



Olivier Ferlatte, PhD



CPHA Webinar – December 7<sup>th</sup>, 2016

### Agenda

- Syphilis 101
- Syphilis trends
- Syndemics Theory
- Methods
- Survey results
- Implications for future research, clinical practices, and Prevention

### Meet Syphilis



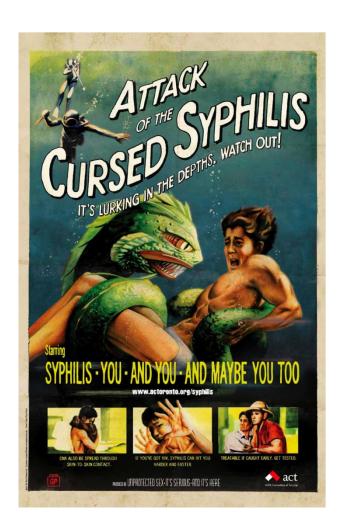
- A bacterial infection, Trepomena Pallidum
- Syphilis is spread by skin-to-skin contact or with contact with fluids from a lesion
- Many people do not notice the symptoms

### 3 stages of syphilis

**PRIMARY:** (10 days -12 weeks after infection) A painless sore usually appears at the area of infection.

**SECONDARY** (A few months after the Primary Stage) skin rashes may develop. Flu-like symptoms like fever, headache, vomiting, night sweats and diarrhea are also common.

**TERTIARY** (A few years after the Secondary Stage) The infection spread through the entire body. Various life-threatening problems show up, especially concerning the brain, bones, and heart.



### Testing & treatment

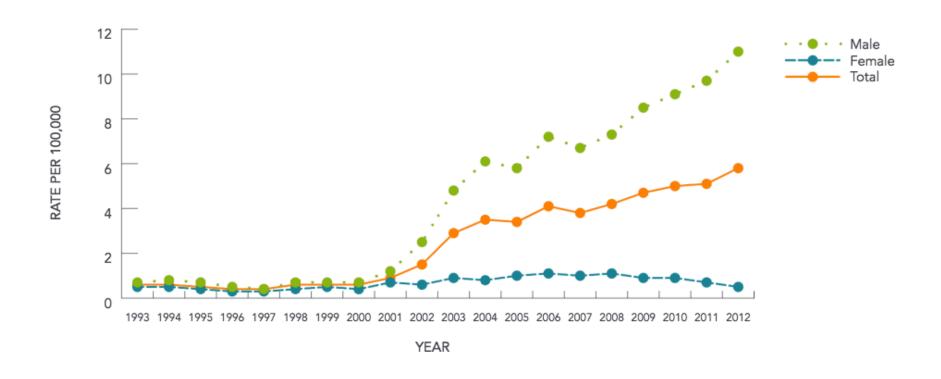
**TESTING:** A simple blood test

**TREATMENT:** Syphilis is usually treated and cured with a one time treatment of antibiotics (Penicillin)

Damage already done to the body cannot be reversed



## Syphilis trends In Canada



### **MSM**

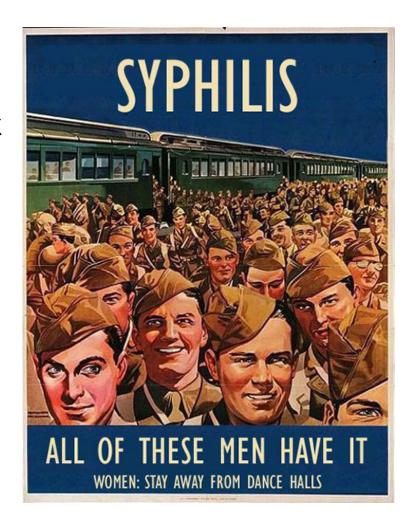
**Toronto**: In 2015, 86% of syphilis cases where among MSM, and 45% of all cases are were coinfected with HIV.

