

Self-reported Sexual Risk Behaviors among HIV-infected Patients Attending Four New York City HIV Clinics

Christopher Murrill¹, Mark Beatty^{1,2}, Shavvy Raj-Singh¹,
Lisa Buckley¹, Alejandra Gurtman³, Sian Jones³, Kai-Lih Liu¹
and Lucia Torian¹

¹New York City Dept of Health and Mental Hygiene, NY

²Centers for Disease Control, Atlanta, GA

³Mount Sinai Medical Center, New York, NY

Objectives

- Measure self-reported sexual and drug related risk behaviors, through the use of an anonymous, computer-assisted survey of an antiretroviral-treated HIV positive population accessing primary health care.
- Determine feasibility of adapting computerized self-administered surveys into behavioral surveillance activities of HIV+ populations in NYC and assess the acceptability of the computer-assisted survey.

Methods - 1

- Cross-sectional survey measuring sexual and drug related risk behaviors.
- Anonymous, 20-30 minute self-administered computer-assisted survey
- Eligibility criteria:
 - HIV+ patients on antiretroviral therapy accessing care at one of four hospital-based primary care HIV clinics
 - ≥ 18 years of age and English literate

Methods - 2

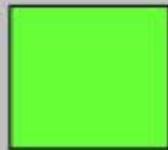
- DOHMH staff performed on-site recruiting through posted fliers, general announcements, and referrals from clinic staff.
- Survey questions were introduced one at a time using a tablet, laptop with mouse, or touch screen device with an audio component. Patients received a \$20 subway pass upon completion of the survey.
- A total of 1106 patients were recruited from June through December 2004.

Sample Question on Computer Screen

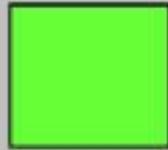
What sex do you identify yourself as now?



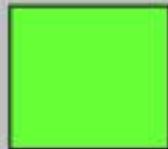
Male



Female



Transgender



Other

Refuse to Answer

Don't Know

Not Applicable

Previous Question

Next Question

Repeat Question

Definitions

MSM – men having sex with men

MSW – men having sex with women

WSM – women having sex with men

Sexually Active = ≥ 1 partner in 12 months

Sexual Risk = non-condom use during anal or vaginal sex

IDU = injection drug use

Demographics

	TOTAL (N=1,106)
Gender (%)	
Male	55
Female	43
Other	2
Race/Ethnicity (%)	
White	4
Black	41
Hispanic	36
Other/Unknown	20
Age (%)	
18 - 29	2
30 - 34	6
35 - 39	13
40 - 44	24
45 - 49	24
50 - 54	13
55+	13

