

# RAP\* Time



## RURAL CENTER *for* AIDS/STD PREVENTION

A JOINT PROJECT OF  
INDIANA UNIVERSITY & PURDUE UNIVERSITY

\*Rural AIDS/STD prevention. rap (rap) v. Slang. To talk freely and openly. Vol. 4, No. 1, January 7, 2000

## ***Chlamydia trachomatis* Infection Rate Higher Than Expected in a Population of Rural Men**

In 1994, *Chlamydia trachomatis* became the most frequently reported sexually transmitted disease in the U.S., with more than 4 million estimated cases per year. Of these cases, about 2.6 million occur in women, 1.8 million in men, and 250,000 in infants. Untreated chlamydia can cause serious reproductive system damage in both women and men.

Recent reports suggest that rural areas represent a significant area of chlamydia infection. Reported prevalences of chlamydia in clinical settings among rural women range from 4.7% to 23%, depending on the population studied. Prevalence data of chlamydia infection among men in rural areas is minimal.

### **Methodology**

This prospective observational cohort study describes the demographics, risk of re-infection, and geographical distribution of chlamydia infections in a rural, eastern North Carolina county of about 67,000 population.

Data were collected between November 1, 1992 and January 21, 1994 from private physician

reports and from screening patients at the county health department STD clinic. The rates of reported chlamydia in the study county had been consistently higher than those in the U.S. and North Carolina since 1990.

Sixty-nine percent of the residents were white, with all but one per cent of the remaining being black. Twenty percent of all residents had incomes below the poverty level.

### **Outcomes of the Study**

Major findings include:

- The overall chlamydia rate in the study county was 563 cases per 100,000 person-years, 3 times the reported rate in the U.S. in 1993.
- The highest rates occurred among women, non-whites and people less than 25 years old.
- Male infections comprised a substantial portion of the total number of cases in the study county, which was an unexpected finding. Of all the infections diagnosed, 37% occurred in men. The male-to-female rate ratio in the study county (0.68) was almost 4 times larger than that reported for the U.S. and North Caro-

lina in 1993.

- During the study period, 460 chlamydia infections were diagnosed in 423 people, meaning that 7% had at least 2 infections. Men were 29% more likely than women to be re-infected with 6 months and non-whites were almost 4 times more likely to repeat than whites. The 5-year age group with the highest 6-month risk of re-infection was 15 to 19 year olds (13%).

### **Implications for Prevention**

This study underscores the value of surveillance, prevention and control of chlamydia infections in rural areas. The impact of men as a significant reservoir of infection contributing to the maintenance and spread of chlamydia was found. Screening men could significantly reduce the spread of chlamydia among high prevalence populations such as this rural community.

SOURCE: Michelson, K. N., et al. (1999). *Chlamydia trachomatis* infection in a rural population: The importance of screening men. *International Journal of STD and AIDS*, 10, 32-37.

## Condom Effectiveness in Preventing HIV is About 87%

The correct use of condoms for each sexual contact reduces the rate of heterosexually transmitted HIV infection.

Information on condom usage and HIV serology was obtained from 25 published studies of serodiscordant heterosexual couples. Condom usage was classified as always (in 100% of acts of intercourse), sometimes (1-99%, 0-99% or 1-100%) or never (0%). Condom efficacy was calculated from the HIV transmission rates for always-users and never-users.

For always-users, 12 cohort samples yielded a consistent HIV incidence of 0.9 per 100 person-years. For 110 cohort samples of never-users, incidence was estimated at 6.8 per 100 person years for male-to-female transmission and 5.9 per 100 for female-to-male transmission. Thus, the condom's effectiveness at preventing HIV transmission is about 87%, but it may be as low as 60% or as high as 96%.

SOURCE: Davis, K. R., & Weller, S. C. (1999). The effectiveness of condoms in reducing heterosexual transmission of HIV. *Family Planning Perspectives, 31*, 272-279.

## School-Age Children with HIV Relatively Well-Adjusted

Despite the increase of HIV-infected, school-age children, little is known about the mental health status of this group. Children with a chronic illness have an estimated risk for adjustment problems that is 1.5 to 3 times greater than their healthy peers.

This study examined the psychological distress symptoms in HIV-infected children between the ages of 6 and 11 years at three time points over a period of two and one-half years. Children were assessed using the Dominic, a pictorial instrument that assesses for 7 psychological distress symptoms of childhood.

The children were found to be relatively well-adjusted, with low to moderate incidence of psychological distress. While there were no significant changes in frequency of psychological distress symptoms from Time 1 to Time 3, the prevalence of over-anxious and depressive symptomatology increased over time.

SOURCE: Wiener, L., et al. (1999). Longitudinal study of psychological distress symptoms in HIV-infected, school-age children. *Journal of HIV/AIDS Prevention and Education for Adolescents and Children, 3*(1/2), 13-36.

## Women With Bisexual Experiences Have More STD/HIV Risk

Women who had sex with both men and women were more likely than women who had sex with men only to report drug use in the 3 months before the study, a greater number of lifetime sex partners, and an earlier age at sexual debut, for example. The women with bisexual experiences had a mean of 3.2 of 5 risk factors, vs 2.1 among women who had sex with men only.

SOURCE: Gonzales, V., et al. (1999). Sexual and drug-use risk factors for HIV and STDs: A comparison of women with and without bisexual experiences. *American Journal of Public Health, 89*, 1841-1846.

## Syphilis in Rural Counties Highest in South

Within the South, the rate of primary and secondary syphilis was substantially higher than the rates found for rural counties in each of the three other geographic regions in the U.S., and 2 to 3 times greater than the rates for urban counties in the West and Northeast.

SOURCE: CDC. (1999). *Sexually Transmitted Diseases Surveillance 1998*.



**RAP Time** is a monthly publication of the Rural Center for AIDS/STD Prevention (RCAP). RCAP is a joint project of Indiana University, Bloomington and Purdue University, West Lafayette, Indiana. 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 reflect those of Indiana University or Purdue University.

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