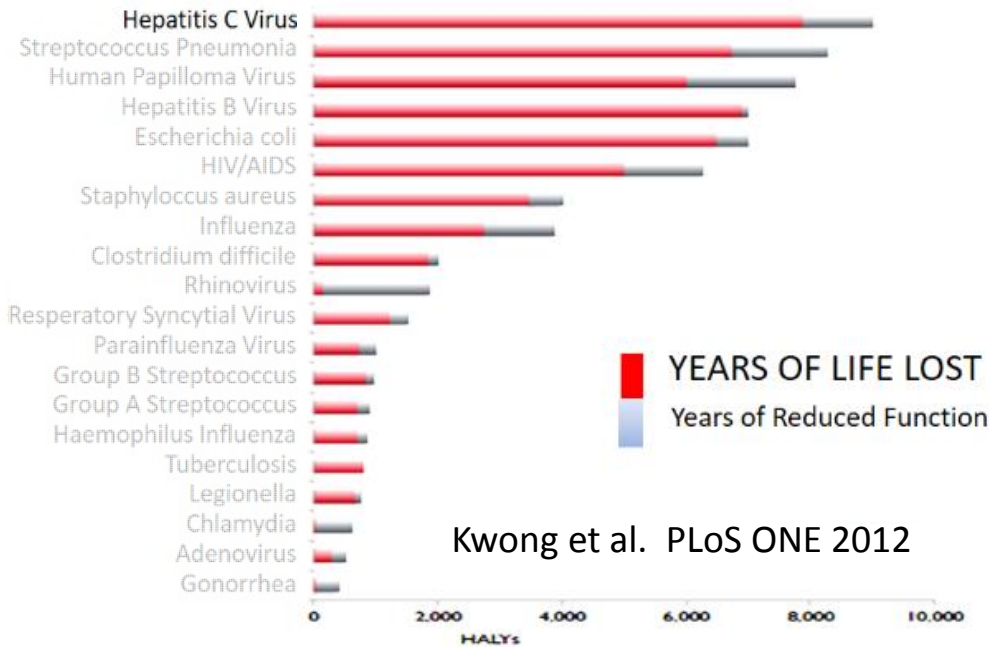
2016 SLFNHA-sponsored Chiefs Committee on Health



