

Behavioral risk factors for heterosexual adolescents perinatally or behaviorally infected with HIV

New York City

July 2007 through June 2010

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BACKGROUND

Sexual risk behaviors of high school students, 2009

	US	NYC
<u>Ever</u> had sex	46%	39%
No condom used at <u>last sex</u>	39%	29%
Four or more <u>lifetime</u> sex partners	14%	15%

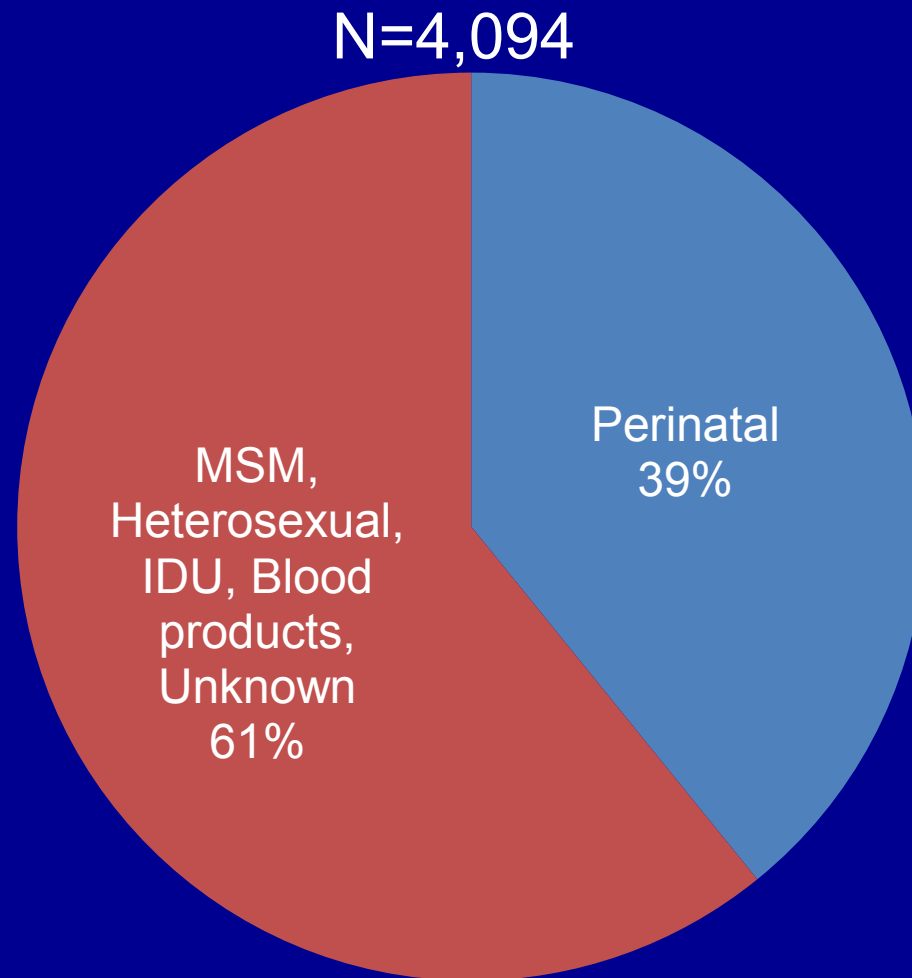
New HIV diagnoses among adolescents ages 13-19, 2009

