

AIDS-RELATED STIGMA, HIV TESTING, AND TRANSMISSION RISK IN CAPE TOWN, SOUTH AFRICA

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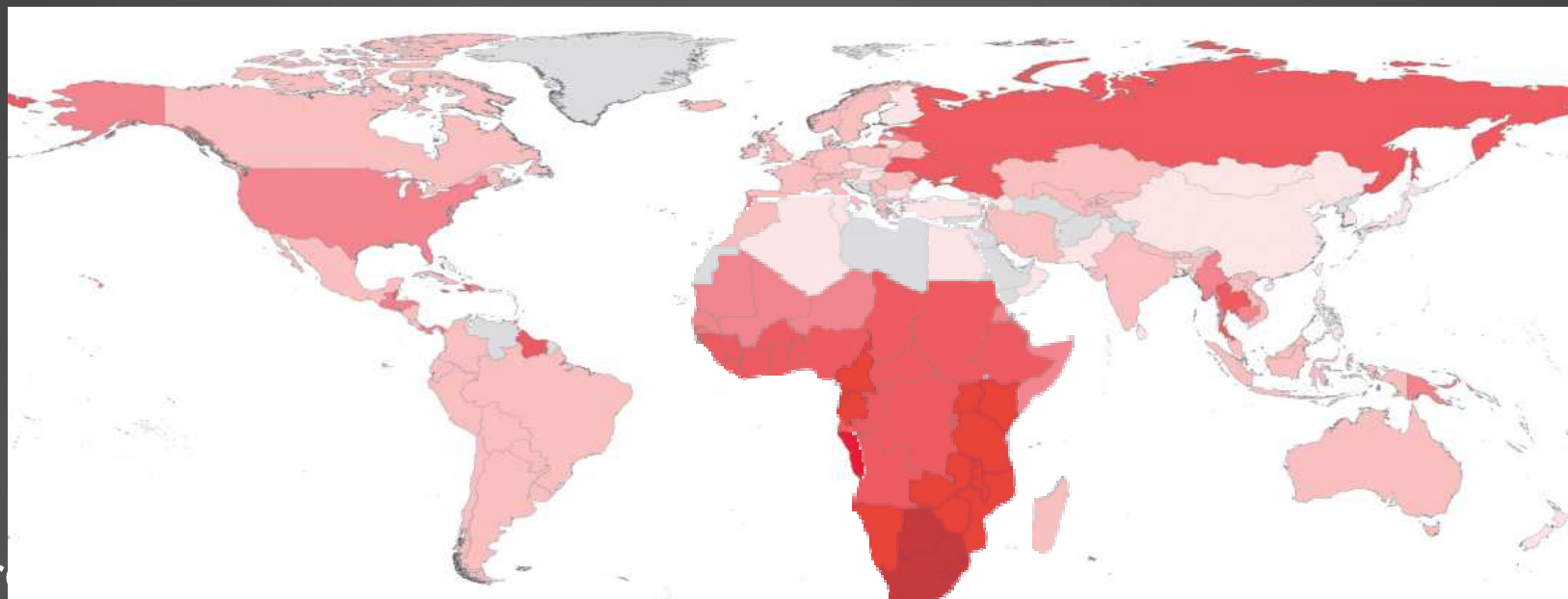
Center for Health, Intervention, and Prevention, University of Connecticut

