

# HAART Optimism and Sexual Altruism

Preliminary Results of the Momentum Health Study

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# Acknowledgements

## Funding Agencies



BRITISH COLUMBIA  
CENTRE *for* EXCELLENCE  
*in* HIV/AIDS



## Academic Investigators & Governing Research Ethics Councils



THE  
UNIVERSITY OF  
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THINKING OF THE WORLD



University  
of Victoria



# Acknowledgements

## Community Partnerships



## Clinical Coordination & STI Screening



## Research Consultation



# Outline

- Intro to Momentum Health Study
- HAART Optimism in Momentum
- Sexual Altruism in Momentum
- Preliminary Data: HAART Optimism, Sexual Altruism and the Social Determinants of Health
- Next steps



# Background

- Expanded, universal, free of cost access to highly active antiretroviral therapy (HAART) in BC represents a province wide population level biomedical intervention
- Development, implementation and uptake of HAART has significantly reduced HIV-associated morbidity and mortality
- New evidence to support Treatment as Prevention (expanded access to HAART) may be effective in further reducing HIV transmission
- Potential effect of Treatment as Prevention on population level depends on individual risk level





# Momentum Health Study



# Hypothesis

- Momentum examines the effect of this intervention on the HIV risk behaviours of the population of gay, bisexual, and other men who have sex with men (MSM) in the Greater Vancouver area
- We hypothesize that the efficacy of expanded HAART access as an HIV prevention measure may be moderated by socio-cultural and bio-behavioural factors, such as “HAART optimism” or “risk compensation” among gay, bi, and other MSM



# Objectives

- I. Examine trends in sexual risk behaviour and attitudes regarding the preventive value of HAART over a four year period as the numbers of gay, bi, other MSM on HAART dramatically increase and the concept of HAART as prevention becomes widely diffused;
- II. Examine how self-reported drug-use before and during sex contributes to HIV sexual risk behaviour; and
- III. Examine the interactions between drug-use, HAART optimism and treatment adherence among HIV-positive gay, bi, and other MSM receiving HAART.



# RDS in Momentum

- Initial participants (seeds) are selected through community referrals, online and print advertising, social media
- Participants are issued a pre-determined number of invitations to recruit others from their social or sexual networks in the form of laminated cards or secured e-mail
- Waves of recruitment proceed until sample size reached and equilibrium across key demographic indicators is achieved



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Momentum RDS Paper  
Voucher

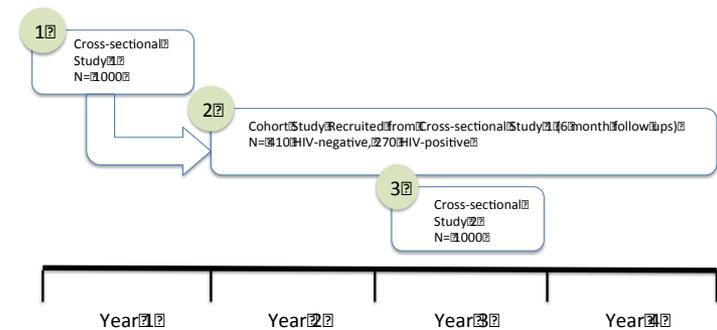


# Study Design

Respondent Driven Sampling (RDS) is used to recruit two cross-sections and comprise a three-four year longitudinal cohort with six month follow-ups.

## RDS

- Chain-referral sampling designed to produce probabilistic samples with minimal selection bias
- Accounts for selection biases, such as network size and network homophily by collecting data on 'who recruits who?'



# Study Procedures

## 1. Computer-assisted, self-administered survey

- Demographics
- HIV & STI testing
- Sexual risk behaviour
- Mental Health
- Substance use
- Beliefs and attitudes about HIV & HAART
  - HAAART Optimism
  - Sexual Altruism

## 2. Clinical sexual health, STI screening

- HIV POC test
- RPR for Syphilis
- Hepatitis C Antibody test
- Viral Load and CD4 monitoring for HIV-participants
- Optional Chlamydia & Gonorrhea testing (urine, pharyngeal, rectal swabs)





# HAART Optimism



# HAART Optimism Scale



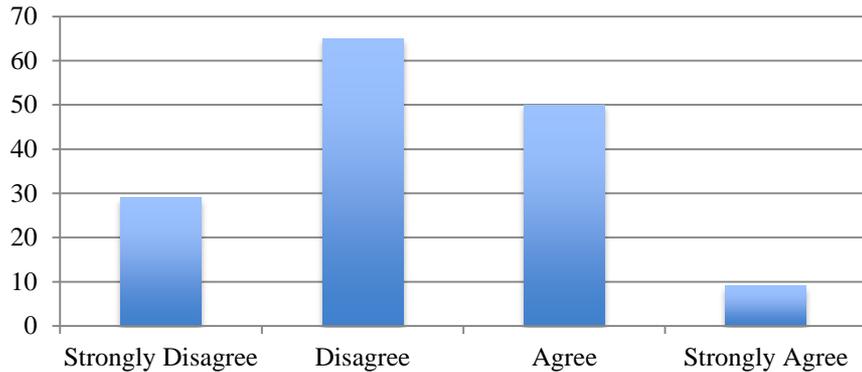
1. A person with an undetectable viral load cannot pass on the virus
2. I'm less worried about HIV infection than I used to be
3. New HIV treatments will take the worry out of sex
4. If every HIV-positive person took the new treatments, the AIDS epidemic would be over
5. If a cure for AIDS were announced, I would stop practicing safe sex
6. People with an undetectable viral load do not need to worry so much about infecting others
7. Until there is a cure for HIV/AIDS, prevention is still the best practice\*\*
8. The availability of treatment (PEP) immediately after unsafe sex makes safe sex less important
9. HIV is less of a threat because the epidemic is on the decline
10. HIV/AIDS is a less serious threat than it used to be because of new treatments
11. It's never safe to fuck without a condom regardless of viral load\*\*
12. Because of new treatments fewer people are becoming infected
13. I believe that new drug therapies make people less infectious with HIV
14. I am less worried about HIV infection now that treatment has improved