US (N=42,959)		NYC (N=3,669)	
2,057	4.8%	161	4.4%

**CDC HIV Surveillance Report: Diagnoses of HIV infection and AIDS in the United States and Dependent Areas, 2009.*

***NYC DOHMH Annual Surveillance Statistics, 2009*

HIV transmission risk category for persons 15-24 living with HIV/AIDS, NYC, 2009



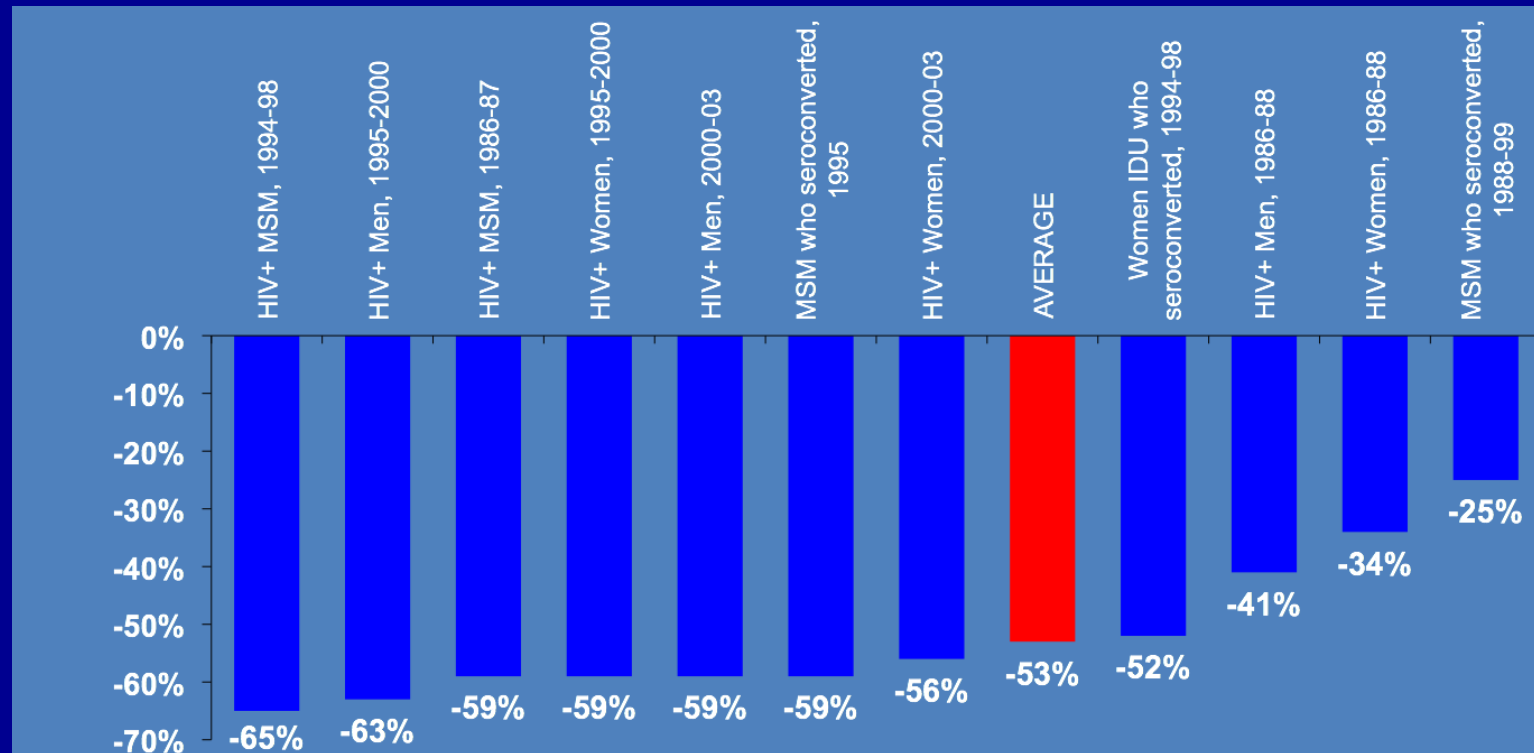
Study of sexual risk transmission behaviors of adolescents infected with HIV

	Perinatally infected	Behaviorally acquired
Sex in past 3 months	58%	82%
Unprotected sex	32%	66%
HIV disclosure to sex partner	21%	20%

**Koenig et al. 2010. JAIDS*

Factors associated with reduction in unprotected sex

- Knowledge of HIV+ status associated with 53% reduction (Marks, 2005)



- Engagement in HIV care associated with at least 3 times reduction (Metsch, 2008)

Objective

- Compare sexual risk behaviors between heterosexual adolescents infected with HIV perinatally and behaviorally