**Montreal:** In 2014, 94% of syphilis cases where among MSM, and 39% were co-infected with HIV.

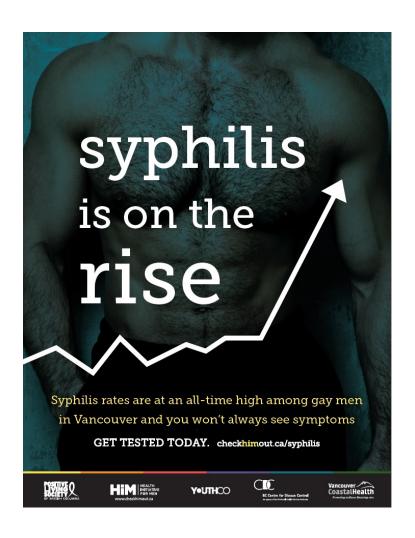
**British Columbia:** In 2014, 85% of all cases where MSM. Among MSM cases, 24% had a prior syphilis infection within 5 years, and 59.7% were coinfected with HIV.

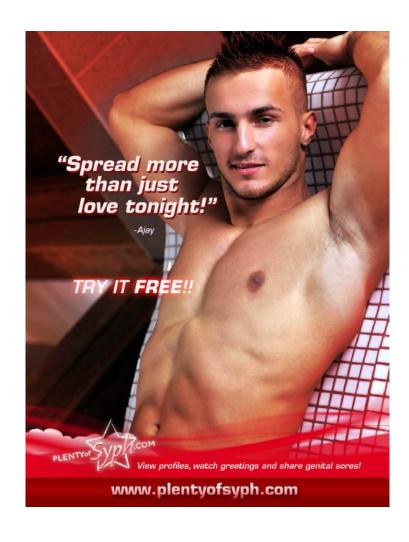
### Why a surge? Why MSM?

"This resurgence may be due largely due to transmission among some MSM who engage in high-risk sexual practices. These include the use of "club drugs" and other substances that decrease inhibitions and impair decisions, as well as the practices of seeking sexual partners on the internet and in venues such as bathhouses, which are associated with higherrisk sexual activity" (PHAC, 2014)



### Our response





### Syndemic theory

Free Inquiry - Special Issue: Gangs, Drugs & Violence

Volume 24 No. 2, November 1996 Page 99

### A DOSE OF DRUGS, A TOUCH OF VIOLENCE, A CASE OF AIDS: CONCEPTUALIZING THE SAVA SYNDEMIC

### Merrill Singer, Hispanic Health Council

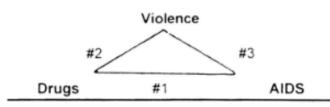
### ABSTRACT

Gang violence, substance abuse and AIDS have been described as parallel epidemics in the U.S. inner city. This paper draws upon findings from a set of ethnographic and survey research projects in the Puerto Rican community of Hartford, CT to develop a conceptualization of the close interconnections between these three health and social problems. Rather than separate conditions, substance abuse, violence, and AIDS, referred to here as SAVA to stress the relationships among these three phenomena, are best thought of forming a single syndemic (a closely interrelated complex of health and social crises) that continues to take a significant toll on the lives and well-being of the urban poor.

### INTRODUCTION

Gang-related and other violence, substance abuse, and AIDS have been described as concurrent epidemics among U.S. innercity populations. The term epidemic, however, does not adequately describe the contemporary inner city health crisis, which is characterized by a set of closely interrelated, endemic and epidemic conditions (e.g., HIV, TB, STDs, hepatitis, cirrhosis, infant mortality, drug abuse, suicide, homocide, etc.), all of which are strong-

### FIGURE 1: SAVA Interconnections



syndemic that already has taken a devastating toll on the lives of the urban poor and threatens to wreck further pain and havoc in the future.

### Syndemic theory

The term Syndemic describes how health problems among marginalized populations tend to co-occur, overlap and fuel each other to create mutually reinforcing clusters of epidemics.

These clusters are produced by social inequalities (those related to class, gender and sexuality) and unfavorable structural factors.

(Signer 1996; Singer, 2009; Stall et al. 2008)

### Syndemics among MSM

### RESEARCH AND PRACTICE

# Association of Co-Occurring Psychosocial Health Problems and Increased Vulnerability to HIV/AIDS Among Urban Men Who Have Sex With Men

Ron Stall, PhD, MPH, Thomas C. Mills, MD, MPH, John Williamson, PhD, Trevor Hart, PhD, Greg Greenwood, PhD, MPH, Jay Paul, PhD, Lance Pollack, PhD, Diane Binson, PhD, Dennis Osmond, PhD, and Joseph A. Catania, PhD