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GLOBAL HIV PREVALENCE



townships

Source: UNAIDS, 2010

PREVENTION EFFORTS

Prevention



Identification of
serostatus



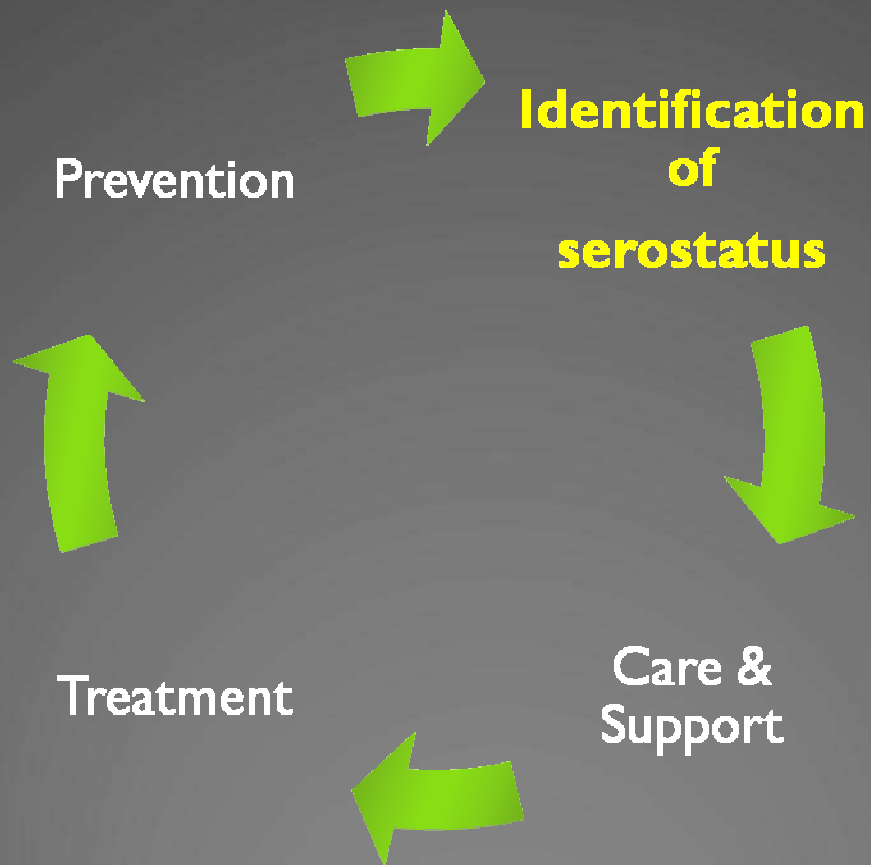
Care &
Support



Treatment



PREVENTION EFFORTS



HIV VOLUNTARY COUNSELING & TESTING CAMPAIGNS IN SOUTH AFRICA

- ▶ Testing rates improved from 2006 to 2009 by 36%
- ▶ April 2010 – Launch of voluntary HIV counseling and testing (VCT) campaign
- ▶ 40% of South Africans still have never been tested for HIV

Government of South Africa (2009)

HIV TESTING BARRIERS

- ▶ Low education, unemployment, inaccurate HIV knowledge
- ▶ Substance use
- ▶ Stigma
 - ▶ Fear of discrimination, rejection, and isolation
- ▶ Is stigma negatively associated with HIV testing over and above substance use?

Arasteh & Des Jarlais (2009); Earnshaw & Chaudoir (2009); Fenton et al. (2010); Kalichman & Simbayi (2003); Mukolo et al. (2012); Peltzer et al. (2009)

