

# **Gender-Based Imbalances in a US Population of Racial and Ethnic Minority Women at Risk for HIV/AIDS**

**HPTN 064**

**The Women's HIV Seroprevalence Study**

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## Introduction and Study Purpose

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- Black and Hispanic women bear a disproportionate share of the HIV burden
  - 76% of women living with diagnosed HIV are Black or Hispanic
- Risk factors for HIV transmission are correlated to sexual behaviour and socially constructed ‘gender’ differences in roles and responsibilities
  - Evidenced to: 1) Promote inequitable gender norms; 2) Create a unique configuration for HIV risk
- Gender and culturally specific strategies are needed for HIV prevention

**Study Goal: Provide an in depth analysis of HIV risk in the Women’s HIV Seroprevalence Study (ISIS): HPTN 064**

## Methods: Specific Aims

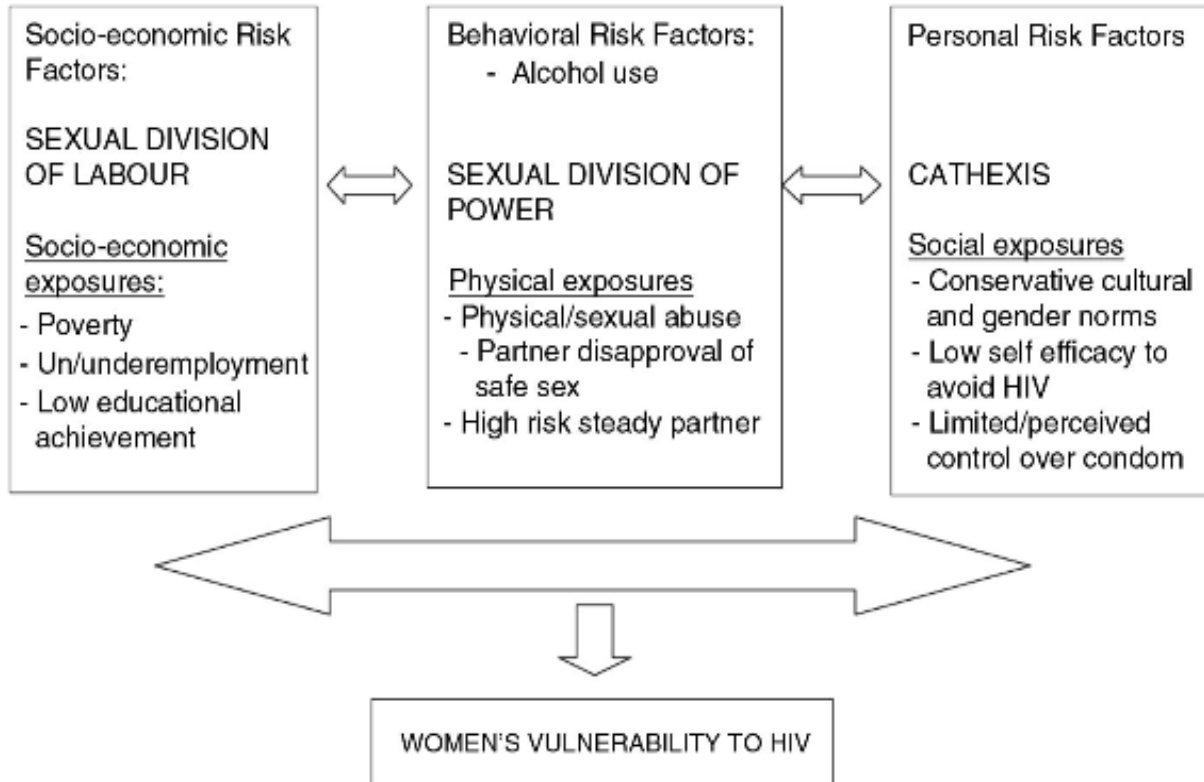
**Aim 1:** To identify the strongest item-level determinants of the Theory of Gender and Power (TGP) constructs that contribute to the overall predication of HIV risk.

- The **ISIS behavioral questionnaire** captured factors associated with TGP constructs
- A cumulative risk scores was calculated for each respondent, informed by CDC risk threshold of **low** (e.g., vaginal/anal sex w/condoms), **medium and high** (e.g., condomless sex, multiple partners).
  - **Risk score variables:** commercial sex worker + multiple sex partners+ vaginal sex without condom + anal sex without condom
- Individual and a full multiple regression models were calculated.

**Aim 2:** To establish a hypothesized relationship with the three TGP constructs.

- Thematic analysis of **ISIS focus group data** guided by the significantly identified factors (Aim 1).
- Focus groups provide additional understanding of the factors that contribute most to HIV risk.