Key slides from earlier presentation to Chiefs' Council on Health

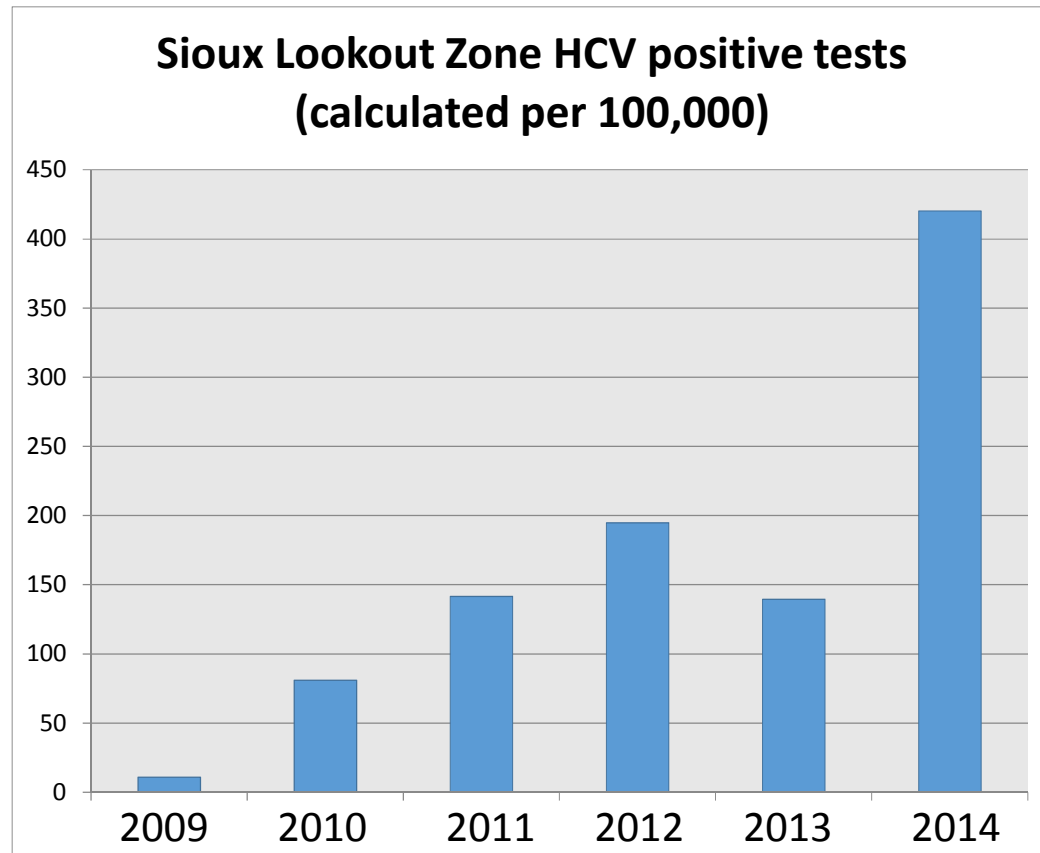
TCLD

Deadly infections in Ontario

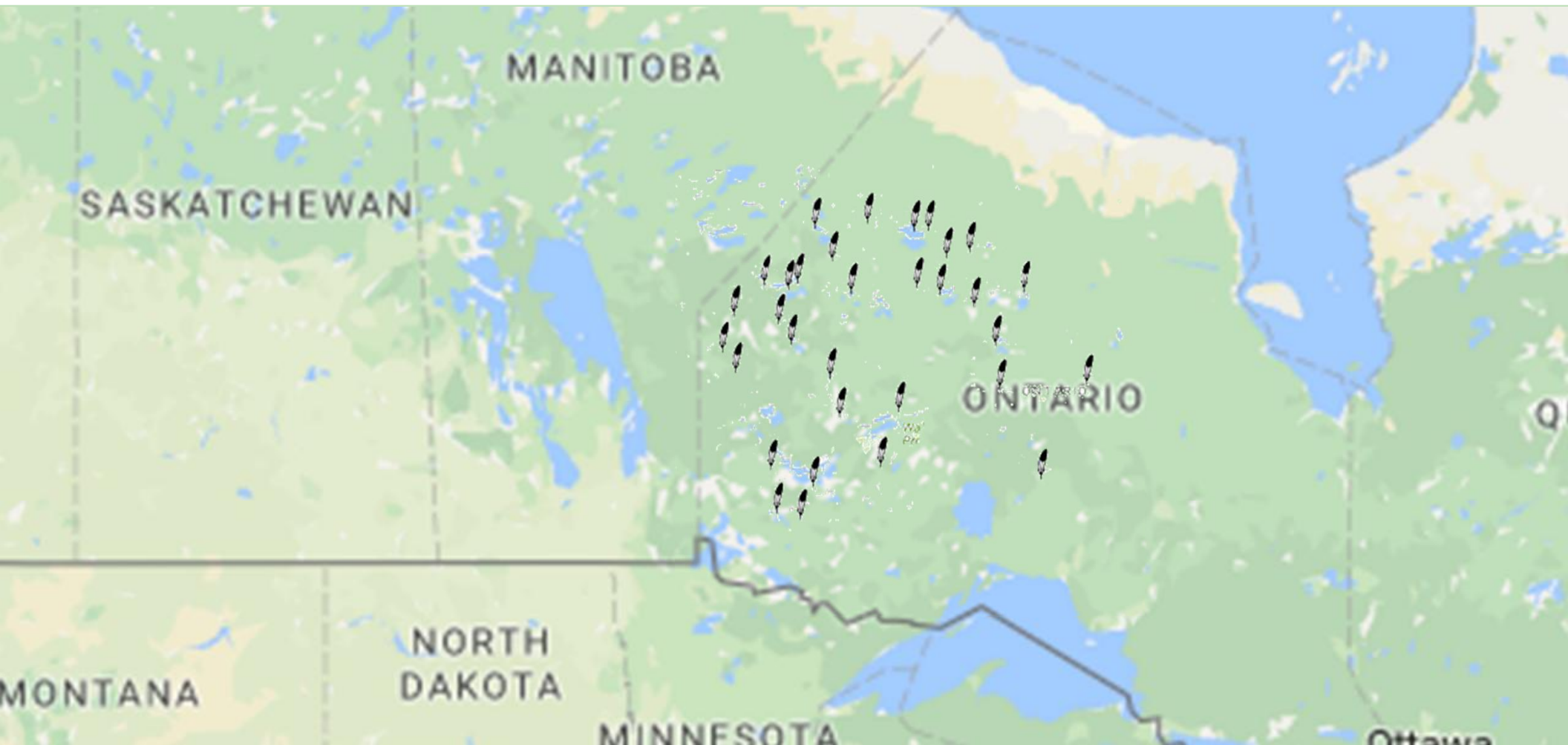


SL's STBBI

Sioux Lookout Zone HCV positive tests (calculated per 100,000)