STIGMA AND HIV SEXUAL RISKS

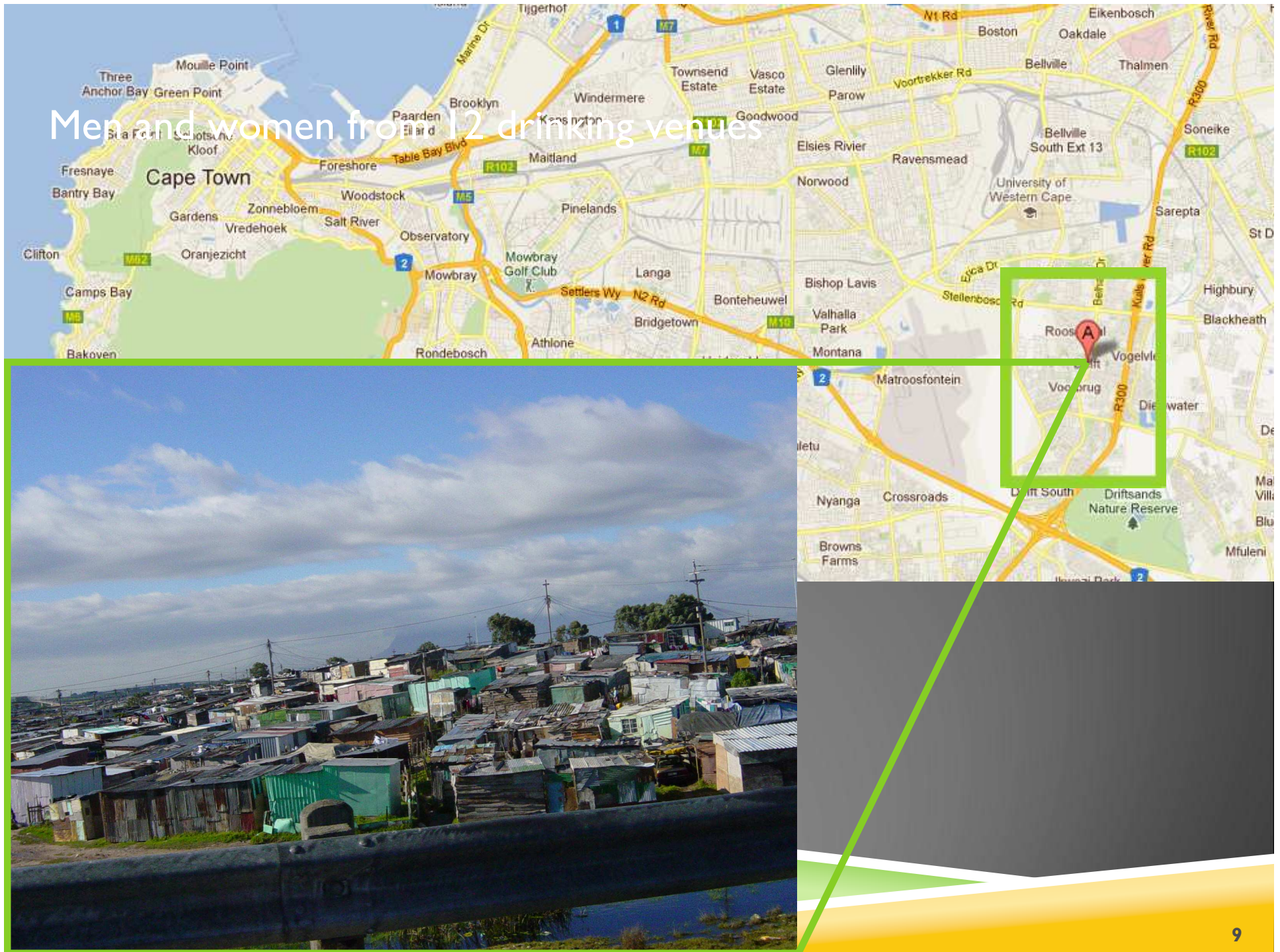
- ▶ Is stigma associated with increased risk for HIV infection among untested individuals?
- ▶ Among MSM
 - ▶ Internalized stigma prospectively predicts higher sexual risk behavior

Hatzenbuehler, Nolen-Hoeksema, Erickson (2008); Hatzenbuehler et al. (2011)

HYPOTHESES

1. Stigma as a barrier to testing – Endorsement of AIDS-related stigma would be associated with a lower likelihood of lifetime HIV testing, over and above demographic characteristics and substance use
 2. Stigma associated with risk behavior - Endorsement of AIDS-related stigma would be associated with higher HIV transmission risk behaviors *among persons not tested for HIV*
- ▶ Among men and women attending informal drinking venues in a Cape Town township

Men and women from 12 drinking venues



DRINKING ENVIRONMENTS

- ▶ Weir et al. (2003) study on sexual networks in South Africa
- ▶ 94% are alcohol-serving establishments
- ▶ 78% in informal drinking environments – *shebeens*



PARTICIPANTS

- ▶ 2,572 (1,407 men and 1,162 women)
- ▶ Mean age = 32
- ▶ 54% Black, 44% Coloured

MEASURES

- ▶ Demographics (e.g., age, employment status, electricity)
- ▶ HIV testing status – *Have you ever been tested for HIV?*
- ▶ AIDS-related stigma endorsement (4 items)
 1. People who have AIDS are dirty
 2. People who have AIDS should be ashamed
 3. People who have AIDS should be isolated
 4. I do not want to be friends with someone who has AIDS

MEASURES

- ▶ Alcohol and drug use
 - ▶ Quantity and frequency of alcohol use
 - ▶ CAGE – screening tool for alcohol dependence
- ▶ Sexual risk behaviors
 - ▶ STI diagnosis
 - ▶ No. of sexual partners
 - ▶ Sex while drinking and on drugs
 - ▶ Transactional sex
 - ▶ Having sex at the bar