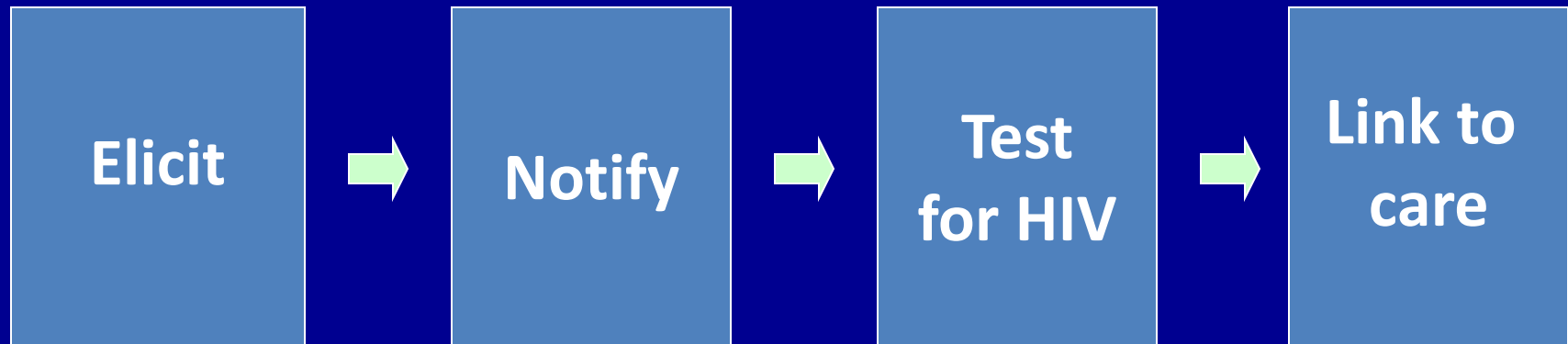
METHODS

NYC health department HIV partner services Field Services Unit established June 2006

- Public health issues addressed:
 - Concurrent HIV/AIDS diagnoses
 - Diagnosed with AIDS within 31 days of HIV
 - Delayed linkage to care
 - ~25% with no VL/CD4 1 year after initial diagnosis
 - Limited HIV partner services reported outside of NYC health-department STD clinics

New York City health department HIV partner services (PS)

FSU offers PS to all patients newly diagnosed and selected previously diagnosed at FSU affiliated sites



**HIV-
infected
patient**

Partner (sex or needle sharing)