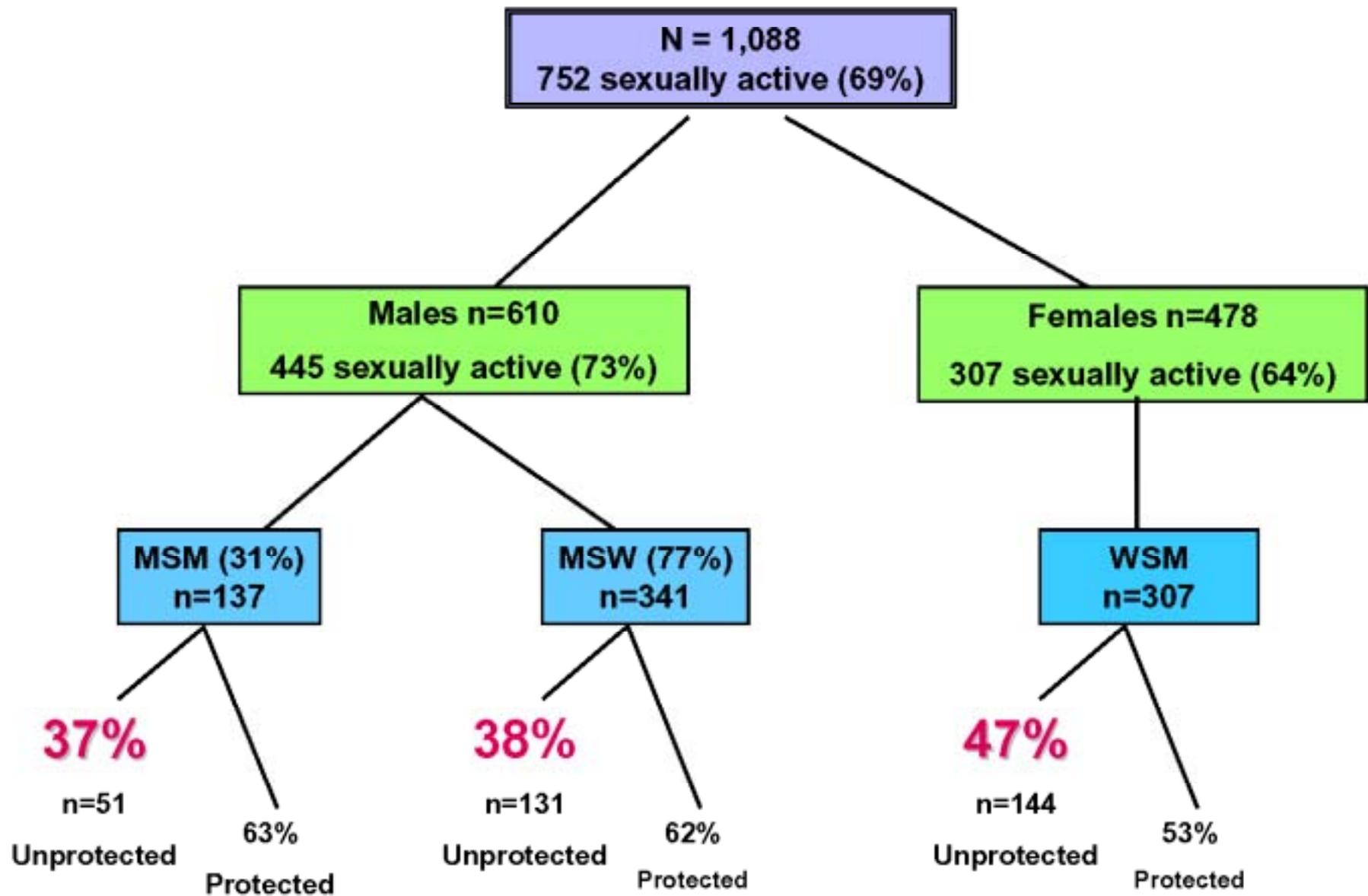
	TOTAL (N=1,106)
Education Level	
College Grad	8
Some College	19
H.S. Grad/GED	33
Some H.S.	27
Less Than H.S.	12
Refuse/DK	<1
Sexual Preference	
Heterosexual	74
Homosexual	12
Bisexual	8
Other	5
Refuse/DK	1

Clinical Characteristics

- Duration of HIV infection: mean = 9.8 yrs (range 0-21; 95% CI = 9.5-10.2)
- 48% report undetectable viral load

