

# RAP\* Time



## RURAL CENTER *for* AIDS/STD PREVENTION

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

\*Rural AIDS/STD prevention. rap (rap) v. *Slang*. To talk freely and openly. Vol. 10, No. 9, September 1, 2006

## Women smokers on HAART had higher morbidity and mortality than nonsmokers

Women infected with HIV in the United States are often from a lower socioeconomic strata in which smoking is common. Smoking adds to the burdens of HIV infection and may modify CD4+ lymphocyte counts. However, research findings have not consistently established a relationship between smoking and the course of HIV/AIDS. Further, no studies have been reported that assessed the relationship between smoking and patient response to HAART.

This study assessed the association of cigarette smoking with the effectiveness of highly active antiretroviral therapy (HAART) among low-income women.

### Methodology

Data were analyzed from the Women's Interagency HIV Study (WIHS), a multisite longitudinal study up to 7.9 years for 924 women representing 72% of all women who initiated HAART between July 1, 1995, and September 30, 2003.

This data set of HIV-infected women permitted the documentation of smoking status, immune status, and antiretroviral use. For the analysis, any participant report-

ing smoking since the last visit (i.e., past 6 months) was considered a smoker. Participants who reported taking HAART at least 95% of the times were classified as compliant.

### Outcomes of the Study

Major findings include:

- 56% of WIHS women currently smoked and 16% had smoked previously.
- The study eligible women on HAART, 70% were relatively consistent with their smoking behavior up to 9 years after enrollment.
- More smokers were African American, used illicit drugs, were infected with hepatitis C virus, and had previously been diagnosed with AIDS.
- CD4+ lymphocyte counts and CD4 percentages were higher among smokers than nonsmokers but viral loads did not differ. Also, over time the initial higher CD4+ lymphocyte counts of smokers became lower than the mean CD4+ lymphocyte counts of non-smokers.
- Adherence to HAART was lower among smokers than the non-smokers.
- Smokers on HAART had poorer viral responses, poorer immuno-

logic response, greater immunologic failure, and more frequent immunologic failure.

- Smokers had a high risk of death and a higher risk of developing AIDS, but no difference was found between smokers and nonsmokers in the risk of death due to AIDS.

### Implications for Prevention

In this study HIV-infected women who smoke, smokers on HAART were found to experience significantly higher morbidity and mortality rates than nonsmokers. Some of the medical benefits provided by HAART were negated in cigarette smokers.

The study findings suggest that the treatment of HIV-positive women with HAART may be less effective in those who smoke cigarettes and that smoking cessation programs for HIV-positive women who smoke are needed.

### SOURCE:

Feldman, J. G., et. al. (2006). Association of cigarette smoking with HIV prognosis among women in the HAART era: A report from the Women's Interagency HIV Study. *American Journal of Public Health*, 96, 1061-1065.

### Sexual networks promoted HIV transmission in Blacks

HIV/AIDS is becoming an increasing problem in the southern U. S., marked by racial disparities among African American, especially black women. This study examined empiric data concerning network patterns and HIV transmission among African Americans in the rural South.

In rural South areas having high STI rates, there is extensive concurrency with evidence of dense sexual networks and bridging among the general population, core group members, and other high-risk populations. Studies indicate socioeconomic factors supporting these network patterns: low ratio of men to women, economic oppression, racial discrimination, and high incarceration rates among black men.

Sexual networks, concurrency and bridging between the general population and high-risk, high-prevalence groups likely promoted an increased heterosexual HIV transmission among blacks in the South.

SOURCE: Adimora., et al. (2006). HIV and African Americans in the Southern United States: Sexual networks and social context. *Sexually Transmitted Diseases*, 33, S39-S45.

### Higher STI among female youth related to partner selection

STIs impact African American adolescents, particularly females, disproportionately compared to white and Latino youth. This study determined whether the demographic and behavioral traits of adolescents' sexual partners mediate the sex differences in rates of STIs.

Study participants were 99 sexually active females and 67 sexually males of mean age of 18 and 17 years, respectively. All were African American.

The study found that female participants were more likely than male participants to have a partner who was older or had been incarcerated and less likely to have a non-African American partner. This finding supported the study hypothesis that the higher rate of STI among adolescent females relative to adolescent males, despite male's greater sexual risk behaviors, is related to partner selection.

The gender differences found provide clues to interventions designed to assist African American youth avoid STIs.

SOURCE: Auerswald, C. L., et al. (2006). Does partner selection contribute to sex differences in sexually transmitted infection rates among African American adolescents in San Francisco? *Sexually Transmitted Diseases*, 33, 480-484.

### HPV acquisition is relatively common in adolescent women

3262 women ages 18 to 25 in the National Longitudinal Study of Adolescent Health were tested for HPV. Overall HPV prevalence was 26.9% and 14.3% among women with 1 lifetime partner. HPV-16 was the most common type. HPV infection was independently related to mixing sex with alcohol, a black partner, < 3 lifetime sex partners, and illegal drug use.

SOURCE: Manhart, L. E., et al. (2006). Human papillomavirus infection among sexually active young women in the United States: Implications for developing a vaccination strategy. *Sexually transmitted diseases*, 33, 502-508.

### HIV testing is related to insurance type

Prevalence of HIV testing was 18.8% for representative data from the Add Health study of youth. Those with no or private health insurance reported less testing than those having public health insurance, particularly in the South.

SOURCE: Nguyen, T. Q., et at. (2006). HIV testing among young adults in the United States: Associations with financial resources and geography. *American Journal of Public Health*, 906, 1031-1034.

**RAP\* Time** is a monthly AIDS/STD prevention bulletin published by the Rural Center for AIDS/STD Prevention (RCAP) at Indiana University, Bloomington. RCAP is a joint project of Indiana University, University of Colorado, and University of Kentucky. The major focus of RCAP is the promotion of HIV/STD prevention in rural America, with the goal of reducing HIV/STD incidence.

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

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