

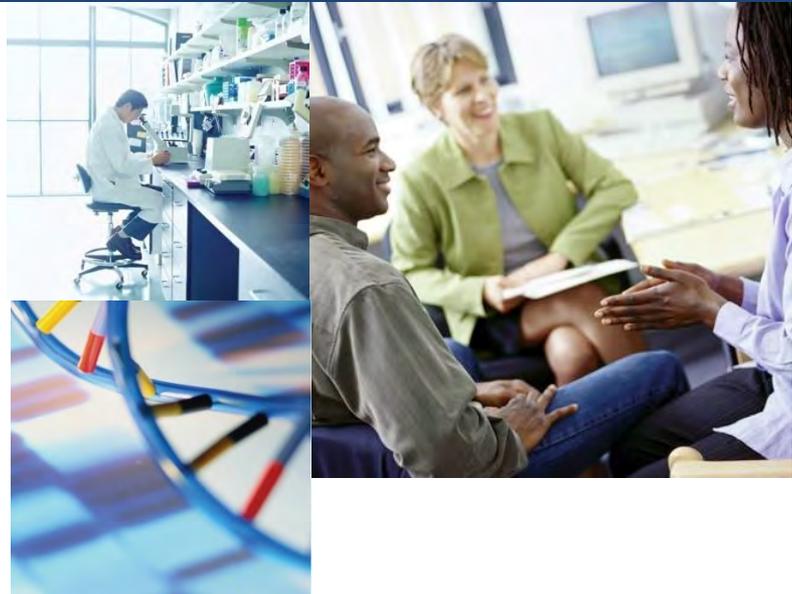


Lower Mainland Pathology & Laboratory Medicine

2018 POLQM Conference

Medical Laboratory Quality
Improvement:
Knowing your customers

A storytelling session



Lower Mainland Pathology and Laboratory Medicine

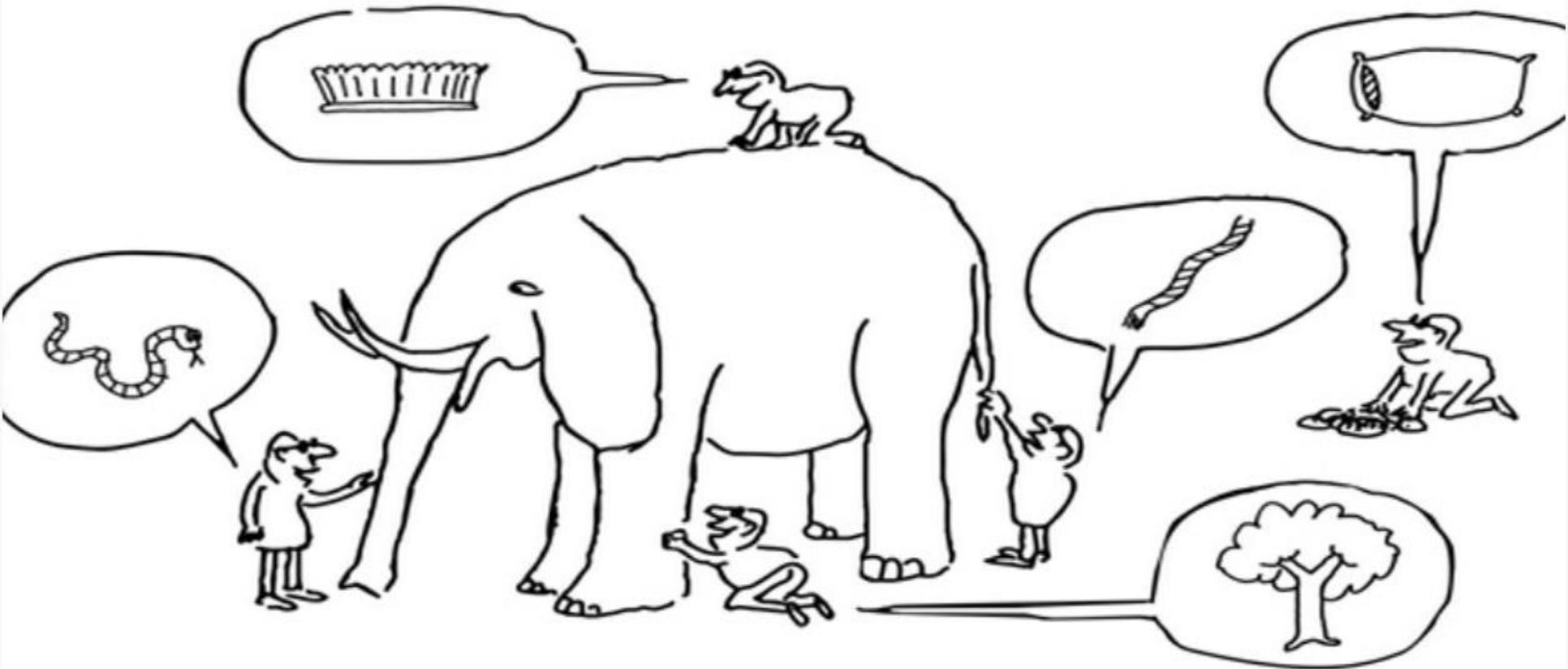
We provide lab services in 32 locations in 4 health authorities:



Lower Mainland Laboratories (LM Labs) is a service of **PHSA**.

Lower Mainland Pathology & Laboratory Medicine

Knowing your customers



Lower Mainland Pathology & Laboratory Medicine

Overview

1. Sienna and Justine – Blood Work Care Plan
2. Lisa Knight – Edison’s Desensitization work
3. Andrew Balbirnie & Laura Jaeger – QI Partnership
4. Dr. Mel Kraiden – Syndemic approach of testing

Request:

Please hold questions until the end of all presentations

Sienna & Justine

Lisa Knight

What is a child life specialist?



A health care professional who helps children and youth cope with being at the hospital and the procedures they will endure.

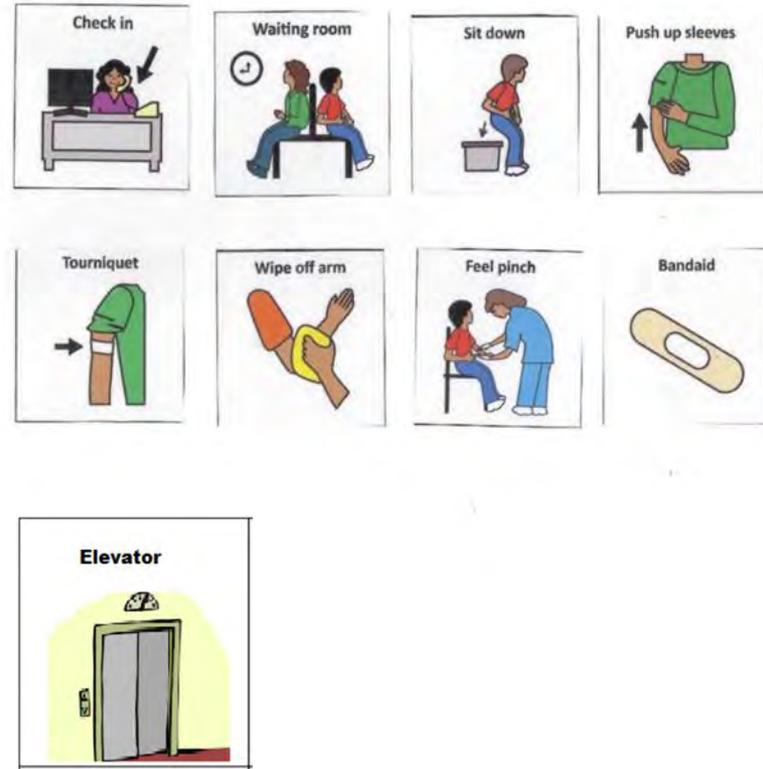
We do our work through play and relationship.