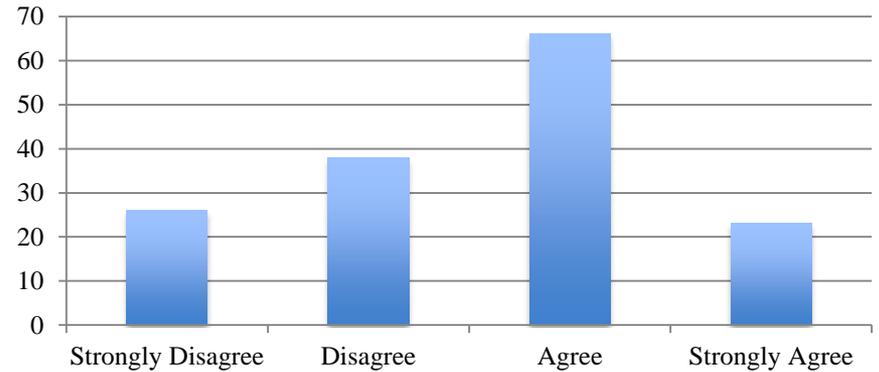
# HAART Optimism (N=153)



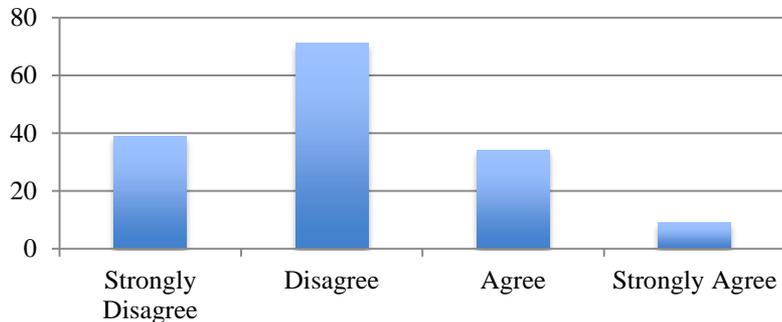
**1. A person with undetectable viral load cannot pass on the virus**



**2. I'm less worried about HIV infection than I used to be**



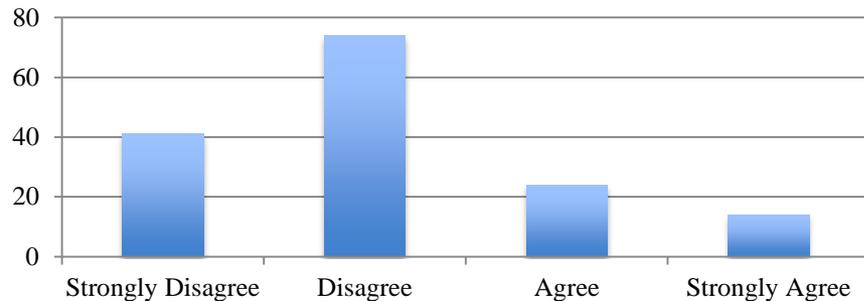
**3. New HIV treatments will take the worry out of sex**



# HAART Optimism (N=153)

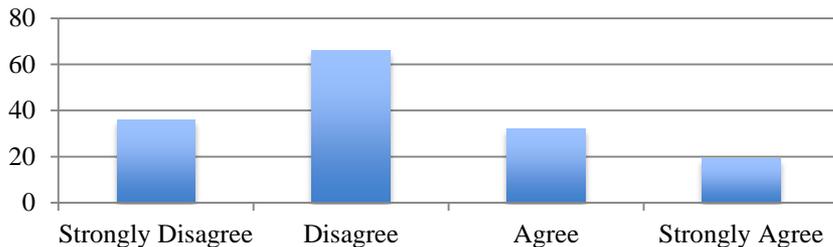


**4. If every HIV-positive person took the new treatments, the AIDS epidemic would be over**



QuickTime™ and a decompressor are needed to see this picture.

