NCHSTP News & Notes

A NEWSLETTER FROM CDC'S NATIONAL CENTER FOR HIV, STD, & TB PREVENTION

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Commemorating the Discovery of the Tuberculosis Bacillus

Also inside:

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

National Center for HIV, STD & TB PREVENTION

NCHSTP News & Notes

A quarterly publication of the National Center for HIV, STD, and TB Prevention (NCHSTP), Centers for Disease Control and Prevention (CDC)

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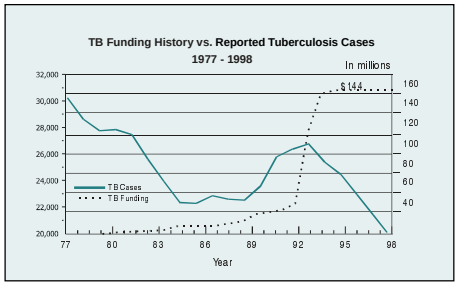
Director's Forum

Welcome to the first edition of NCHSTP's News and Notes. It is our hope that you will find this to be a useful, educational, thought provoking, and sometimes even entertaining publication. That being said, first editions of anything are always difficult. There are always more ideas than time allows and more priorities than space allows. A certain amount of editorial license is necessary; at least until feedback is received. Please feel free to contact us with suggestions about how we can improve the content or format of this newsletter (contact information is in the shaded area on this page). We look forward to hearing from you.

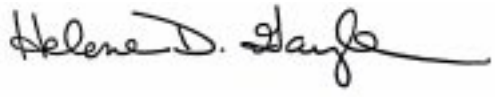
Helene D. Gayle
M.D., M.P.H.
Director, NCHSTP

We chose to highlight World TB Day on the cover of this edition because observance of this day gives us an annual opportunity to highlight both progress and challenges in our fight against tuberculosis. Remarkably, 1998 marks the sixth straight year of declines in TB cases in the United States. This is especially remarkable because one short decade ago, we were in the middle of a dramatically increasing TB epidemic. Funding for TB programs had been cut in the 1970s and many TB programs were eliminated as a result. Before too long there was a resurgence of disease. Today's declining numbers clearly reflect our nation's current commitment to battling this disease head-on. As a matter of fact, one can chart funding of TB programs against surveillance data and get a crystal clear picture of how well our investment in TB control is paying off.



It is vital that we not repeat experiences of the past by reducing or eliminating TB programs because of the recent successes. As tempting as it may be to say that we have TB under control, we need to remember that only sustained programs will help us move toward elimination. Moreover, globally, there are more than 8 million new cases of tuberculosis and 3 million TB deaths each year. As long as TB, an airborne disease, continues to spread in other nations, it will continue to threaten Americans.

Progress often breeds challenges and opportunities, as the experience with TB demonstrates. I hope that we can use this newsletter as a chance to frame some of these challenges and highlight potential opportunities. Let us know what you think.



Helene D. Gayle, M.D., M.P.H.
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NCHSTP staff profile

Rose Pray, R.N., M.S.
Training Specialist Division of TB Elimination

ROSE PRAY HAS AN ADVENTURER'S SPIRIT. After college at the University of California at San Francisco, she went to Alaska for what was supposed to be a two-week vacation – and stayed three months. She returned to the lower 48 for her masters degree in nursing, but afterward went back to Alaska "one last time – to get it out of my system" and that time stayed 11 years. Over the course of those years she worked as a public health nurse in Fairbanks; taught public health nursing at the University of Alaska; and, for five years, led the state's TB control efforts.

As a public health nurse, her constituency included eight Indian villages not connected by roads. They were all on rivers and could only be reached by a small plane. She started working toward her private pilot's license, reasoning that it would be a good idea if she ever had to back up a bush pilot in an emergency. She did all but one flight assignment needed to earn her license.

However, by the time she was ready for this last test (a solo cross-country flight), she was pregnant with her first child and getting to a point where flying was uncomfortable.

Rose then moved to Atlanta, where she worked on an MPH at the Rollins School of Public Health at Emory University. She finished all but her dissertation before

See Rose page 6 ▶

Mark your calendars

What and When

National HIV Prevention Conference
August 29 - September 1, 1999
Hyatt Regency
Atlanta, Georgia

The conference is being organized by numerous agencies and national programs in collaboration with CDC. These groups represent public and private organizations whose interaction, cooperation, and coordination are crucial to successful efforts to prevent HIV and AIDS in the United States.

Conference Objectives

- To share effective prevention approaches and research findings among governmental, community, and academic partners in HIV prevention.
- To strengthen collaborations between program practitioners and researchers, behavioral interventions, vaccine development, monotoring the epidemic, developing rapid and reliable tests for HIV diagnosis, and improving access to early treatment for HIV diagnosis, and improving access to early treatment for HIV.

Registration Information

Participants are encouraged to register by July 23, 1999. For information on conference registration costs, scholarships, lodging, and abstract submission, please visit our conference web site at http://www.cdc.gov/nchstp/hiv_aids/conferences/nhpc99.htm, send E-mail to 99hivconf@cdc.gov.

