

# RAP\* Time



## RURAL CENTER *for* AIDS/STD PREVENTION

A JOINT PROJECT OF  
INDIANA UNIVERSITY, UNIVERSITY OF KENTUCKY,  
AND UNIVERSITY OF ARIZONA

\*Rural AIDS/STD prevention. rap (rap) v. *Slang*. To talk freely and openly

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## Certain partner characteristics may contribute to increased STI risk

Mississippi has among the highest STI prevalence rates in the United States. In 2012, Mississippi ranked highest for new chlamydia and gonorrhea diagnosis with 774 and 231 cases per 100,000, respectively, and ranked number 11 in syphilis rates.

Jackson Mississippi has consistently experienced one of the highest rates of STI. African Americans have much higher rates of STI than persons of other races. This disparity cannot be attributed to behavioral factors alone.

This investigation used latent class analysis (LCA) to identify latent population subgroups, defined by distinct response patterns on a range of sexual partner characteristics, and examined subgroup differences in past-year STI rates.

### Methodology

Participants were adults presenting for care at an STI clinic in Jackson Mississippi.

LCA identified unique subpopulation subgroups on 14 sexual partner variables, such as living with or having a child with a partner, partner dependence and trust, 1-time sexual encounters,

multiple main partners, substance abuse, sexual concurrency, and incarceration.

### Outcomes of the Study

Participants were mostly African American (95%), female (62%), and 24 years old or younger (60%).

Major findings include:

- LCA revealed 3 classes with different sexual partner characteristics.
- Class 1 had partners who were less reliant on their partners.
- Class 2 had individuals with elevated risk factors for STIs and greater proportion with self-reported any past-year STI and trichomoniasis.
- Class 3 had individuals who seemed to be in more long-term, dependent relationships.
- Classes 1 and 3 did not differ proportion of persons with a past-year STI.
- Class 1 individuals tended to be less likely to live with or have a child with a partner, to be in a both-partner dependent relationship, and to receive public assistance.
- Class 2 persons had more 1-time sexual encounters, lifetime partners, concurrent relationships, and alcohol and drug use at last sexual

encounter.

- Individuals in class 3 had higher rates of living with or have a child with a partner and mutual partner dependence. These persons reported fewer 1-time sexual encounters and fewer personal concurrent relationships. Interestingly, 40% reported that their partner was in a concurrent relationship and that this resulted in them not trusting their partner.

### Implications for Prevention

This study in the Deep South found that certain partner characteristics, such as being incarcerated, substance use, and sexual concurrency may contribute to increased risk for sexually transmitted infections.

Partner traits may be valuable proxies for STI risks and could be useful screening information in clinical settings.

### SOURCE:

Alexander, A., et al. (2015). It is complicated: Sexual partner characteristic profiles and sexually transmitted infection rates within a predominately African American population in Mississippi. *Sexually Transmitted Diseases*, 42, 266-271.

### Trust and more commitment are protective factors

This study examined the effect of relational dynamics on knowledge or perception of a partner's HIV status. The study identified relationship dimensions and examined their association with misperceptions about a particular partner's HIV status.

The sample was 168 sexual partnerships of 116 male sex workers and their associates. Relationships dimensions extracted were: intimate, commitment, socializing, financial, trust and honesty.

Strong trust with sex partners was a risk factor for inaccurately knowing the sex partner's HIV status. Strong feelings of commitment to the partner (e.g. willingness to live together) were associated with non-risk knowledge of the partner's HIV infection status.

The study suggests that couple-based HIV intervention for MSM should consider that less trust and more commitment are protective factors in sexual relationships.

SOURCE: Fujimoto, K., et al. (2015). A network analysis of relationship dynamics in sexual dyads as correlates of HIV risk misperceptions among high-risk MSM. *Sexually Transmitted Infections*, 91, 130-134.

### Increasing number of older HIV patients may challenge health care

HIV-infected persons are increasingly getting older which will result in them developing age-related non-communicable diseases (NCDs).

This study constructed an individual-based model of the aging population which followed patients on HIV treatment as they age, develop NCDs (e.g. cardiovascular disease, strokes) and start co-medication for these diseases. The model used 10,278 patients from the national Dutch ATHENA cohort between 1996 and 2010. Projections were made up to 2030.

The model suggests that the median age of HIV-infected patients on combination antiretroviral therapy will increase from 43.9 years in 2010 to 56.6 in 2030. The proportion of HIV-infected patients aged 50 years or older increases from 28% in 2010 to 73% in 2030.

In 2030, the model predicts 84% of HIV+ patients will at least one NCD, up from 29% in 2010; 28% of HIV+ in 2030 will have three or more NCDs. 54% of HIV+ patients will be prescribed co-medications in 2030.

SOURCE: Smit, M., et. al. (2015). Future challenges for clinical care of an ageing population infected with HIV: A modelling study. *Lancet Infectious Diseases*, 15, 810-815.

### Expanded ART could save money over long term

A study from the British Columbia Centre for Excellence in HIV/AIDS, using a mathematical model, found that expanded antiretroviral therapy could save \$65.5 million by 2035. The \$65.5 million savings results from the difference between a 100% probability of accessing ART and a 50% probability. At 75% probability, the savings would be \$25.1 million by 2035. Productivity gains and reduced hospitalization costs will account for the largest savings. The study shows that universal ART makes economic sense.

SOURCE: HIV treatment as prevention saves money over long term. *Mescape*, July 18, 2015.

### 14% of HIV+ are undiagnosed

Among the estimated 1.2 million persons living with HIV infection in the United States in 2011, 14% were living with undiagnosed infection. The majority of persons who received a diagnosis of HIV infection were MSM (62%).

SOURCE: CDC. (2015). Prevalence of diagnosed and undiagnosed HIV infection--United States, 2008-2012. *MMWR*, 64, 657-662.

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The opinions expressed here do not necessarily represent those of the cooperating universities.

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