Lower Mainland Pathology & Laboratory Medicine

Family Centered Care

Partnership between mom, CLS, MLA's and Edison

As a team we used Edison's strengths and interests to complete his blood test



Lower Mainland Pathology & Laboratory Medicine

Success

“It has taken a huge stress out of our lives knowing that we can use this process to get the necessary blood work done for our son.”

Lisa, Edison’s mom

Lower Mainland Pathology & Laboratory Medicine

Partnerships

Laura Jaeger & Andrew Balbirnie



Streamlining lab collections between LifeLabs and the BCCDC Public Health Laboratory (BCCDC PHL)

Laura Jaeger
Lab Information Specialist
LifeLabs



Andrew Balbirnie
Technical Coordinator
Lower Mainland Labs



Collections for lab testing

- Historically, each test required a unique collection per test. Each sample was sent to individual technologists who were performing different lab tests.



- Advancements in laboratory science have resulted in new tests that are faster, and advancements in technology and automation enable performing multiple tests concurrently.
 - Sample sharing is efficient and has positive impacts on workflow/time to result



BCCDC Introduction

Noticed a large number of blood collections we no longer require for testing



Blood samples collected at LifeLabs and sent to BCCDC for a variety of testing (large assortment of tests!)

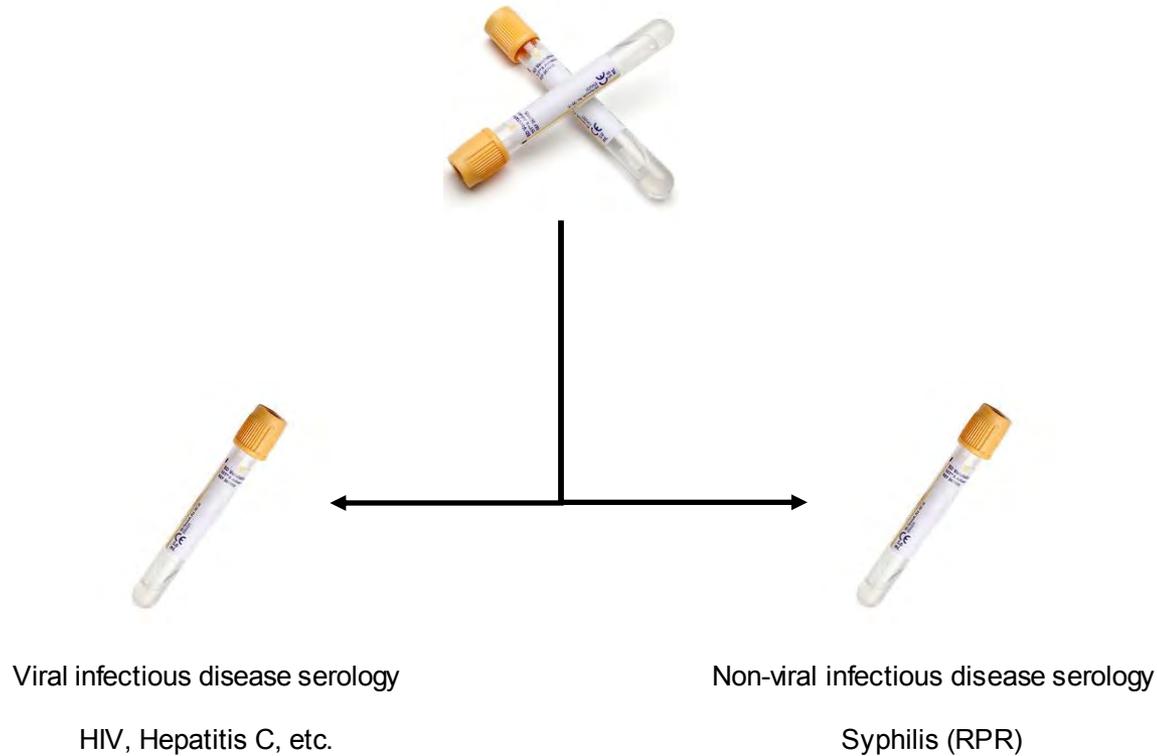


LifeLabs blood tests sent to BCCDC PHL



BCCDC post-collection processes

2 serology (blood) samples collected at LifeLabs
sent to BCCDC for public health (infectious disease) testing)



BCCDC post-collection processes

2 serology (blood) samples collected at LifeLabs
sent to BCCDC for public health (infectious disease) testing)



Extra collection tube

Viral **and non-viral**
infectious disease serology

HIV, Hepatitis C, **Syphilis (EIA)**, etc.

****Advancement in syphilis screening
(reverse algorithm for lab testing)****



BCCDC post-collection processes

2 serology (blood) samples collected at LifeLabs
sent to BCCDC for public health (infectious disease) testing)



Extra-collection tube



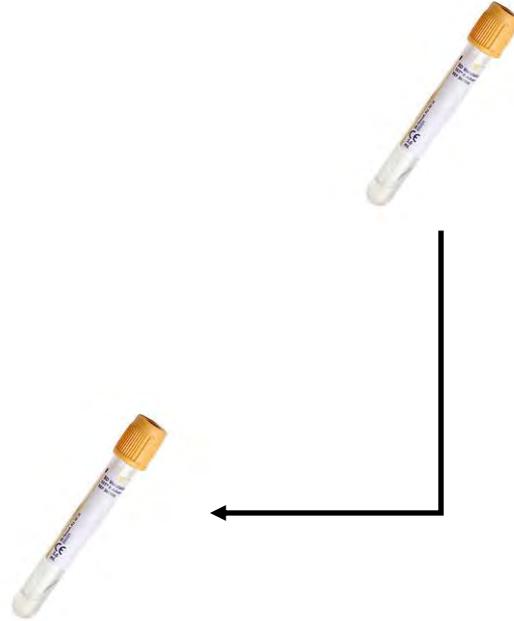
Viral and non-viral
infectious disease serology

HIV, Hepatitis C, Syphilis (EIA), etc.