## Methods: Theory of Gender and Power



Theory of gender and power: women's exposure and risk for HIV. Adapted from Wingood and DiClemente

## Results: Demographics

Prevalence baseline characteristics HPTN 064 Women  
(N = 2,099)

	N	% or IQR
<b>Individual characteristics</b>		
Median age (years)	29	IQR:
Hispanic ethnicity	245	12
African-American race	1,802	86
Education: Less than high school	777	37
Education: High school graduate or equivalent	772	37
Education: More than high school graduate	550	26
Unemployed	1,357	65
Household income: \$10,000 or less	933	44
<b>Individual sexual risk behaviors</b>		
Median number of partners in past 6 months	2	IQR: 1–3
Unprotected sex at last episode of vaginal sex	1,698	82 %
UAI at last episode of anal sex	637	31 %
Concurrent partnerships in past 6 months	656	40 %
Commercial sex worker	117	6 %
Exchange of sex for money or commodities in	776	37 %
Sexual abuse in past 6 months	148	7 %
Heterosexual	1,631	79 %
Homosexual	35	2 %
Bisexual	348	17 %
Self-reported STI (gonorrhea, syphilis, or	232	11 %
<b>Partner sexual risk characteristics</b>		
HIV status of last vaginal sex partner		
HIV-negative	1,199	57 %
HIV-positive*	27	1 %
HIV status unknown	865	41 %
Partners' concurrency in past 6 months	763	36 %
Injection drug use in past 6 months	175	8 %

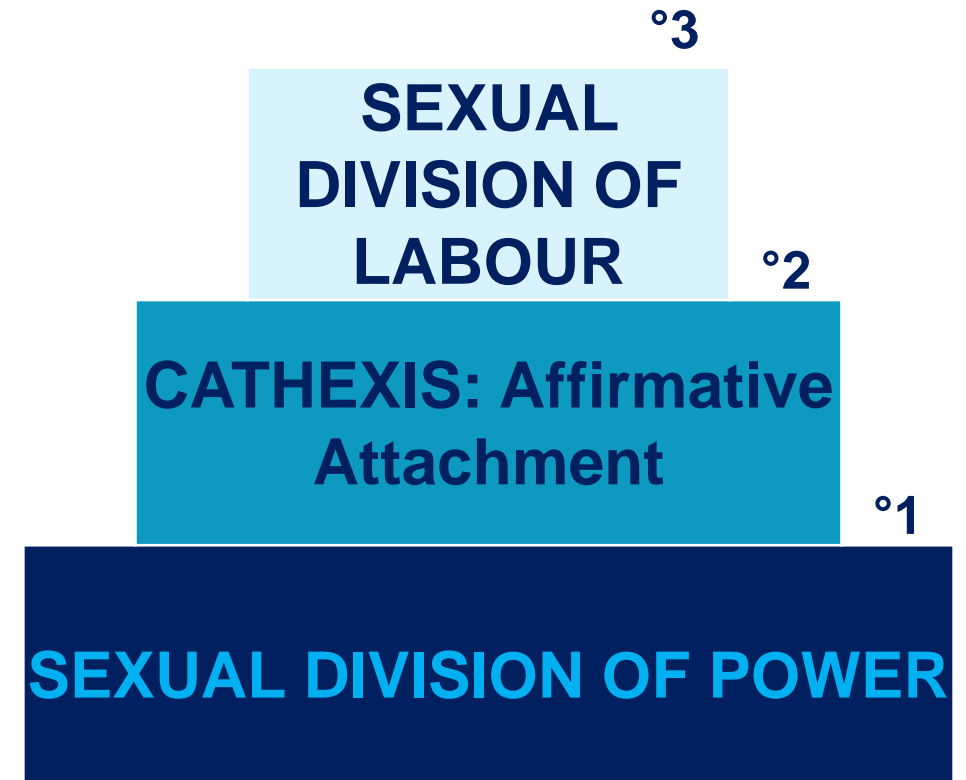
# Results: Linear Regression Models

	Model 1 LABOUR				Model 2 POWER				Model 3 CATHEXIS				Model 4 MODEL OF BEST FIT			
	β		(95% CI)		β		(95% CI)		β		(95% CI)		β		(95% CI)	
<b>SEXUAL DIVISION OF LABOUR</b>																
Level of Education	-0.08	-0.03	-0.01	**										-0.058	-0.027	-0.005**
Sex for Shelter	0.167	0.014	0.024	**										0.133	0.010	0.020**
Sex for Food	-0.15	-0.01	-0	*										-0.150	-0.006	-0.001*
Sex for Money	0.221	0.002	0.007	**										-0.274	-0.010	0.000*
<b>SEXUAL DIVISION OF POWER</b>																
1° Partner's Age					0.08	0.00	0.03*							0.134	0.018	0.035**
Number of YOUR Sex partners in last 6 months					0.21	0.00	0.01**							0.485	0.004	0.013**
1° Partner: sex with other people (men/women)					0.33	0.04	0.12**							0.102	-0.001	0.059
1° Partner: number of sex partners					0.01	-0.04	0.05							0.109	0.005	0.060*
1° Partner: female partners					-0.16	-0.06	0.00*							-0.086	-0.040	-0.004*
1° Partner: male partners					0.04	-0.03	0.08							0.052	0.012	0.107*
1° Partner: times condomless vaginal sex					0.16	0.02	0.07**							0.176	0.047	0.076**
1° Partner: times condomless anal sex					0.04	-0.01	0.04									
<b>CATHEXIS: Affirmative Influences/Social Norms</b>																
1° Partner: tested for HIV										0.118	0.012	0.053**		0.100	0.021	0.052**
Vaginal sex: know his HIV status										0.097	-0.005	0.040				
Anal sex: know his HIV status										0.155	0.006	0.049*				