Field Services Unit sites, NYC 2011

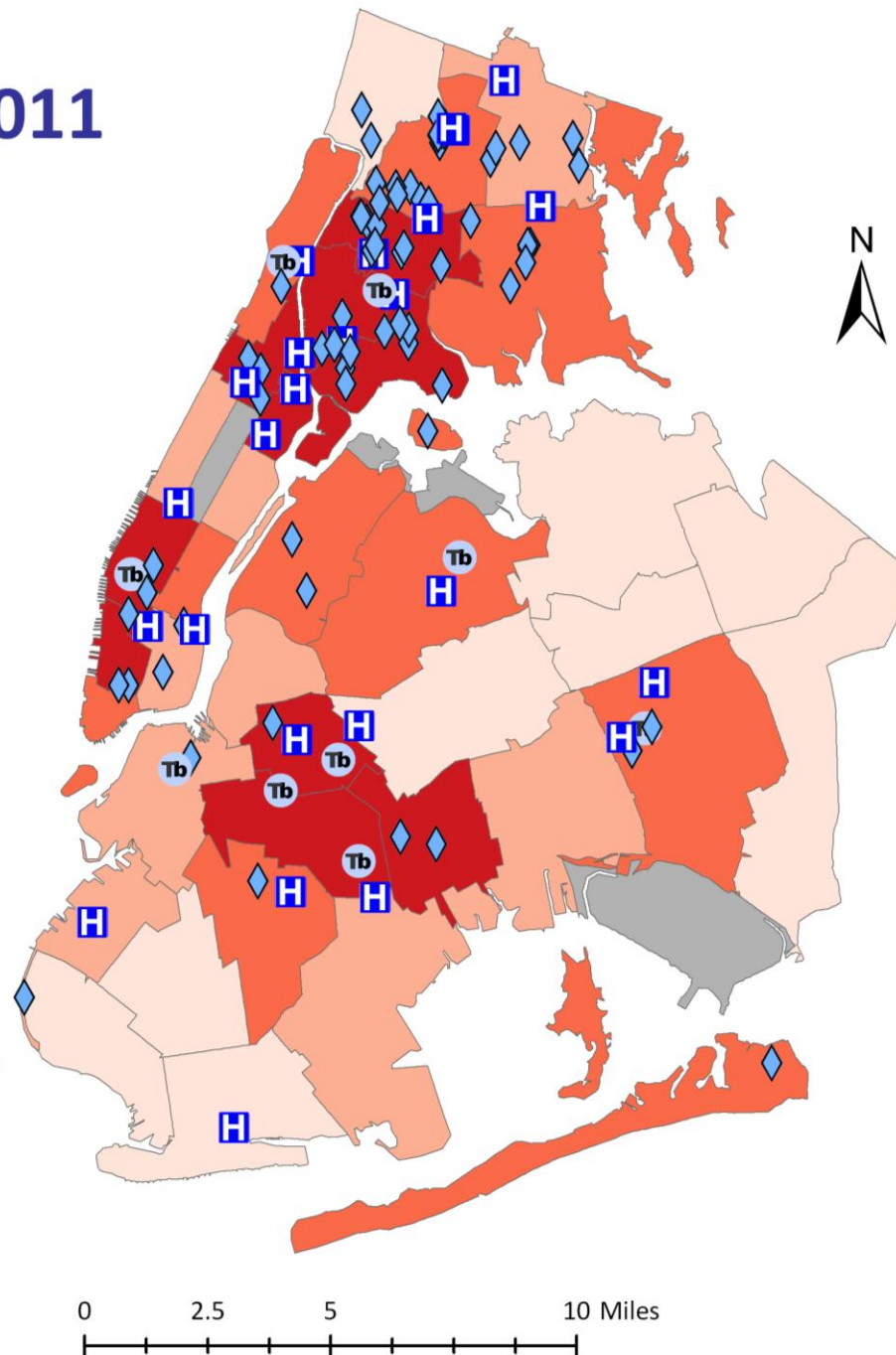
FSU site type and number

- H** Hospitals (26)
- Tb** TB Clinics (10)
- ◆ Other sites (72)

2009 HIV diagnosis rate per 100,000 population

by UHF Neighborhood

- 4.7 - 19.1
- 19.2 - 38.2
- 38.3 - 57.1
- 57.2 - 155.3
- Non-residential zones



FSU sample population

July 2007 through June 2010

- HIV-infected 15-24 year olds
- Heterosexual (excluded MSM and IDU)
- Interviewed for PS
- Sexually active in past 12 months
 - At least one sex partner
 - Pregnant