2016 SLFNHA-sponsored Chiefs Committee on Health



2016 SLFNHA-sponsored Chiefs Committee on Health



Public Health Agency of Canada
JC Wilt Infectious Diseases Research Centre
Winnipeg Jan 2017



Chief of the National HIV and Retrovirology Laboratories demonstrating DBS



Preparing for the testing drive: The Flyer

**Hepatitis C
GET TESTED
GET A TIM'S CARD**



**Chief and Council
invite everyone ages 14+ to
come for Hepatitis C testing
Jan 23-25, 2017**

**GET \$5 TIM HORTONS CARD & CHANCE
TO WIN \$20-\$50 CARD; OR IPAD MINI**

You won't know you have hepatitis C unless you get tested. There is a cure.

"Having everyone tested is the first step towards getting rid of Hep C from the community."
- Chief Bull

Testing will tell you if you have hepatitis C, an infection that is serious but is curable. As well, the information from testing in the community will help SLFNHA better understand the importance of hepatitis C in the region.

Transportation available All results private

**FOR MORE INFORMATION CALL THE NURSING
STATION OR GO TO THE LAC SEUL BAND WEBSITE**



**Lac Seul
First Nation**

Sioux Lookout
First Nations
Health Authority

**TIME AND
LOCATIONS:**

WHITEFISH BAY:

Monday January 23rd
10a.m. - 4p.m.
Whitefish Bay Complex
582-3293

**FRENCHMAN'S
HEAD:**

Tuesday January 24th
1 p.m. - 7p.m.
Frenchman's Head
Complex
582-3512

KEJICK BAY:

Wednesday January 25th
10a.m. - 6p.m.
Kejick Bay Access Centre
582-9821

Snacks provided

**Hepatitis B and
HIV testing also available**

Getting Tested for Hepatitis C

www.
CAAN
.ca

The information contained in this brochure was adapted from Hepatitis C resources created by both the UBC Attendance for Hepatitis C Care Project and the Pauktuutit Inuit Women of Canada



Chief of Lac Seul demonstrating DBS





Spec #: _____

Collection Date: Jan 27 2017 12:35

Clifford Bull

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2019-05

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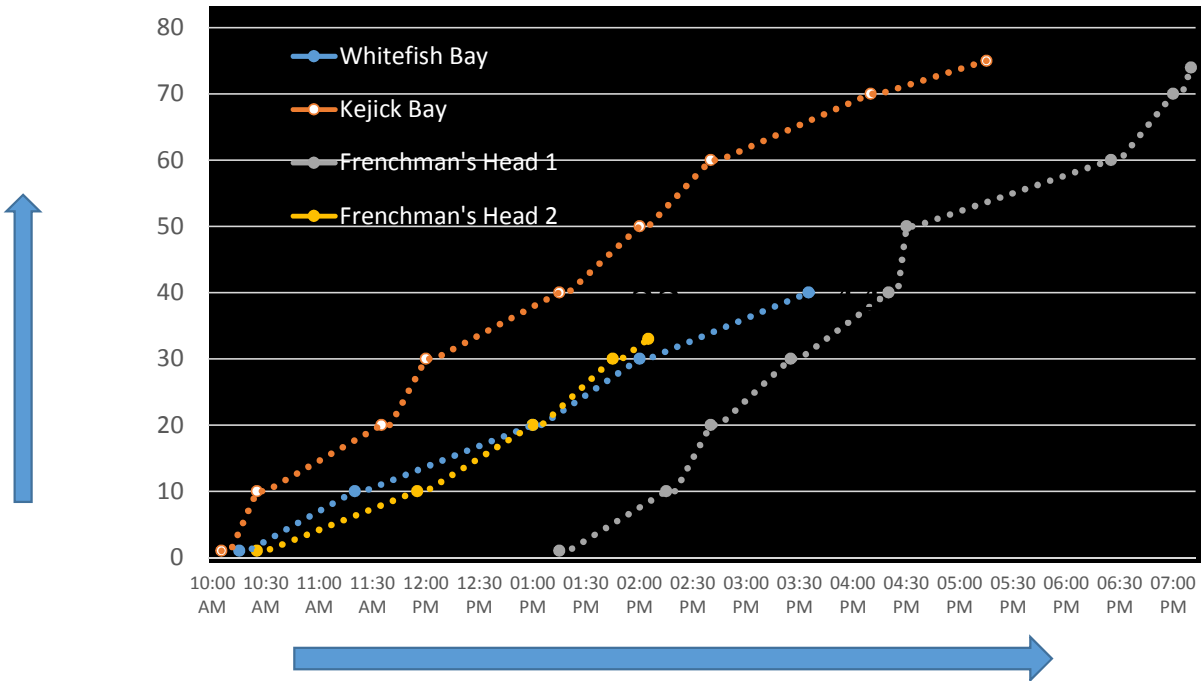


