



Advancing Gay Men's Health Literacy: Awareness & Knowledge of Treatment as Prevention (TasP) among HIV-positive and HIV-negative gay, bisexual and other men who sex with men in BC, Canada

Allison Carter, MPH^{1,2}; Ashleigh Rich, MPH²; **Nathan Lachowsky, PhD^{2,4}**; Jamie Forrest, MPH²; Paul Sereda²; Zishan Cui²; Keith Chan²; Eric Roth, PhD³; David Moore, MD, FRCPC^{2,4}; Angela Kaida, PhD¹; Julio S.G. Montaner, MD, FRCPC, FCCP^{2,4}; Robert S Hogg, PhD^{1,2}

Simon Fraser University, Faculty of Health Sciences, Burnaby, BC, Canada
British Columbia Centre for Excellence in HIV/AIDS, Vancouver, BC, Canada
University of Victoria, Department of Anthropology, Victoria, BC, Canada
University of British Columbia, Department of Medicine, Vancouver, BC, Canada

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Acknowledgements

I would like to acknowledge that we have gathered together on the traditional territory of the Coast Salish people.



Background

- A patient's health literacy can play an important role in clinical outcomes and overall health
- TasP has been actively promoted in BC as a public health strategy to reduce HIV morbidity, mortality and transmission
- But there is limited research on self-reported awareness and knowledge of TasP among gay and bisexual men
 - Understanding which gay and bisexual men have greater or lesser TasP awareness and knowledge is critical to improving health literacy



Objectives

1. To assess the association between **being aware of TasP (vs. not)** and demographic, behavioural, and clinical factors separately among HIV-positive and HIV-negative men
2. To qualitatively explore men's **knowledge of TasP**



Data Collection

- **Momentum Health Study**

- A prospective cohort study of gay, bisexual and other men who have sex with men in Greater Vancouver
- Participants are recruited via Respondent Driven Sampling (RDS)
- We used self-administrated baseline questionnaire data and clinical screening data for HIV-positive participants
- Data were analyzed for participants enrolled between February 2012 and February 2014
 - baseline cross-sectional data / their first responses



Primary Outcomes

- **Awareness of TasP**
 - Participants were asked if they had heard of the term “treatment as prevention” or not
 - If they had, they were asked where they learned about TasP (information source)
- **Knowledge of TasP**
 - For those who were aware of TasP, participants were asked to define TasP in their own words



Statistical Analyses

- Analyses were RDS-adjusted to reflect population estimates
- Stratified by HIV status, multivariable logistic regression identified covariates of **TasP awareness**
 - Ever heard of TasP *versus* never heard of TasP
- Self-reported **knowledge of TasP** was coded by two independent reviewers (AC and JF) using a predetermined three-part definition of “complete” TasP knowledge:
 - 1) ARV use, 2) viral suppression, 3) prevention of HIV transmission



Results

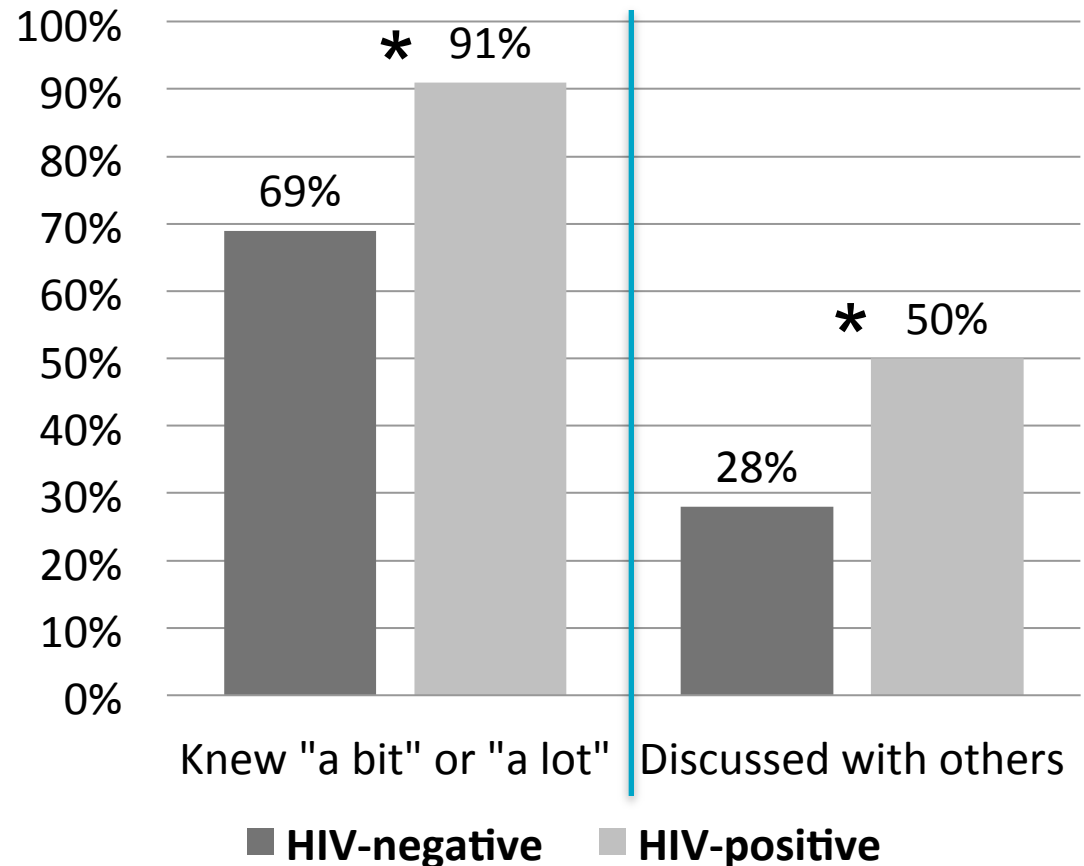
- **717 participants included in these analyses**
 - 2 did not respond to the TasP questions and were omitted
- **Demographics**
 - Median age: 33 years old [IQR 26,47]
 - HIV-positive: 27%
 - Sexual identity: 82% gay, 13% bisexual
 - Neighbourhood: 45% West End, 31% other Vancouver
 - Race/ethnicity: 69% Caucasian, 10% Asian, 10% Aboriginal
 - 37% were currently unemployed
 - 25% were currently students
 - 18% were born outside of Canada