One of the unforeseen consequences of the HIV/AIDS epidemic has been an unprecedented proliferation of data measuring the health status of men who have sex with men (MSM). The extent to which MSM experience other dangerous psychosocial health problems has often been measured by AIDS researchers as a means of explaining the distribution and consequences of HIV infection. One of the striking findings of the literature describing the prevalence of substance abuse, 1-3 partner violence, 4-6 depression, 7 and childhood sexual abuse 8 among MSM has been the extent to which MSM experience these health prob-

Objectives. We measured the extent to which a set of psychosocial health problems have an additive effect on increasing HIV risk among men who have sex with men (MSM). Methods. We conducted a cross-sectional household probability telephone sample of MSM in Chicago, Los Angeles, New York, and San Francisco.

Results. Psychosocial health problems are highly intercorrelated among urban MSM. Greater numbers of health problems are significantly and positively associated with high-risk sexual behavior and HIV infection.

Conclusions. AIDS prevention among MSM has overwhelmingly focused on sexual risk alone. Other health problems among MSM not only are important in their own right, but also may interact to increase HIV risk. HIV prevention might become more effective by addressing the broader health concerns of MSM while also focusing on sexual risks. (Am J Public Health. 2003;93:939–942)

of multiple health problems, a phenomenon

We completed 2881 interviews (78% of eli-

# Syndemics among Canadian gay and bisexual men

AIDS Behav DOI 10.1007/s10461-013-0639-1

ORIGINAL PAPER

Evidence of a Syndemic Among Young Canadian Gay and Bisexual Men: Uncovering the Associations Between Anti-gay Experiences, Psychosocial Issues, and HIV Risk

Olivier Ferlatte · Travis Salway Hottes · Terry Trussler · Rick Marchand

© Springer Science+Business Media New York 2013

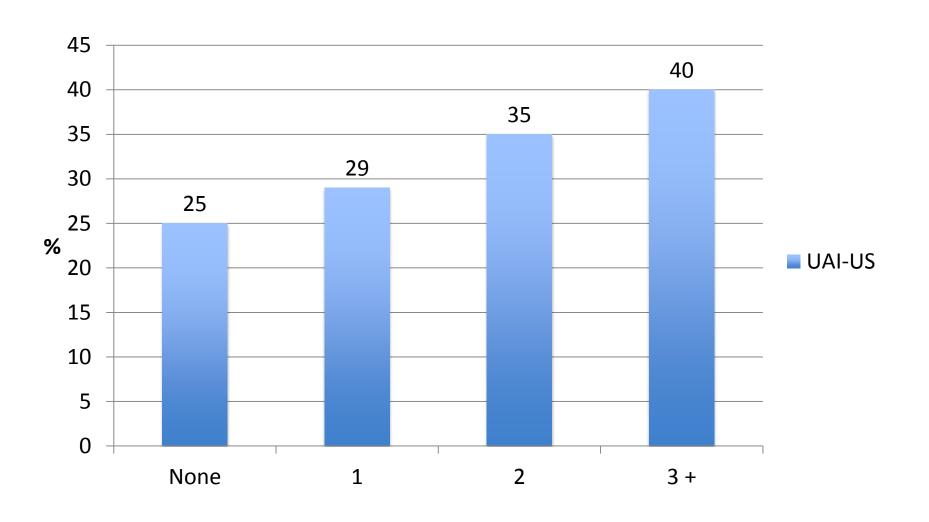
Abstract Syndemic has become an important theoretical model toward understanding how psychosocial issues may interact to increase HIV acquisition among gay and bisexual men. We measured the extent to which anti-gay experiences are associated with psychosocial issues, which in turn were hypothesized to have an additive effect on HIV risk, in a sample of Canadian young gay and bisexual men. Sixty-eight percent of men reported at least one form of anti-gay experience. For each additional form of anti-gay experience, our data demonstrated increased likelihood

hombres homosexuales y bisexuales. Este estudio midió el grado en el que experiencias homofóbicas pueden estar asociadas con problemas psicosociales en una muestra nacional de hombres jovenes homosexuales y bisexuales en Canada. Nuestra hipótesis sugiere que las experiencias homofóbicas y sucesivamente los problemas psicosociales pueden tener un efecto sinérgico sobre el riesgo de adquirir VIH. En nuestra muestra, sesenta y ocho por ciento de los hombres reportaron al menos una forma de experiencia homofóbica. Por cada experiencia homofóbica adicional.