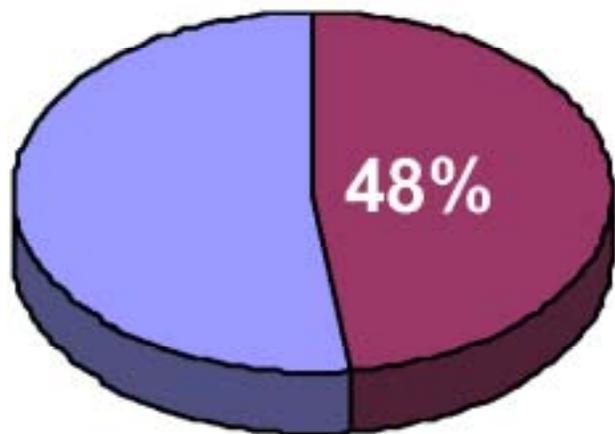
<i>Antiretroviral Medications</i>	Frequency	(%)
Nucleoside/Nucleotide Analogs (NRTIs)	1070	(97)
Protease Inhibitors (PIs)	634	(57)
Non-Nucleosides (NNRTIs)	384	(35)
Entry Inhibitor	11	(1)
<i>Regimen</i>		
PI	23	(2)
PI + Entry	2	(0.2)
NNRTI	7	(0.6)
NNRTI + PI	4	(0.4)
NRTI	142	(13)
NRTI + Entry	5	(0.5)
NRTI + PI	546	(49)
NRTI + PI + Entry	4	(0.4)
NRTI + NNRTI	318	(29)
NRTI + NNRTI + PI	55	(5)

Self-Reported Sexual Risk Behavior Over Past 12 Months

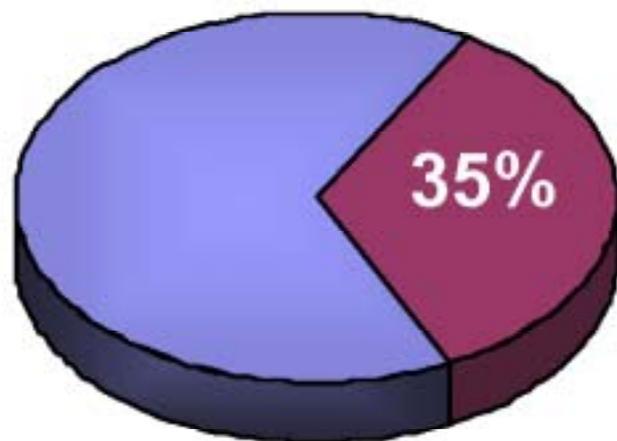


Serodiscordant Partners Among Those Having Unprotected Sex During Last Sexual Encounter