BCCDC post-collection processes

1 serology (blood) sample collected at LifeLabs
sent to BCCDC for public health (infectious disease) testing)

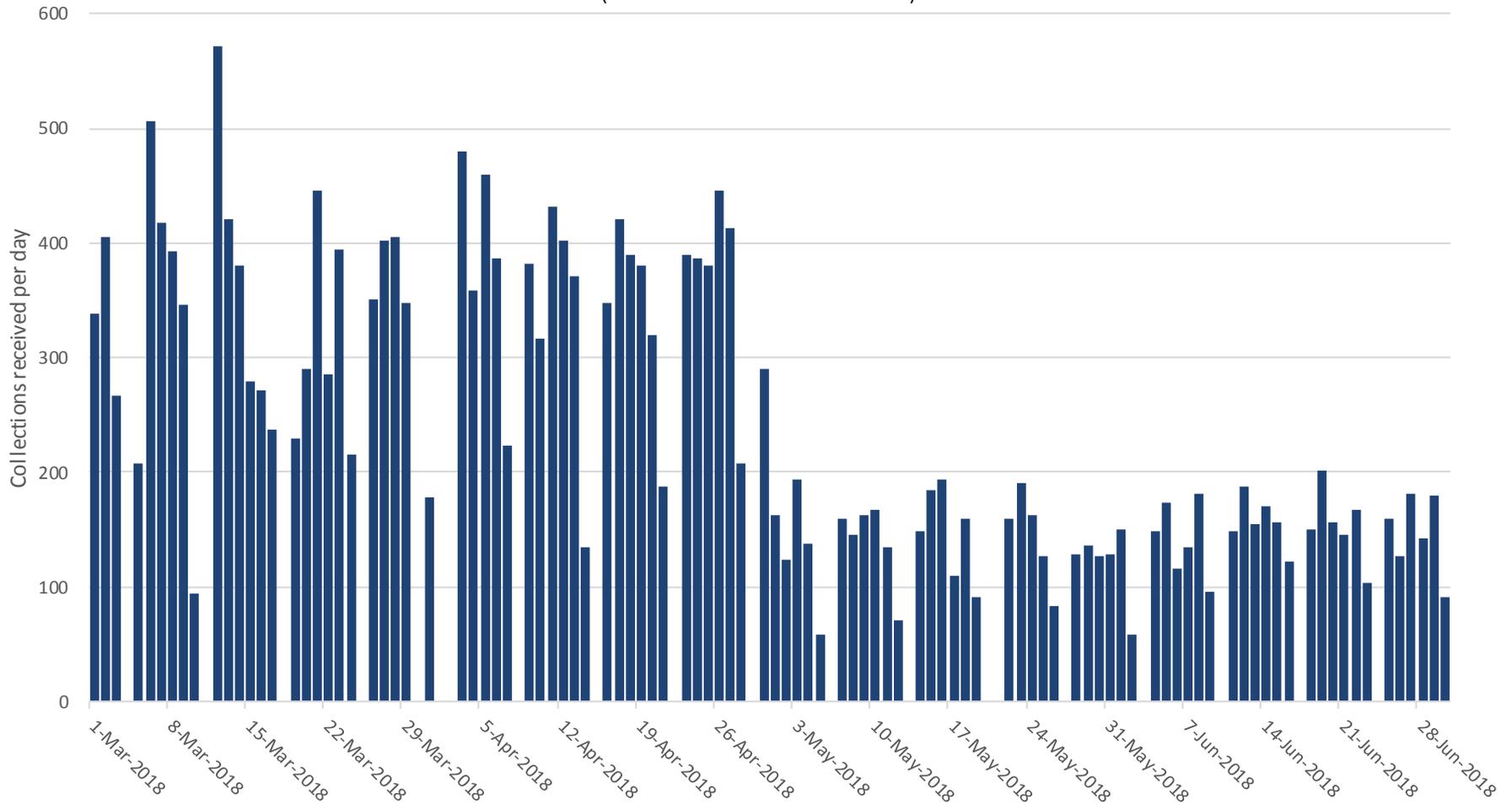


Viral and non-viral
infectious disease serology

HIV, Hepatitis C, Syphilis (EIA), etc.

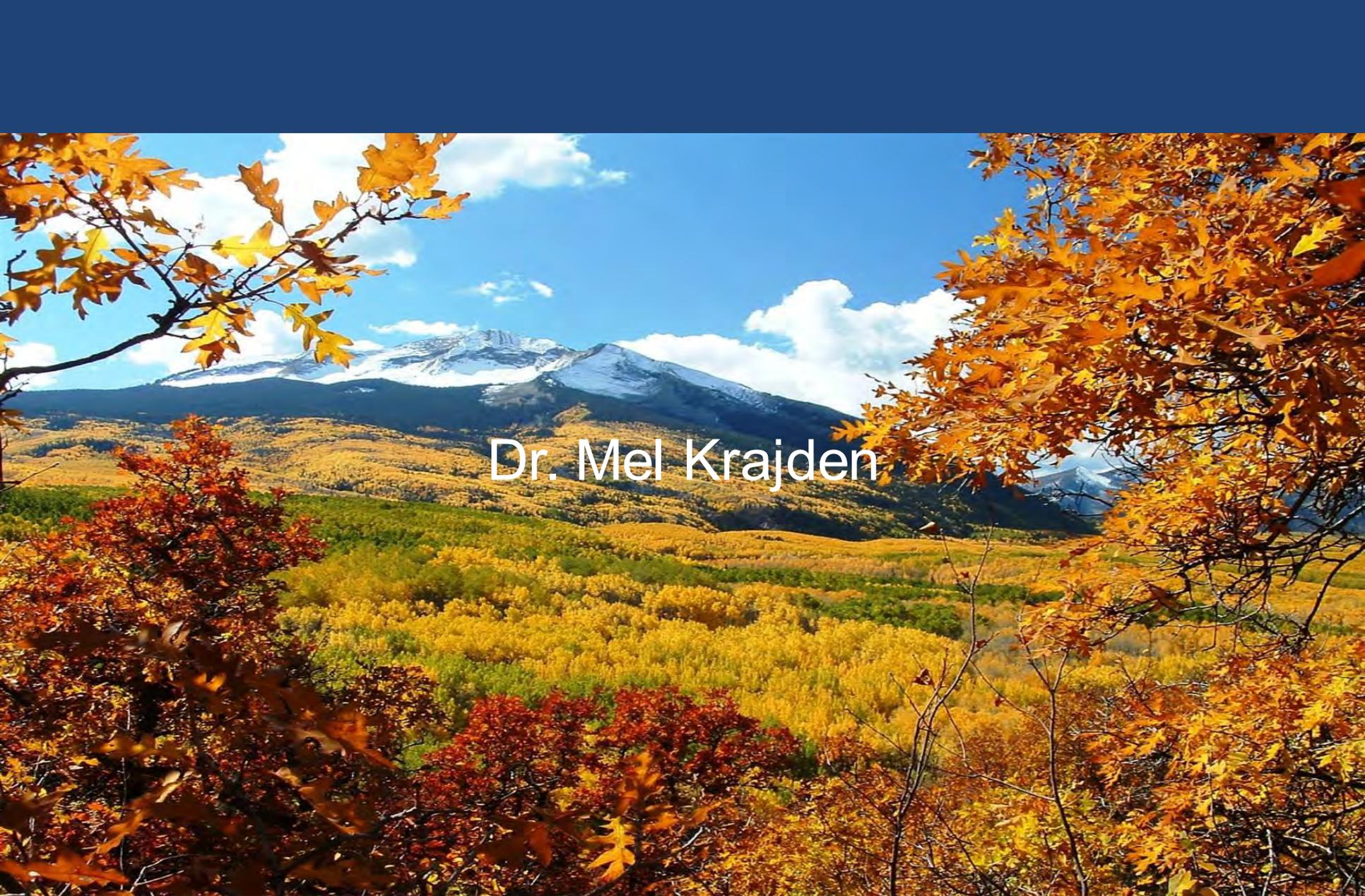
LifeLabs collections sent to BCCDC Public Health Lab

(March 2018 to June 2018)



Considerations and future steps

- How many is too many? Larger and larger quantities of testing are being done on one sample...
 - Is the time to result acceptable? (single sample undergoing large numbers of tests, often proceeding linearly through the laboratory or laboratories)
 - Is there sufficient volume for testing?
- Only collect what is needed (but re-collection should also be very rare!)
 - Further collaboration to specify requirements so that sufficient containers are collected when large quantities of tests are required in a dynamic manner
 - Ongoing collaboration as tests change (laboratory sites, assays, instruments and other requirements)



Dr. Mel Krajden



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Syndemic approaches to testing: example of GetCheckedOnline

Mel Krajden

Medical Director, BC Public Health Laboratory

Mark Gilbert

Medical Director, Clinical Prevention Services

July 12, 2018

Purpose

- Describe how we're conceptualizing a public health, syndemics-based approach to testing
- Demonstrate this approach using GetCheckedOnline as an example

Why one size does fit all for testing

Syndemic theory → health in context

A **syndemic**, or **synergistic epidemic**, is the presence of two or more disease states that adversely interact with each other, negatively affecting the mutual course of each disease trajectory, enhancing vulnerability, which are made more deleterious by experienced inequities.