World TB day: An opportunity to recommit to TB elimination

WORLD TB DAY ANNUALLY commemorates March 24, 1882, when Dr. Robert Koch presented his discovery of the TB bacillus to a group of doctors in Berlin. Various organizations in many countries around the world observe this date to acknowledge and promote awareness of the importance of joining together against this ancient and still-deadly disease. CDC, through the Division of Tuberculosis Elimination (DTBE), provides leadership in the effort to control and eventually eliminate tuberculosis in the United States.

Tuberculosis (TB) disease was once the leading cause of death in the United States; at the turn of the century, death rates from TB were approximately 195 per 100,000 people. By 1925, however, the rate of death had been reduced to 85 per 100,000, declining steadily to 22 per 100,000 in 1950. In the 1940s, scientists discovered streptomycin, the first of several drugs now used to treat TB. With new therapies developed in the 1950s, death rates were reduced to 6 per 100,000 by 1960. Steady declines in both TB deaths and cases continued throughout this century until 1985. Many in the United States thought the country was well on the way to eliminating TB as a public health threat.

However, beginning in the mid-1970s, U.S. Health Officials began to be complacent about TB and redirected TB prevention and control funds to other areas. As a result, the trend toward elimination was stopped in the mid-1980s, and TB cases increased by 20% between 1985 and 1992. In 1993, Congress substantially increased resources to reestablish the public health infrastructure and help bring TB back under control. Consequently, health departments were better able to detect and treat people with active TB and latent infection. As a result, in 1993, TB cases again started to decline. But to eliminate TB as a public health threat, we must not only maintain our current efforts but also address several key challenges.

TB has to be fought globally to protect locally

Almost 2 billion people (one-third of the world's population) are infected with TB. Each year there are 8 million new cases of TB (including 170,000 among children) and 3 million TB deaths. In an era marked by increased international travel and a global marketplace, no region of the world is isolated from outside influences. In 1997, 39% of new TB cases reported in this country were among foreign-born persons. International collaboration will be essential to eliminate TB. TB does not stop at U.S. borders, and neither can prevention efforts.

The use of DOT in TB treatment and prevention must be expanded

Incomplete TB therapy and drug-resistant strains continue to threaten public health. Recent surveys demonstrate that poorly administered TB treatment continues to foster drug resistance. Health departments must expand treatment and prevention programs to ensure that people complete prescribed regimens.

New tools will be needed

In addition to using already established tools and strategies more effectively, new strains of TB call for the development of improved diagnostic tests and new drugs. Given the global TB burden, a new and effective vaccine also is needed to ensure the reduction of human suffering from TB.

TB is not confined by any demographic or geographic boundaries, but certain populations are more at risk than others.

See TB facts page 9 ▶

Thailand begins an HIV vaccine field trial

IT IS ESTIMATED THAT OVER 30 MILLION individuals worldwide are infected with HIV–the vast majority of whom live in the developing world.[1] One country in particular, Thailand, has experienced a rapidly escalating and severe HIV epidemic since 1988. Among the 60 million inhabitants of Thailand, as many as 800,000 people are currently believed to be living with HIV.

Despite innovative and persistent prevention efforts, HIV continues to spread rapidly, particularly among Thailand's population of injection drug users (IDUs). Methadone treatment, education and counseling on HIV prevention, and easy access to sterile needles have certainly helped to slow the epidemic. Yet, among IDUs in Bangkok, 6% continue to become infected each year. In addition to being one of the nations most severely affected by HIV, Thailand has emerged as one of the nations most committed to ending its toll.

To address the urgent need for an HIV vaccine, Thai officials have been working with the World Health Organization, the Joint United Nations Program on HIV/AIDS (UNAIDS), the International AIDS Vaccine Initiative (IAVI), the Government of Japan, the U.S. National Institutes of Health (NIH), the U.S. Department of Defense, various universities, and the Centers for Disease Control and Prevention (CDC) since 1991 to prepare for HIV vaccine efficacy trials. In February 1999, Thailand became the first developing nation to announce a Phase III vaccine field trial. A Phase III trial is done to determine if a vaccine is effective in protecting against infection or disease and is an important step in the evaluation process leading to licensure.

AIDSVAX Phase III trial in Thailand

As part of the Thai National Plan for HIV vaccine research, the Bangkok Metropolitan Administration (BMA) is leading the three-year collaborative research trial to evaluate the ability of AIDSVAX to prevent HIV infection among uninfected IDUs in Bangkok, Thailand. AIDSVAX was developed by VaxGen, a U.S. vaccine developer. BMA is conducting the trial in conjunction with VaxGen, the Mahidol University Faculty of Tropical Medicine in Bangkok, and the HIV/AIDS Collaboration (a longstanding research collaboration between the Thai Ministry of Public Health and CDC).

The trial is being conducted among uninfected IDUs attending 17 drug treatment clinics in Bangkok. The design is a randomized, double-blind, placebo-controlled trial in which half of the 2,500 volunteers receive the AIDSVAX vaccine and the other half receive placebo injections which do not include the vaccine. Neither the researchers nor the participants know which participants are in each half of the trial.

