



*Anal sex is a Behavioral Marker for  
Laboratory-Confirmed STDs and  
HIV-Associated Risk Among African  
American Female Adolescents*

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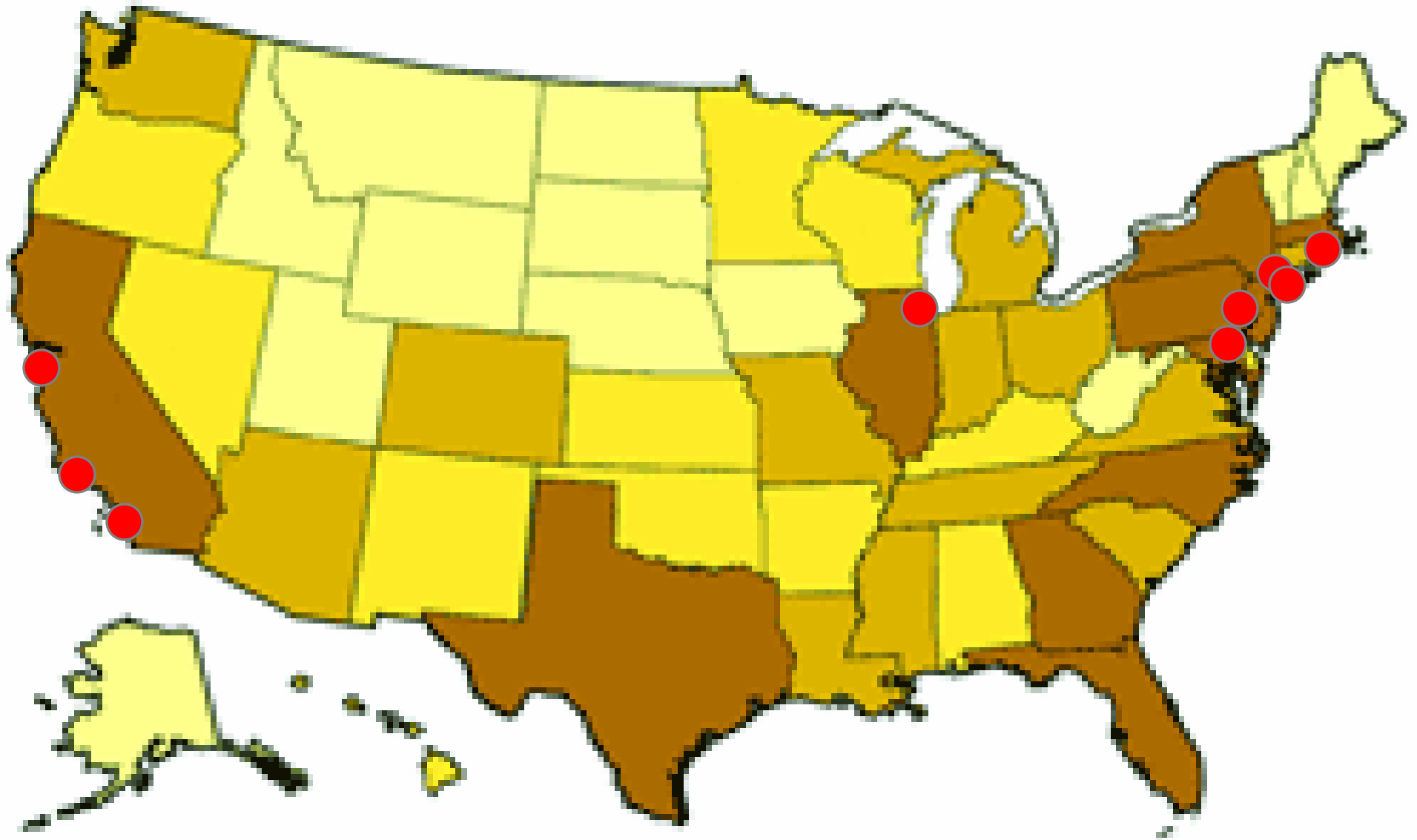


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# *Background*

- ✧ Sexually transmitted diseases (STDs) are a significant source of morbidity among adolescents ages 15-24
- ✧ African-American females in the South are disproportionately affected by the intersecting epidemics of HIV and STDs.
- ✧ One risk behavior that is understudied is anal sex.
- ✧ Anal sex may be a marker for other risks behaviors and STD acquisition

# *New AIDS cases across the US, 2005*



Brown = highest concentration, Light yellow = lowest

Source: Statehealthfacts.org (Accessed October 2007) '[New AIDS Cases, reported in 2005](#)', The Henry J. Kaiser Family Foundation.

