

# OHTN 2012 Research Conference "Research with Real-Life Impact"

Stanley Ing<sup>1</sup> Trevor A. Hart<sup>1,2</sup> Mona R. Loutfy<sup>3</sup>  
Liviana M. Calzavara<sup>1</sup> Ted Myers<sup>1</sup>

<sup>1</sup> Dalla Lana School of Public Health, University of Toronto, Toronto, ON

<sup>2</sup> Department of Psychology, Ryerson University, Toronto, ON

<sup>3</sup> Women's College Research Institute, Toronto, ON

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HIV  
Prevention  
Lab

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## **Background:**

# **HIV Among Gay and Bisexual Men**

- 48% (31,330) of all prevalent HIV cases were attributed to men who have sex with men (MSM) at the end of 2008.
- 19% of HIV-infected MSM in 2008 unaware of their HIV-positive status

(PHAC, 2010)

## **Introduction: Syndemics Among Gay and Bisexual Men**

- Interactions that develop and sustain epidemics at the community level because of harmful social conditions and connections.
- Syndemics occur when health related problems cluster by person, place or time
- Increasing evidence demonstrates that a greater number of co-existing psychosocial health problems is associated with
  - increased HIV-risk taking behaviour (UAI) and
  - having a HIV-positive status among MSM (Burchell et al., 2010; Calzavara et al., 2011; Moeller et al., 2011; Mustanski et al., 2007; Parsons et al., 2010; Stall et al., 2003)

## **Introduction: Psychological Problems in the Syndemic**

- Depression, Violence, Internalized Homophobia, Anxiety, Psychological Distress, Childhood Sexual Abuse, Sexual Compulsivity, Drug Use
- Higher prevalence of these psychosocial problems in the MSM population (Frost et al., 2007; Gravy et al., 2009; Hart et al., 2008; Preston et al., 2007; Smolenski et al., 2011)

# Objective

- To employ the syndemic theory framework to examine the extent to which multiple co-existing psychosocial problems predict unprotected anal intercourse (UAI) among a sample of urban MSM in Toronto

## **Methods:**

### **Recruitment**

- MSM were recruited from community and clinical settings in Toronto.
- Eligible if they were at least 18 years of age and had sex with another man in the past 6 months

# Methods:

## Procedures and Measures

- Participants completed a questionnaire via audio computer-assisted self-interview (ACASI) at baseline and at 6 months follow-up.

### **Psychosocial Variables:**

- (1) Internalized Homophobia (IHS; Ross & Rosser, 1996);
- (2) Social Anxiety (SIAS; Mattick & Clarke, 1998);
- (3) Depression (CES-D; Radloff, 1977);
- (4) Anti-gay physical assault (D'Augelli, 2002)
- Unprotected anal intercourse: questions were asked regarding their engagement in UAI with primary and casual partners within the past 6 months.

## Methods: Data Analyses

- Logistic regressions were used to first examine how each psychosocial problem was associated with the other 3 psychosocial problems.
- A logistic regression examined if a greater number of psychosocial problems was associated with two outcome variables at 6-month follow-up:
  - 1) being HIV-positive and
  - 2) engaging in UAI.

# Results

## Demographics

- 220 MSM were recruited for the study
- 47% HIV-positive
- Ethnicity/Race
  - 76.4% Caucasian
  - 1.4% Black
  - 5.0% Latino
  - 3.2% Aboriginal
  - 8.2% Other
- Education
  - 7.7% did not complete high school
  - 47.3% high school and some college
  - 45% Bachelor's Degree or more