Results: TasP Awareness

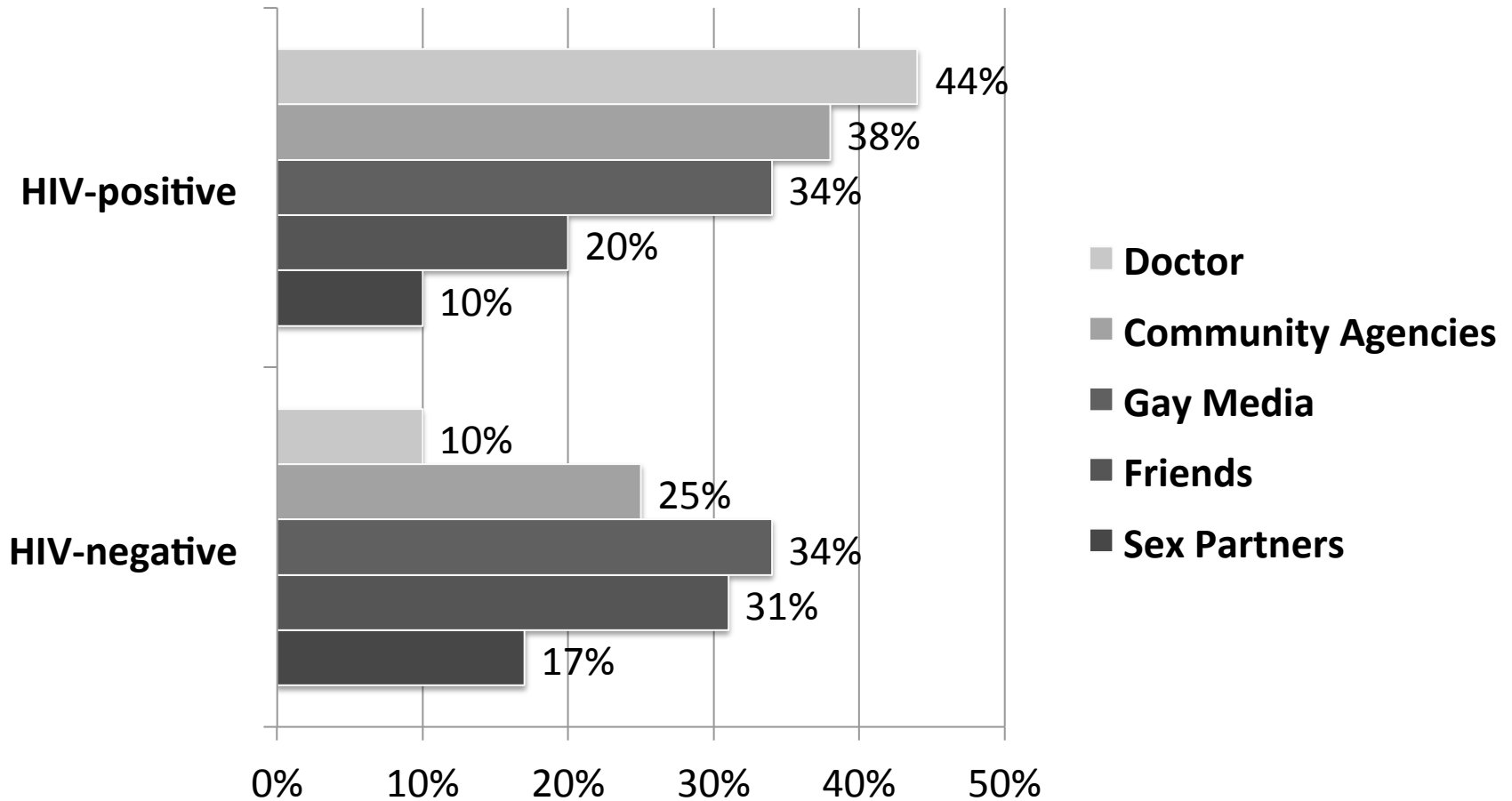
- **46% of men had heard of TasP**
 - HIV-positive men more likely to have heard of TasP (69%) compared with HIV-negative men (41%, $p < 0.001$)

Among those who heard about TasP...





