CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

September 17, 1999 / Vol. 48 / No. 36

MMWR™
MORBIDITY AND MORTALITY
WEEKLY REPORT

High Prevalence of Chlamydial and Gonococcal Infection in Women Entering Jails and Juvenile Detention Centers — Chicago, Birmingham, and San Francisco, 1998

The prevalence of sexually transmitted diseases (STDs) is high among women entering corrections facilities (*1*). Screening for STDs in these facilities, however, is difficult because of the large number of persons admitted each day and the frequent shortage of medical staff and examination space (*1*). New, sensitive urine tests for gonorrhea and chlamydia have made screening practical outside of medical settings. To assess the feasibility of screening women in corrections facilities for chlamydial and gonococcal infection using urine tests and to determine the prevalences* of these infections, the Chicago Department of Public Health and the University of Alabama at Birmingham (UAB) began testing women and adolescent females entering the Cook County Jail and the Cook County Juvenile Temporary Detention Center in Chicago and the Jefferson County Jail and the Jefferson County Youth Detention Center in Birmingham, respectively, in 1998. The San Francisco Department of Public Health has been testing women at the San Francisco County jails for chlamydial and gonococcal infections using urine tests since 1996 and adolescent females at the San Francisco Youth Guidance Center since 1997. This report summarizes the findings for testing incarcerated women in 1998 in the three cities; preliminary results indicate that, in these facilities, testing for chlamydial and gonococcal infections is feasible and that a high percentage of women test positive for these infections.

In Chicago and Birmingham, STD screening was offered as a component of a research study, and written informed consent was obtained from all participants. Age groups eligible for testing varied by facility (all ages at the Jefferson County Jail, aged 18–30 years at the Cook County Jail, and aged ≥12 years at the juvenile facilities). Urine was tested for chlamydial and gonococcal DNA using the ligase chain reaction (LCR) assay at the Illinois Department of Public Health and UAB laboratories. In San Francisco, STD screening was offered routinely to women aged 18–29 years entering the adult facility and all adolescent females at the youth facility, and LCR testing was performed at the San Francisco Department of Public Health Laboratory. In the three

*In this report, the terms "prevalence" and "positivity" are used interchangeably although some women may be tested more than once; because of the short length of the study period, the difference between positivity and true prevalence is small.

STD Screening — Continued

cities, women with positive tests were treated by the facility's medical staff if they were still incarcerated when results became available; local health department staff attempted to locate infected women who were released untreated.

During July–December 1998 at the Cook County Jail, 845 (98%) of 862 women agreed to participate; of these, 772 (91%) provided a specimen. Of 772 specimens, 103 (13%) were positive for chlamydial infection, and 66 (9%) were positive for gonococcal infection, including seven (1%) that were positive for both. During August–December 1998, of 310 women asked to participate at the Jefferson County Jail, 308 (99%) consented. Of the 308 women, 34 (11%) were positive for chlamydial infection and 25 (8%) for gonococcal infection, including five (2%) positive for both. Of 124 women aged 18–29 years, 21 (17%) were positive for chlamydial infection and eight (6%) positive for gonococcal infection. During January–December 1998 at the San Francisco County Jail, 113 (10%) of 1149 women tested for chlamydial infection were positive, and 55 (5%) of 1142 women tested for gonococcal infection were positive, including 10 (1%) positive for both. Prevalence of chlamydial infection was higher among women aged 18–19 years and aged 20–24 years than among women aged ≥25 years at all three county jails (Table 1).

At each juvenile facility, overall positivity for both chlamydial and gonococcal infection in 1998 was higher than at the adult facility in the same city (Table 1). In Chicago during April–December, 27% of adolescent females were positive for chlamydial infection, and 11% were positive for gonococcal infection. In Birmingham during March–December, 22% and 17% were positive for chlamydial and gonococcal infections, respectively, and in San Francisco during January–December, 16% and 6% were positive, respectively.