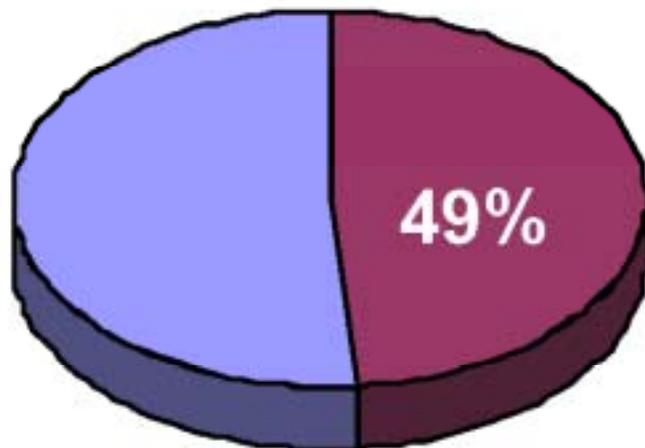
MSM
n=48



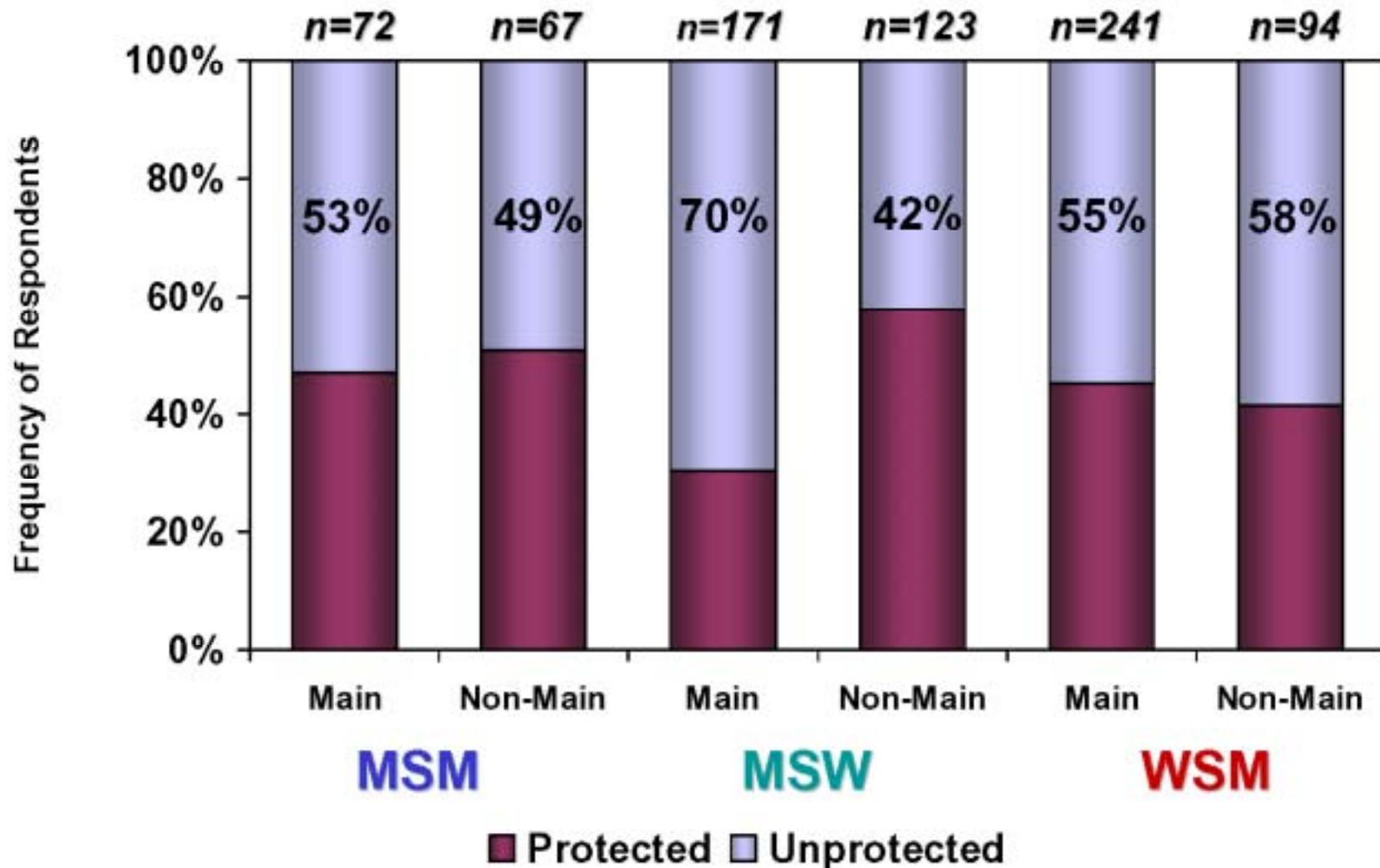
MSW
n=113



WSM
n=138



Unprotected Sex in Main versus Non-main Partners During Past 12 months



Reasons for Unprotected Sex

Main

Non-Main

MSM partner didn't want to (16%)
interferes with sexual pleasure (13%)
partner was HIV+ (13%)

interferes with sexual pleasure (18%)
partner was HIV+ (18%)
partner didn't want to (15%)

MSW partner was HIV+ (18%)
unavailability of condoms (13%)
interferes with sexual pleasure (13%)

drunk or high (13%)
interferes with sexual pleasure (13%)
unavailability condoms (13%)

WSM interferes with sexual pleasure (20%)
partner was HIV+ (13%)
hard to practice safe sex (13%)

partner didn't want to (20%)
interferes with sexual pleasure (16%)
unavailability of condoms (13%)

