A Proposed Socioecological Framework of Women’s HIV Risk in the United States: Qualitative Data from HPTN 064 (ISIS)

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Epidemiology of HIV Infection in US Women

### New HIV Infections in US Women 2008

- **N=10,332**
- **67%** Black/African American
- **18%** White
- **13%** Hispanic
- **2%** Other

### Mortality Rate/100,000 for women and Girls (≥ 13 years) 2007

<table>
<thead>
<tr>
<th>Race/Identity</th>
<th>Deaths per 100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black/African American</td>
<td>25.7</td>
</tr>
<tr>
<td>Multiple races</td>
<td>14.2</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>6.1</td>
</tr>
<tr>
<td>Native Hawaiian/Other Pacific Islander</td>
<td>4.7</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>2.9</td>
</tr>
<tr>
<td>Native White</td>
<td>1.7</td>
</tr>
</tbody>
</table>

CDC. HIV surveillance in women. [Link](http://www.cdc.gov/hiv/topics/surveillance/resources/slides/women/index.htm)
Theorized Socioecological Factors Influencing Women’s HIV Risk

- **Individual**
  - Financial insecurity
  - Resource-driven survival behaviors
  - Self-esteem issues

- **Relational**
  - Concurrency
  - Domestic violence
  - Condom negotiation

- **Community**
  - Socioeconomic challenges
  - Environmental issues
  - Access to resources

- **Structural/Policy**
  - Health disparities
  - Housing
  - Healthcare access
  - Judicial policies

Behrer, 2007; Sumartojo et al., 2000; Gilbert, 2003
HPTN 064: The Women’s HIV Seroincidence Study (ISIS)

• Observational cohort study assessing HIV seroincidence over 6-12 months follow-up
  – 2,099 enrolled women across 10 communities with high HIV prevalence and poverty
  – Endpoint analysis underway

• Qualitative data in 4 of 10 communities

- Bronx and Harlem, NYC
- North and South Newark, NJ
- Baltimore, MD
- Washington, DC
- Raleigh-Durham, NC (2 sites)
- Atlanta, Georgia (2 sites)
**ISIS Inclusion Criteria**

- Women (self identified) ages 18-44 years
- Resided in an area with high prevalence of HIV and poverty
- Reported unprotected sex with a man during the previous 6 months
- AND reported at least one additional risk factor, such as binge drinking, drug use, partner’s risk, or incarceration history...
### Qualitative Components

<table>
<thead>
<tr>
<th>METHODS</th>
<th>NUMBER of PARTICIPANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semi-structured interviews</strong></td>
<td>30 interviewees systematically selected in each of 4 sites (120 women)</td>
</tr>
<tr>
<td><strong>Focus groups</strong></td>
<td>multiple focus groups per site, systematically selected per age and community demographics (31 groups)</td>
</tr>
</tbody>
</table>
Data Collection

Baseline variables:
- Age
- Race and ethnicity
- Education
- Behavioral risk factors
- Income

Qualitative topics:
- Living environment including violence and safety issues
- Economic/financial considerations
- Personal risk behaviors/perceptions of risk
- Condom use
- Concurrency
- Social support
- Health program design
Qualitative Analytic Approach

Coding:
- Codebook development
- Structural coding of all transcripts (NVivo™)

Preliminary analysis:
- Site data reviews
- Team reviews
- Grounded theory code development
- Thematic linkages
- Intercoder Reliability
- Model formulation

Phase 1: Materials and Tools Development
Phase 2a: Implementation
Phase 2b: Coding and Prep for Preliminary Analysis
Phase 3: Preliminary analysis/data review at January 2011 Meeting
Phase 4: Manuscript-focused coding and analysis
## Baseline Characteristics*

* No differences on education, other baseline enrollment risk factors

<table>
<thead>
<tr>
<th></th>
<th>Non-Qualitative Group (N=1,821)</th>
<th>Qualitative Group (N=278)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black/African American Race</td>
<td>1610 (88%)</td>
<td>240 (87%)</td>
<td>0.4</td>
</tr>
<tr>
<td>Hispanic/Latina origin</td>
<td>202 (11%)</td>
<td>43 (16%)</td>
<td>0.04</td>
</tr>
<tr>
<td>Median Age</td>
<td>29</td>
<td>27</td>
<td>0.04</td>
</tr>
<tr>
<td>Income &lt;10k per year</td>
<td>660 (36%)</td>
<td>84 (30%)</td>
<td>0.3</td>
</tr>
<tr>
<td>Illicit drug use within 6 mos.</td>
<td>654 (36%)</td>
<td>66 (24%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Binge drinking within 6 mos.</td>
<td>997 (55%)</td>
<td>176 (64%)</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>
Factors Contributing to Women’s HIV Risk in the US

- Societal
- Individual
- Community
- Relational
Societal Challenges:
Economic and Health Disparities

“...Money does a lot for you if you have it. If you don’t, then you have to really work hard to get, you know, where you need to be. People that have money, they don’t really have anything to worry about...”  

-Interviewee, Site 215
Community Challenges:
Access to Health and Educational Resources

“\textit{I think the wealthier communities are better educated... A lot of people don’t feel safe going in the bad neighborhoods and educating... They’re not in the neighborhoods where they’re needed the most unless you go looking for them. There’s nobody there saying, ‘Hey sweetie, why are you out here doing this? Let me help you with this and give you some information.’}”

-Focus Group Participant, Site 214
Relational Challenges:
Acceptance of Concurrency for Financial Reasons

“A lot of my male friends, they have girlfriends and they do step out on them and they know. It’s like a ‘who cares?’ situation; some females, you know, if he got money or you know he’s taking care of her or whatever you know, she deals with it because she feels like, ‘Oh you know this is my income’…” -Interviewee, Site 207
“People don't think about, ‘Oh, I could possibly catch AIDS if I have sex with this guy tonight’...People don't have that awareness, people don't think about it. In our neighborhoods, everybody's just worried about, ‘I need money, I need this, I need to survive.’ Nobody's thinking about, ‘I could catch this disease..’” -Interviewee, Site 215
Intersecting Themes on Women’s HIV Risk

**Societal**
- Poverty
- Health disparities

**Individual**
- Financial insecurity
- Resource-driven survival behaviors

**Community**
- Access to health and educational resources

**Relational**
- Concurrency
Study Considerations

• Need for additional coding and analysis
• Social desirability bias
• Framework generated from a population living in high prevalence/poverty areas
What Did We Learn?

• Economic insecurity permeated the participants’ dialogue
  – Economic empowerment may be an important area for HIV risk reduction

• Greater access to health education/information is needed to alter beliefs and change behaviors
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Special Thanks to all of the ISIS participants!

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