Heard about TasP from...





Results: HIV-negative men

	Ever Heard of TasP		Multivariable Model	
	RDS %	95% CI	AOR	95% CI
Race/Ethnicity (ref: Caucasian)	38%	(31%-45%)	1.00	--
Asian	42%	(24%-59%)	0.92	(0.50-1.67)
Aboriginal	15%	(1%-28%)	0.33	(0.12-0.93)
Other	46%	(24%-68%)	1.44	(0.81-2.56)
Sexual Identity (ref: gay)	40%	(33%-46%)	1.00	--
Bisexual	21%	(8%-35%)	0.45	(0.23-0.86)
Other	51%	(31%-72%)	1.60	(0.66-3.89)
Education (ref: some high school or less)	14%	(3%-26%)	1.00	--
Completed high school	36%	(20%-52%)	3.32	(1.36-8.06)
Any post-secondary training	42%	(35%-49%)	3.41	(1.54-7.56)
Has a current regular partner (vs doesn't)	48%	(35%-56%)	1.89	(1.25-2.88)
Number of anal sex partners (ref: 0-1)	35%	(25%-45%)	1.00	--
2-5 partners	32%	(22%-41%)	0.74	(0.45-1.20)
6+ partners	44%	(30%-58%)	1.72	(1.02-2.90)
Is a current student (vs isn't)	46%	(34%-58%)	1.61	(1.03-2.52)



Results: HIV-positive men

	Ever Heard of TasP		Multivariable Model	
	RDS %	95% CI	AOR	95% CI
Sexual Identity (ref: gay)	71%	(60%-82%)	1.00	--
Bisexual	38%	(3%-73%)	0.15	(0.05-0.43)
Other	75%	(31%-100%)	0.71	(0.11-4.47)
Not born in Canada (ref)	41%	(16%-65%)	1.00	--
Was born in Canada	73%	(62%-83%)	4.03	(1.63-9.97)
Currently <u>un</u>employed (ref)	78%	(69%-88%)	1.00	--
Currently employed	50%	(33%-68%)	0.28	(0.14-0.58)
No party drug use in past 6 months (ref)	82%	(69%-94%)	1.00	--
Any party drug use in past 6 months	62%	(49%-75%)	0.35	(0.14-0.88)
CD4 cell count (ref: <200)	31%	(0%-72%)	1.00	--
200-349	65%	(28%-100%)	4.18	(0.80-21.93)
350+	70%	(59%-82%)	6.42	(1.48-27.86)



Results: TasP Knowledge

- **Partial/complete knowledge for 13% of men**
 - 45% of those who wrote a definition (n=131/288)
- **Components identified:**
 - 1st: ARV use (16%)
 - 2nd: prevention of HIV transmission (12%)
 - 3rd: viral suppression (9%)
- **Complete knowledge differed by HIV status: (p<0.001)**
 - 10% of all HIV-negative men
 - 27% of all HIV-positive men

Coding methods: “Complete” TasP knowledge: demonstrated all three factors. “Partially complete”: two factors. “Partially incomplete”: one factor. “Incomplete”: none. Those with 2 or 3 TasP factors identified were pooled and categorized as having a “partial/complete” TasP definition



Results: TasP Knowledge

Example of “complete” TasP definition

“By getting [HIV] treatment, viral load goes to ‘non-detectable’ (ideally) therefore lessening chances of transmission.”

Examples of “incomplete” TasP definitions

“The more regular testing you get, the more you are exposed to STI/HIV information/education and the more likely you are to practice safer sex and prevent infections.”

“Taking the new drug for neg people to use if they have a poz partner or are seeing many poz guys or high risk behaviours.”



Limitations and Strengths

- **Limitations:**

- Participants' provided definitions of TasP may not be a complete proxy for their entire understanding of the concept
- Data collected from participants over two years (shift over time)

- **Strengths:**

- Baseline estimate of TasP awareness and knowledge among gay and bisexual men in Vancouver
 - Stratification by HIV-status
- Mixed method approach – both quantitative & qualitative data
- Use of RDS to develop population estimates



Conclusions / Recommendations

- **Half of men had heard of TasP** and 1 in 10 provided a partial or complete definition
 - Men living with HIV were more likely to be aware and to have better knowledge of TasP
 - Social and behavioural determinants were differentially associated with TasP awareness for HIV-negative and HIV-positive men → equity through health promotion?
- New strategies that are **grounded in and culturally-relevant to diverse communities** of gay and bisexual men are critical to advancing (TasP) health literacy



Acknowledgements & Questions

- **Questions?** Contact Nathan Lachowsky at nlachowsky@cfenet.ubc.ca

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