Sexually Transmitted Diseases

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PROGRESS REVIEW

In the 24th in a series of assessments of *Healthy People 2010*, Acting Assistant Secretary for Health Cristina Beato chaired a focus area Progress Review on Sexually Transmitted Diseases (STDs). Dr. Beato underscored the magnitude of the problem in stating that 18.9 million new STD infections, both curable and incurable, occur each year in the United States, half of them in persons younger than 25 years of age. More than 65 million people in this country are currently living with an incurable STD. The burden of STDs in direct medical costs in 2000 was estimated to be $9.3 to $15.5 billion. In conducting the review, Dr. Beato was assisted by staff of the lead agency for this *Healthy People 2010* focus area, the Centers for Disease Control and Prevention (CDC). Also participating were representatives of the Office of Population Affairs (OPA) and other U.S. Department of Health and Human Services (HHS) offices and agencies.

The complete text for the Sexually Transmitted Diseases focus area of *Healthy People 2010* is available at **www.healthypeople.gov/document/html/volume2/25stds.htm**. The meeting agenda, tabulated data for all focus area objectives, charts, and other materials used in the Progress Review can be found at **www.cdc.gov/nchs/about/otheract/hpdata2010/focusareas/fa25-std.htm**.

Data Trends

Edward Sondik of the CDC National Center for Health Statistics provided an overview of progress achieved in meeting the targets of selected objectives in the focus area. Since the baseline years in the late 1990s, the objectives for primary and secondary syphilis, congenital syphilis, genital herpes, and responsible adolescent sexual behavior have shown improvement. The incidence of gonorrhea is largely unchanged over the same time period, whereas the incidence of chlamydia infections has been increasing, for both males and females. To some degree, this increase may reflect improved screening methods.

Following his overview, Dr. Sondik provided additional details about the status of objectives that were highlighted in the Review. Among females aged 15 to 24 years who attended family planning clinics in 2002, 6.0 percent had chlamydia infections, compared with 5.0 percent in 1997 (Obj. 25-1a). Females in the same age group who attended STD clinics showed a chlamydia infection rate of 13.5 percent in 2002, compared with 12.2 percent in 1997 (Obj. 25-1b). Males in that age group who attended STD clinics in 2002 showed a chlamydia infection rate of 17.5 percent, compared with 15.7 percent in 1997 (Obj. 25-1c). The 2010 target for each of the three sub-objectives is 3.0 percent. Among five racial and ethnic groups, the reported incidence of chlamydia infections in 2002 was 1,132.5 per 100,000 population for blacks, more than twice the rate for Hispanics in that year, and nearly 9 times the rate for whites and Asians/Pacific Islanders. Of the five groups, American Indians/Alaska Natives had the second highest rate of chlamydia infection in 2002 with 724.9 cases per 100,000.

After a substantial decrease beginning in the mid-1980s, the incidence of new cases of gonorrhea among the total population plateaued in the latter half of the 1990s. In 2002, the incidence was 125 new cases per 100,000, with little difference between the rates for females and males. The rate for blacks was 742 new cases per 100,000 in 2002, or about 24 times the rate for whites. The target is 19 new cases per 100,000 (Obj. 25-2).

The incidence of primary and secondary syphilis for the total population showed a large decrease from around 1990, and this decline continues for females. In 2002, the incidence was 1.1 cases per 100,000 for females, compared with 3.8 per 100,000 for males, an increase for the latter from 3.6 per 100,000 in 1997. Among males, the incidence of syphilis varies greatly by age; in 2002, the highest incidence, 9.9 cases per 100,000, occurred among the age group 35 to 39 years. Among females, there was little variance in incidence between ages 19 and 39. The age group 20 to 24 years had the highest rate in 2002, 3.3 cases per 100,000. The incidence for blacks was 9.8 cases per 100,000 in 2002, which is less than half the rate of 22.0 cases per 100,000 recorded in 1997. The target is 0.2 cases per 100,000 (Obj. 25-3). The incidence of congenital syphilis has shown even greater improvement in recent years, decreasing from 28 cases per 100,000 live births in the total population in 1997 to 10 cases per 100,000 live births in 2002. Of five racial and ethnic groups, the rate for blacks in 2002 was highest, at 40 cases per 100,000 live births, in sharp contrast with the 1997 rate of 123 cases per 100,000 live births. The target is 1 case per 100,000 live births (Obj. 25-9).

For the total population, the prevalence of infection with genital herpes decreased from 17 percent in the period 1988–1994 to 11 percent in 2002. Among four groups between the ages of 12 and 49 years, the age group 40 to 49 years had the highest infection rate, 26 percent, in 2002. The female infection rate in 2002 was 24 percent, more than twice the rate (11 percent) for males. In the age group 40 to 49 years, the genital herpes infection rate among females in 2002 was 35 percent, compared with 18 percent among males. Among blacks, the infection rate increased from 33 percent in the period 1988–1994 to 38 percent in 2002. The target is 14 percent (Obj. 25-4).

Among students in grades 9 through 12, the proportion that evinced responsible sexual behavior (i.e., abstention from sexual intercourse or use of condoms if currently sexually active) increased from 85 percent in 1999 to 88 percent in 2003. The target is 95 percent (Obj. 25-11). Overall, the differences between genders and between racial and ethnic groups were not large.