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# *Objective*

- ✧ To determine whether among African American adolescent females engaging in penile-anal sex is associated with a profile of other high risk sexual behaviors and laboratory-confirmed STDs



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# *Methods: Sample*

✧ 715 African-American females

✧ Recruitment sites:

✧ Urban STD clinic

✧ Teen clinic in large hospital

✧ Family planning clinic

✧ Eligibility:

✧ 15-21 years old

✧ Sexually active past 60 days



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# *Methods: Data Collection*

- ✧ Cross-sectional study
- ✧ Audio-computer assisted self-interview (ACASI)
  - ✧ Sexual risk behaviors
  - ✧ Anal sex (past 60 days)
- ✧ Self-collected vaginal swab
  - ✧ *Chlamydia trachomatis*
  - ✧ *Neisseria gonorrhoeae*
  - ✧ *Trichomonas vaginalis*
- ✧ Approved by Emory IRB



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# *Methods: Data Analysis*

✧ Bivariate analyses: prevalence ratios, 95% confidence intervals, *P*-value; significance was set at  $\alpha \leq .05$

✧ Hierarchical logistic regression model  
Conducted to adjust analyses for key covariates:

✧ Age

✧ Residing with family member



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# *Results: Sample Characteristics*

- ✧ Mean age 17.8 years ( $\pm$  1.7)
- ✧ 75.8% reside with family member
- ✧ 65.3% enrolled in school
- ✧ 28.8% positive for 1 of 3 STDs
  - ✧ 17.6% *C. trachomatis*
  - ✧ 4.9% *N. gonorrhoeae*
  - ✧ 12.9% *T. vaginalis*
- ✧ **10.5% prevalence of anal sex (past 60 days)**