HIERARCHICAL LOGISTIC REGRESSION PREDICTING HIV TESTING (N=2,572; 0=UNTESTED, 1=TESTED)

Model	OR	Lower 95% CI	Upper 95% CI
Step 1 predictors (age*, male*, black, education, employed, married, children*, electricity, indoor water)			
$\chi^2 (9) = 97.69^{***}$			
Step 2			
Alcohol Frequency	1.05	0.95	1.15
Alcohol Consumption	1.05	0.98	1.12
Binge Drinking	0.93	0.84	1.02
Drug Use	0.87†	0.76	1.00
$\chi^2 (4) = 7.28$			
Step 3			
AIDS-related Stigma (sum)	0.88**	0.80	0.96
$\chi^2 (1) = 7.94^{**}$			

*** $p < .001$, ** $p < .01$, * $p < .05$, † $p < .10$

AIDS-RELATED STIGMA ENDORSEMENT AMONG UNTESTED INDIVIDUALS

- ▶ 787 (31%) never HIV tested
- ▶ AIDS-related stigma endorsement (4 items)
 1. People who have AIDS are dirty
 2. People who have AIDS should be ashamed
 3. People who have AIDS should be isolated
 4. I do not want to be friends with someone who has AIDS
- ▶ Non-endorser: No to all 4 items (n=426, 53%)
- ▶ Endorser: Yes to at least one item (n=361, 45%)

FACTORS ASSOCIATED WITH STIGMA ENDORSEMENT

- ▶ Less educated, Coloured (vs. Black), unemployed, less likely to have indoor electricity
- ▶ Used marijuana, meth, injection drugs in the past 4 months
- ▶ No differences in alcohol quantity, frequency, binge drinking, CAGE
- ▶ Higher sexual risk behaviors

MULTIVARIATE LOGISTIC REGRESSION

Variable	OR
Number of sex partners last 4 mo.	1.05†
Number of sex acts with alcohol last 4 mo.	1.00
Number of sex acts with drugs last 4 mo.	0.98
Came to bar looking for sex partner	1.27
Last time had a sex partner at this bar, used a condom	0.88*
Ever had sex on the premises of this bar	2.73*
Sold sex last 4 mo.	1.33
Any drug use last 4 mo.	1.56*
Diagnosed with a STI last 4 mo.	4.64**