# Theoretical model of syndemic production



## Syndemics and sexual risk (UAI-US)



### Research questions

Can a syndemic framework 1) help explain how the syphilis epidemic affecting GBMSM is produced and sustained, and 2) stimulate new public health efforts to reverse this inequity?

### **CBRC**





STORIES PROJECTS RESOURCES ABOUT DONATE Q



### Interview with John Pachankis

Health, New Haven, Connecticut

1. What is your place of birth?



Mark Hatzenbuehler, PhD, Mailman School of Public Health, Columbia University, New York



### Interview with Will Nutland

Posted June 11, 2015 Will Nutland, DrPH candidate, Sigma Research, London School of Hygiene +



### Interview with Ford Hickson

Posted April 14, 2015 Ford Hickson PhD, Sigma Research and

Medicine, London, UK



### Interview with Elizabeth Saewyc

Elizabeth M. Saewyc PhD, Professor, Nursing and Adolescent Medicine, UBC;

Executive Director, Stigma and Resilience Among Vulnerable Youth Centre

### **CBRC BRIEFS**



### Stiama!

Posted October 6, 2016

### RECENT CBRC STORIES

### Pathways to Health for Queer People of Colour

Blog: Under the Lens By Sarah Chown | November 8, 2016



Health and social inequities along lines of race abound in British Columbia and throughout Canada. These inequities show up both in the general population, as well as LGBTQ+ communities. In addition to these patterns of racial inequities shown in epidemiological data, qualitative research and...

### Musings of a Former Homeless Youth

Feature Article By Zach Harcourt | October 15, 2016



"Isiah, how do I look?" I ask nervously.

"Come again?" he responds, visibly confused.

"You know," I begin, "Can you tell—can you tell that I'm homeless?"

"Zach," he says flatly, "you look like every other student on campus."

Oh, thank God, I say to myself ....

### Preventing Suicide Among Gay and Bisexual Men

Feature Article By Travis Salway Hottes | September 7, 2016



Given that gay and bisexual men continue to face pervasive stigma, it is not surprising that we also have disproportionately high rates of suicide in our communities. Suicide continues to affect gay and bisexual men of all ages, in spite of important gains in legal protections for sexual...

### The Last Pink Unicorn

Feature Article By Brook Biggin | September 6, 2016



You know it. That feeling you get. When you know you're the big, pink, fuckin' unicorn sat at the end of the table. A giant placard hanging from atop your shiny





Posted October 25, 2016 John Pachankis, PhD, Yale School of Public



### nterview with Mark Hatzenbuehler

Posted November 3, 2015



Tropical Medicine (LSHTM), London, UK



London School of Hygiene & Tropical



Posted January 22, 2015



Gay Men's Health Summit 2016: Resist



### **CBRC PROJECTS**

CBRC's mission is to advance gay men's health through research, learning, and leadership development. Learn more about how we do this by checking out our projects.



A forum for addressing issues in HIV prevention and gay men's health.



Diverse, young gay men committed to "investigayting" gay men's health.



Canada's biggest survey of gay and bisexual men's health.



bisexual, queer, two-spirit, and trans (GBQ2ST) men and health professionals in combatting

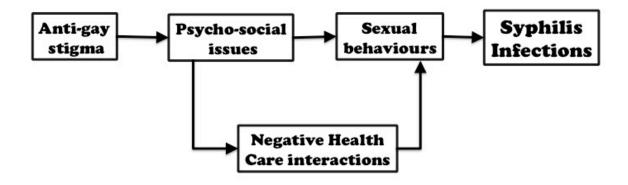
### CBRC Resource Library

Research and resources on gay men's health, the determinants of health, HIV & STI prevention, and community-based research.