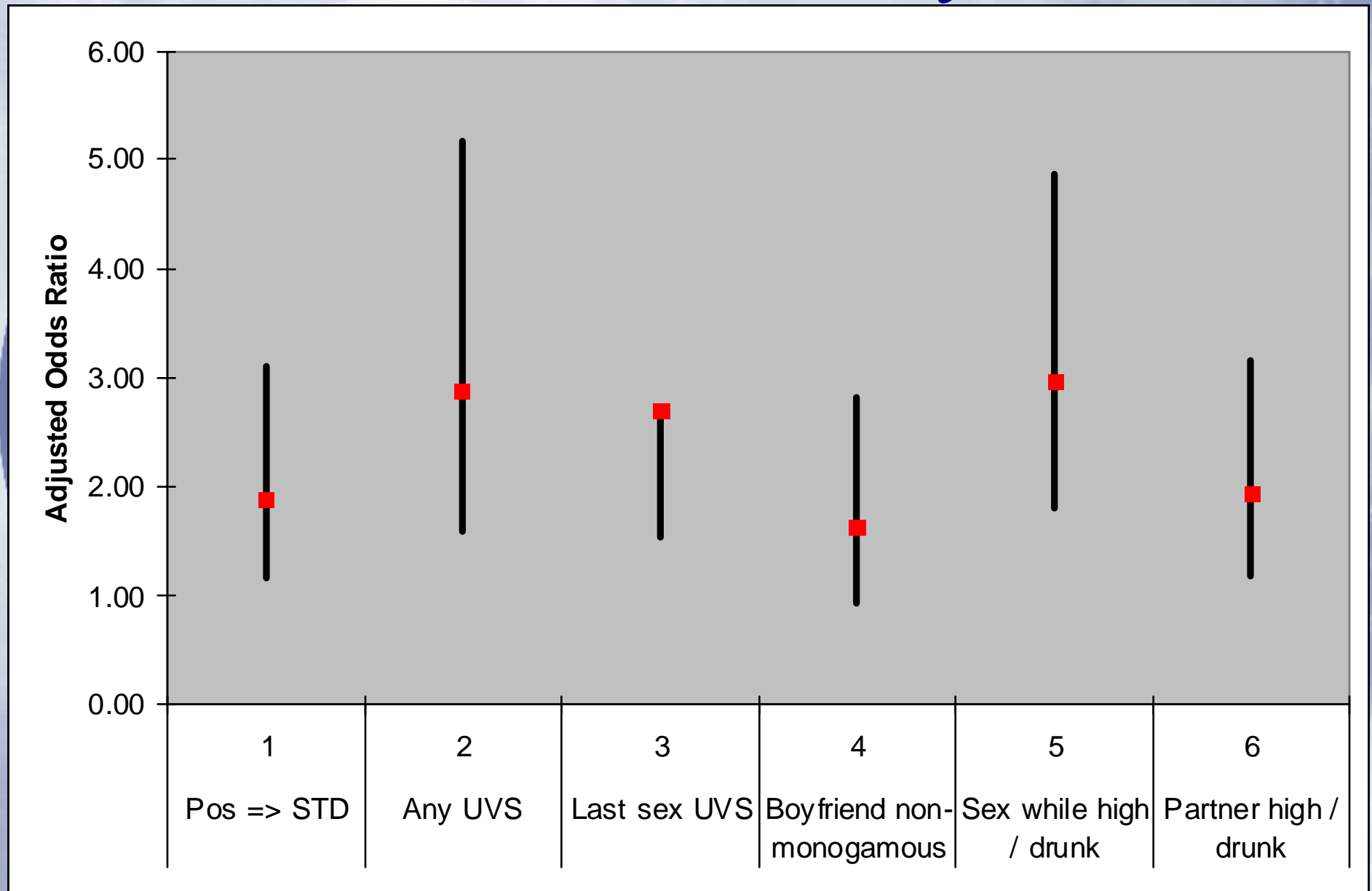
# *Results: Bivariate Associations*

<b>Outcome</b>	<b>Anal Sex (n = 75)</b>	<b>No Anal Sex (n = 640)</b>	<b>PR</b>	<b>95% CI</b>	<b>P</b>
Positive for at least one STD	40.0%	27.5%	1.46	1.07-1.97	.02
<u>Sexual Risk Profile</u>					
Any unprotected vaginal sex	78.7%	56.9%	1.38	1.21-1.58	.001
Last vaginal sex was unprotected	77.3%	65.8%	1.41	1.23-1.63	.001
Boyfriend has sex with other females	40.7%	29.0%	1.40	1.00-1.97	.06
Had sex while high or drunk	56.0%	29.5%	1.90	1.50-2.40	.001
Had sex while partner was high or drunk	60.0%	43.1%	1.39	1.13-1.71	.005