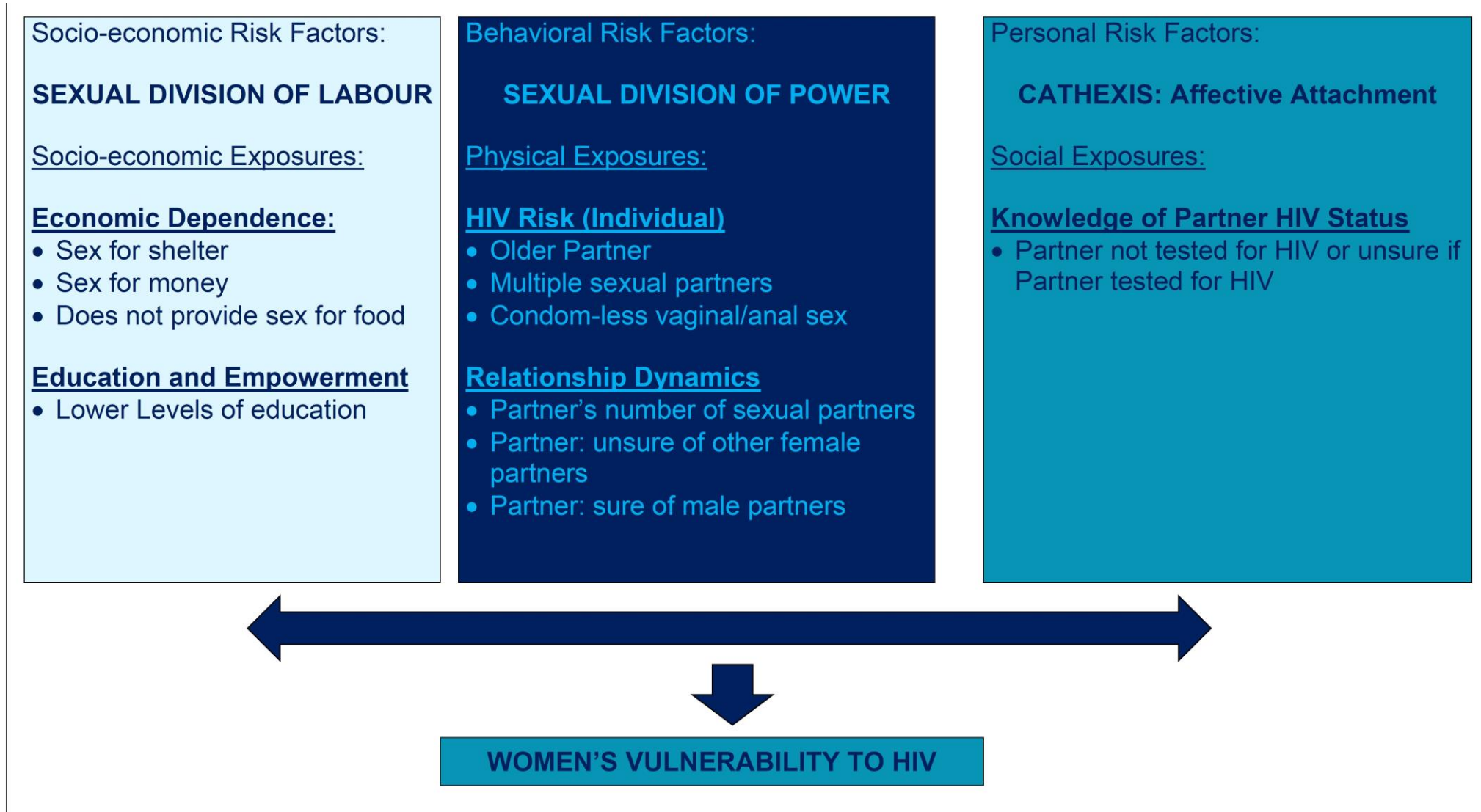
# Results: TGP Constructs: Hierarchy of Contributors to HIV Risk