1. Table cover
2. Gloves
3. Alcohol wipes for finger
4. Retractable Lancets
5. Sharps container
6. DBS cards
7. Pens
8. Cotton ball for fingers
9. Band-aids
10. Requisition form folder
11. Alcohol wipes for table cover
12. Garbage can
13. Hard candy



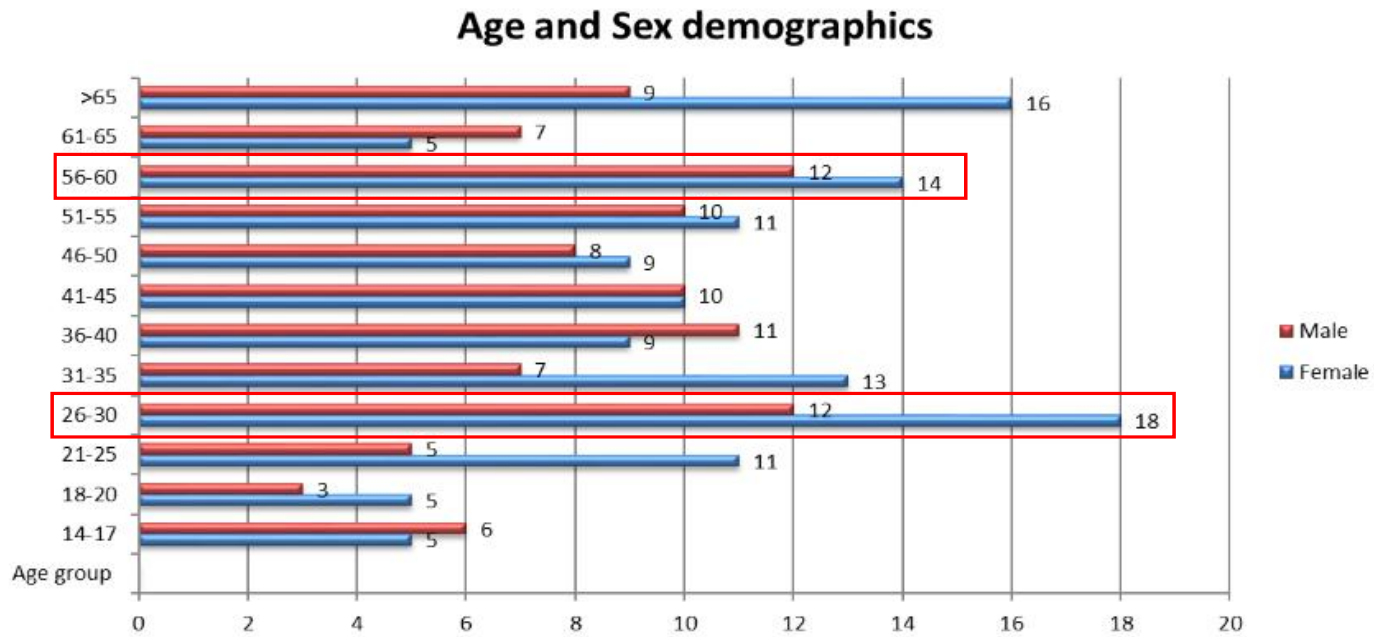


Results—Turnout:



Results--Age Range:

226 people came to be tested over 3 ½ days



Results:

- 226 people means about 1/3rd of the adult population got tested.
- 85% tested for HIV as well
- 90% for HBV
- 45% chose not to be informed if all results were –ve, reducing the burden on nursing.

Did the testing drive reach all at-risk individuals?

- Reached approximately half the members of our Suboxone program.
- Future testing could include more targeted appeals.
- Possibly train people who inject drugs in the DBS technique and have them approach their peers.

Conclusion:

- This was an effective approach to community testing.
- Only problem with DBS is it can take more time than with a needle.
- Important that you had to be prepared to treat, or further care for those who tested positive.
- Cost was minimal: NLHRS-NML supplied the materials, our staff were redirected from other duties, with little impact on our services.
- Need a different approach to getting the results back to people.
- Recommend this approach for other sites.

Q & A Period

Type your question in the Chat section, and it will be answered by one of our presenters.

Thank you!

Upcoming webinars: Feb 26, 2018

***Webinar 4* - Reaching the Undiagnosed: HIV self-testing in
Canada – what should we expect?**

Please evaluate this webinar!