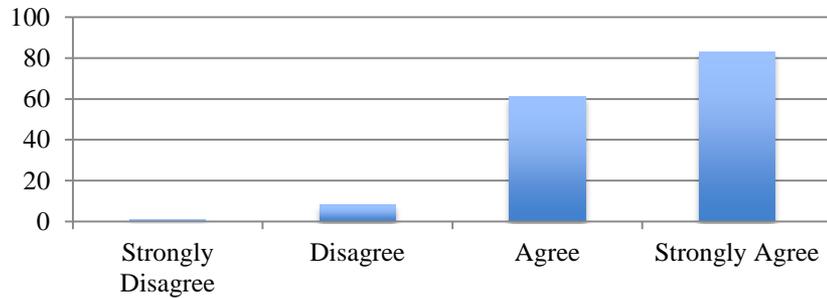
**6. People with undetectable viral loads do not need to worry so much about infecting others with HIV**



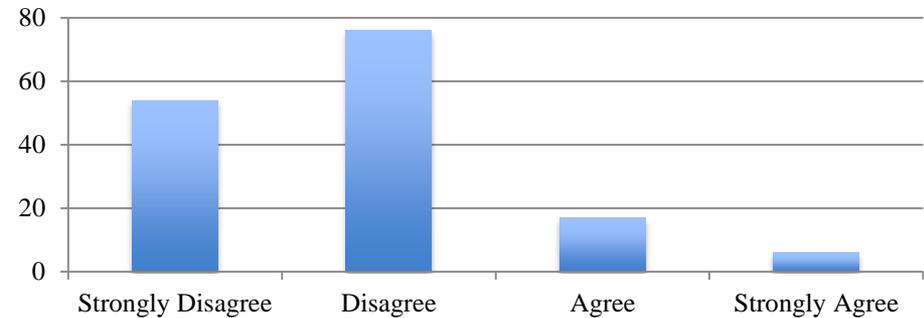
# HAART Optimism (N=153)



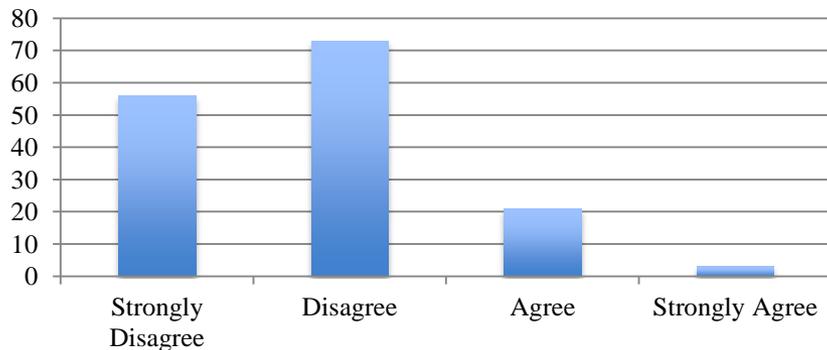
**7. Until there is a complete cure for HIV/AIDS, prevention is still the best practice\***



**8. The availability of treatment (PEP) immediately after unsafe sex makes safe sex less important**

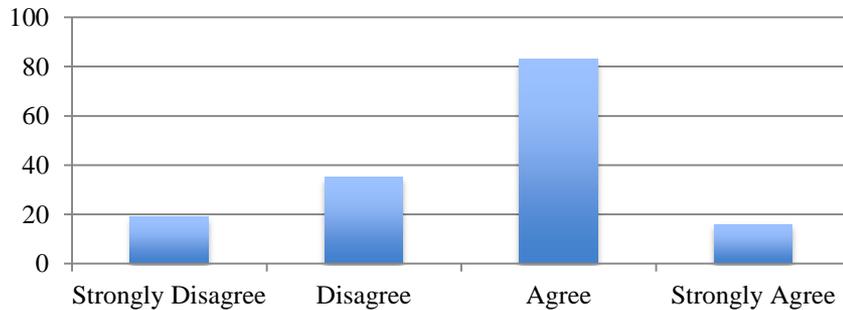


**9. HIV is less of a threat because the epidemic is on the decline**

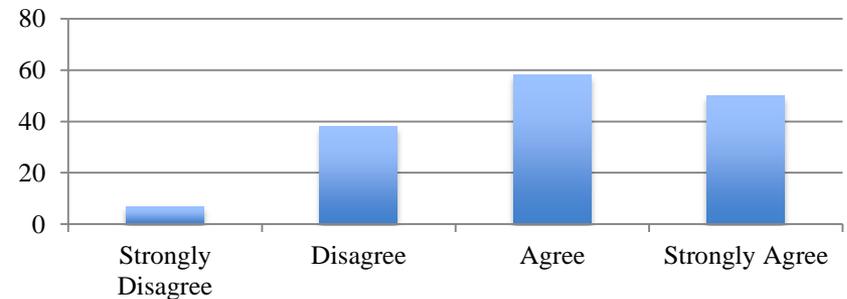


# HAART Optimism (N=153)

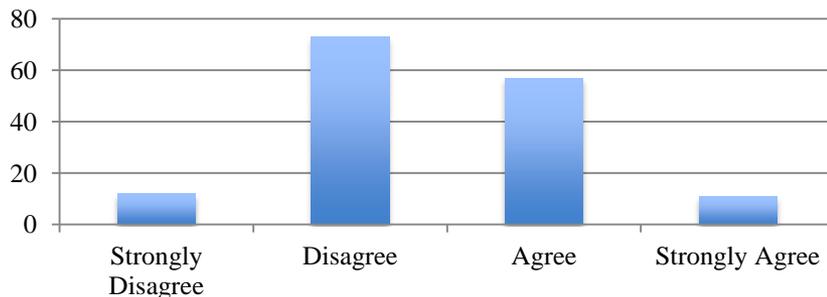
**10. HIV/AIDS is less serious threat than it used to be because of new treatments**



