to 33 percent of untreated inmates.

In This Issue...

Correctional Health Care Issues For Substance-Abusing Offenders

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During the decade of the 1980s, the incarceration rate tripled. By the end of 1991, there were 310 people per 100,000 U.S. residents in State and Federal prisons. This dramatic increase is mostly due to the increase in drug-law convictions, many of which are accompanied by long mandatory prison sentences. The influx of offenders with substance abuse problems—a population vulnerable to HIV/AIDS and other infectious diseases because of their high-risk behaviors—has had a tremendous impact on the delivery of health services in jails and prisons.

Traditionally, people in prison were young and had few chronic health problems. The advent of AIDS, along with the influx of offenders who have substance abuse problems, has changed that. HIV/AIDS disproportionately strikes younger inmates, particularly injecting drug users. With AIDS has come the resurgence of tuberculosis (TB), including outbreaks of TB strains resistant to drugs.

The overcrowding of our prisons and jails has set up the ideal environment for spreading infectious diseases. There needs to be public awareness about the health impact of the current national drug control strategy, because these health concerns do not stay behind prison walls. Inmates do come back from prison—each year, approximately 540,000 inmates return to their communities from our Federal and State correctional institutions.

The need for public health partnerships

We all recognize the need to provide adequate health services for correctional inmates for public health, humane, and legal reasons. Health correction services achieved marked improvements during the 1970s. Those gains are now threatened by the dramatic influx of pretrial and convicted drug users that occurred during the 1980s.

The sheer numbers alone strain current resources, especially as public belt-tightening does not permit staff increases or equipment purchases. Health care facilities in jails and prisons grow more cramped and inadequate.

This national health problem should be a shared responsibility. It requires coordinated planning and initiatives by States and communities, as well as shared resources. It is time for correctional health care to be recognized as an integral part of the public health sector. Both State and local health departments need to join with correctional health professionals to control the spread of infectious disease within corrections and to the public.

The role of drug treatment

Because the behavior of substance abusers puts them at such high risk for HIV/AIDS and certain other infectious diseases, the partnership of the drug treatment community with corrections is immensely important. Drug treatment facilities can play a major role in screening offenders, as well as all other substance abusers, for infectious diseases.

Both corrections and drug treatment facilities are in a key position to prevent disease through education; to screen for and provide supervised, long-term treatment for TB and other diseases; and to help manage the long-term medical followup of those with HIV/AIDS and other chronic illnesses.

The need to restructure correctional health care

The changes that are needed for adequate delivery of health care in prisons and jails require coordination among correctional health professionals, public health agencies, and community resources as never before. Today, correctional health services are faced with caring for people who have HIV infection, tuberculosis, and other chronic infections, as well as diseases that are more prevalent in aging populations, such as hypertension, ischemic heart disease, and emphysema. There is also a growing demand for intensive prenatal services in jails and prisons.

Sick call—the health care system still used in most institutions—is no longer an appropriate delivery system. This model was designed for an earlier corrections population, when most incarcerated people were young, male, and healthy, with needs arising mainly from trauma or self-limiting illnesses.

Longer prison sentences mean that the incarcerated population is aging and more inmates need care for chronic illnesses. Correctional health services must reorganize to deliver:

- Prospective care, including screening for early detection of chronic illnesses, which is not a major component of sick-call systems
- Adequate followup of inmates who have chronic illnesses even as they move among institutions and into the community
- Supplementary services, such as demands for special diets and other programmatic needs for inmates with chronic illnesses

The challenge of HIV infection among offenders

The prevalence of HIV infection among correctional inmates is at least 14 times higher than the general population. The higher incidence in corrections is due to the overrepresentation of persons with histories of high-risk behavior, especially injecting drug use.

All prison systems have been impacted by the HIV epidemic. The prevalence rate varies greatly among correctional systems, reflecting the rate in injecting drug users in the community. The challenge of managing HIV infection in the correctional environment reaches beyond health services. Correctional systems have to struggle with many different issues, including:

- Mandatory HIV testing
- Sharing or protecting information about HIV-infected prisoners
- Housing
- Terminal care
- Early-intervention treatment
- Prisoner access to investigational drug trials
- HIV prevention education, including condom distribution
- Staff fears and education

Some issues are being resolved through litigation, but there is no standard recipe for HIV management in incarcerated populations.