To guard against the relaxation of preventive behaviors, all volunteers receive extensive counseling on how to protect themselves against HIV infection, as well as explicit warnings that this vaccine may not protect them from infection. To further ensure that trial participants are not inadvertently placed at any risk, the trial design, as well as all procedures and protocols for study recruitment and counseling, have received extensive scientific and ethics review by Institutional Review Boards and ethical committees of all involved agencies, both the Thai and U.S. government, and the Joint United Nations Program on HIV/AIDS.

See Vaccine page 7 ►

Rose

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moving to Geneva, Switzerland. In the five years she lived there, she volunteered her time to the International Union Against Tuberculosis and Lung Disease and worked at WHO, first as a consultant for the TB program, then as a Technical Officer in the Control of Diarrhoeal Diseases program. Her work in the latter program involved developing and implementing training programs for various countries, mostly in East Africa and Asia.

"Working in Africa helped me realize that I have a strong affinity for international work," said Rose, "I really love working with Ministries of Health as well as with regional and local health care providers."

Rose has been at CDC since late 1996. For NCHSTP's Division of Tuberculosis Elimination, she currently oversees internal and external projects relating to training activities, including serving as Project Officer for training done in the field through cooperative agreements. Recently, Rose worked with a team to produce a five-year strategic plan for TB training and education in collaboration with three Model TB Centers. Now in the implementation phase, the plan calls for DTBE to build training collaboration among key national agencies and organizations as well as with global partners to assess training needs and develop access to TB training and education resources.

Though her life is now headquartered in Atlanta, Rose still finds ways to nurture her interest in international work and her sense of adventure. She was recently involved, for example, with the Office of Global Health and the CARE-CDC Health Initiative to implement a Prevention through Preparedness Workshop in Tanzania for CARE managers and Ministries of Health staff from countries in East Africa. In addition, she is an active member of a WHO advisory committee on TB training and education.

"These days," she says, "I channel my sense of adventure into my family and into my international work as well."

Asked if she has ever let fear — of danger, of disease, of unstable political landscapes — keep her from doing something she found interesting, Rose looks confused, as if this question falls outside her realm of understanding. When the question is rephrased as "Is there anything you're afraid of?", a smile of recognition leaps to her face.

"Oh yes," she says, grinning, "Spiders."

Editors note: If you know someone working in HIV, STD, or TB fields you would like to see profiled in the NCHSTP News & Notes please contact the editor at the address listed at the bottom of page 2.

New opportunities to expand HIV Prevention for African Americans:

The Centers for Disease Control and Prevention will distribute additional funds for HIV prevention targeting African American and other racial/ethnic minority communities through several requests for proposals (RFPs) to be announced in April and May 1999.

For information about these RFPs, after April 1, 1999, please check the following resources:

- The *Federal Register* via the Internet or at your local public library
- The National Prevention Information Network (NPIN) at 800-458-5231
- The funding site of CDC's Web page (www.cdc.gov)

Vaccine trials

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About AIDSVAX

AIDSVAX is a "bivalent" vaccine, meaning it is composed of gp120 proteins found on the outer envelope of two strains of HIV. The version of the vaccine being tested in Thailand is designed to induce antibodies to HIV-1 subtypes B and E, the subtypes of HIV most common in South East Asia and the Pacific Rim. Thai health officials played a leading role in acknowledging the critical need for a vaccine designed for use in Thailand to protect against strains of both subtypes B and E. Early reports from several smaller trials of AIDSVAX in Thailand and the United States, involving about 2,000 persons, have shown the vaccine to be safe and capable of inducing antibodies against these strains of HIV.

VaxGen currently is evaluating another version of AIDSVAX designed to protect against strains common in North America. This study involves 5,000 volunteers at multiple sites throughout the United States.

CDC's role in the Thailand trials

CDC has two primary roles in the Thailand trial. First, continuing a longstanding

See Thailand page 15 ▶

Update on Preventing Perinatal Transmission of HIV

A Public Health Training Network Satellite Broadcast — Apr. 29, 1999, 1:00–3:00 PM ET

This interactive broadcast presents a public health update on preventing perinatal transmission of HIV. Recommendations from CDC and a study by the Institute of Medicine will be included as well as insight from professors and practitioners involved in the clinical care of pregnant women who are living with HIV. Information will also be provided regarding resources available to providers and others involved in the delivery of health care. Viewers will be invited to call in questions and comments during the broadcast. They may also submit questions by fax before, during, and after the program or by e-mail following the broadcast.

Objectives

At completion of the broadcast, participants will be able to

- List two results from the impact of efforts to prevent perinatal transmission of HIV.
- Identify at least two key research findings regarding barriers to preventing perinatal transmission of HIV.
- State three provider strategies to overcome barriers.
- List four critically important clinical care activities for HIV+ pregnant women involving treatment and confidentiality.
- Select two key resources or guidelines related to prevention including information on how to deal with HIV test results.

A variety of continuing education credits may be offered, based on 2 hours of instruction.