Willen et al. Lancet 2017; 389: 964–77

Wilson et al. J Urban Health: Bulletin of the New York Academy of Medicine 2014

Syndemic vulnerability

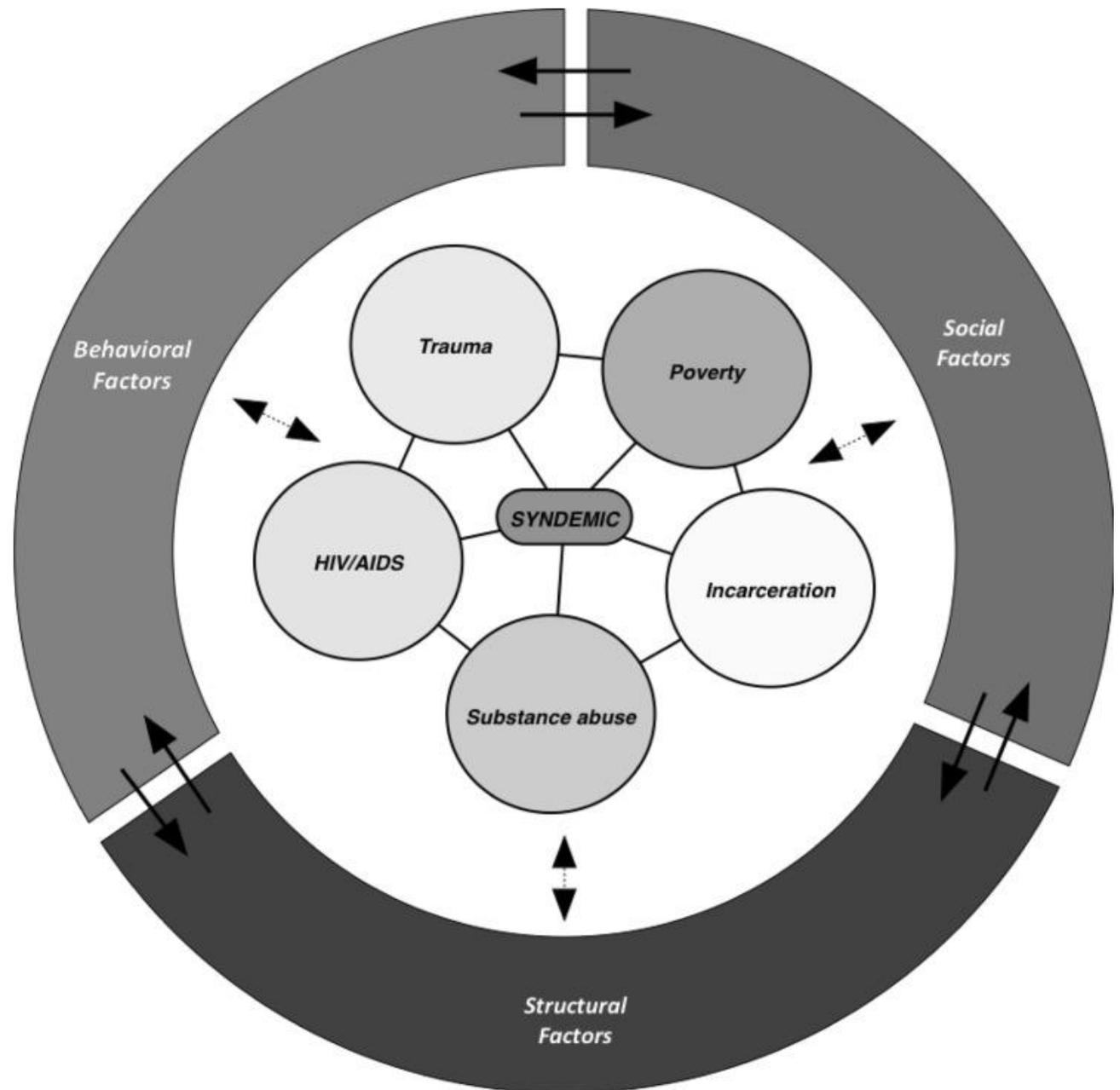
- **Health equity:** Unnecessary and avoidable health differentials are unfair and unjust
- **Health and human rights law:** People have a right to adequate health care, the underlying determinants of good health; to participate in political processes that affect their and the health of their communities
- **Syndemics:** Vulnerable populations often suffer from multiple, concurrent forms of health adversity, and inequality, tends to fuel their synergistic deleterious interaction

“the usual public health approach to disease prevention often begins by defining the **disease** in question”

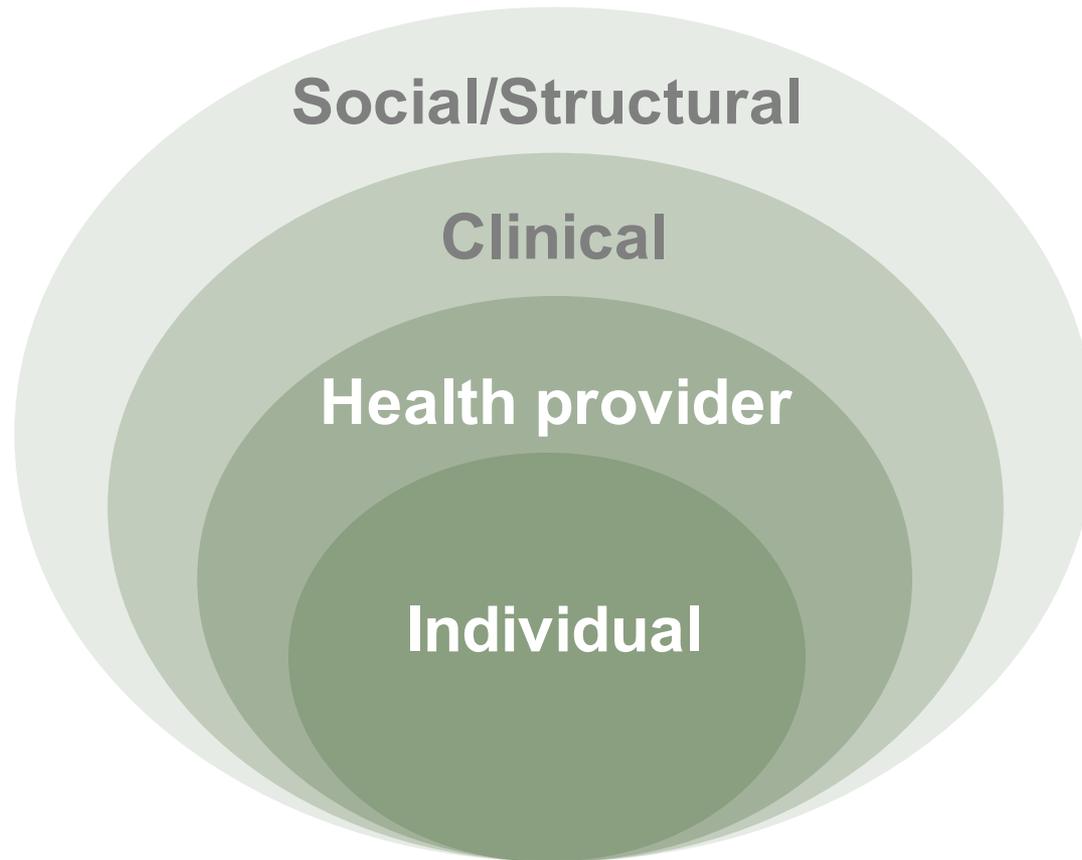
Syndemics approach: “first defines the population in question, identifies the conditions that create and sustain health in that population, examines why those conditions might differ among groups and determines how those conditions might be addressed in a **comprehensive manner**”