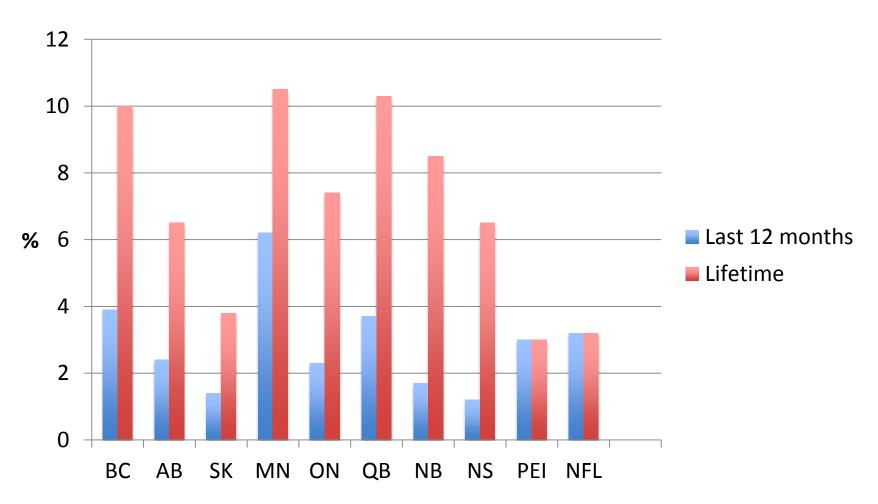
### Sex Now Survey 2014-15

- Online anonymous survey conducted between November 2014 and April 2015
- A total of 7872 Canadian men completed the survey.
- Survey domains include: demographic, sexual behaviours, substance uses, health care access, mental health, community involvements, experiences of stigma

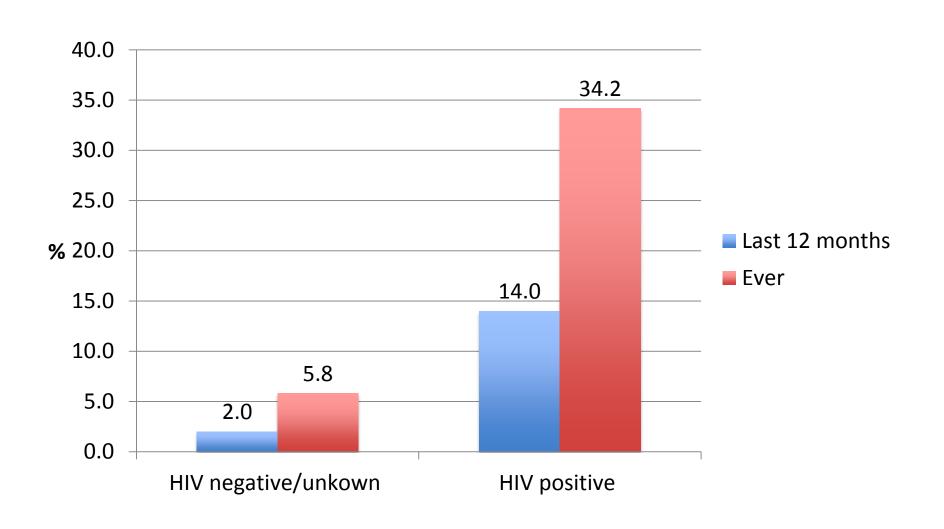
### Syndemic Framework



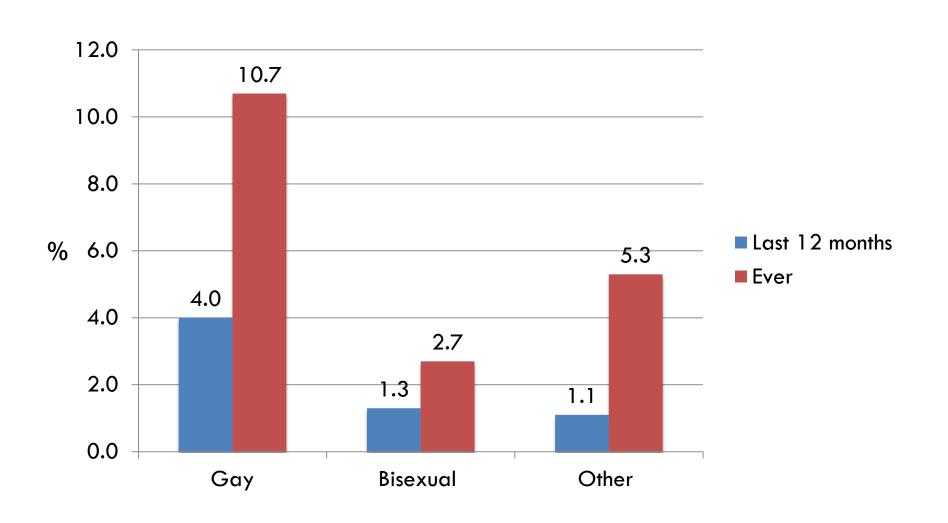
# Recent and lifetime diagnosis of Syphilis by province