For more information

Broadcast Web Site: http://www.cdcnpin.org/broadcast

Or call

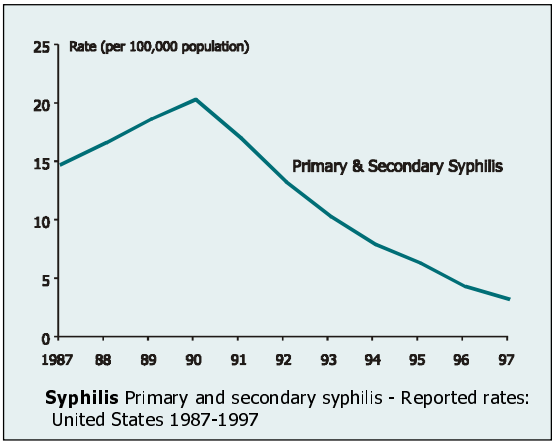
Toll-free to 800- 458-5231 or TTY to 800-243-7012.

Efforts to eliminate syphilis in the United States by 2005

"As the 21st Century approaches, we have a unique opportunity to eliminate syphilis as a public health threat in the United States once and for all. "

TODAY, IT IS MORE FEASIBLE THAN EVER to eliminate syphilis in the U.S. If we wait, the opportunity will be lost. In the 20th century, syphilis morbidity in the United States has followed a seven to ten year cycle. Levels were low enough in the late 1930s and 1950s that syphilis elimination campaigns were mounted. Although these efforts significantly reduced rates of syphilis, they failed to successfully eliminate the disease.

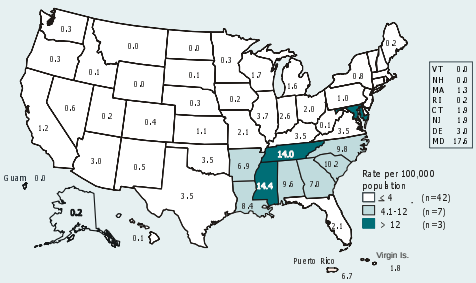
However, by 1990, the number of cases had declined by 85 percent, reaching the lowest level ever recorded in the U.S., largely because of effective STD and HIV prevention and control efforts.



Syphilis Primary and secondary syphilis - Reported rates: United States 1987-1997

As late as the 1940s, syphilis was a disease that affected all socio-demographic groups in the United States. However, in the 1990s syphilis disproportionately affects a small percentage of the population, often isolated, marginalized groups involved in high-risk activities such as illicit drug use, exchanging sex for money or drugs, and having multiple sex partners. Typically, persons affected by syphilis live below the poverty level, and have limited access to health care, lower rates of health insurance, and a number of other non-STD health and social problems. Syphilis disproportionately affects communities of color, particularly African American communities. For example, in 1997, the rate of primary and secondary syphilis among non-Hispanic blacks was 44 times greater than the rate for non-Hispanic whites.

Syphilis also has become geographically concentrated. The syphilis burden is greater in Southern states (6.6/100,000) than in the Midwest (2.0/100,000), Northeast (1.1/100,000), or West (1.0/100,000). Of the 413 U.S. counties with P&S rates above the Healthy People 2000 objective (4.0/100,000) in 1997, 91% are located in the South. In 1997 over 50% of primary and secondary syphilis cases were reported from 31 (1%) counties, the majority of which are in the South, while nearly 75% of the nation's counties have already eliminated endemic syphilis transmission. Because syphilis is concentrated in particular subgroups and geographic areas, it is easier to focus disease elimination efforts.



Primary and secondary syphilis- Rates by state: United States and outlying areas, 1997
Note: The total rate of primary and secondary syphilis for the United States and outlying areas(including Guam, Puerto Rico, and Virgin Islands) was 3.3 per 100,000 population.

Eliminating syphilis is a realistic goal that already has been achieved by other industrialized countries, such as Canada, England, Sweden, and Denmark. Several biological characteristics of the disease make elimination feasible: no nonhuman reservoir, no evidence of antibiotic resistance, and a long incubation period, which favors case finding and epidemiologic treatment prior to transmission. Based on past syphilis trends

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TB facts

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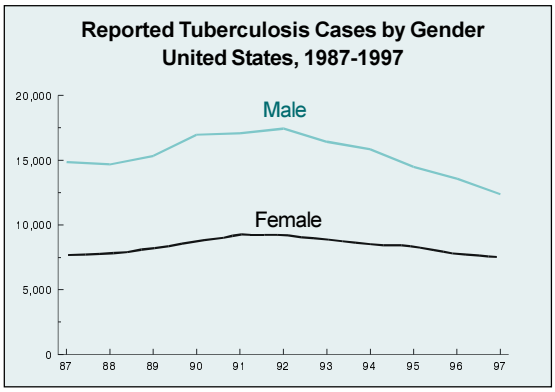
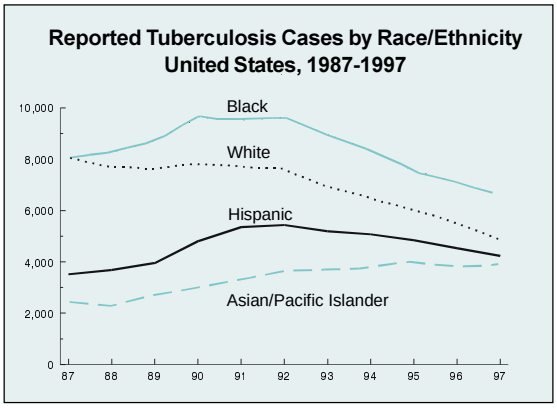