Centers for Disease Control and Prevention. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2009

- PWID
- Unsafe injection practices (global)
- Structural factors contribute to, area-level vulnerability
- **Testing** → tool to mitigate health disparities



Overcoming testing barriers



Syndemic testing approaches can involve:

- Testing conducted in clinical or non-clinical settings
 - E.g., correctional settings, health fairs, outreach, community settings
- A variety of testing approaches:
 - E.g., standard testing, point of care testing, self-sampling, self-testing
- Innovations in service delivery
 - E.g., online testing, express testing



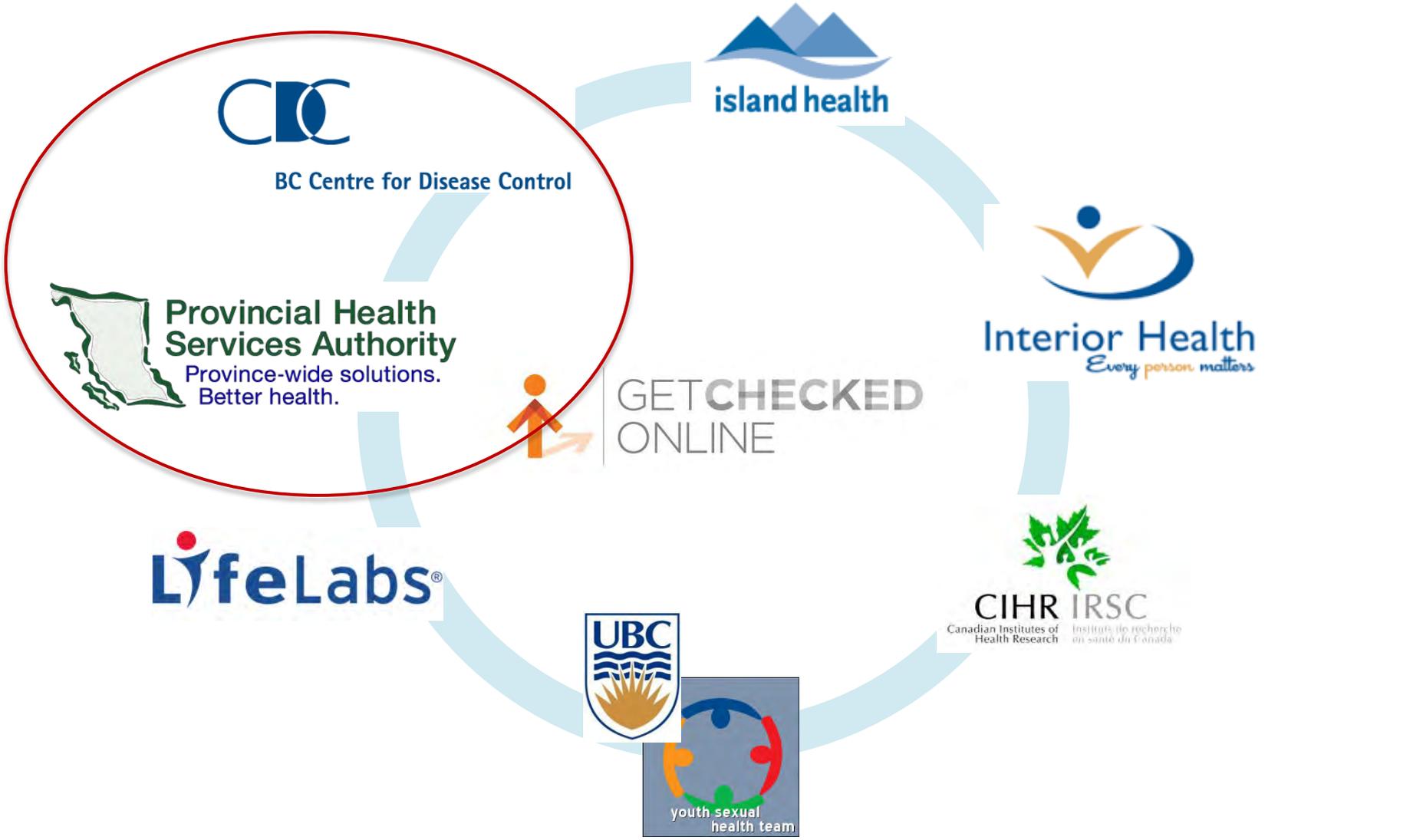
**Move from disease to syndemic-based testing:
Explicit goal of reducing health disparities**

1. Integrate testing with care
2. Streamline the testing process to meet population specific needs
3. Use task shifting to improve reach & access
4. Embed quality assurance
5. Evaluate testing impact on outcomes