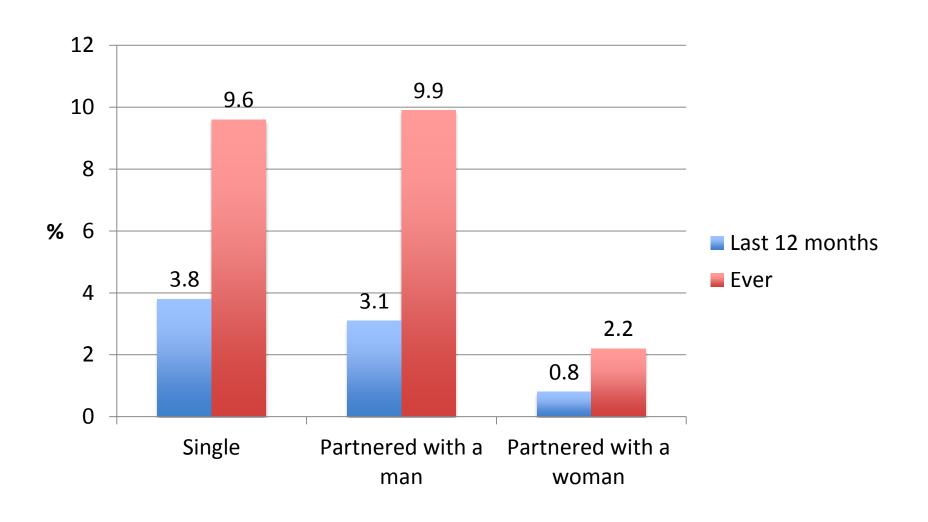
## Syphilis by HIV status



## Syphilis by Sexuality



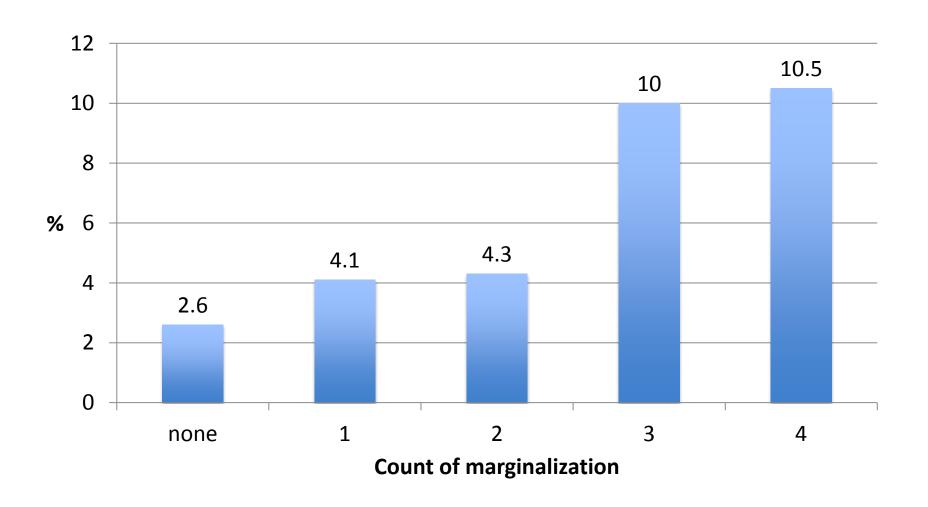
### Syphilis by Partnership status



## Anti-gay stigma and syphilis

	n (%) Experiencing Stigma	Syphilis among those without the outcome	Syphilis among those with the outcome	OR (95% CI)	AOR (95% CI)
Verbal violence	3418 (43.4%)	2.5%	3.6%	1.4 (1.1 – 1.9)	1.0 (0.6 – 1.7)
Cyber- bullying	749 (9.5%)	2.9%	3.5%	1.2 (0.8 – 1.8)	1.3 (0.7 – 2.3)
Physical Violence	1416 (18.0%)	2.7%	4.2%	1.59 (1.2 – 2.1)	2.5 (0.9 – 6.8)
Loss Career opportunities	968 (12.3%)	2.6%	5.5%	2.1 (1.6 – 2.9)	2.2 (1.4 – 3.5)