Relative Ranking and Effect Sizes of Factors Measuring the TGP Constructs for HIV Risk (N= 2,099)

	Partial R <sup>2</sup>	Partial R <sup>2</sup> Rank	Effect Size (t-value)	Average R <sup>2</sup> Ranks	Average Effect Size (t-value)
<b>LABOUR</b> (Model 1)	0.026, 0.007, 0.005, 0.003	4, 8, 9, 10	7.34, -3.69, 3.37, -2.36	7.75	1.17
<b>POWER</b> (Model 2)	0.05, 0.028, 0.026, 0.011, 0.008	1, 2, 3, 5, 6	5.01, 3.72, 3.62, -2.30, 1.97	3.4	2.4
<b>CATHEXIS</b> (Model 3)	0.008, 0.007	6, 7	2.50, 2.39	6.5	2.45



## Theory of Gender and Power: Significant Factors: **MODEL OF BEST FIT**



Socio-economic Risk Factors:

## **SEXUAL DIVISION OF LABOUR**

Socio-economic Exposures:

### **Economic Dependence:**

- Sex for shelter
- Sex for money
- Does not provide sex for food

### **Education and Empowerment**

- Lower Levels of education

## **Economic Dependence**

### **Theme 1: Hustling (sexual or non-sexual)**

“..as women raising kids, we feel ...obligation to make sure the kids have what they need, so we’ve got to do whatever it takes to make that possible.”

### **Theme 2: Personal Beliefs and Conflicting Social Norms**

“So I’m not just going to do certain things...some women have to trick to get their bills paid. It’s just certain things I’m not going to do, sometime I have to suffer...”

## **Education and Empowerment**

### **Theme 1: Barriers to Educational Attainment**

“...my mother passed away when I was nine years old, my father got incarcerated, my brother got taken away. I literally had to drop out of school in the fifth grade because I had no place to live, and nobody [family] would give me an address for me to register myself for school.”



## Behavioral Risk Factors:

### **SEXUAL DIVISION OF POWER**

## Physical Exposures:

### HIV Risk (Individual)

- Older Partner
- Multiple sexual partners
- Condom-less vaginal/anal sex

### Relationship Dynamics

- Partner's number of sexual partners
- Partner: unsure of other female partners
- Partner: sure of male partners

## HIV Risk (Individual)

### Theme 1: No Condom Use: Partner Fidelity

So it's like, "Oh, now you want to use a condom? Who are you messing with on the side?" ... That's why you're never supposed to take the condom off.

### Theme 2: No Condom Use: Comfort in Primary Partnership

When I've been with a person... a couple of years, or a couple of months, ... You don't think, "Oh, put a condom on," you're just like, "whatever."

## Relationship Dynamics

### Theme 1: Awareness and Acceptance of Partner Concurrency

Me personally, I'm dealing and coping with it. ... sooner or later, it's gonna get better because we done been through the worst, so... waiting for the better.

Personal Risk Factors:

**CATHEXIS: Affective Attachment**

Social Exposures:

**Knowledge of Partner HIV Status**

- Partner not tested for HIV or unsure if Partner tested for HIV

## **Knowledge of Partner HIV Status**

### **Theme 1: Partner Concurrency: Requesting an HIV test**

I'd get mine tested. I mean, when I have a gut feeling, I don't have intercourse. Then he's like, 'Why you're not doing it with me? What's wrong with you? You're cheating?' No, you're the one cheating so, go to the clinic.

### **Theme 2: Partner Trust**

You could take your man to the clinic, and you'll both come out negative... the next thing you know, he sleeps with somebody... you also got to be able to trust that person too. If you can't trust him, then why be with him?

### **Theme 3: Barriers to Partner Testing**

I think it's more so a pride thing with them. They're so embarrassed that, "Oh, I'm going in the clinic. What if my homeboys see me going in there?"

## Summary

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- The triangulation of ISIS data offers a more in-depth understanding of the contribution of gender-based imbalances to identified HIV risk behaviors
- Many of the known factors associated with HIV risk were not significant in our analysis including younger age, intimate partner violence and substance abuse.

**POWER:** Partner's age, personal concurrency and condomless sex were the greatest contributor to HIV risk

- Focus groups indicated the belief of infidelity as a barrier to condom use was perceived by both partners

**CATHEXIS:** Greater Self efficacy to avoid HIV through knowledge of partner's HIV status and testing was the second highest contributor to HIV risk

- Focus groups indicated relationship trust as a major factor associated with regular HIV testing

**LABOUR:** Lower levels of education and sex for shelter were the lowest significant contributor to HIV risk

- Focus groups indicated peer pressure based on the social norms regarding financial provisions by men

**Findings can:** 1) Guide the evaluation and relative importance of HIV risk reduction approaches; 2) Inform the development of new/modification of existing approaches for effective culturally-appropriate interventions

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