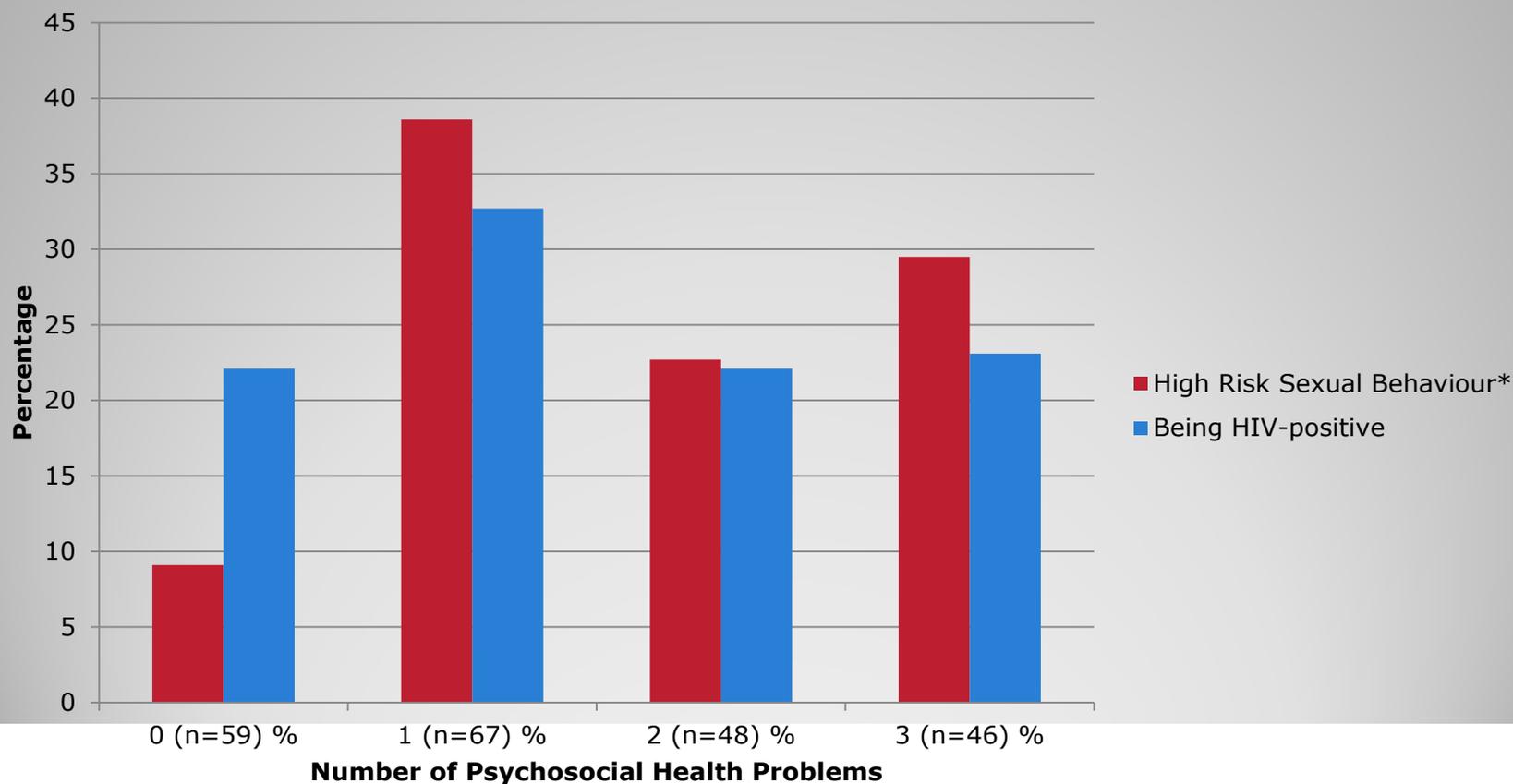
## Results: Correlations Among Variables

Predictors	Odds Ratio (95% Confidence Interval)			
	<i>Anti-gay Physical Assault</i>	<i>Depression</i>	<i>Social Anxiety</i>	<i>Internalized Homophobia</i>
<i>Anti-gay Physical Assault</i>	---	3.79 [2.05, 7.02]***	2.30 [1.08, 4.91]*	1.58 [0.90, 2.79]
<i>Depression</i>	3.79 [2.05, 7.02]***	---	4.62 [1.82, 11.74]**	3.83 [2.16, 6.81]***
<i>Social Anxiety</i>	2.23 [1.08, 4.91]*	4.62 [1.81, 11.74]**	---	10.22 [3.76, 27.79]***
<i>Internalized Homophobia</i>	1.58 [0.90, 2.79]	3.83 [2.16, 6.81]***	10.22 [3.76, 27.79]***	---

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

## Results

### Figure. Association between number of psychosocial problems and UAI / HIV status



# Summary/Conclusion

- Psychosocial problems in this model are associated with each other, suggesting a syndemic condition in which each problem reinforces each health problem
- A greater number of psychosocial problems is associated with increased prevalence of high risk UAI among MSM.
- These data extend upon previous findings from US samples of MSM (Moeller et al., 2011; Mustanski et al., 2007; Stall et al., 2003), and show that a syndemic of psychosocial problems temporally predicts high risk sexual behaviour among Canadian MSM.

## Limitations and Future Directions

- 1) convenience sampling,
- 2) majority of sample identified as Caucasian,
- 3) self-report methods, and
- 4) the assumption that each psychosocial variable/problem is of equal magnitude in its effect on predicting HIV risk and status.

# Implications

- Working with organizations to address broader health problems among MSM
- HIV prevention efforts may be more effective when programs focusing on sexual risk are coupled with initiatives addressing multiple psychosocial health problems experienced among MSM (Parsons et al., 2012; Shoptaw et al., 2005).
- Further research to examine how elements of the minority stress model and protective factors play a role in syndemics among MSM.

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Email: [stanley.ing@mail.utoronto.ca](mailto:stanley.ing@mail.utoronto.ca)