Reported by: A Evens, MS, R Kee, MD, D Broussard, K Anderson, S Mier, J Johnson, Chicago Dept of Public Health; C Mennella, MD, Cermak Health Svcs; V Vallury, MD, Cook County Juvenile Detention Center, Chicago; C Rabins, MPH, G Dizikes, PhD, Illinois Dept of Public Health. J Schwebke, MD, E Hook, MD, R Meriwether, MK Oh, MD, Univ of Alabama, Birmingham; S Clark, Jefferson County Dept of Health, Birmingham; N Whitehead, Jefferson County Sheriff's Office, Birmingham, Alabama. C Kent, MPH, M Hernandez, MPH, J Klausner, MD, J Goldenson, MD, San Francisco Dept of Public Health, California. Div of Sexually Transmitted Diseases Prevention, National Center for HIV, STD, and TB Prevention; Div of AIDS, STD, and TB Laboratory Research, National Center for Infectious Diseases, CDC.

Editorial Note: Genital chlamydial and gonococcal infections can lead to pelvic inflammatory disease, ectopic pregnancy, infertility, or chronic pelvic pain in women (*2,3*). These infections are associated with increased risk for human immunodeficiency virus infection (*4,5*). Screening and treating women for chlamydia and gonorrhea may prevent some of these complications (*6*). Treating infected women in jail also may prevent transmission to the community because approximately half of arrestees are released within 48 hours of incarceration (*7*). The findings in this report indicate that a high percentage of women entering corrections facilities test positive for chlamydial and gonococcal infections.

Although the prevalence of chlamydial and gonococcal infection is high among incarcerated women, most corrections facilities do not routinely screen for these infections but test only those who have symptoms or who request testing (*7*). Most women with gonorrhea or chlamydia, however, are asymptomatic. At city and county jails surveyed during 1997 that tested arrestees because of symptoms or by request, <5% of women were tested for chlamydia and gonorrhea (*7*).

STD Screening — Continued

TABLE 1. Percentage of positive tests for chlamydial and gonococcal infection in women entering jails, by age group and facility — Cook County, Illinois; Jefferson County, Alabama; and San Francisco, California, 1998

Facility	Testing period	Age group (yrs)	Chlamydia			Gonorrhea		
			No. tests*	Positive		No. tests*	Positive	
				No.	(%)		No.	(%)
Cook County								
Juvenile detention center	Apr–Dec	12–17	452	124	(27%)	449	50	(11%)
Jail	Jul–Dec	18–19	112	24	(22%)	112	15	(14%)
		20–24	264	34	(13%)	264	23	(9%)
		25–30	396	45	(11%)	396	28	(7%)
Jefferson County								
Youth detention center	Mar–Dec	12–17	98	22	(22%)	98	17	(17%)
Jail	Aug–Dec	18–19	15	5	(33%)	15	0	(0%)
		20–24	46	7	(15%)	46	3	(7%)
		25–29	63	9	(14%)	63	5	(8%)
		≥30	184	13	(7%)	184	17	(9%)
San Francisco County								
Youth guidance center	Jan–Dec	9–17	585	92	(16%)	579	36	(6%)
Jail	Jan–Dec	18–19	232	40	(17%)	232	7	(3%)
		20–24	509	47	(9%)	505	24	(5%)
		25–29	408	26	(6%)	405	24	(6%)

*Unsatisfactory tests were excluded.

The cost of testing for chlamydia and gonorrhea remains a barrier to routine screening. If resources are scarce, corrections facilities may choose to screen only persons at highest risk. The data described in this report and in previously published reports indicate that the prevalence of chlamydia and gonorrhea is higher among adolescent females entering juvenile facilities than among women entering adult facilities (*8*). In the three county jails described in this report, the prevalence of chlamydial infection was higher among women aged ≤24 years than among women aged ≥25 years. In addition, women aged ≤24 years may be at higher risk than older women for complications from chlamydial and gonococcal infections (*9*).