### Cumulative effect of stigma on syphilis



### Health care discrimination

	n (%) Experiencing Stigma	Syphilis among those without the outcome	Syphilis among those with the outcome	OR (95% CI)	AOR (95% CI)
Ever	732 (9.3%)	2.8%	5.2%	1.9 (1.4 – 2.8)	1.6 (1.1 – 2.3)
In the last year	202 (2.6%)	2.8%	9.9%	3.8 (2.3 -6.2)	4.1 (2.4 – 7.0)

### Psychosocial issues and syphilis

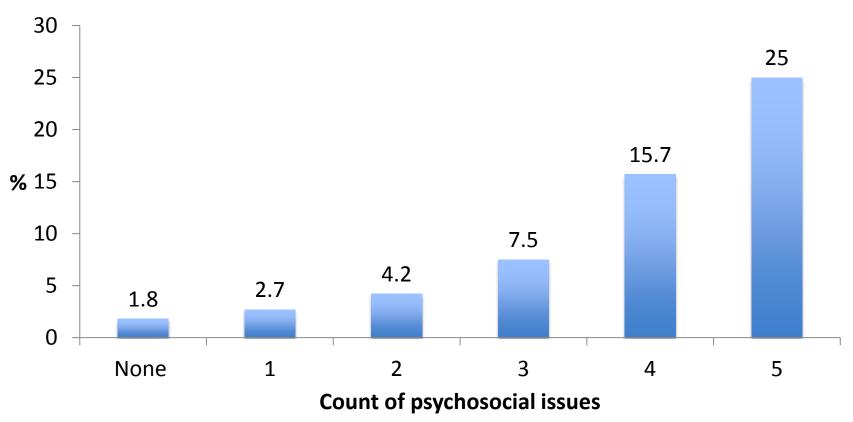
	n (%)	Syphilis among those without the outcome	Syphilis among those with the outcome	OR (95% CI)	AOR (95% CI)
Substance use*	1267 (16.1%)	2.1%	7.4%	3.7 (2.8 – 4.8)	2.4 (1.8 – 3.2)
Suicidality	1480 (18.8%)	2.7%	4.3%	1.6 (1.2 – 2.2)	1.2 (0.9 – 1.7)
Intimate partner violence	1043 (13.3%)	2.4%	6.8%	3.0 (2.2 – 4.0)	2.3 (1.7 – 3.1)
Frequent Binge Drinking**	578 (7.3%)	2.9%	4.0%	1.4 (0.9 – 2.1)	1.2 (0.8 – 2.0)
Care for Depression or Anxiety	2358 (30.0%)	2.6%	3.9%	1.5 (1.1 – 2.0)	1.0 (0.8 – 1.4)

<sup>\*</sup> cocaine, GHB, ecstasy, MDNA, Ketamine, Crack

<sup>\*\*</sup> Binge drinking multiple times a week, very week

### Syndemic and Syphilis

### **Cumulative effects of Psychosocial issues on syphilis**



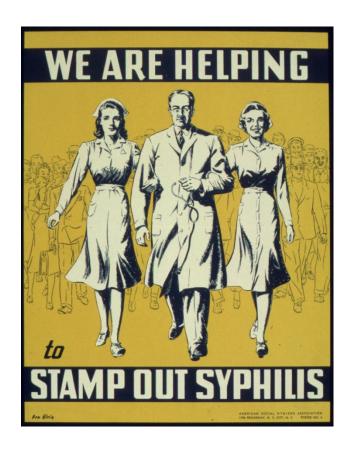
<sup>\*</sup> Cumulative effects of substance use, suicidality, IPV, binge drinking and depression/anxiety

# Sexual behaviours in the last 12 months

	n (%) reporting CI	% among men without syphilis	% among men with recent syphilis infection	OR (95% CI)	AOR (95% CI)
CI same partner status	4173 (53.0%)	52.4%	71.5%	2.3 (1.7 – 3.0)	2.3 (1.7 – 3.2)
CI unknown partner status	1746 (22.2%)	21.4%	48.1%	3.4 (2.6 – 4.4)	1.2 (0.9 – 1.7)
CI opposite partner status	811 (10.3%)	9.5%	37.9%	5.8 (4.4 – 7.7)	1.5 (1.1 – 2.0)
20 + sex partners	1273 (16.2%)	15.3%	44.7%	4.5 (3.4 – 5.8)	1.7 (1.2 – 2.4)

<sup>\*</sup> CI = Condomless sex

## Where do we go from here?



What are the implications for the public health efforts to contain the syphilis epidemic among GBM?