**11. It's never safe to fuck without a condom regardless of viral load\***

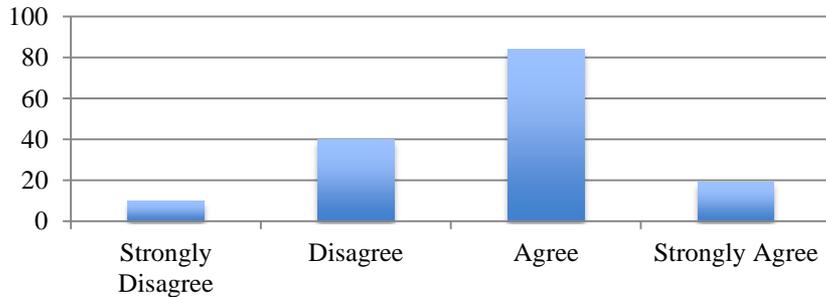


**12. Because of new treatments fewer people are becoming infected with HIV**

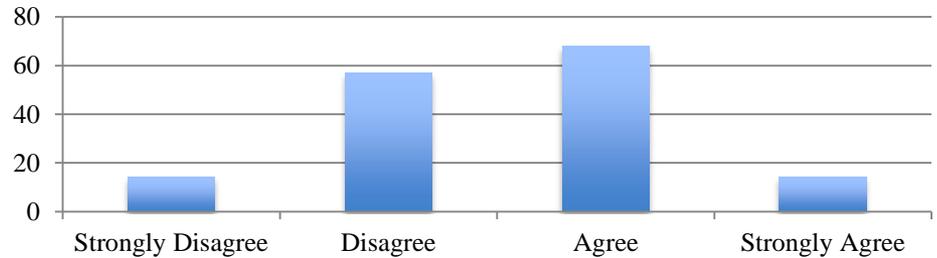


# HAART Optimism (N=153)

**13. I believe that new drug therapies make people less infectious with HIV**



**14. I am less worried about HIV infection now that treatment has improved**



# HAART Optimism Analysis

- Each participant is scored for their responses to items 1-14 (After reverse coding items 7 & 11)

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Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1	2	0	4	5

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Median: 30	Mean: 30.9	Mode: 30	Max: 48	Min: 15	IQR: 26-35
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# Sexual Altruism



# Sexual Altruism

## Personal

1. Having safer sex is good for my partner as well as for me
2. By having safer sex, I am setting an example for others
3. I don't want anyone else to have to go through getting infected
4. Having safer sex shows I care about my partner
5. Having safer sex is one way for me to teach others about it
6. I have a responsibility to stop my partner from doing something risky
7. I don't want any partner of mine to get any disease from me

## Community

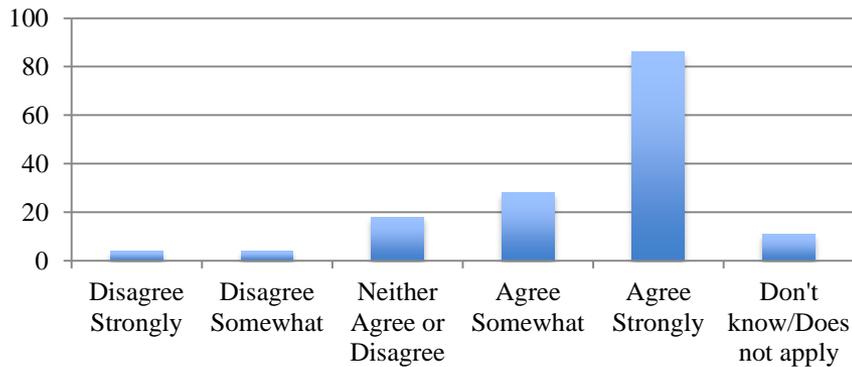
1. Safer sex is everybody's responsibility
2. Having safer sex is what gay men should do for each other
3. Having safer sex is doing my part to end the epidemic
4. Having safer sex is a way I can help protect the next generation of gay men
5. The best way to keep HIV/AIDS from infecting gay men is if we practice safer sex
6. I have safer sex because I want the gay community to survive



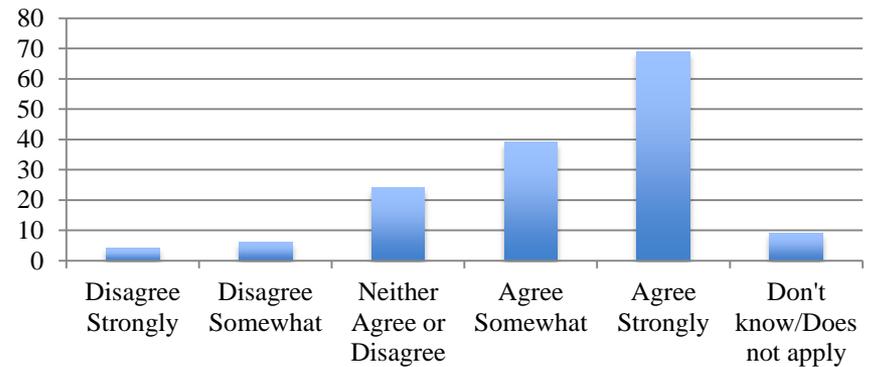
# Sexual Altruism – Personal (N=151)