Outcome measures

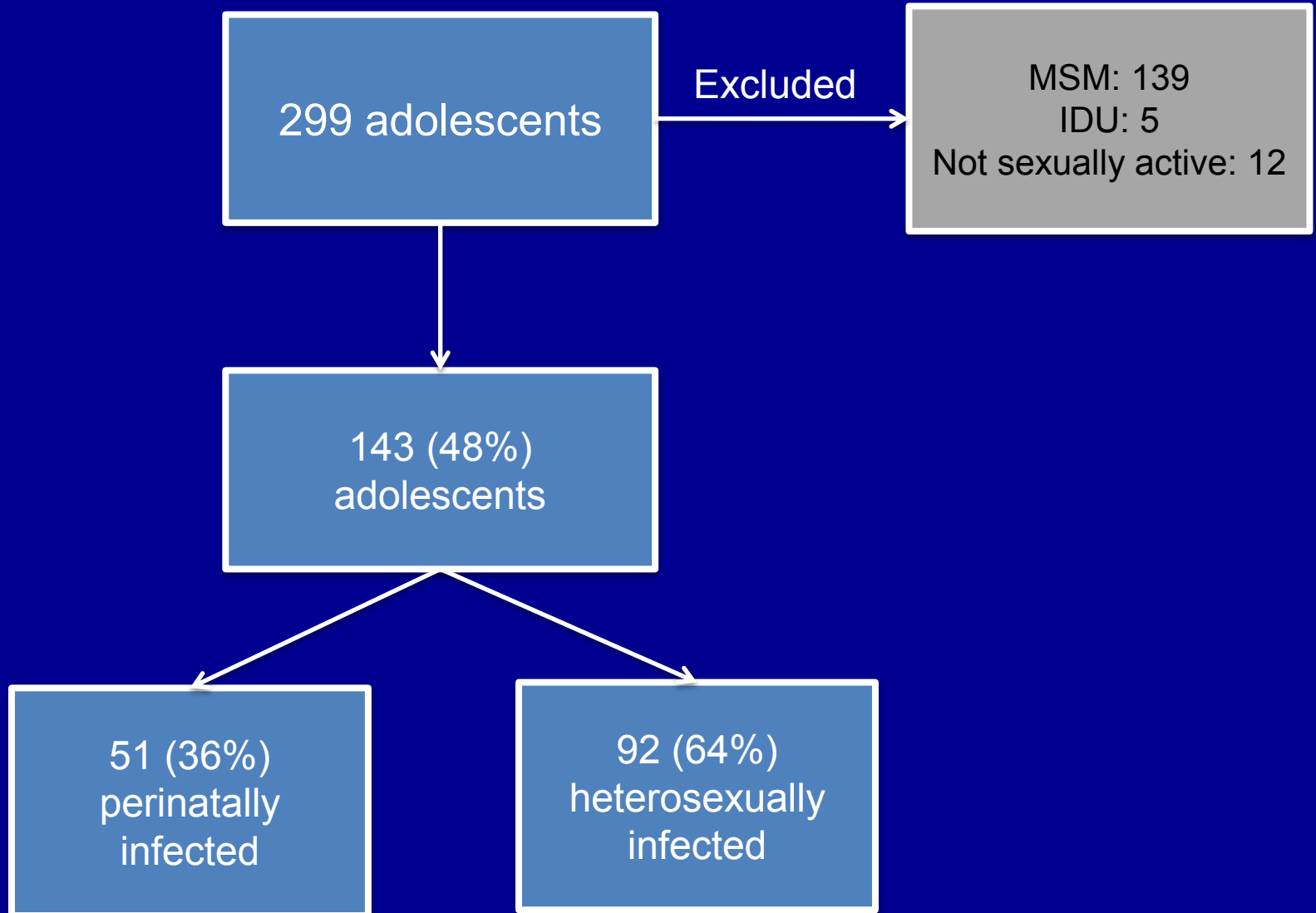
- Chart review and face-to-face patient interviews
 - Sexual behavior:
 - Pregnant, STI diagnosis, number of sex partners, condom use, have children
 - Substance use
 - Partner services:
 - Partners named, notified, tested
 - Linkage to care:
 - Appointment kept within 3 months

Statistical analyses

- Chi-square and Fischer exact tests for categorical variables
- T-tests for continuous variables

RESULTS

FSU sample population ages 15-24, July 2007 – June 2010



Demographics

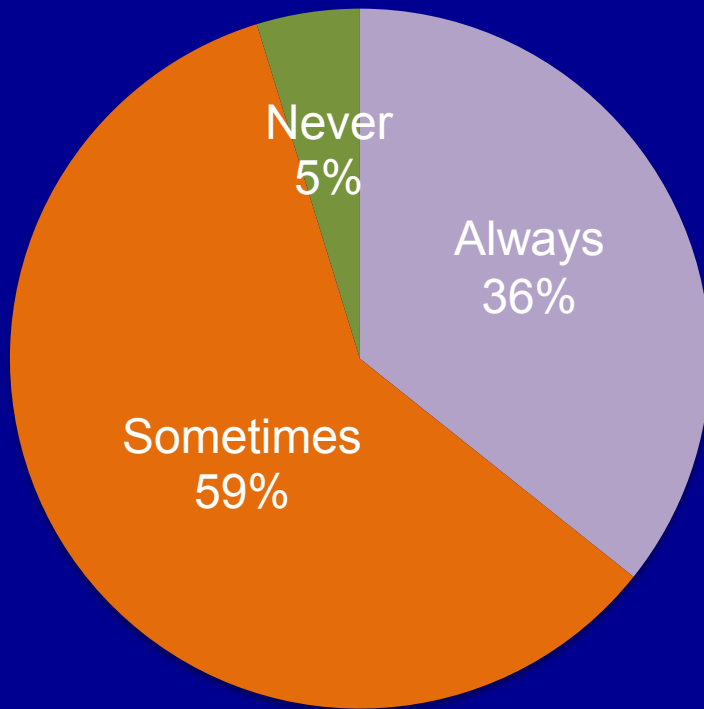
	Perinatally infected (N=51)		Heterosexually infected (N=92)		P value
	N	%	N	%	
Age (mean)	19.3		20.9		<.0001
Female	33	65%	66	72%	0.38
Race/ethnicity					0.82
Black	33	65%	60	65%	
Hispanic	15	29%	29	32%	
White/Other	3	6%	3	3%	