What does it mean for clinical care/services for STIs?

PrEP interest

Any of above

Gay org

STI test

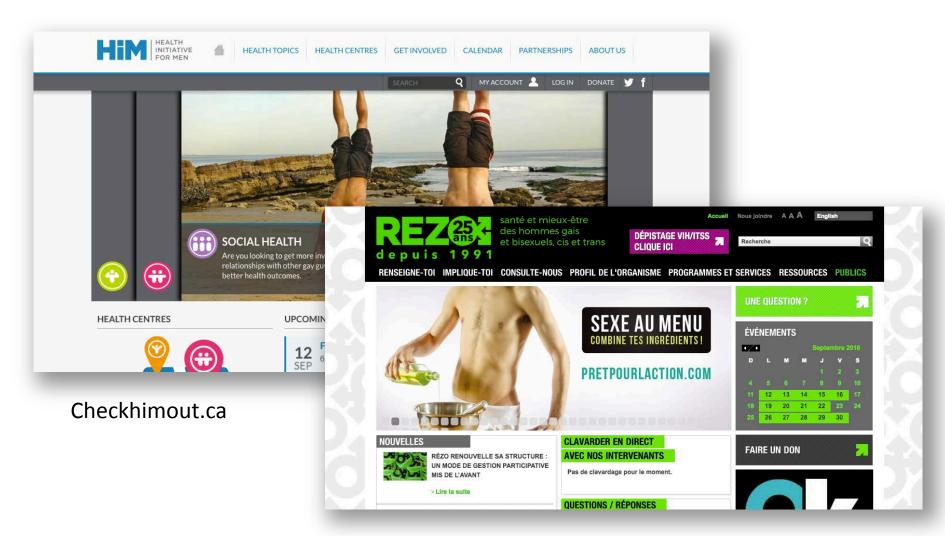
Walk-in clinic

MH visit

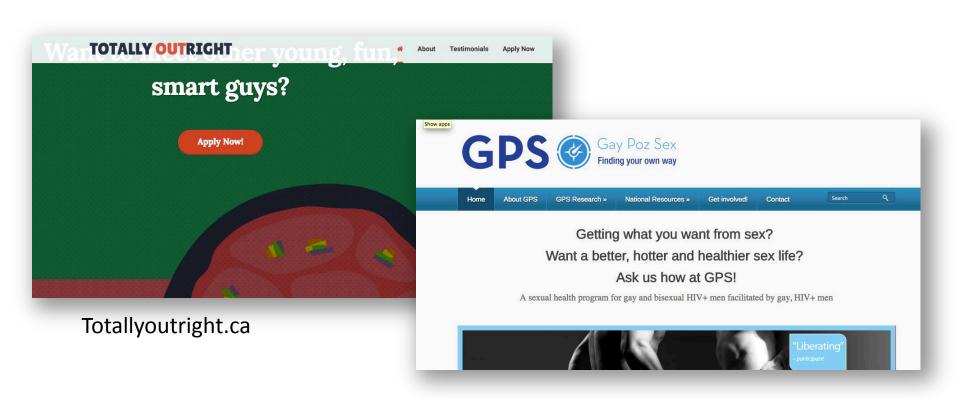
Family doc

Hottes (2016) CBRC / Sex Now

# How can we comprehensively treat and address the health of GBM?



# Are there opportunities for the development of cost-effective interventions guided by a syndemic orientation?



### **RESEARCH TEAM**

CBRC: Travis Salway Hottes & Terry Trussler

BCCDC: Hasina Samji, Naomi Dove, Troy

Grennan & Jason Wong

Contact: olivier.ferlatte@ubc.ca



### Thank you!

### Evaluation survey:

http://fluidsurveys.com/surveys/cpha-k/evaluation-webinar-dec-7-2016/

### • Contact:

olivier.ferlatte@ubc.ca rmaclean@cpha.ca

 Webinar recording and slides will be made available at <u>www.cpha.ca</u>