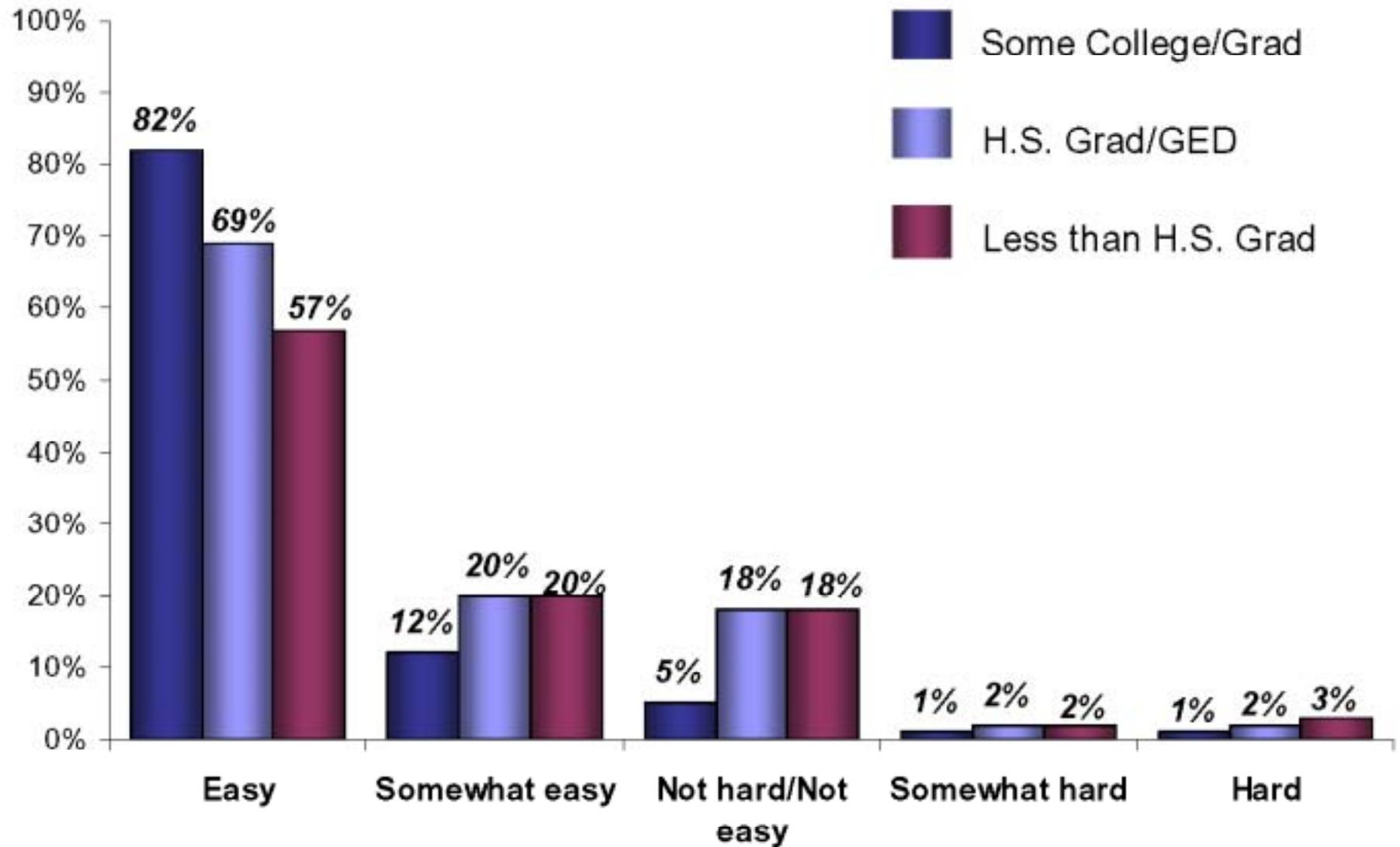
Exchange for Sex

- 6% (48/752) had sex in exchange for money, drugs, food, shelter or transportation (36 Males, 12 Females).
- During the exchange for sex, the majority of MSW report paying for sex (79%) while the majority of WSM report being paid for sex (83%).
- 56% (27/48) report unprotected sex with partners of unknown serostatus.