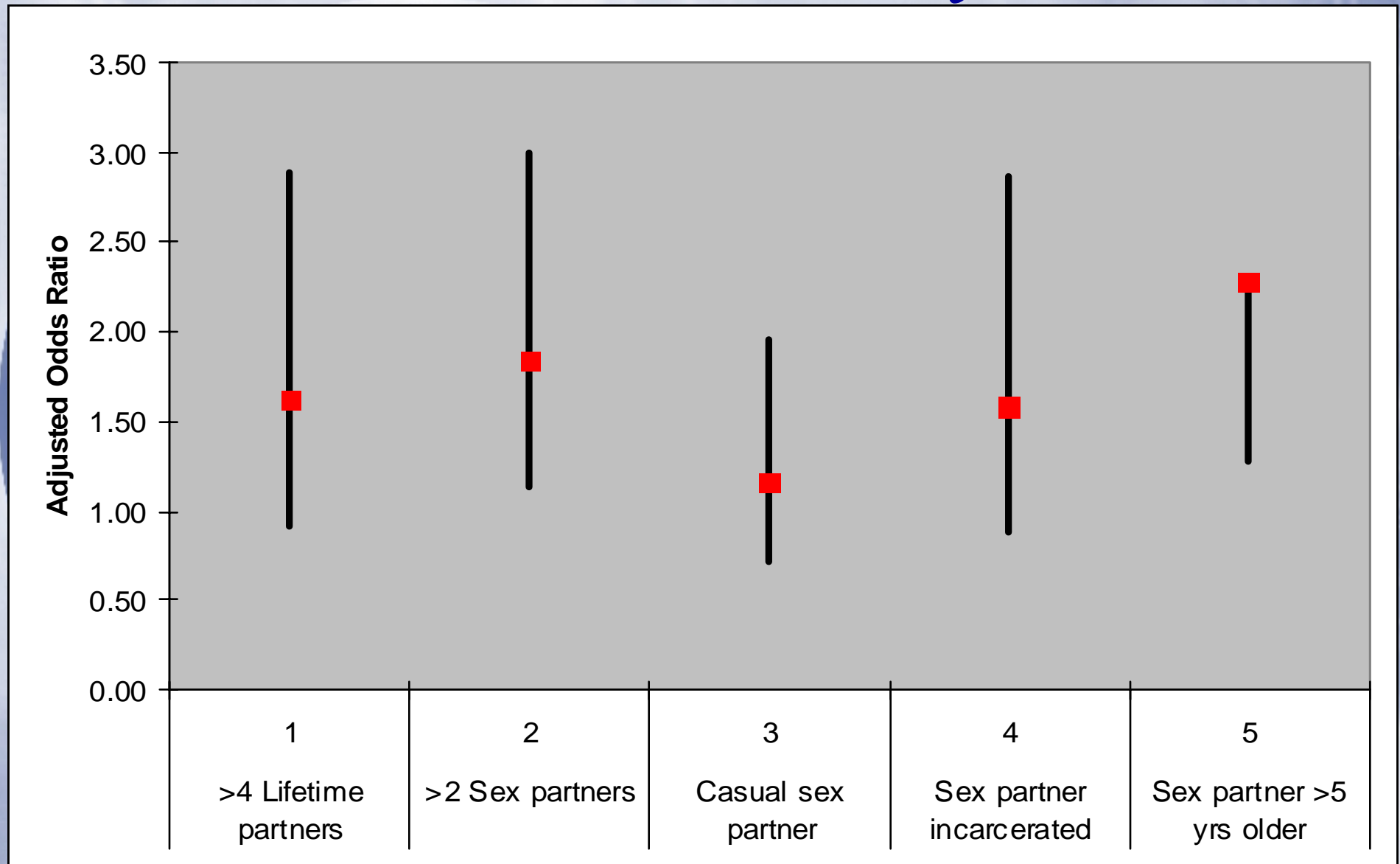
## *Results: Bivariate Associations cont.*

<b>Outcome</b>	<b>Anal Sex</b> (n = 75)	<b>No Anal Sex</b> (n = 640)	<b>PR</b>	<b>95% CI</b>	<b>P</b>
<u>Sexual Risk Profile cont.</u>					
Lifetime # of vaginal sex partners $\geq 4$	(58) 77.3	(421) 65.8	1.18	1.03-1.34	.04
Had vaginal sex with 2 or more partners	(35) 46.7	(202) 31.6	1.48	1.13-1.93	.009
Had sex with a casual partner	(26) 34.7	(199) 31.1	1.12	.80-1.55	.53
Had sex with a partner recently incarcerated	(17) 22.7	(105) 16.4	1.38	.88-2.17	.17
Had sex with partner at least 5 years older	(19) 25.3	(79) 12.3	2.05	1.32-3.19	.002

# Multivariate Analysis



# Multivariate Analysis



# *Limitations*

- ✧ Cross-sectional study design
- ✧ Self-reported data for sensitive behaviors, potential recall bias
- ✧ Convenience sample
- ✧ Findings limited to African-American female adolescents



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# *Discussion*

- ✧ Adolescents reporting recent anal sex had a higher prevalence of STDs and other risk behaviors.
- ✧ Of 10 risk behaviors examined, 6 remained statistically significant after adjustment.
- ✧ Anal sex as a behavioral marker may be useful to facilitate efficient sexual health screening.



# *Implications for Practice*

- ✧ Healthcare providers can screen for anal sex as a marker of other risk behaviors
- ✧ Assessing history of anal sex in clinical assessment
  - ✧ straightforward
  - ✧ allows clinicians to screen adolescents efficiently



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# *Acknowledgement*

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