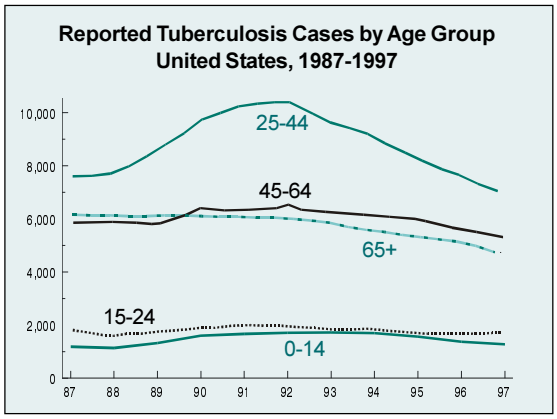
By gender

Throughout history, TB has had a disproportionate impact on men. This trend continued in 1997, when 62% of TB cases (12,371) occurred among men, and 38% (7,474) occurred among women. The rate of TB for men (9.4 per 100,000) was almost double that of women (5.5 per 100,000).



By race

Over the last decade, TB has disproportionately affected minorities. African Americans represented 33% of TB cases in 1997 (6,610); whites represented 25% (4,872), Hispanics represented 21% (4,228), Asians/Pacific Islanders represented 19% (3,833), and American Indians/Alaskan Natives represented 1%. Rates of TB were dramatically higher for Asians/Pacific Islanders (40.6 per 100,000), African Americans (20.5 per 100,000), and Hispanics (14.4 per 100,000) than for whites (2.5 per 100,000). The disproportionate impact on minorities likely reflects a number of factors, including the impact of travel and immigration from areas of the world where TB is common, as well as the impact of the HIV epidemic and socioeconomic factors.



By age group

The greatest proportion of TB cases occurs among people in the prime of their life, Americans aged 25-44. In 1997, 35% of TB cases were among people aged 25-44, 27% were among people aged 45-64, 24% were among people aged 65 or older, 8% were among people aged 15-24, and 6% were among people under the age of 15.

TB continues to kill more people each year than any other infectious disease

The challenges of TB prevention have evolved over the years, but the fact remains that TB elimination is an achievable goal. By making TB elimination a priority, we can make TB, once and for all, a disease of the past.

CDC will feature World TB Day as a "Spotlight" item on the CDC home page and will also post information regarding World TB Day on the Division of TB Elimination Web site at http://www.cdc.gov/nchstp/tb/ the week of March 24.

The site includes many features, such as an interactive on-line ordering system for TB educational materials and slide sets, a quick guides, and major TB guidelines, ATS/CDC guidelines, and a calendar of upcoming events.

AIDS community demo projects show results

OUTCOME EVALUATION RESULTS FROM an innovative 5-city intervention trial of HIV prevention programs designed to reach underserved, at-risk populations show significant community-wide progress toward HIV risk reduction. This study of the CDC AIDS Community Demonstration Projects (ACDP) is one of the few that has analyzed the degree to which community-level programs have led to behavioral changes at the community level.

The ACDP interventions were conducted in Dallas, Texas; Denver, Colorado; Long Beach, California; New York City; and Seattle, Washington. In each of the cities, the project focused on members of up to three high-risk populations (e.g., injection drug users, their sex partners, female sex workers, at-risk youth, and non-gay-identified men who have sex with men) and promoted progress in two important areas — the consistent use of condoms to prevent sexual HIV transmission and the consistent use of bleach to disinfect used syringes and needles.

Behavioral theory provided the basis for the interventions and evaluation. The ACDP intervention was based on the Stages of Change model, which suggests that behavior change is a process and takes time. This perspective recognizes that people are at different stages of readiness when it comes to using condoms or making other changes, and thus may be receptive to different types of intervention messages.

Intervention activities included three key components. First, community members were recruited as peer volunteers and trained to distribute and verbally reinforce prevention materials among their peers. Second, written materials featuring theory-based prevention messages that were based on the real-life experiences of community members, called "role-model stories," were developed (see example on page 11). The role-model stories were distributed by the peer volunteers who reinforced the messages in the stories. The use of role-model stories allowed community-specific, culturally relevant, explicit messages about risk reduction to be delivered. Finally, the project increased the availability of condoms and bleach kits to community members by distributing them with the role-model stories.

The intervention was evaluated over a 3-year period (February 1991-June 1994) using a quasi-experimental design in which each of the five intervention communities was matched with a comparison community. Findings from field interviews in all these communities show that persons in the communities receiving the interventions were significantly more likely than those in the comparison communities to:

Form long-term intentions to use condoms with their main or primary partner

There was a 14 percent increase in the proportion of persons who intended to use condoms during vaginal intercourse with their main partner after the interventions began (from 30.1 percent to 44 percent).

Adopt 100 percent condom use with their non-main or casual partners

There was a 9 percent increase in the proportion of persons who *always* used condoms during vaginal intercourse with their non-main partners (from 24.6 percent to 33.4 percent).

Carry condoms

Respondents were asked to show a condom if they were carrying one at the

See Community demo next page ▶

Community demo

◄ continued from previous page

time of the interview. There was a 13 percent increase in the proportion of people who could show a condom (from 17.4 percent to 30.2 percent).