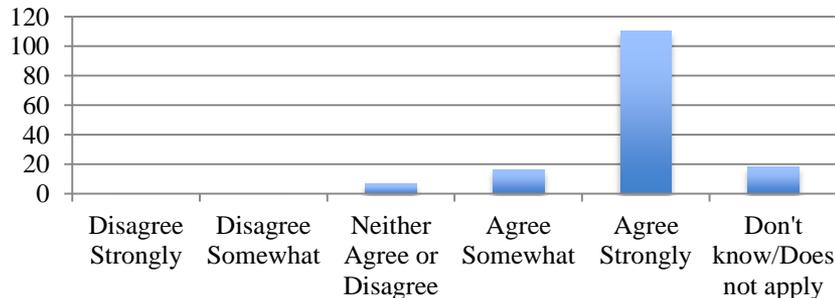
**1. Having safer sex is good for my partner as well as me**



**2. By having safer sex, I am setting an example for others**



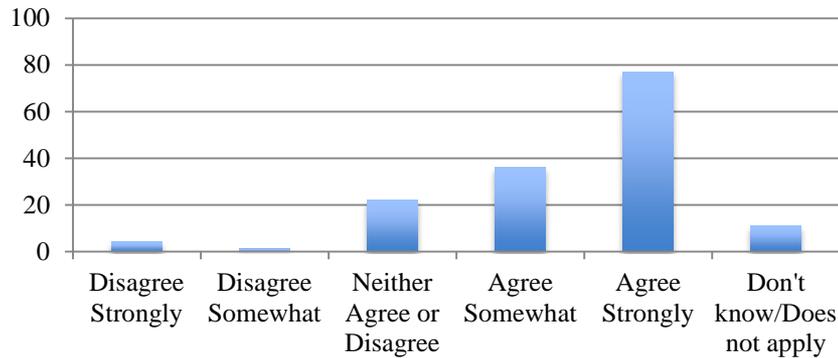
**3. I don't want anyone else to have to go through getting infected**



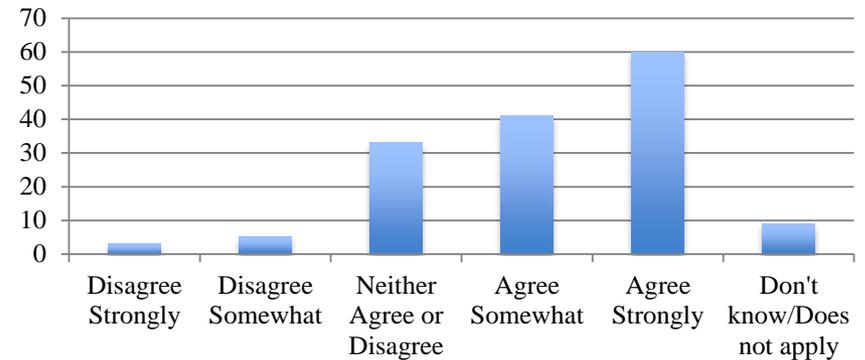
# Sexual Altruism – Personal (N=151)



**4. Having safer sex shows I care about my partner**



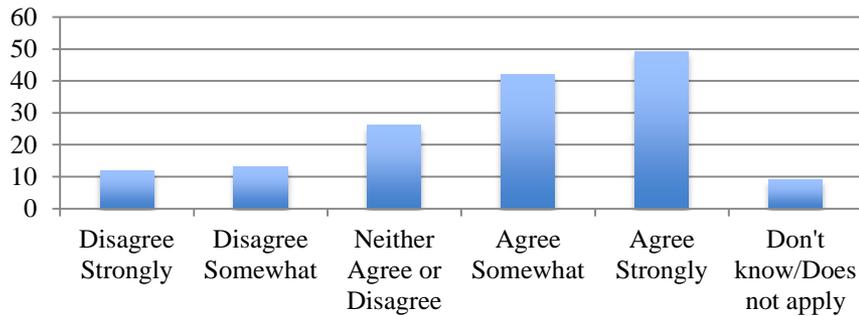
**5. Having safer sex is one way for me to teach others about it**



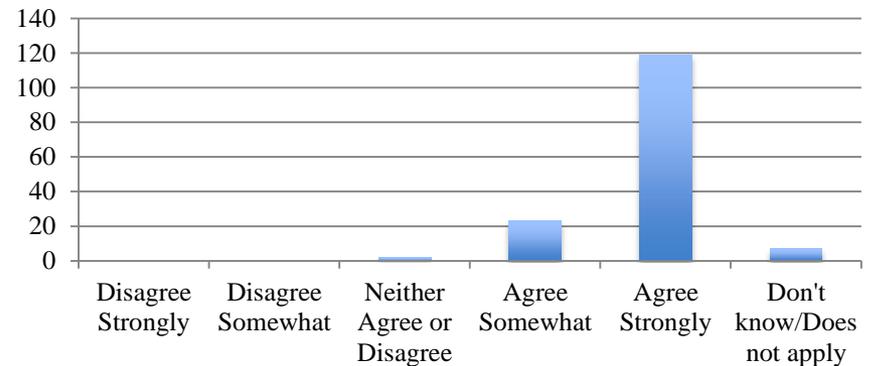
# Sexual Altruism – Personal (N=151)