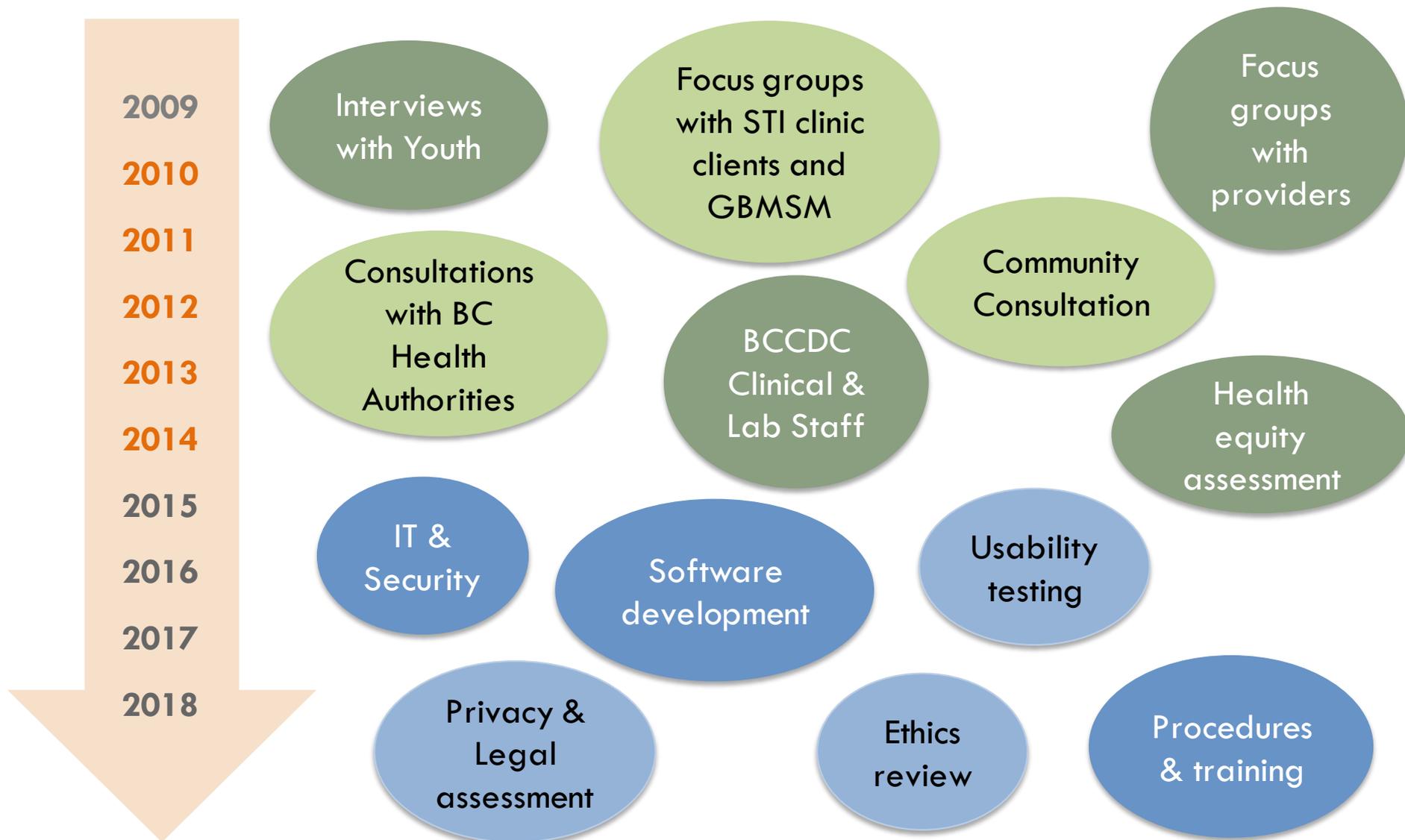
Objectives of GetCheckedOnline

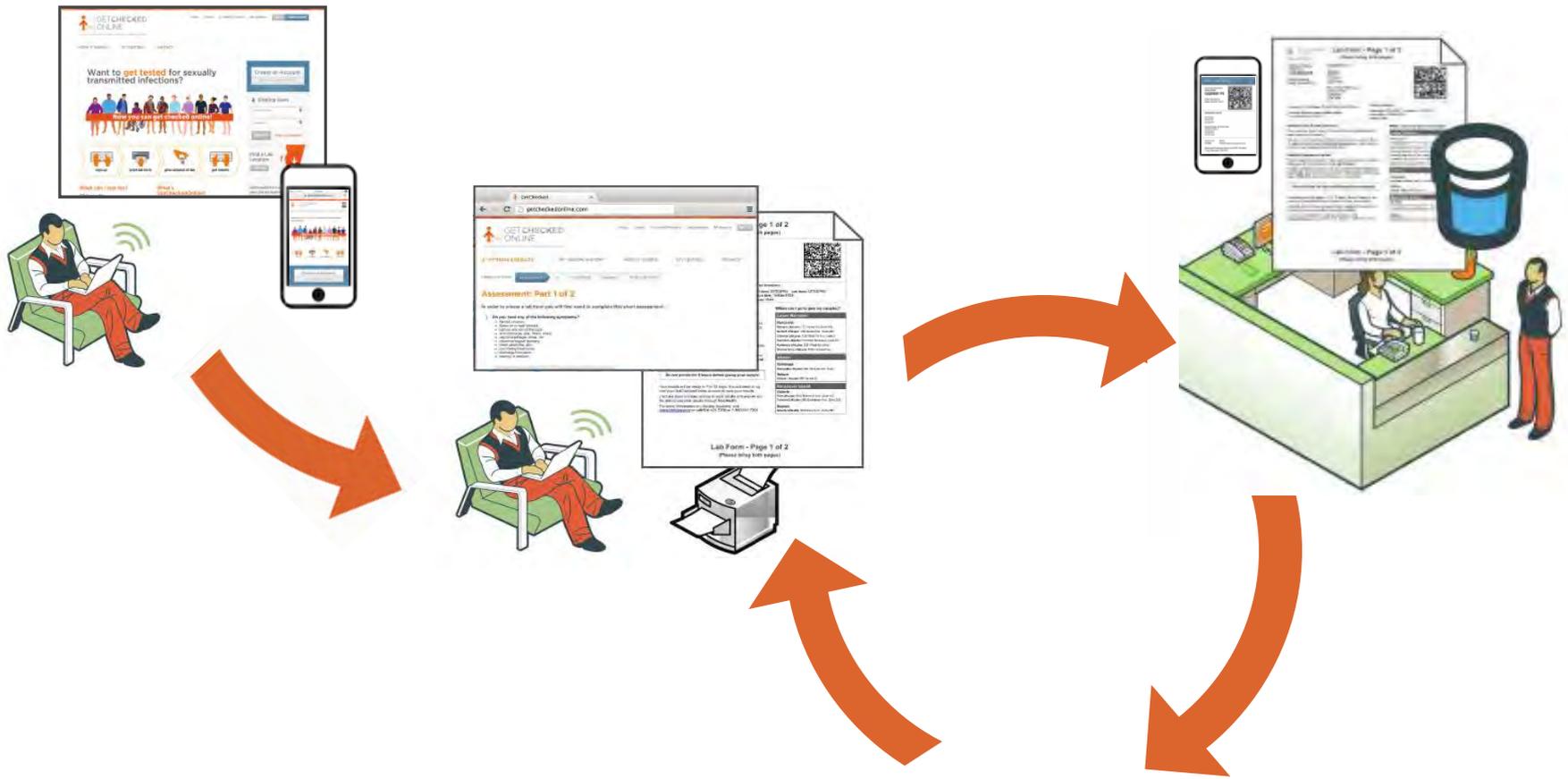
1. Increase uptake and frequency of testing to diagnose infections earlier
2. Reach populations that experience higher rates of STBBI and also face multiple barriers to accessing testing
3. Increase clinic capacity & improve ability of BC's health care system to provide STBBI testing

COMPLEMENTARY to face-to-face STBBI testing



Planning and Development





INTEGRATED WITH CLINICAL CARE

Tests ordered

- All tests ordered by lead STI physician, STI clinic at BCCDC
- Paper/online form meets lab accreditation requirements

Samples Tested

- Specimens shipped to BC Public Health Lab
- Results reported to STI clinic at BCCDC
- **Embedded Quality Assurance**

Result delivery & follow-up

- Positive/indeterminate results managed by STI nurses at STI clinic
- Treatment, partner notification conducted

STREAMLINING THE TESTING PROCESS & TASK SHIFTING

No clinic/doctor visit needed

Scanning 2D bar codes for requisition info

No HCP involvement for negative results

Syndemic testing tailored to individual needs

- Recommended tests based on STI clinical practice
- Currently all participants offered (can opt out):
 - Chlamydia/Gonorrhea (urine)
 - Syphilis, HIV (serology)
- Tests recommended based on risk assessment:
 - Hepatitis C: if man who has sex with men, person who uses drugs
 - Chlamydia/Gonorrhea throat swab: if man and receptive oral sex
 - Chlamydia/Gonorrhea rectal swab: if receptive anal sex
- Recommendations modifiable with clinical practice changes (e.g., HCV screening of boomers)