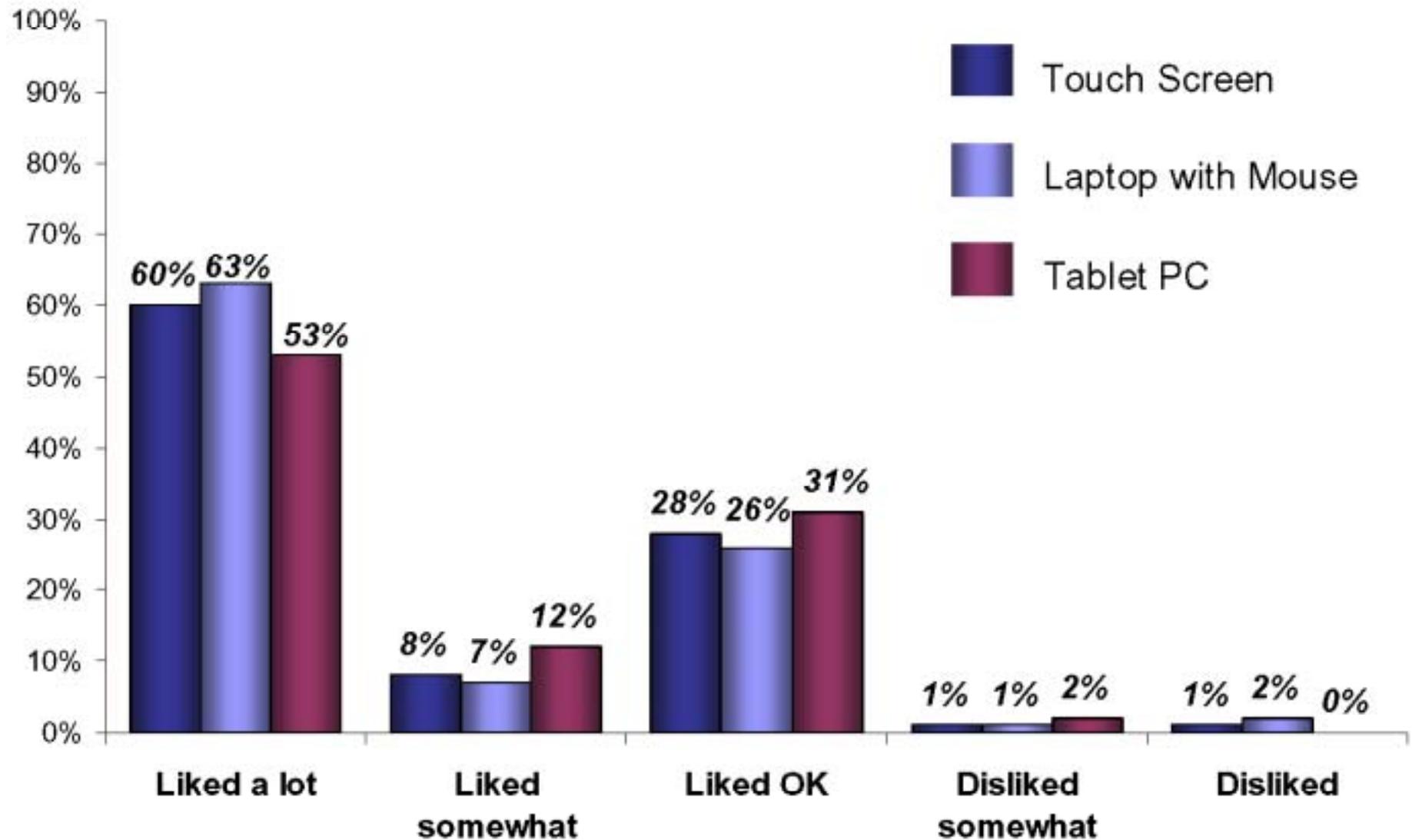
% Drug Use Among the Sexually Active

	<i>Men having sex with men (n=137)</i>	<i>Men having sex with women (n=341)</i>	<i>Women having sex with men (n=307)</i>	<i>TOTAL (N=752)</i>
<i>Injecting Drug Using</i>				
Ever Injected	12	48	24	32
Injected within past 12 months	5	9	4	6
<i>Non-Injecting Drugs used within past 12 months</i>				
	33	27	19	24
<i>Non-Injecting Drugs used during sex</i>				
	20	16	10	15
<i>Types of Non-Injecting Drugs Used During Sex</i>				
Marijuana	10	6	5	7
Crack	9	9	5	7
Cocaine	4	4	1	3
Heroin	0.7	6	2	3
Poppers	6	0.3	0	1
Pain Killers	1	1	1	1
Downers	0.7	1	0.3	0.7
Crystal	3	0	0	0.5
Ecstasy	2	0	0	0.4
Club Drugs	1	0	0	0.3
Amphetamines	0	0	0.3	0.1

Ease of Using the Computer



Acceptability of Taking a Computerized Survey



94% would be willing to take a computerized survey again.

Summary - 1

- In 752 sexually active HIV+ patients, women were 1.4 times more likely to report unprotected sex than men over the past 12 month ($p < 0.05$).
- Among persons reporting unprotected sex with partners of the opposite sex (MSW, WSM), a higher proportion of women reported having a serodiscordant partner (49% vs 35%; $p < 0.05$) than men.
- Among MSW, there was more unprotected sex with a main versus non-main partner (70% vs 42%; $p < 0.001$) and the most common reason reported for unprotected sex with a main partner was that their partner was HIV+.
- Among women, the primary reason for non-condom use during vaginal sex was because their partner didn't want to.
- Among MSM, similar reasons for non-condom use include partner didn't want to, interferes with sexual pleasure, and partner was HIV+.

Summary - 2

- Reported general use of non-injection drugs over the past 12 months among the sexually active was 24% and reported use during sex was 15%.
