

***Concurrent Sexual Partnering Among  
Heterosexually Active Homeless Men:  
Behavioral Health and Social Normative Influence***

S. Wenzel, H. Rhoades, H. Hsu, D. Golinelli, Tucker, J.,  
D. Kennedy, H. Green, B. Ewing

University of Southern California  
School of Social Work, Department of Psychology  
RAND Corporation

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# Disclosure Statement

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# Concurrent sexual partnering

- Increased risk for HIV and other STIs
  - facilitates more rapid disease transmission than monogamous, sequential sexual relationships
  - individuals in such relationships are often unaware of partner's concurrency
  - many of those engaging in sexual concurrency report having unprotected sex with their partners

# Heterosexually active homeless men

- Men's heterosexual behavior plays a key role in the HIV epidemic
  - 80+ % of women with HIV/AIDS infected thru sex with men
- Homeless persons are at higher risk of HIV/AIDS
  - HIV/AIDS: increasingly a disease of impoverished persons
  - Higher rates of risky behaviors due to subsistence living and reduced access to services
  - Higher rates of alcohol and drug use; substance use is a risk factor for HIV/AIDS

# Skid Row

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## Downtown, Los Angeles

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# Behavioral Health & Social Normative Influence

## Behavioral health:

- Sexual concurrency is more prevalent among those who use alcohol and other substances <sup>1,2</sup>
- Depression and PTSD are associated with sexual risk
  - Depressed young adults are more likely to have multiple sex partners <sup>3</sup>
  - PTSD symptoms (detachment, perceiving foreshortened future) associated with unprotected sex and sex trade among low-income women <sup>4</sup> and OEF/OIF veterans <sup>5</sup>

# Behavioral Health & Social Normative Influence

## Social normative influence – social networks:

- Social norms theory: The perceived behaviors of persons in one's social network may influence one's own behaviors <sup>6-8</sup>
- Risky behaviors perceived in the social network have been associated with risky behaviors of homeless women, <sup>9</sup> homeless youth <sup>10</sup>

# Purpose and Hypotheses

- Address gaps in our understanding of sexual risk behavior – concurrency – among homeless men
- Poor behavioral health and sexual risk in social networks will be associated with a higher rate of concurrency

# Methods

- We focused on Los Angeles' Downtown Central City East (Skid Row)
- Probability sampling to achieve a representative sample of heterosexually active homeless men
- Men were screened and sampled from 13 meal lines: 5 breakfasts, 4 lunches, 4 dinners at 5 different organizations
- Sampling weights applied in all analyses to correct for departures from a proportionate-to-size stratified random sample

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# Participants

- Eligibility criteria:
  - age 18 or older
  - homeless past 12 months (i.e., stayed at least one night in a place like a shelter, abandoned building, vehicle, or outdoors because they didn't have a home to stay in)
  - vaginal or anal sex with a woman in past 6 months
  - able to complete an interview in English
- Sample size = 305 homeless men
  - 338 eligibles out of 670 men screened (50.4% eligible)
  - 320 eligibles agreed to be interviewed:
    - 7 left before the interview was completed or refused to complete
    - 4 could not complete network portion of interview
    - 4 were later found to be repeaters

# Structured interviews

- IRB approved -- USC and RAND
- Conducted July through October 2010
- Computer-assisted personal interviews; EgoWeb software (<http://egoweb.github.com>)
- Interviews lasted 83 minutes on average
- Men were paid \$30 for participation

# Social Network Measures

- Egocentric – personal network <sup>9</sup>
  - Respondents provided the first names of 20 individuals that they know, who know them, and that they had contact with (face-to-face, phone, mail, internet) in the past year
  - Respondents were asked questions about each of their network members (alters):
    - Types of alters: sex partners, relatives/family, etc.
    - Behaviors of alters: drink, use drugs, engage in risky sex, provide support to the respondent
    - Alter-to-alter contact (network structure: density)

# Concurrency Measure

- Determined through elicitation of sex partners they had during the previous 6 months (female or male; sex = vaginal or anal)
- For the four most recent sex partners: **“Around the time that you last had sex with [*first name*], were you also having sex with any other people?”**
- Concurrent sexual partnering during the past 6 months = “yes” (1) if any, vs. “no” (0)

# Behavioral Health Measures

- Depression: 3-item screener for past 12-month depressive disorder, based on DIS and CES-D <sup>11</sup>
- PTSD: 4-item Primary Care PTSD Screen <sup>12</sup>
- Binge drinking: 5 or more drinks within 2 hours, past 6 months <sup>13</sup>
- Hard drug use past 6 months <sup>14</sup>
- Injection drug use, lifetime

# Respondent Background Characteristics (N=305)

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<b>Age (mean, se)</b>	45.6 (10.3)
<b>Race/ethnicity (%)</b>	
African American	71.7
Hispanic	10.4
White	11.5
Other or multi-racial	6.3
<b>Education (at least HS or GED) (%)</b>	73.3
<b>Currently married (%)</b>	6.1
<b>Jail/prison/parole past 6 months (%)</b>	37.3
<b>Total number of sex partners past 6 months (mean, se)</b>	3.7 (.29)
<b>Self-reported HIV positive (told by health professional, or have “reason to believe,” they are infected) (%)</b>	7.42

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# Rate of Concurrency

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<b>Concurrent sexual partnering during the past 6 months (%)</b>	<b>39.2</b>
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# Behavioral Health and Networks (N=305)

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## Mental health (%)

PTSD	42.8
Depression	46.4

## Substance use past 6 months (%)

Binge drinking	38.1
Hard drug use	48.4
Injection drug use (ever)	19.6

## Networks

Any alters engage in risky sex (%)	68.3
Alters who drink, use drugs (mean, se)	2.2 (0.21)
Total network density (mean, se)	0.13 (0.01)
Risky sex ingroup density (mean, se)	0.06 (0.01)
Substance use ingroup density (m, se)	0.08 (0.01)

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# Multivariate binomial logistic regression (N=305)

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**OR (95% CI)**

## **Mental health**

PTSD

2.3 (1.0-5.1) \*

Depression

0.9 (0.4 -2.0)

## **Substance use past 6 months (%)**

Binge drinking

0.8 (0.4 - 1.7)

Hard drug use

2.4 (1.1 -5.6) \*

Injection drug use (ever)

2.4 (0.9-6.5)

## **Networks**

Any alters engage in risky sex

3.7 (1.5 -9.3) \*

Alters who drink, use drugs

1.0 (1.0 -1.1)

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Variables selected for regression were those associated with concurrency at  $p < .10$  in bivariate analyses. Multivariate analyses controlled for background characteristics.

\*  $p < .05$

# Summary

- PTSD is associated with concurrency -- to our knowledge, this is the first study to report this association
- Hard drug use is associated with concurrency, consistent with research in other populations <sup>15,16</sup>
- Risky sex in the network is associated with concurrency, consistent with social norms theory

# Conclusions

- Address mental health and substance use disorders
- Employ evidence-based practices to reduce sexual risk behaviors within programs that serve homeless men
- Larger social context surrounding homeless men is important

# Conclusions

- Persons entrenched in poverty have limited options for changing their social or physical surroundings
- Qualitative research documents the challenges of having intimate relationships while homeless <sup>17</sup>
- Other research has shown that HIV risk behaviors are reduced when housing status improves <sup>18</sup>
- Safe, permanent, supportive housing is a key

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