Dealing with the problems of HIV infection and AIDS carry tremendous cost implications for the correctional health system. The lifetime cost of caring for one person with AIDS is estimated at more than $85,000, or $32,000 annually. For an asymptomatic HIV-infected person, the annual cost of care is more than $5,000.

Multidrug-Resistant TB

The incidence of TB in prisons is at least three times higher than in the general population. The incidence is also high at drug treatment centers, because drug users and carriers of HIV are most at risk. The incidence of TB in persons with AIDS is almost 500 times that of the general population.

It was a prison epidemic that alerted the public health community to the growing problem of multidrug-resistant tuberculosis. In New York State, infected prisoners were hospitalized and the infection spread into the community. Overcrowded institutions, often with a high proportion of immune-suppressed people, are fertile ground for the spread of TB. To prevent transmission among the incarcerated population and into the community, correctional institutions must now scramble to institute systems that will identify and control TB infection and cases.

New York State recently instituted mandatory TB screening for all inmates and correctional staff. The Centers for Disease Control and Prevention (CDC) promotes a testing protocol for TB that costs about $1 per patient. The National Institute of Corrections estimates that the cost of treating one tubercular patient in a correctional setting ranges from $56,000 to $90,000.

Both correctional facilities and drug treatment centers are effective in providing onsite TB screening and preventive therapy, according to a CDC report in March 1993. In a CDC demonstration project with 25 State and city health departments, correctional facilities were successful in getting 94 percent of persons to complete the full 6- to 12-month

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Cost Benefits of Treating Substance Abusers

Drug treatment is important for reducing the costs of disease in society. Substance abusers, because of their high-risk behaviors, have a disproportionate share of HIV/AIDS and other infectious diseases. The Nation pays a direct economic cost to diagnose and treat substance abusers who succumb to these diseases. The estimated average cost of treatment for substance abuse is just $4,600 per year. For *each case of disease* that is averted by effective drug treatment, the estimated savings are:

- At least $85,000 in lifetime medical care costs for a person with AIDS
- From $56,000 to $90,000 for treating TB in one patient in a correctional setting
- About $12,600 for treating each case of hepatitis B caused by shared use of needles; hepatitis that leads to cirrhosis costs $67,000 for an average hospital stay
- More than $5,000 hospitalization costs per day for a newborn infant exposed to HIV through the mother
- Approximately $228,000 in lifetime support care for each child with Fetal Alcohol Syndrome resulting from maternal alcohol use

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course of preventive therapy. Drug treatment centers achieved a 66 percent completion rate. CDC recommends that priorities be:

1. To identify and effectively treat persons with active TB and their contacts

2. To screen for latent TB infection and provide preventive therapy to infected high-risk persons

The study suggests that approximately 133,000 (25 percent) of Federal and State correctional inmates, and approximately 87,000 (more than 13 percent) of drug treatment center patients, may be discharged annually with latent TB infection. HIV-seropositive persons with latent infection are at increased risk for developing active TB and transmitting the disease to others. In the CDC project, all of the active TB cases and nearly 1/2 of the TB suspects with known HIV status were HIV-seropositive.

Funding for such testing and preventive therapy is a big question. Funding for corrections has lagged far behind the explosive growth in the prisoner population. In some States, per capita medical expenditures have been reduced at a time when medical problems are escalating.

Medical issues for female inmates

The increasing percentage of women behind bars also affects the delivery of health services. Drug sentencing has had a major impact on the number of women coming into correctional institutions. While women still only represent 5.8 percent of the incarcerated population, their rates are increasing faster than male prisoners. A larger proportion of women are incarcerated for drug convictions (1 out of 3 women compared to 1 out of 13

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Materials on Infectious Diseases

A number of materials on prevention and treatment of HIV and sexually transmitted diseases are available for health care providers. The materials listed below may assist correctional systems and drug treatment facilities in screening for and managing infectious diseases among their drug-abusing populations.