Key Challenges and Current Strategies

In the presentations that followed the data overview, the principal themes were introduced by representatives of the lead agency—Janet Collins, Acting Director of CDC's National Center for HIV, STD and TB Prevention, and John Douglas, Jr., Director of that Center's Division of STD Prevention. Also making a presentation was Alma Golden, Deputy Assistant Secretary for Population Affairs/OPA. These agency/office representatives and other participants in the review identified a number of obstacles to achieving the objectives and discussed activities under way to meet these challenges, including the following:

- With all STDs, reporting of cases to CDC falls short of actual incidence. True increases or decreases may be masked by changes in screening practices, use of more sensitive diagnostic tests, and changes in reporting practices.

- More than 50 percent of all preventable infertility among women is a result of infection with chlamydia. Without treatment, up to 40 percent of women will experience adverse health effects, including pelvic inflammatory disease (PID). Twenty percent of PID diagnoses result in infertility, 9 percent in ectopic pregnancy, and 18 percent in severe pelvic pain.
- Gonorrhea continues to increase in certain sexual networks. The largest increases between 1998 and 2002 were among white men aged 30 to 44 years, primarily men who have sex with men (MSM). Continued increases in antimicrobial resistance have been reported among this group and others, and treatment options are diminishing.
- Syphilis has been demonstrated to enhance HIV transmission, and the evidence is strong that genital herpes does so as well.
- The decline since the 1980s and early 1990s in the use of crack cocaine was a factor in the declining incidence of primary and secondary syphilis, inasmuch as crack use lessens motivation to seek medical help for symptoms that are often more obvious with syphilis than with some other STDs.
- Tests for HSV-2 antibody cannot identify genital herpes due to HSV-1, which may be increasing.
- The 25 to 40 percent higher rate of prevalence of genital herpes in women than in men suggests that male-to-female transmission is more efficient than female-to-male transmission. The female genital tract may be more vulnerable to infection by the virus than the male genital tract.
- CDC's Comprehensive STD Prevention Systems fund 65 project areas, including all 50 states, 8 territories, and 7 cities. Concomitantly, some 250 Federal staff are assigned to state and local departments.
- The Gonococcal Isolate Surveillance Project provides high-quality surveillance data to monitor antimicrobial drug resistance in different population groups.
- One study showed that closer personal involvement by parents in the lives of their adolescent children reduced the risk of gonorrheal and chlamydial infection by 94 percent.
- CDC's National Plan to Eliminate Syphilis in the United States has among its goals increasing the number of syphilis-free counties to 90 percent by 2005. Among the Plan's key strategies are expanded clinic and lab services, rapid outbreak response, and partnering with communities and organizations.
- After first successfully testing it as a regional model in HHS Region X, CDC has conducted the National Infertility Prevention Program in partnership with OPA since 1993. Today, the Program provides $27.8 million to screen and treat women and their sex partners in all 10 HHS Regions in a variety of healthcare settings, including family planning and STD clinics, migrant health centers, women's detention facilities, and Indian Health Service (IHS) sites.
- CDC will undertake a 5-year evaluation project to test the efficacy of an abstinence-only sexual risk reduction program for adolescents of middle school age. In Alabama, an abstinence-only program was shown to have a significant impact in reducing STD transmission among adolescents.

Approaches for Consideration

Participants in the review made the following suggestions for steps to enable further progress toward achievement of the objectives for Sexually Transmitted Diseases:

- Expand screening for chlamydia and gonorrhea to identify and treat these diseases before they lead to PID. Expansion is needed in a number of areas—additional STD and family planning clinics; more women served within the existing network of STD and family planning clinics; and additional public screening locations, such as community health clinics, detention facilities, IHS clinics, and school-based clinics. Work with the private sector, which reports the majority of STDs, to increase the number of sexually active women aged 16 to 27 years who are

screened for chlamydia. Also, expand screening and treatment to male partners to decrease reinfection of women.

- Develop multilevel strategies for addressing increasing rates of STDs in MSM. Recent increases in syphilis cases in men are attributable to MSM and affect the ability to achieve the syphilis elimination goal. Strategies must address issues such as arranging to meet sexual partners via Internet communication and related difficulties in partner notification/treatment, the impact of methamphetamine use on sexual risk-taking and STD incidence, and the challenge of syphilis/HIV co-infection. The multilevel approach should include integrated, cooperative activities among public health practitioners, healthcare providers, and members of the community.
- Implement human papilloma virus (HPV) education programs for the public and healthcare providers.
- Increase use of the highly sensitive nucleic acid amplification tests, which are 20 to 30 percent more sensitive than standard methods for diagnosing chlamydia.
- In view of the increase in antimicrobial resistance against most treatment options, increase cooperative efforts with the Food and Drug Administration and private industry to encourage the development and testing of new drugs for gonorrhea.
- Expand outreach of STD prevention programs to people in military service, a population that is significantly affected by these diseases but has in the past been relatively neglected in national surveillance and control activities.
- Take steps leading to the creation of a national system for reporting on infertility, including a sentinel system that would allow cases of infertility to be systematically linked to prior STDs.
- To reduce risky practices and inculcate responsible sexual behavior, promote the establishment of STD and family planning clinics where couples are encouraged to receive counseling together.
- Integrate HIV/STD prevention education with other topics taught in schools that address interrelated high-risk behaviors, such as drug use.
- Seek to maximize the involvement of parents in school programs aimed at reducing the incidence of adolescent pregnancy and transmission of STDs. Assist school districts in producing guidance materials to help parents to take up this role.

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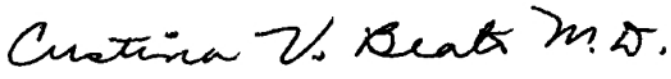

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