"What's particularly important about these findings is that they demonstrate that this intervention produces significant changes not only among individuals directly reached by the intervention but across the community as a whole," said Dr. Donna Higgins, who was a project officer of the study. In addition, Dr. Higgins pointed to the importance of peer volunteers in the success of the intervention.

"This study also shows the power that volunteers can bring to HIV prevention programs," she said. "The mobilization of community members made it possible to reach many more persons than could have been reached by paid staff alone. I think that a large part of the success of this intervention is due to the dedication of the nearly 1,000 community volunteers. The volunteers on the AIDS Community Demonstration Projects reached people in the community who might not have participated in a program at a health department or community-based organization."

Community-based organizations and health departments are encouraged to assess whether the ACDP intervention would be a useful addition to their local HIV prevention efforts. Additional information about this study is presented in the article "Community-Level HIV Intervention in 5 Cities: Final Outcome Data From the CDC AIDS Community Demonstration Projects" in the March issue of the *American Journal of Public Health* (Volume 89, Number 3). Details about the study and the intervention process also can be obtained from the ACDP Web site at *http://www.cdc.gov/nchstp/hiv_aids/projects/acdp/acdp.htm. Reprints will be available by calling the NCHSTP Office of Communications, (404) 639-8043.*

Cathy considers condoms

I spend a lot of time with my daughter, Barbara, who lives with her husband. One day we got talking about using condoms. Barbara told me about she and her husband use condoms all the time. She really seemed to know a lot, so I asked her some questions. Barbara told me she was worried about being with a drug user.

Later that day, I thought about the talk we had. I realized that I don't really trust my boyfriend that much, he could be shooting up with some of the guys he works with. He goes to bars a lot and there are always guys looking to get high. I don't want to get AIDS, and since he's not going to stop using, I need to look out for myself.

I brought up condoms before, and he wouldn't try them. When I had one and told him, 'lets try this' he said, 'No; next time, next time.'

I'm really impressed with my daughter. She got her old man to use condoms; she's a pretty strong person. I need to get stronger too. When he tells me we'll talk about it later, I'm going to have to say, 'we need to talk about it now.'

I know I can get him thinking about using condoms. I'll start leaving some laying around so he can get used to the idea and I can bring up the subject easier. I know Barbara won't let up on me about using them, and that will help me to keep him.

Editors note: This is a role model story developed as part of the AIDS Community Demonstration Project described above.

Syphilis elimination

◀ continued from page 8

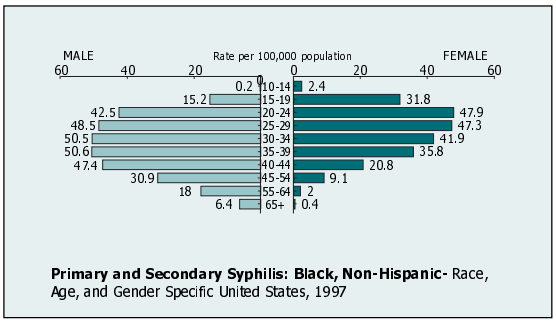
and because the last peak in the epidemic was nearly 10 years ago in 1990, there is a narrow window of opportunity to eliminate syphilis while cases are still on the decline.

Significant public health benefits

The impact of syphilis elimination has far reaching implications for other health and social conditions associated with syphilis. Syphilis has two devastating health consequences: 1) 3-to 4-fold increased risk of HIV transmission and 2) infection of unborn or newborn babies, resulting in pregnancy loss or congenital syphilis. Syphilis has been partially responsible for fueling the HIV epidemic particularly in communities of color and in the THE South, where syphilis is most concentrated. Elimination of syphilis would remove one important factor that facilitates HIV transmission in some of our must vulnerable communities. It also would remove the devastations of spontaneous abortions, stillbirths, and multisystem disorders caused by congenital syphilis, thus improving birth outcomes and infant health.

Syphilis causes a significant public health burden at a considerable cost to society. A recent cost analysis found that more than $966 million iis spent each year as a direct or indirect result of syphilis, including adult syphilis ($185.5 million), congenital syphilis ($28.5 million), and HIV infection attributable to syphilis ($752.2 million). Over the next 15 years, it is estimated that $833 million in direct costs attributed to syphilis-related HIV infection could be saved as a result of a comprehensive syphilis elimination effort. This very conservative estimate does not include indirect costs of syphilis-related HIV infection. Clearly, a syphilis elimination initiative will likely pay for itself.

Moreover, elimination efforts would improve the health status of African Americans, who disproportionately suffer from syphilis, by providing better access to quality, culturally sensitive prevention and care services. While there are many other infectious and chronic diseases that create profound racial disparities in health in the United States. By working collaboratively with other public health organizations, to establish referral networks for syphilis elimination will increase access to primary care, prenatal care, and other services such as drug treatment.



Primary and Secondary Syphilis: Black, Non-Hispanic- Race, Age, and Gender Specific United States, 1997

How does CDC define syphilis elimination?

CDC has defined syphilis elimination at both national and local levels.

- At the *national level*, syphilis elimination is defined as **the absence of sustained transmission in the United States**.