Available from the CDC National AIDS Clearinghouse, P.O. Box 6003, Rockville, Maryland, 20849-6003, phone 1-800-458-5231:

- Recommendations for diagnosing and treating syphilis in HIV-infected patients, 37 *MMWR* (39):600-602, 607-608, 1988
- Sexually transmitted disease treatment guidelines, *MMWR* 38:S-8, 1989
- *Sexually Transmitted Diseases, Clinical Practice Guidelines.* U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, 1991
- Recommendations for preventing transmission of human immunodeficiency virus and hepatitis B virus to patients during exposure-prone invasive procedures, *MMWR* 40:No. RR-8, 1991
- Recommendations for HIV testing services for inpatients and outpatients in acute care hospital settings and technical guidance on HIV counseling, *MMWR* 42:No. RR-2, 1993.

Available from the AIDS Care Program, 1830 E. Monument Street, 7th floor, Baltimore, Maryland 21205, phone 410-955-1754, attention: Matt Williams (this guide is currently being revised and updated, but orders will be taken and filled when the revised guide becomes available):

- *1992-1993 Recommendations for the Medical Care of Persons with HIV Infection: A Guide to HIV Care from the AIDS Care Program of the Johns Hopkins Medical Institutions*

Available from Information Services, National Center for Prevention Services, Centers for Disease Control and Prevention, 1600 Clifton Road N.E., Mailstop E-06, Atlanta, Georgia 30333, phone 404-639-1819 (patient materials and and posters and wallcharts on TB are also available; request the order form for "Tuberculosis Educational Materials"):

- "Improving Patient Compliance in Tuberculosis Treatment Programs" (00-5988)
- "What Drug Treatment Centers Can Do To Prevent Tuberculosis" (English—00-5748), (Spanish—00-6038)
- Guidelines for preventing the transmission of tuberculosis in health-care settings, with special focus on HIV-related issues, *MMWR*, December 7, 1990 (00-5856)
- Screening for tuberculosis and tuberculous infection in high-risk populations; and The use of preventive therapy for tuberculous infection in the U.S., *MMWR*, March 18, 1990 (99-3307)
- Purified protein derivative (PPD)-tuberculin anergy and HIV infection: Guidelines for anergy testing and management of anergic persons at risk of tuberculosis, *MMWR*, April 26, 1991 (00-5973)
- "Control of Tuberculosis in Correctional Facilities: A Guide for Health Care Workers" (00-5994)
- National action plan to combat multidrug-resistant tuberculosis; and Meeting the challenge of multidrug-resistant tuberculosis: Summary of a conference, *MMWR*, June 19, 1992 (00-6224)
- Management of persons exposed to multidrug-resistant tuberculosis, *MMWR*, June 19, 1992 (00-6225)
- Mantoux Tuberculin Skin Testing Videotape (00-5457)

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prisoners overall). Women need gynecologic services and are at risk for cervical cancer and sexually transmitted diseases.

Many women are pregnant when they enter prison and their pregnancies often need intensive management due to high risks, such as drug use during early stages.

Women also have special needs for care based on their family histories. An estimated 41 percent of women in prison report having suffered previous physical or sexual abuse in their lives. For about 1 in 4 women, the abuse occurred before age 18. Since women still represent a small proportion of incarcerated people, their extensive health needs are often difficult to meet in systems that are planned for male-dominated programs.

For HIV-seropositive women, specific services are lacking. Incarcerated women have a higher rate of HIV infection than men do. A Massachusetts study of 400 inmates who volunteered to be tested found that 35 percent of the women were HIV-seropositive, compared to 13 percent of the men.

Future medical costs

The magnitude of inmate health problems is only expected to increase. The National Commission on AIDS estimated that under the present policy of mandatory sentencing for drug offenders, the percentage of drug offenders in Federal prisons will rise by 1995 from 47 to 70 percent.

The changing health demographics of prison populations have greatly impacted correctional budgets. The average yearly cost of health care for a correctional inmate more than doubled between 1982 and 1989—from $906 to $1848.

A 1989 survey of prison health care budgets indicated that health care represents an average of 9.5 percent of overall prison budgets, ranging from 5.1 to 18.9 percent. In 1989, the cost of health care for inmates incarcerated in the Nation's prisons was about $25 million. Costs of inmate health care can be expected to increase further. ■

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communiqué

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special issue

Forging Links to Treat the Substance-Abusing Offender