Implementation

2009

2010

2011

2012

2013

2014

2015

2016

2017

2018



- **Pilot phase:**

- Vancouver, Sept 2014

- **Expansion phase:**

- Island & Interior Health, Feb 2016

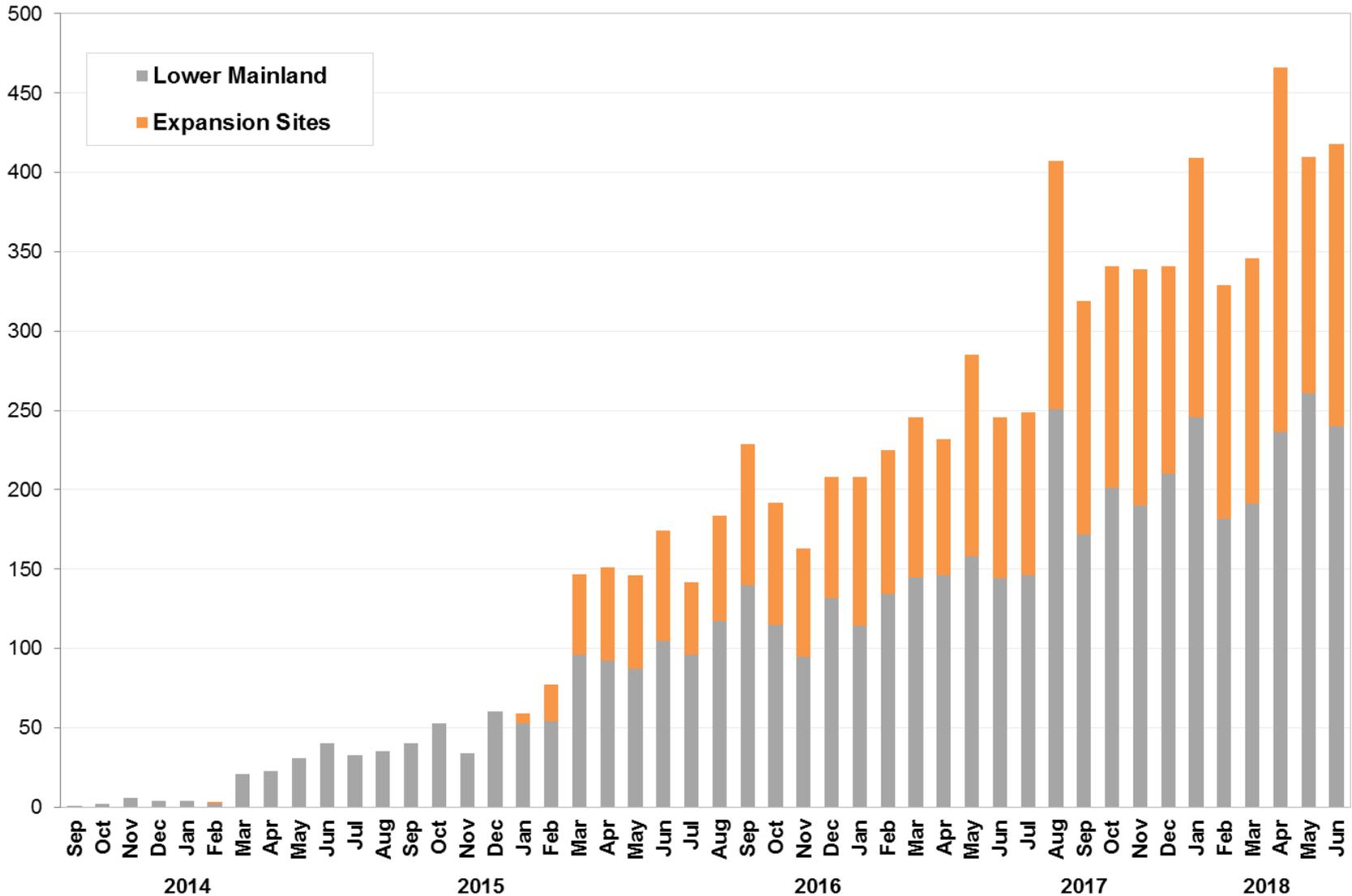


GET CHECKED
ONLINE



Testing uptake – 3.5 years

Number



Test results

As of June 2018:

8,862 accounts

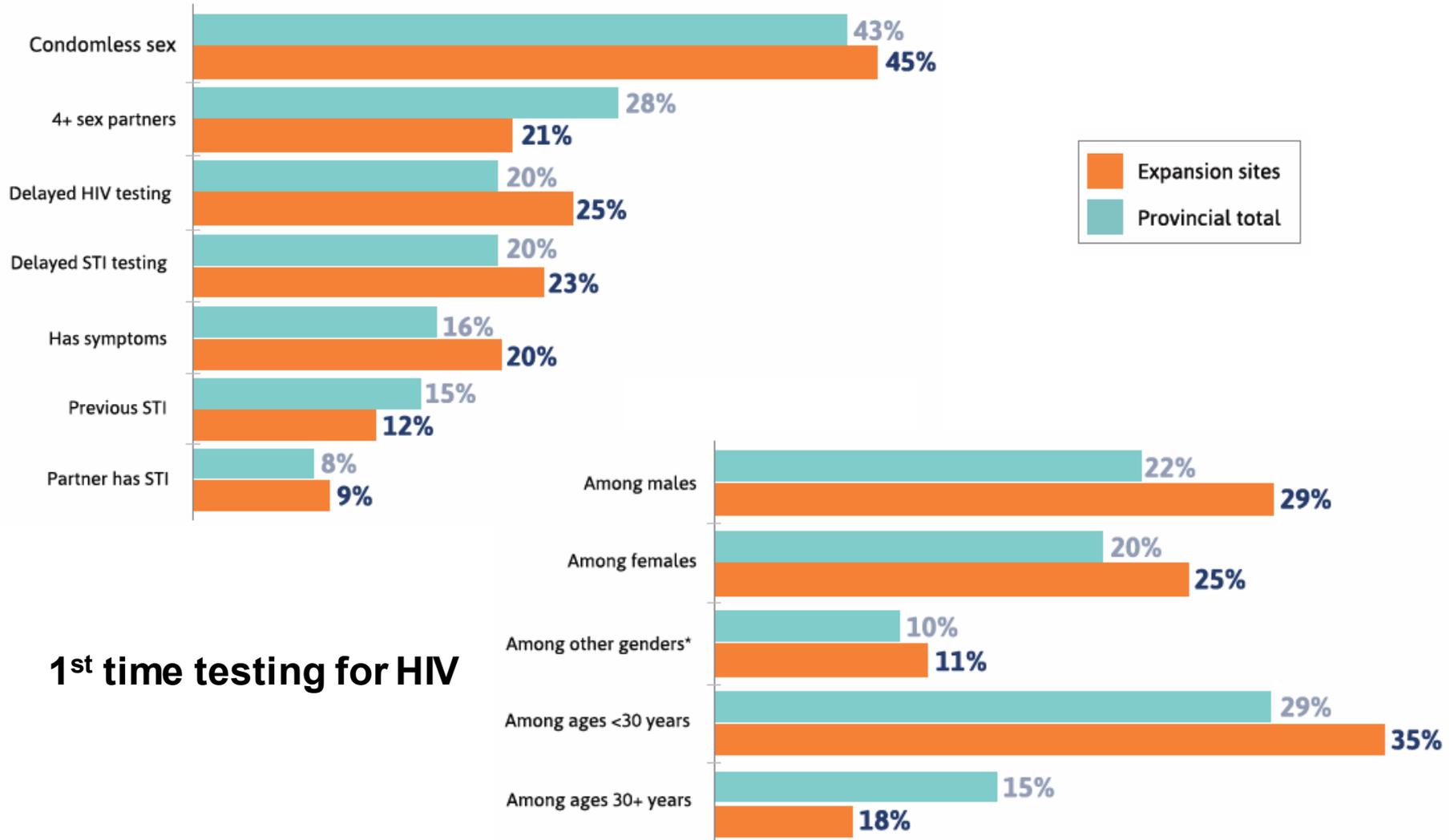
8,106 test episodes

3,340 (41%) repeat testers

406 positive diagnoses (5%)

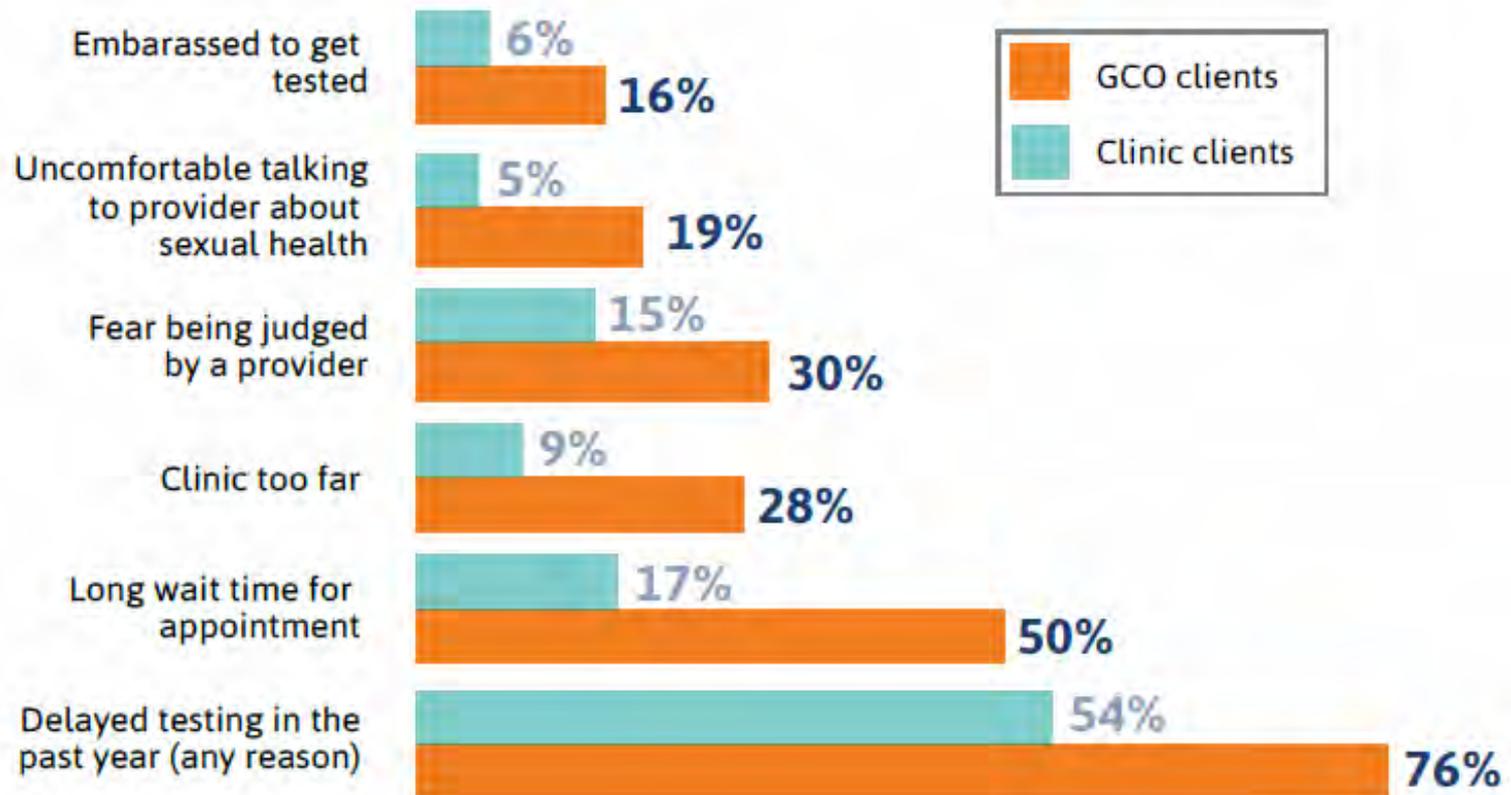
Infection	n (% of diagnoses)
Chlamydia – urine	197 (49%)
Chlamydia – throat	17 (4%)
Chlamydia – rectal	66 (16%)
Gonorrhea – urine	20 (5%)
Gonorrhea – throat	45 (11%)
Gonorrhea – rectal	33 (8%)
Syphilis	24 (6%)
HIV	3 (1%)
Hepatitis C	1 (<1%)

Increasing reach to people in need of testing



1st time testing for HIV

Overcoming testing access barriers



Both groups were motivated to use GCO because of:

- Convenience
- Not having to wait to get tested at a clinic
- Increased privacy and anonymity
- Avoiding judgement from healthcare providers

YOUTH perceived GCO as modern, “the future”

GBMSM perceived GCO as providing increased control over tests ordered, decreasing anxiety due to receiving results faster

For rural men, way to test discreetly without coming out to HCP

- Compared to STI clinic clients, GCO clients have a 1.3x higher rate of repeat testing
- “Deferred testers” unable to be seen in the clinic given a GCO access code have high positivity rate and earlier diagnosis
- Expands testing at lower cost to health care system (e.g., HIV test through GCO $\sim 1/2$ cost of test through clinic)



Impact on lab volumes? yes

- **But** not all are net new tests to the system
 - 90% self-reported as previously tested
 - 33% of GCO clients are linked to a BCPHL laboratory information system test prior to the implementation of GCO (underestimate due to partial identifiers)
 - High motivation to test, risk behaviours – if GCO were not available would likely get tested through other means (but less timely, later diagnosis)

Syndemic approach to testing – future directions

- Syndemic approaches to testing work
 - Strategic priority for Clinical Prevention Services and BC Public Health Laboratory
- As continue to expand GCO in BC, need to find new ways of adapting to different settings
 - Determining how to integrate with the variety of different lab systems across the province
 - Adding in option for clients to provide MSP (likely high uptake)
 - Consider role of home self-collection
- Looking at adopting new test technologies/approaches
 - E.g., dried blood spot testing for HIV, HCV in rural & remote settings

Questions for our speakers



Opportunity to Reflect

Based on what you have heard today what has changed around your understanding of the Laboratory Customers?

What was the most relevant learning that you will take away from today's conference?

Lower Mainland Pathology & Laboratory Medicine

Thank You

Lower Mainland Pathology & Laboratory Medicine