- At the *local level*, syphilis elimination is defined as the **absence of transmission of new cases within the jurisdiction except within 90 days of report of an imported index case**.

What are the next steps?

CDC, in collaboration with other partners, is in the process of developing a national syphilis elimination plan. The goal of this effort is to eliminate syphilis in the U.S, by 2005.

STD treatment can play a vital role in preventing sexual transmission of HIV

TWO COMMUNITY-LEVEL, RANDOMIZED trials have examined the role of STD treatment in HIV transmission. Together, their results have begun to clarify conditions under which STD treatment is likely to be most successful in reducing HIV transmission.

- First, *continuous* interventions to improve access to effective STD treatment services are likely to be more effective in reducing HIV transmission than *intermittent* interventions through strategies such as periodic mass treatment.
- Second, STD treatment is likely to be most effective in reducing HIV transmission where STD rates are high and the heterosexual HIV epidemic is new.
- Third, treatment of symptomatic STDs may be particularly important. The first trial, conducted in a rural area of Tanzania, demonstrated a decrease of about 40% in new, heterosexually transmitted HIV infections in communities with continuous access to improved treatment of symptomatic STDs, as compared to communities with minimal STD services, where incidence remained about the same (Grosskurth et al., 1995).

However, in the second trial conducted in Uganda, a reduction in HIV transmission was not demonstrated when the STD control approach was community-wide mass treatment administered to everyone every 10 months in the absence of ongoing access to improved STD services (Wawer, 1998).

What this means

Strong STD prevention, testing, and treatment can play a vital role in comprehensive programs to prevent sexual transmission of HIV. Furthermore, STD trends can offer important insights into where the HIV epidemic may grow, making STD surveillance data helpful in forecasting where HIV rates are likely to increase. Linkages are needed between HIV and STD prevention efforts nationwide in order to control both epidemics.

Recommendations

CDC has published recommendations from the Advisory Committee for HIV and STD Prevention (ACHSP) — *HIV Prevention Through Early Detection and Treatment of Other Sexually Transmitted Diseases - United States (CDC, 1998).* Key recommendations included:

- Early detection and treatment of curable STDs should become a major, explicit component of comprehensive HIV prevention programs at national, state, and local levels.
- In areas where STDs that facilitate HIV transmission are prevalent, screening and treatment programs should be expanded.
- HIV and STD prevention programs in the United States, with private and public sector partners, should take joint responsibility for implementing this strategy.

The ACHSP also noted that early detection and treatment of STDs should be only one component of a comprehensive HIV prevention program, which also must include a range of social, behavioral, and biomedical interventions.

In addition to the ACHSP recommendations, the National Center for HIV, STD, and TB Prevention has taken steps to strengthen the STD/HIV prevention connection through 1) demonstration projects focused on the feasibility of STD treatment for HIV prevention in the United States; 2) collaborative research and development projects to integrate approaches to, and uses of, STD and HIV surveillance; and 3) a training series to improve coordination efforts of state/local STD and HIV programs.

Tuberculosis and air travel

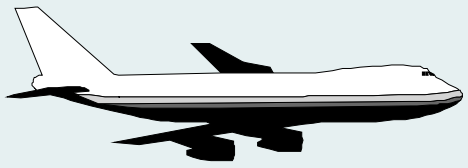
THE EASE AND READY AVAILABILITY OF AIR travel, the large number of persons traveling yearly (more than 1.3 billion passengers in 1996 reported by the International Civil Aviation Organization), and international movement of immigrants and refugees all serve to increase the possibility that passengers and crew members on commercial jet aircraft may be exposed to persons with infectious TB.

Because of concern that the closed aircraft cabin might be an environment conducive to transmission of *M. tuberculosis*, the Surveillance and Epidemiology Branch (SEB), Division of Tuberculosis Elimination (DTBE), and state and local health departments conducted seven investigations examining possible transmission of *M. tuberculosis* aboard commercial jet aircraft. These investigations involved one flight attendant and six passengers with active TB, more than 2,600 potentially exposed passengers and crew, and a total of 191 different flights.

In all seven investigations, the persons with TB were considered highly infectious. Despite the clinical findings of the TB cases, only two of the seven investigations found evidence to suggest transmission of *M. tuberculosis* infection: one from the flight attendant with active TB to other crew members with whom she worked, and one from a passenger with active TB to other passengers.

Additionally, evidence of transmission from the flight attendant to other crew members was found only for those with 12 or more hours of exposure while working with the flight attendant with TB. Evidence of transmission from passenger to passenger was only found for a few passengers who were seated in close proximity to the passenger with active TB and only on one flight of more than 8 hours' duration. No secondary cases of active TB were identified in any of the investigations.

As a result of these investigations, a great deal of interest was generated in developing internationally accepted guidelines advising how to deal with potential exposure to TB on commercial jet aircraft. CDC assumed the lead in developing WHO guidelines that apply to all domestic and international airline carriers throughout the world. This project was a cooperative project and involved SEB, DTBE, the Global Tuberculosis Program of WHO, representatives of airline companies, and international TB experts. The guidelines provide airline companies, health authorities throughout the world, general practitioners, and airline passengers with 1) a description of the problem of TB transmission on aircraft, 2) a review of the practices adopted in the past for the management of patients with infectious TB and history of air travel, 3) highlights of the difficulties most commonly encountered in such cases, and 4) guidance on procedures to follow when a case of infectious TB in a person with with a history of air travel is diagnosed.