**6. I have a responsibility to stop my partner from doing something risky**

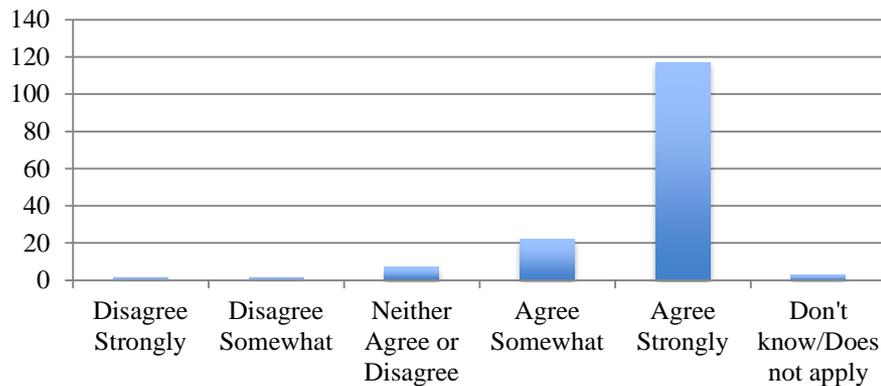


**7. I don't want any partner of mine to get any disease from me**

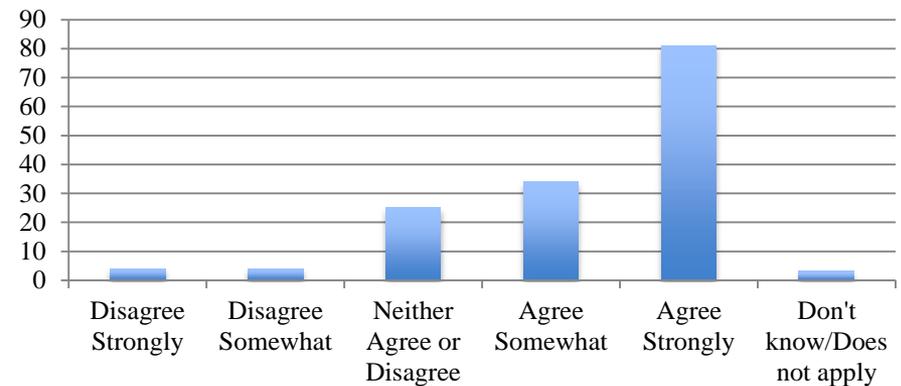


# Sexual Altruism – Communal (N=151)

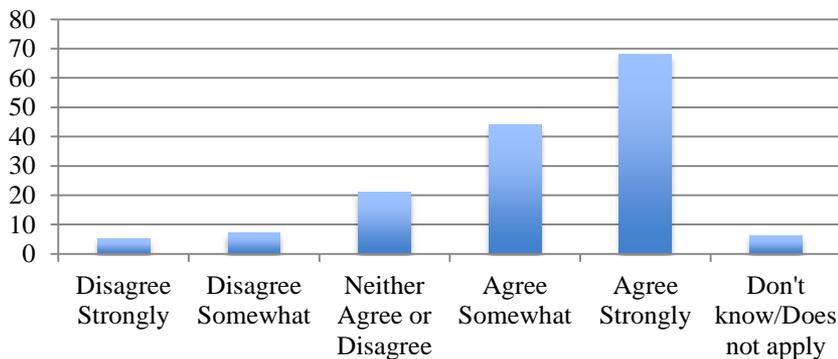
## 1. Safer sex is everybody's responsibility



