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Sexually Transmitted Diseases and HIV among Teenagers in Alaska

The Centers for Disease Control and Prevention estimate that 18.9 million new sexually transmitted diseases (STDs) occur each year in the United States and that more than 65 million people are living with an incurable STD.[1] Chlamydia and gonorrhea were the most frequently reported infectious diseases during 2003.[2]

Seriousness

Health People 2010 Targets and National Data

Indicator	Alaska 2003†	Nation 2003^	Healthy People 2010 Goal*
Proportion chlamydia infections among females ages 15-24 attending family planning clinics	6.0%	6.4%	3.0%
Proportion chlamydia infections among females ages 15-24 attending STD clinics	7.5%	14.1%	3.0%
Proportion chlamydia infections among males ages 15-24 attending STD clinics	DNA	19.3%	3.0%

DNA: Data Not Analyzed.

- The proportion of chlamydia infections among females ages 15 to 24 years attending family planning and STD clinics are 2 and 2.5 times the HP2010 goal, respectively.

Severity

STDs, mainly untreated chlamydia and gonorrhea, are the main preventable cause of pelvic inflammatory disease (PID). PID can lead to infertility, pelvic abscess and chronic pelvic pain.[2,3] Pelvic inflammatory disease (PID) also increases the risk of ectopic pregnancy. Among women with PID, 9% will have an ectopic pregnancy due to tubal scarring.[2]

Chlamydia is the most frequently reported bacterial STD in the Nation.[2] More than 50% of all preventable infertility among women is a result of infection with chlamydia and three-quarters of all women infected have no symptoms. Infected women are up to 5 times more likely to become infected with HIV, if exposed.[4]

Some types of human papilloma virus (HPV), which can be transmitted through sexual intercourse, can cause cervical cancer. Other cancers caused by STDs include liver cancer, T-cell leukemia, Kaposi's sarcoma, and body cavity lymphoma.[5]

Urgency

- The rate of reported gonorrhea cases among Alaska women more than doubled from 1999 to 2003.†
- The rate for reported cases of chlamydia among Alaska women increased by more than 75% from 1999 to 2003.† Part of this increase may be attributed to the expansion of chlamydia screening activities.[2]

Disparities

National surveillance data indicated that sex, age, and race were associated with higher incidence of STDs.[2]

- Women were 3 times as likely to have chlamydia, and more than 2 times as likely to have gonorrhea as men.^
- Women ages 15-19 and 20-24 years were significantly more likely to be infected with STDs than other age groups. Furthermore, the average age for a woman infected with chlamydia was lower than the average age for a man. ^
- During 2000, approximately half (48%) of new STD cases in the U.S. were among people ages 15-24 years. ^
- The reported incidence of chlamydial infection among Alaska Natives was 1,196 per 100,000 per year, accounting for 46% of chlamydia cases while comprising only 18% of the population.[3]
- Like the Nation, the incidence of HIV infection among Alaskan women is increasing faster than among men.[6]

Economic Loss

During 2000, the estimated direct medical costs of STDs acquired by individuals younger than 25 years were $6.5 billion. The average lifetime cost per case of chlamydial infection for female adolescents was $244 compared with a per-case cost of $20 for male adolescents.[7]

The cost of treating HIV/AIDS over a lifetime is estimated at $155,000 per person.[8]

Interventions & Recommendations

Primary Interventions: Promote responsible adolescent sexual behavior advocating protective behaviors that reduce the risk of STD and unintended pregnancy, such as abstinence, limiting the number of sexual partners, and using condoms consistently and correctly.[9]

Secondary Interventions: Increase the level of STD screening for individuals at risk, especially youth and pregnant females, by making urine-based chlamydia and gonorrhea testing routine, free, and available in nontraditional health care settings. Promote the use of the new rapid HIV test, and increase the proportion of individuals receiving human papillomavirus vaccine when it becomes available.

Intervention Effectiveness

Increasing and maintaining the proportion of youth who exhibit protective behaviors reduces the risk of contracting infection. The most effective education programs are those that emphasize abstinence and communication about sexual issues, but also contraception and use of condoms.[10]

Routine STD screening of all young women less than 24 years of age attending family planning clinics captures a large percentage of prevalent infections and should reduce the incidence of PID.[13] Supporting widespread screening of young people should effectively identify additional cases.

Wider use of rapid screening has the potential to decrease the spread of HIV and improve treatment of infected individuals. For example, the Municipality of Anchorage Reproductive Health Clinic now takes its rapid HIV screening tests to nontraditional settings such as popular "hang outs" of youth and target groups, rather than waiting for clients to come to the clinic site for testing.

Capacity

Propriety

. Responsibility for addressing adolescent STD is shared by the Women's, Children's, and Family Health (WCFH) Section, the Section of Epidemiology and the Section of Public Health Nursing. National initiatives have been set forth to address this issue (HP2010) and the Maternal and Child Health Bureau requires the collection and monitoring of two STD indicators among the population of female teenagers on a yearly basis (Title V Block Grant).

Economic Feasibility

The WCFH Section has the capacity to retain the department's federal grant for abstinence education of youth. STD screening efforts also receive partial funding through the State's Infertility Prevention Program, although all current funding is given to the State Public Health Laboratory to purchase testing materials. As the number of individuals identified with STDs increases, the Section of Epidemiology will require increased funding to continue high quality partner identification and notification. Funding mechanisms will need to be developed to finance the cost of the anticipated human papillomavirus vaccine when it becomes available.

Acceptability

Sexuality education targeting youth with messages regarding responsible and appropriate sexual behavior is controversial. Despite evidence that prevention education that includes condom or birth control use is more effective, abstinence-only programs receive more federal funding currently.

Screening activities focused on youth are similarly controversial. There is continuing pressure to include parental consent for such services to minors.

Resources

The "abstinence education" grant will be continued.

The Title X Family Planning Program provides comprehensive and confidential services, but in only two locations. Two other Title X grantees provide services in Alaska: Planned Parenthood of Alaska (4 sites), and the Municipality of Anchorage (2 sites).

Public Health Centers statewide provide screening, diagnosis, and sometimes treatment services.

The IPP project provides testing supplies and laboratory services to select facilities statewide.
The Breast & Cervical Cancer Screening program screens for cervical cancer, provides human papillomavirus typing, and other diagnostic services for cervical cancer and precancerous conditions known to be caused by sexually transmitted infection. This program could be instrumental in distribution and administration of human papillomavirus vaccine should it become approved for general use.

Legality

Not an issue.

References

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Data Sources

† Alaska Sexually Transmitted Disease Surveillance, 2003 Data in: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

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* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.