- The computer-assisted survey is feasible. The majority of respondents reported that they liked taking a computerized survey, that it was not difficult, and that they would be willing to take it again.
- Computer-assisted systems allow for efficient data collection, standardized administration of the survey, and further ensures anonymity of responses.

Limitations

- Due to the selection of inner city hospital-based HIV clinics, some subgroups of HIV+ patients are under-represented such as MSM and whites.
- Using a computerized survey for data collection eliminates the ability to identify missing data at the time of administration of the survey.
- Although the literature suggests that use of computer-assisted surveys may yield more accurate reporting of risk behaviors, this study was unable to assess this due to absence of interviewer administered surveys among this sample as a comparison.

Conclusions

- Based on these results, ongoing prevention efforts are needed to promote and maintain reduced risk behaviors.
- HIV primary care clinics serve as a key access point for implementing targeted prevention efforts aimed at reducing sexual and drug-using risk behaviors and thereby reducing risk of transmission.
- Use of a computer-assisted survey provides a more anonymous setting and standardized approach for collection of sensitive sexual and drug-using behaviors.

Acknowledgements

NYC Department of Health and Mental Hygiene

Bindu Avutu
Marie Antoinette Bernard MD
Dianne Brown
Eula Bryan
Athea Bullard-Young
Marissa Cohler
Andrew Feda
Rose Gasner, JD
Colin Roach
Selam Seyoum
Elys Vasquez
Isaac Weisfuse, MD

Clinic-based Principal Investigators

Edward Telzak, MD
Richard Cindrich, MD
Nadim Salomon, MD
John Delury, MD