Sexual behaviors

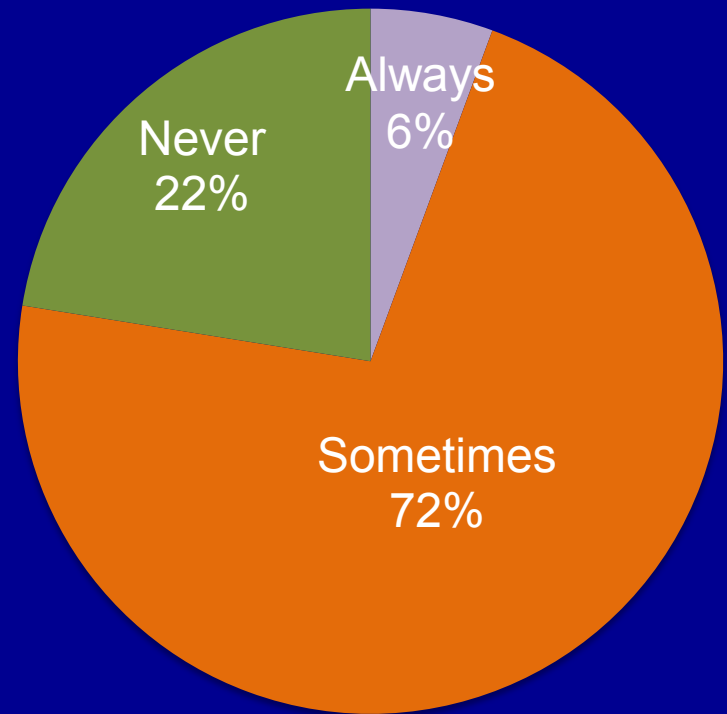
	Perinatally infected (N=51)		Heterosexually infected (N=92)		P value
	N	%	N	%	
Sex partners, mean (range)	2.0 (1-36)		2.1 (1-20)		
STI diagnosis	13	25%	16	17%	0.40
Have children (females)	6	18%	22	33%	0.18
Pregnant	16	48%	25	42%	0.70