** $p < .01$, * $p < .05$, † $p < .10$

Stigma Endorsement=1, Non-endorsement=0

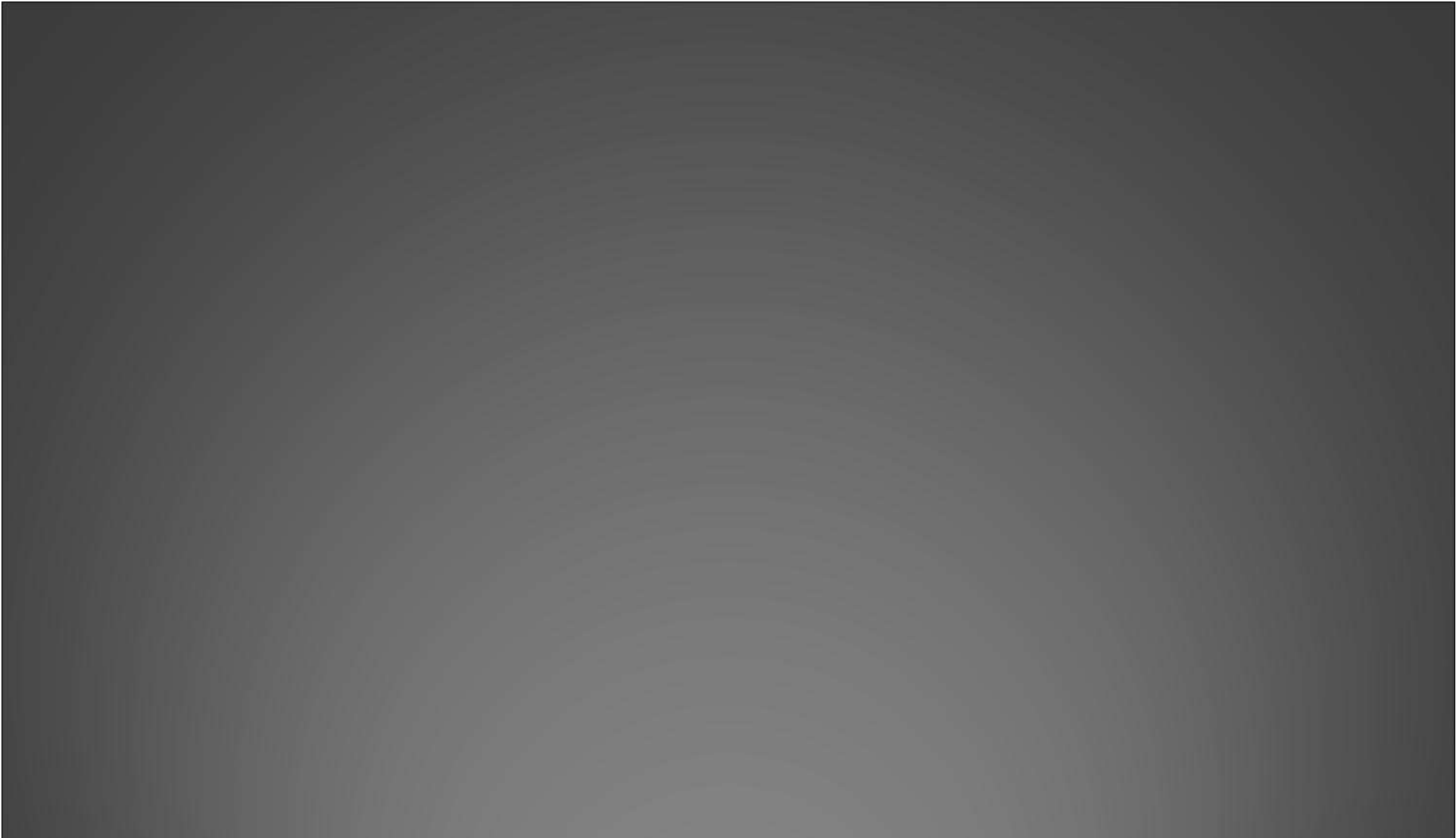
Controlling for education, race, employment status, and electricity

SUMMARY

- ▶ AIDS-related stigma was negatively associated with HIV testing
- ▶ Among those not tested, endorsement of AIDS-related stigma was related to higher HIV risk

IMPLICATIONS

- ▶ Those who are not getting tested and endorse stigma exhibit high HIV risk behavior
- ▶ Untested HIV infection is a recognized driver of HIV epidemics and stigma challenges efforts to increase testing uptake
- ▶ Current research is cross-sectional
- ▶ Future research should test process models to examine whether and how stigma prevents testing and leads to risk across time



THANK YOU

Pitpitan et al. (2012). *Annals of Behavioral Medicine*.

