

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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Adolescents with STI had a greater risk for subsequent HIV infection

In recent years reported bacterial sexually transmitted infections (chlamydia, gonorrhea, and syphilis) have increased among adolescents in the United States. The greatest increase in newly diagnosed HIV cases have occurred in youths aged 15 to 19 years.

STIs are considered to enhance HIV infection risk. STIs can create a biological environment that enhances STI transmission for those co-infected. Also, STIs increase susceptibility in individuals who have an STI when exposed to HIV. If STIs contracted during adolescence increase future HIV risk the increase of STIs in youth may indicate an expansion of the HIV epidemic.

This study estimated the risk of HIV associated with STI history during adolescence.

Methodology

A cohort of adolescents (n = 75,273, born 1985-1993) who participated in the Philadelphia High School STD Screening Program between 2003 to 2010 were retrospectively studied.

The sample cohort was matched to STI (chlamydia, gonorrhea, and syphilis) and to HIV surveillance

data sets followed with statistical estimates of the association between adolescent STI exposures and subsequent HIV diagnosis.

Outcomes of the Study

58% of the cohort was male and non-Hispanic Black (68%) was the most commonly reported race. Major findings include:

- 23% had STI when aged 11-19 years with 12% having 2 or more STIs as adolescents.
- Chlamydia was the most commonly reported STI followed by gonorrhea and syphilis.
- STI positivity was higher for girls than boys (33% vs. 13%).
- 0.3% had an HIV infection during the study period.
- The median time between first high school STI test and a positive HIV test among females was 3.3 years and for males 4.1 years.
- The most common identifiable HIV risk factor for females was heterosexual contact (78%).
- For males, the most common HIV risk factors were same-sex sexual contact (79%) and heterosexual contact (16%).
- HIV risk doubled for those who had an STI during adolescence.
- Those with multiple STI reports during adolescence had much

higher HIV risk than those with few or no STIs reported during adolescence.

- All common bacterial STI elevated HIV risk.
- For adolescent girls, HIV risk increased with a history of either chlamydia or gonorrhea. For boys, the greater HIV risk was associated with a history of syphilis or gonorrhea.
- The risk of subsequent HIV infection was more than 3 times as high among those with multiple gonorrhea infections during adolescence.

Implications for Prevention

This study found that HIV infection risks were elevated in individuals who had a history of STIs during adolescence, especially those with gonorrhea.

Interventions that reduce adolescent STIs are needed to avert future STI and HIV acquisition. Focusing on gonorrhea or multiple STIs may have the greatest impact.

SOURCE:

Newbern, E. C. (2013). Adolescent sexually transmitted infections and risk for subsequent HIV. *American Journal of Public Health*, 103, 1874-1881.

Follow-up study supports circumcision for HIV prevention

The effect of voluntary medical male circumcision conducted in 2002-2005 in a South African township was measured. A French research team returned to the site of the original research, South Africa's Orange Farm township, to conduct a follow-up study of more than 3,300 male volunteers. Research showed that foreskin removal could reduce HIV among men by about 50%.

Data collected included information about sexual behavior and asked the study volunteers to take an HIV test.

Data revealed that multiple partners and condom use were similar among men who were circumcised and those who were not. However, circumcised men were 57-61 percent less likely to have HIV infection. Findings estimated that without male circumcision, the prevalence of HIV would have been 19 percent higher in the community.

SOURCE: Avert, B., et al. (2013). Association of the ANRS-12126 Male Circumcision Project with HIV levels among men in a South African township: Evaluation of effectiveness using cross-sectional surveys. *PLoS Medicine*, 87, doi:1371/journal.pmed.1001509.

Heterosexual couple interventions found to reduce sexual risks

This project synthesized evaluations of couple-based HIV prevention interventions, assessed the interventions' efficacy in reducing sexual risk, and identified moderators of intervention efficacy.

A literature view revealed 29 interventions (22 reports; N=5168 couples) that met criteria. Criteria included enrollment of both members of a heterosexual couple, measurement of condom use at baseline and follow-up, and sufficient statistical information to calculate effect sizes.

The review found that, overall, there were significant increases in condom use from baseline to follow-up and decreases in partner concurrency. Couples who had been together longer, reported higher STI incidence, were provided voluntary counseling and testing, and provided outcome measures during face-to-face interviews also reported larger increases in condom use.

Couple-based interventions are efficacious in reducing unprotected sex in romantic relationships.

SOURCE: LaCroix, J. M., et al. (2013). Behavioural interventions to reduce sexual risk for HIV in heterosexual couples: A meta-analysis. *Sexually Transmitted Infections*, doi: 10.1136/sextrans-2013-051135.

BV is related to higher risk of female-to-male HIV transmission

Researchers studied the association between bacterial vaginosis and HIV transmission in a study of 2,236 HIV-infected women from seven African countries and their male partners. The risk of female-to-male HIV transmission was three times higher for HIV-infected women with BV than for HIV-infected women without BV.

SOURCE: Cohen, C R., et al. (2012,). Bacterial vaginosis associated with increased risk of female-to-male HIV-1 transmission: A prospective cohort analysis among African couples. *PLoS Medicine*. doi: 10.1371/journal.pmed.1001251.

Asians have low rate of HIV infection

In 2010, Asians accounted for 2% (950) of the estimated 47,500 new HIV infections in the U.S. 86% of HIV diagnoses among Asian men were from male-to-male sexual contact. For women, 92% of HIV diagnoses was from heterosexual contact.

SOURCE: CDC. (2013). HIV infection among Asians in the United States and dependent areas. <http://www.cdc.gov/hiv/risk/raciaethnic/asians/index.html>.

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 Arizona, 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.

Senior Director
William L. Yarber, HSD
Indiana University, Bloomington

Co-Directors
Janet N. Arno, MD
IU School of Medicine, Indianapolis

Anne M. Bowen, PhD
University of Arizona

Richard A. Crosby, PhD
University of Kentucky

Beth Meyerson, MDi, PhD
Indiana University, Bloomington

Mohammad R. Torabi, PhD
Indiana University, Bloomington

Rural Center for AIDS/STD Prevention

Indiana University
801 East Seventh Street
Bloomington, Indiana
47405-3085

Phone, Fax, E-mail, web page:
Voice and TDD: (812) 855-7974
(800) 566-8644
FAX line: (812) 855-3936
aids@indiana.edu
<http://www.indiana.edu/~aids>