The findings in this report are subject to at least two limitations. First, the findings are from corrections facilities in three cities, and the prevalence of STDs varies across facilities and may be substantially different in other U.S. cities. Second, although the nucleic acid amplification tests used at all of these facilities have greater sensitivity than previous testing methods, they are imperfect (*10*).

Each city and county in the United States should assess the feasibility of screening persons entering corrections facilities for STDs and compare the yield of screening this population with other screening activities. Local STD-control programs and corrections officials should collaborate to assess the contribution of STD screening in corrections facilities toward identifying and treating infections that would not be de-

STD Screening — Continued

tected otherwise and, if appropriate, implement screening to interrupt transmission of gonorrhea and chlamydia in communities.

References

1. Puisis M, Levine WC, Mertz KJ. Overview of sexually transmitted diseases. In: Puisis M, ed. Clinical practice in correctional medicine. St. Louis, Missouri: Mosby, 1998:127–33.
2. Stamm WE. *Chlamydia trachomatis* infections of the adult. In: Holmes KK, Sparling PF, Mardh PA, et al, eds. Sexually transmitted diseases. 3rd ed. New York, New York: McGraw-Hill, 1999.
3. Hook EW, Handsfield HH. Gonococcal infections in the adult. In: Holmes KK, Sparling PF, Mardh PA, et al, eds. Sexually transmitted diseases. 3rd ed. New York, New York: McGraw-Hill, 1999.
4. Fleming DT, Wasserheit JN. From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. Sex Transm Infect 1999;75:3–17.
5. Royce RA, Sena A, Cates W, Cohen MS. Sexual transmission of HIV. N Engl J Med 1997;336:1072–8.
6. Scholes D, Stergachis A, Heidrich FE, Andrilla H, Holmes KK, Stamm WE. Prevention of pelvic inflammatory disease by screening for cervical chlamydial infection. N Engl J Med 1996;334:1362–6.
7. CDC. Assessment of sexually transmitted diseases services in city and county jails—United States, 1997. MMWR 1998;47:429–31.
8. Division of Sexually Transmitted Diseases Prevention. Sexually transmitted disease surveillance, 1997. Atlanta, Georgia: US Department of Health and Human Services, CDC, National Center for HIV, STD, and TB Prevention, September 1998.
9. Westrom L, Svensson L, Wolner-Hansen P, Mardh PA. Chlamydial and gonococcal infections in a defined population of women. Scand J Infect Dis 1982;32(suppl):157–62.
10. Black CM. Current methods of laboratory diagnosis of *Chlamydia trachomatis* infections. Clin Microbiol Rev 1997;10:160–84.

Bidi Use Among Urban Youth — Massachusetts, March–April 1999

Tobacco use is the leading preventable cause of death in the United States. Bidis are small, brown, hand-rolled cigarettes primarily made in India and other southeast Asian countries (*1*) consisting of tobacco wrapped in a tendu or temburni leaf (*Diospyros melanoxylon*). In the United States, bidis are purchased for $1.50–$4.00 for one package of 20 and are available in different flavors (e.g., cherry, chocolate, and mango). Anecdotal reports indicate that bidi use was first observed during the mid-1990s and seems to be widespread among youth and racial/ethnic minority adolescents. This report summarizes preliminary data collected from a convenience sample of adolescents surveyed during March and early April 1999 in Massachusetts on the prevalence of bidi use among urban youth; these data indicate that of 642 youth surveyed, 40% had smoked bidis at least once during their lifetimes and 16% were current bidi smokers.

The Massachusetts Tobacco Control Program conducted a pilot study to assess adolescents' knowledge and use of bidis. A convenience sample included a school- and community-based survey of youth from a large metropolitan area in Massachusetts. Peer leaders from a local tobacco-use prevention program and their adult advisors were granted access to three middle schools and seven high schools through professional networks (e.g., contact with the principal, health teacher, and nurse). Participants were given a set of standardized instructions and informed consent was obtained. Students surveyed in school were from health, science (e.g., biology, chemistry, and computer science), language (e.g., English or English as a second lan-