## 2. Having safer sex is what gay men should do for each other

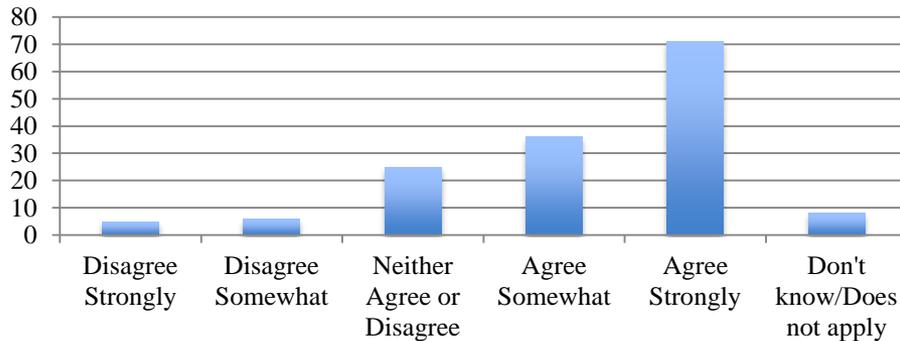


## 3. Having safer sex is doing my part to end the epidemic

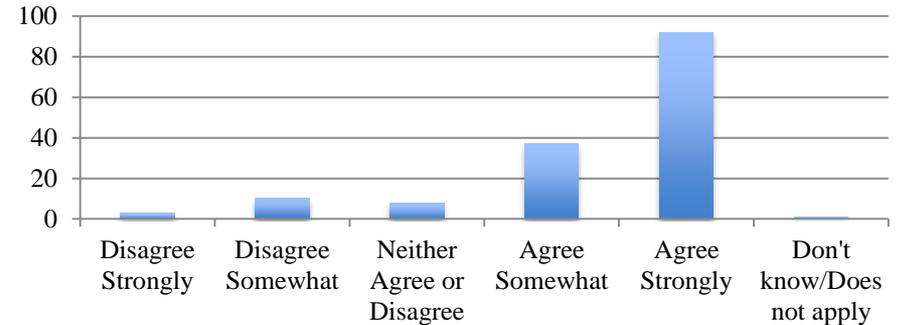


# Sexual Altruism – Communal (N=151)

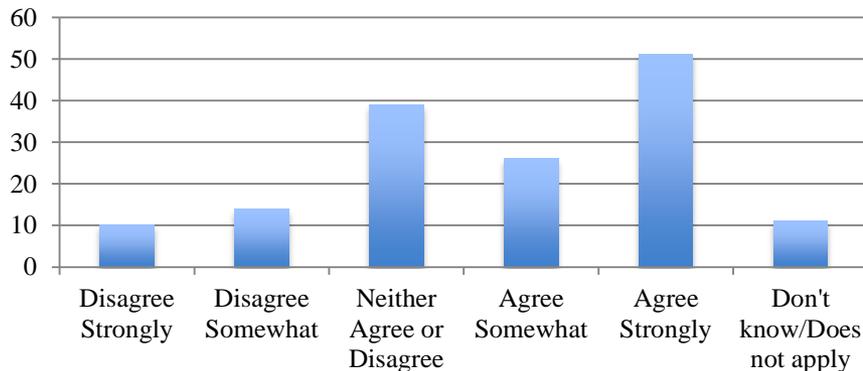
**4. Having safer sex is a way I can help protect the next generation of gay men**



**5. The best way to keep HIV/AIDS from infecting gay men is if we practice safer sex**



**6. I have safer sex because I want the gay community to survive**



# Sexual Altruism Analysis

- Each participant (N=151) is scored for their responses to items 1-7 (Personal) and 1-6 (Communal)

Disagree Strongly	Disagree Somewhat	Neither Agree or Disagree	Agree Somewhat	Agree Strongly	Don't know / Does not apply
1	2	3	4	5	0

## Sexual Altruism - Personal

Median: 32	Mean: 32.4	Mode: 35	Max: 63	Min: 14	IQR: 28-35
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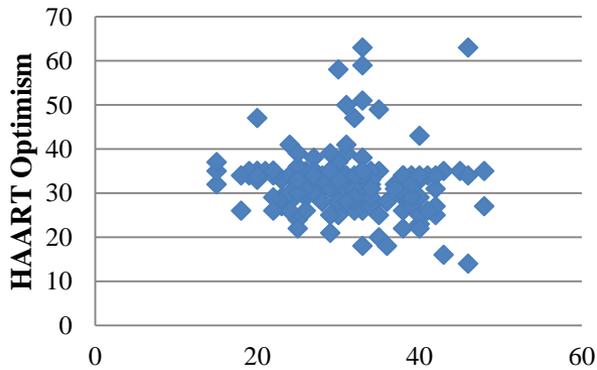
## Sexual Altruism - Communal

Median: 27	Mean: 26.3	Mode: 8	Max: 54	Min: 8	IQR: 23-30
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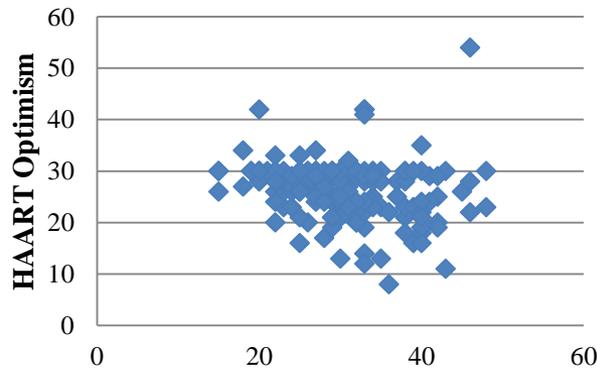
# Relationship between HAART Optimism and Sexual Altruism

Haart optimism vs. Sexual altruism - personal



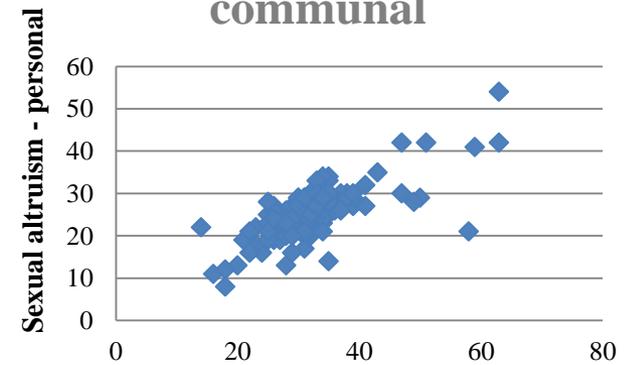
Sexual altruism - personal

Haart optimism vs. Sexual altruism - communal



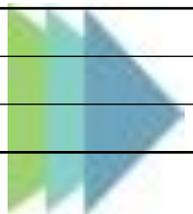
Sexual altruism - communal

Sexual altruism - personal vs. Sexual altruism - communal



Sexual altruism - communal

Scale	HAART Optimism	Sexual Altruism - Personal	Sexual Altruism - Communal
HAART optimism	1.00	-0.19	-0.27
Sexual Altruism - Personal	-0.19	1.00	0.73
Sexual Altruism - Communal	-0.27	0.73	1.00