Condom Use in the Past 12 Months

Perinatally infected



Heterosexually infected



$P < .0001$

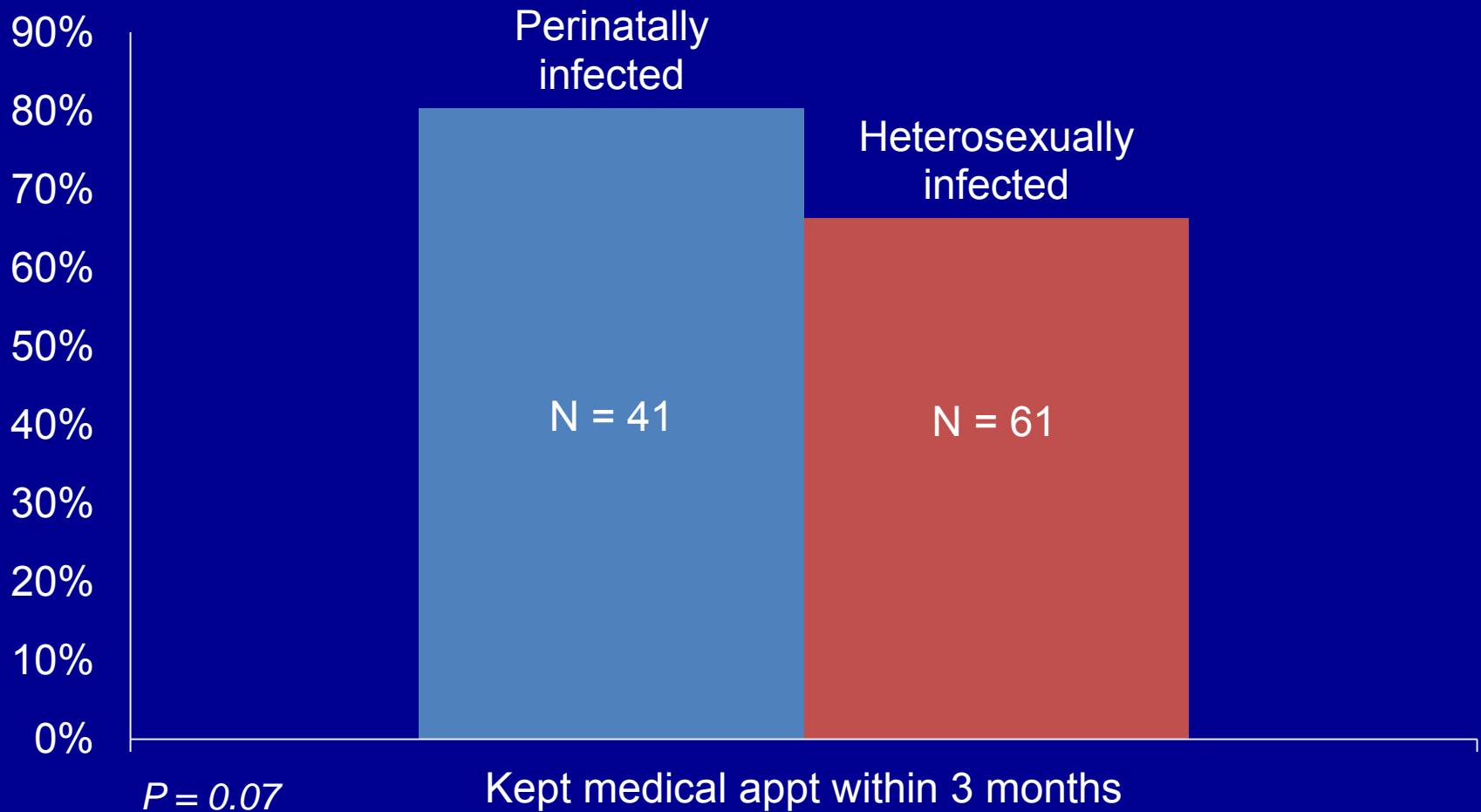
Drug and alcohol use

	Perinatally infected (N=51)		Heterosexually infected (N=92)		P value
	N	%	N	%	
Drug use*	11	22%	23	25%	0.64
Alcohol use**	13	25%	16	17%	0.76

Partner Services outcomes

	Perinatally infected (N=51)		Heterosexually infected (N=92)		P value
	N	%	N	%	
Named partners	38	75%	64	88%	0.06
Sex partners named	68		144		--
Partners with Negative/ unknown serostatus	60	88%	118	82%	0.24
Notified of exposure to HIV	24	40%	45	38%	0.81
Tested for HIV	17	71%	39	86%	0.19
Newly diagnosed with HIV	0	0%	8	20%	0.09

Linkage to care



DISCUSSION

Adolescents reported similar levels of risky sexual behavior

- High rates of STIs
- Inconsistent condom use
- Similar and low number of sex partners
- Serodiscordant sex partners
 - >80% of partners had an HIV negative or unknown status

Identification of named partners newly diagnosed with HIV

- One-fifth of partners of adolescents heterosexually-infected were newly diagnosed
- No adolescent perinatally infected named a partner newly diagnosed

Possible reasons for differences in seroprevalence among sex partners

- Perinatal
 - Only named partners they consistently used condoms with
- Adolescents heterosexually infected may have named partners undiagnosed with HIV
 - Cannot ascertain direction of infection

Limitations

- Small sample of adolescents perinatally infected with HIV
 - Excluded MSM, who have more sex partners
- Self-reported behavior
- May not name current partners to the health department for fear of losing partner
- Persons infected for a long time may be less cooperative with health department

Conclusion

- Similar sex and drug use behaviors
- Perinatally infected reported always using condoms more often than heterosexually infected
- Perinatally infected did not provide any partners newly diagnosed with HIV

Recommendations for adolescents infected with HIV

- Disclosure of HIV status not a one-time event, but process involving ongoing discussions (NYS Department of Health guidelines)
- HIV care visits provide opportunity to emphasize safer sex
 - Some may need more intensive behavioral interventions

Acknowledgements

- FSU field staff
- FSU partnering facilities

References

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