NCHSTP's Division of TB Elimination assumed the lead in developing WHO guidelines on how to deal with potential TB exposure aboard airliners.

The guidelines recommend that persons known to have infectious TB refrain from travel until they are not infectious. If it is discovered that a person has flown while infectious with pulmonary TB, the guidelines recommend informing other passengers and crew members on the plane if the flight was morethan 8 hours' long and occurred within the past 3 months. Whenever possible, only those passengers seated in the same area of the plane as the person with TB should be informed of their exposure and advised to see their physician for tuberculin screening. These guidelines were published in December 1998 (Valway SE, Watson JM, Bisgard JC, Scudeller L, Espinal M, Raviglione MC. Tuberculosis and air travel: guidelines for prevention and control. WHO/ TB/ 1998:256, Geneva, 1998) and are also available on the internet at the following site: *http://www.who.int/gtb/publications/index.*

Thailand vaccine trial

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research collaboration, CDC has worked closely with the Thai government for several years to help it prepare to implement vaccine studies. Since 1995, this collaboration has involved a range of activities, including measuring the level of new infections in Thailand, identifying a group of individuals who are willing to participate in a trial and can be followed over time to evaluate risk behaviors and infection, and working with the community to build the understanding and support necessary to implement the trial. Second, CDC has worked and will continue to work with Thai health officials and VaxGen to ensure that individuals in the trial receive appropriate risk-reduction counseling and are fully educated about how the trial works, the potential risks and benefits of participation, and the need for maintaining good behavioral risk-reduction practices during the trial.

For example, as the trial proceeds, CDC will evaluate the impact of the trial on both participant and community attitudes and behaviors. This information will be critical not only for this community, but also for the future evaluation and implementation of vaccine strategies. CDC is not providing direct financial support for this trial but will provide logistical, laboratory, and data analysis support throughout the trial. CDC hopes that this and other vaccine trials underway will identify an HIV vaccine to help end this epidemic. Until such a solution is available, we must continue to reinforce the already proven behavioral and biomedical methods of HIV prevention.

CDC shares the ultimate goal of all of those waiting to stop the HIV and AIDS epidemic – a vaccine to prevent infection.

As we work toward this goal, it is critical that we not endanger progress already made in HIV prevention and that neither individuals involved in nor those outside of studies abandon safer sex and drug related behaviors proven to prevent infection.

[1] *UNAIDS Joint United Nations Programme on HIV/AIDS. AIDS epidemic update: December 1998*

NCHSTP Enhances Activities In Vietnam

CDC has been a collaborating partner with health officials in Vietnam since 1989. NCHSTP's Division of TB Elimination, for example, has provided training and technical support for operational research on diagnostic and treatment services.

NCHSTP is now enhancing activities in Vietnam by collaborating with the National Center for Infectious Diseases to establish the first multi-CIO field site. Gary West, formerly of our Division of HIV Prevention-IRS, is being assigned to work with programs and to develop ongoing, long-term collaborations with partner institutions.

Information by World Wide Web

HIV, STD, and TB Information:
National Center for HIV, STD, and TB Prevention
www.cdc.gov/nchstp/od

CDC's National Prevention Information Network
www.cdcnpin.org

HIV/AIDS Information:
Division of HIV/AIDS Prevention
www.cdc.gov/nchstp/hiv_aids

AIDS Clinical Trials Information Service
www.actis.org

HIV/AIDS Treatment Information Service
www.hivatis.org

STD Information:
Division of STD Prevention
www.cdc.gov/nchstp/dstd

TB Information:
Division of TB Elimination
www.cdc.gov/nchstp/tb

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INFORMATION RESOURCES
NCHSTP
National Center for HIV, STD & TB PREVENTION

Information by Mail

HIV, STD, and TB Information:
CDC National Prevention Information Network (NPIN)
P.O. Box 6003
Rockville, MD 20849-6003

HIV Information:
Technical Information and Communications Branch
Division of HIV/AIDS Prevention, NCHSTP, CDC
1600 Clifton Road, NE, M/S E-49
Atlanta, Georgia 30333

Information by Phone

HIV, STD, and TB Information:
CDC National Prevention Information Network
1-800-458-5231
1-301-562-1098 (international calls)
Hearing Impaired TTY 1-800-243-7012

HIV Information:
CDC National AIDS Hotline
English 1-800-342-AIDS
Spanish 1-800-344-7432 (AIDS/STD)
Hearing Impaired TTY 1-800-243-7889

AIDS Clinical Trials Information Service
1-800-TRIALS-A (874-2572)

HIV/AIDS Treatment Information Service
1-800-HIV-0440 (448-0440)

STD Information:
CDC National STD Hotline
1-800-227-8922
Spasnish: 1-800-344-7432

TB Information
CDC voice and Fax Information System
1-888-CDC Fact (232-3228)

Department of Health & Human Services

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Centers for Disease Control and Prevention (CDC)
Atlanta, GA 30333

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