# HAART Optimism, Sexual Altruism and the Social Determinants of Health



# Social Determinants of Health and HAART Optimism



<b>Characteristic</b>	<b>Total</b>	<b>Skeptic n (%)</b>	<b>Optimistic n (%)</b>	<b>P-value</b>
Caucasian ethnicity				0.070
No	41	26 (33.3)	15 (20)	
Yes	112	52 (66.7)	60 (75)	
Age >= 40				<b>&lt;0.001</b>
No	80	53 (67.9)	27 (36)	
Yes	73	25 (32.1)	48 (62.2)	
Self-reported Serostatus				<b>&lt;0.001</b>
Positive	65	19 (27.9)	46 (62.2)	
Negative	77	49 (72.1)	28 (37.8)	



# Social Determinants of Health and HAART Optimism



<b>Characteristic</b>	<b>Total</b>	<b>Skeptic n (%)</b>	<b>Optimistic n (%)</b>	<b>P-value</b>
Post-secondary or Greater				0.120
No	34	13 (16.7)	21 (28)	
Yes	119	65 (83.3)	54 (72)	
Income > \$14,999				0.999
No	59	30 (38.5)	29 (38.7)	
Yes	94	48 (61.5)	46 (61.3)	
Resides in Vancouver				0.385
No	25	15 (19.2)	10 (13.3)	
Yes	128	63 (80.9)	65 (86.7)	



# Sexual Behaviour/Attitudes and HAART Optimism



<b>Characteristic</b>	<b>Total</b>	<b>Skeptic n (%)</b>	<b>Optimistic n (%)</b>	<b>P-value</b>
> 6 sexual partners in P6M				0.419
No	85	46 (59)	39 (52)	
Yes	68	32 (41)	36 (48)	
Heard of “STOP HIV/AIDS”				<b>0.009</b>
No	92	55 (70.5)	37 (49.3)	
Yes	61	23 (28.5)	38 (50.7)	
Heard of “Treatment as prevention”				0.126
No	53	32 (41)	21 (28)	
Yes	100	46 (59)	54 (72)	



# Sexual Altruism and HAART Optimism



<b>Characteristic</b>	<b>Total</b>	<b>Skeptic n (%)</b>	<b>Optimistic n (%)</b>	<b>P-value</b>
High Sexual Altruism – Personal (>32 median)				0.194
No	85	35 (44.9)	41 (56.2)	
Yes	68	43 (55.1)	32 (43.8)	
High Sexual Altruism – Communal (>27 median)				0.255
No	77	36 (46.2)	41 (56.2)	
Yes	74	42 (53.8)	32 (43.8)	



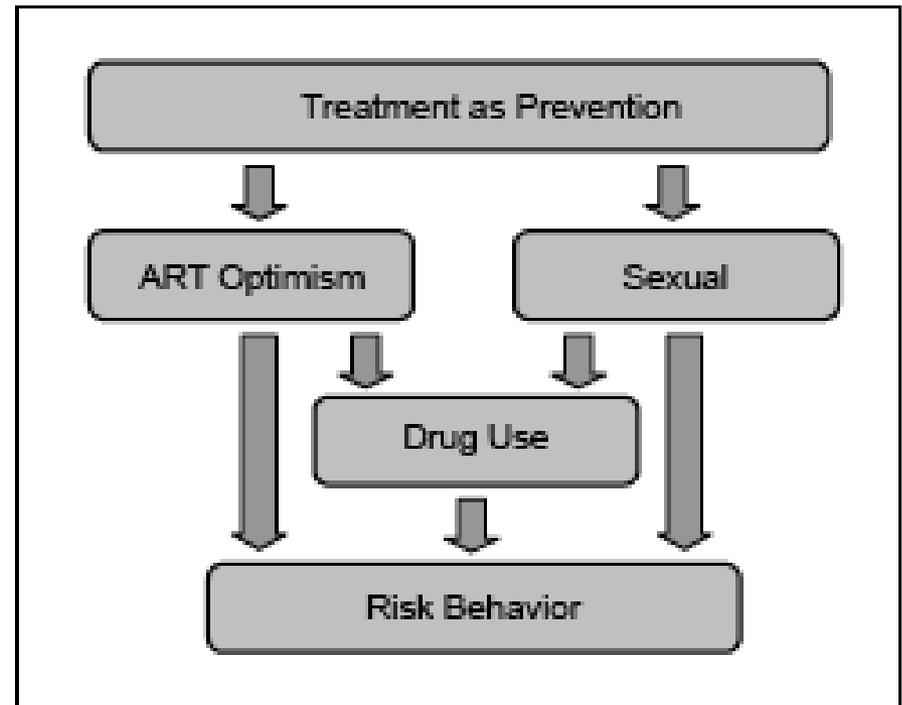


# Next steps



# Next Steps

- Momentum continues to enroll our first serial-cross section and will begin first follow-up visits for cohort participants this month
- Examine more sociodemographic and behavioural factors through the lens of HAART Optimism
- Examine the relationship between substance use and HAART Optimism



# Thank You!

## **Investigators:**

Dr. Robert Hogg  
Dr. David Moore  
Dr. Eric Roth  
Mr. Warren Michelow

## **Programming Support:**

Nada Gataric

## **Statistical Support:**

Keith Chan

## **Data Support:**

Guillaume Colley  
Susan Shurgold

## **Momentum Health Study Office Team:**

Keith Chan

## **Study Participants**