ENDORSEMENT OF AIDS-RELATED STIGMA ITEMS

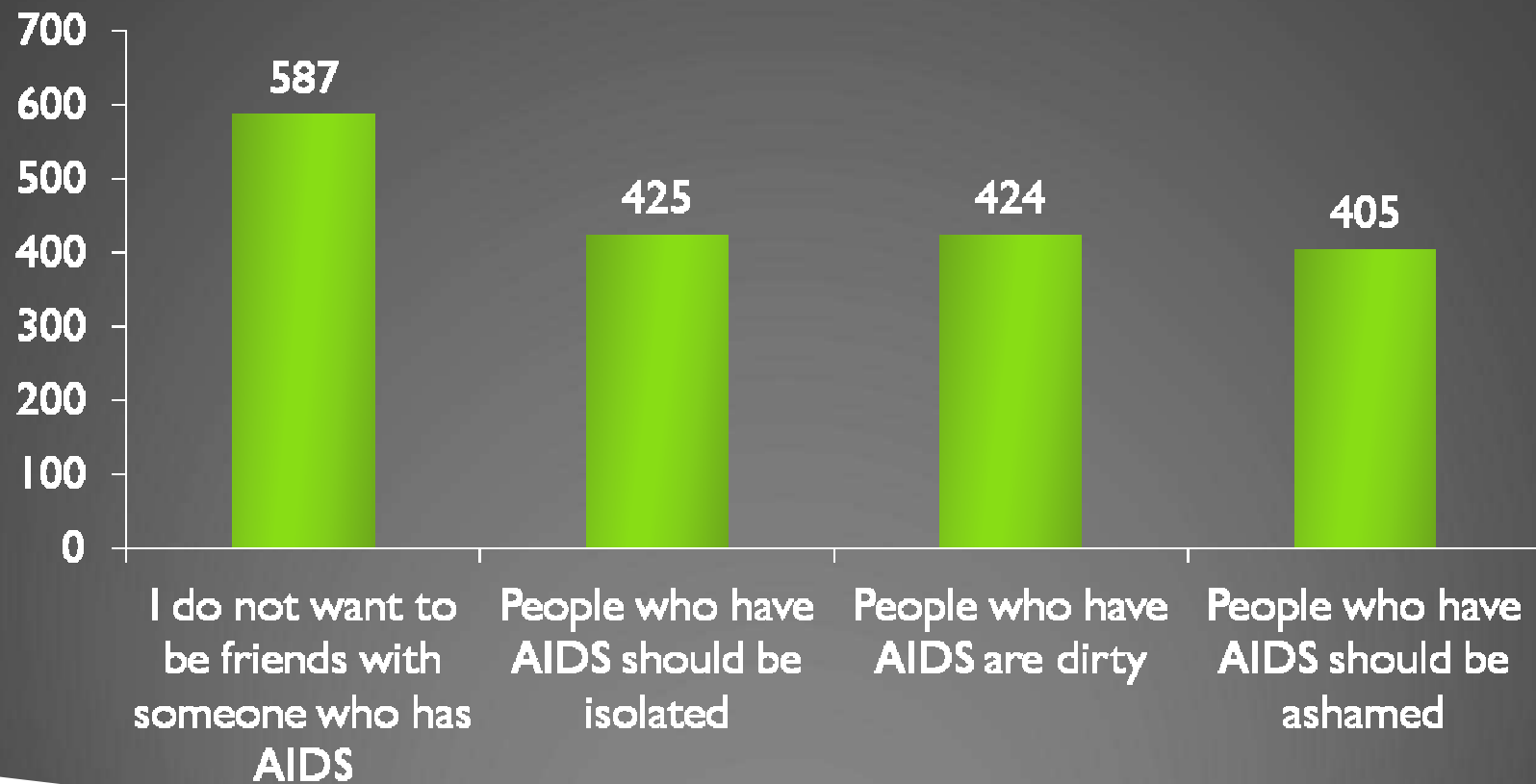


Table 4 Sexual risk behaviors among HIV-untested stigma endorsers and nonendorsers

	Stigma endorser (<i>n</i> =361)		Stigma nonendorser (<i>n</i> =426)		
	Mean	SD	Mean	SD	<i>t</i>
% protected intercourse	67.06	39.57	70.10	40.86	−1.05
	<i>n</i>	%	<i>n</i>	%	χ^2
Sexual history last 4 months					
Total partners					
0	98	27.2	97	22.9	11.11*
1	135	37.5	208	49.2	
2	51	14.2	51	12.1	
3 or more	76	14.2	67	15.8	
Sex with alcohol					
0	185	51.8	224	53.8	9.63*
1	41	11.5	23	5.5	
2	20	5.6	31	7.5	
3 or more	111	31.1	138	33.2	
Sex with drugs					
0	308	86.0	384	91.6	7.07†
1	14	3.9	12	2.9	
2	9	2.5	4	1.0	
3 or more	27	7.5	19	4.5	
Came to bar looking for sex partner	53	15.0	41	9.9	4.63*
Sexual history at bar					
Ever met a new sex partner at this bar	61	17.0	95	22.4	3.44†
Last time had a sex partner at this bar, used a condom	67	18.8	82	19.4	10.22**
Ever had sex on the premises of this bar	27	7.5	11	2.6	10.27***
Sex work history					
Ever sold sex	47	13.2	36	8.5	4.46*
Ever bought sex	41	11.4	39	9.2	1.02
Sold sex last 4 months	34	9.5	21	5.0	6.09*
Bought sex last 4 months	37	10.3	30	7.1	2.56

†*p*<0.10; **p*<0.05; ***p*<0.01; ****p*<0.001