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Research in Action

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Highlights

The increasing incidence of tuberculosis infection and active disease in the United States raises significant issues because much of the increase has occurred in populations involved with the criminal justice system. Persons with TB, moreover, are often also infected with HIV. In addition, new strains of drug-resistant TB have appeared in part because of patients' failure to follow prescribed courses of medication. Unless inmates with TB infection and disease are identified and appropriately treated while incarcerated, TB—including drug-resistant TB—can later develop among released inmates, who then may transmit the infection to their families, community corrections officials, and the general public.

Challenges and opportunities facing the criminal justice community concern:

- Screening inmates, parolees, probationers, and criminal justice staff for TB infection and active disease.
- Controlling the spread of the disease through:
  - Providing training and education to staff in understanding how the infection is transmitted and what can be done to contain its spread.

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Controlling Tuberculosis in Community Corrections

by Karen Wilcock, Theodore M. Hammett, and Dale G. Parent

The resurgence of tuberculosis (TB) in the United States, the occurrence of several major outbreaks of TB in prisons, and the concentration in prisons and jails of persons at high risk for TB suggest the need for treatment and control measures at all phases of the system—from pretrial release to incarceration to parole. The population that comes under the supervision of the criminal justice system is at relatively high risk for TB. This population tends to be poor and includes disproportionate numbers of racial and ethnic minorities, recent immigrants from high-incidence countries, injection drug users, and individuals infected with HIV. In general, this population is characterized by poor access to health care.

Correctional facilities may be high-risk settings for TB transmission because of overcrowding, inadequate ventilation, and high concentrations of TB infection and disease. Inmates released into the community pose special problems. They may carry TB infection or disease with them; and if they interrupt their course of treatment, their disease may become drug resistant and thus all the more dangerous to them, their families, and to the community at large. Parole and probation officers may also be at risk of infection through contact with their clients.

Many prison and jail systems have active screening programs for identifying inmates with TB infection and disease and for providing appropriate treatment. What happens when individuals on TB therapy return to the community? The probation and parole agencies that supervise them could work with public health departments to identify clients with TB infection and disease and encourage compliance with prophylactic and treatment regimens. Although such opportunities for TB control may exist, there are challenges to translating them into action.

This Research in Action presents an overview of tuberculosis as a criminal justice and public health issue and discusses the particular problem of TB in community corrections. It reports on six examples of TB control efforts in community corrections and summarizes some of the problems and benefits that can be expected. Special attention is given to inmates released on parole, but the policies and strategies discussed can be tailored to other community corrections settings.

Highlights

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- Establishing protective procedures for staff.
- Ensuring prophylactic therapy for infected inmates and an appropriate medical regimen for those with active disease.
- Linking with public health agencies to ensure followup with releasees.

An examination of six community corrections jurisdictions indicated that the development and implementation of effective policies and procedures for TB control involve close cooperation with State and local health departments.

Challenges to establishing effective interagency cooperation include differences in perceptions of roles and responsibilities between justice and public health agencies. However, where effective TB control programs already exist in community corrections agencies, health departments have been key players; they have provided training and other educational materials, screening and treatment services, as well as coordination of treatment for inmates released while receiving TB treatment or preventive therapy.

Detection and transmission

The resurgence of TB as a public health problem is the result of the association of TB with the HIV epidemic, immigration from countries where TB is common, transmission of TB in congregative settings (e.g., correctional facilities), and the de-emphasis and dismantling of a national detection and control infrastructure. Moreover, the increased risk of exposure resulting from rising rates of TB infection and disease is exacerbated by the presence of HIV infection in the same populations.

Tuberculous infection in persons with intact immune systems does not typically progress to active disease within the first year or two of infection and may never do so. An initial infection typically goes unnoticed. The infection generally enters a latent phase after a few weeks, where it may remain dormant or may become active at a later time (see "Tuberculosis Glossary"). Early signs of active disease include fever, chills, fatigue, weight loss, and night sweats.

Susceptibility to TB is thought to increase among persons with damaged or suppressed immune systems. It has been shown that where co-infection with HIV exists, an individual is far more likely to develop active and infectious TB disease. In a New York State prison study, for example, HIV-infected prisoners were not necessarily more likely to become infected with TB, but they were far more likely to develop active disease once infected than were HIV-negative prisoners.[1]

Detection. Infection with TB is generally detected through the standard tuberculin skin test (also known as a PPD or Mantoux test). In individuals with compromised immune systems (caused by HIV infection, another disease like leukemia, or a history of chemotherapy or treatment with steroids), a phenomenon called anergy often leads to false negative skin test results. Anergy testing can help to distinguish a true negative from a false negative skin test result. However, the Centers for Disease Control and Prevention (CDC) recommend that "all HIV-infected persons—whether anergic or not—should receive a chest radiograph and further diagnostic evaluation if indicated."[2]

Transmission. TB is not usually a highly contagious disease but, given the right conditions (such as crowding, poor ventilation and increased close contact with persons with active disease), the probability of transmission increases significantly. Persons with active pulmonary TB can spread the disease through coughing, sneezing, laughing, or other means that result in the propulsion of airborne droplets carrying the bacteria. Prolonged, close exposure is associated with increased rates of transmission. It is possible to contract TB from contaminated articles or dust, but this is very rare. Persons with extrapulmonary TB do not normally represent a public health risk (see "Tuberculosis Glossary").

A constellation of factors often exists in prisons and jails that makes the transmission of TB more likely than in other settings. These factors include crowding, old and inadequate ventilation systems, and the concentration in close quarters of people at elevated risk for TB due to substance abuse and poor access to health care. Individuals with HIV who become infected with TB are far more likely to become infectious to others because of the increased probability that their infection will progress to active pulmonary disease. Correctional populations and the communities from which inmates generally come may also include

greater numbers of immigrants from countries with high rates of TB.

A serious outbreak of multidrug resistant TB (MDR-TB) in New York State prisons in 1990–91, which claimed the lives of 36 inmates and one correctional officer, helped to focus national attention on this problem. However, this outbreak was not the first indication that a TB problem existed in prison. A survey conducted by the Centers for Disease Control and Prevention (CDC) in 1984–85 found that in the 29 States studied, the incidence of TB disease among inmates was more than three times the rate in the total population of those same States. CDC also noted the occurrence of at least 11 TB outbreaks in the prisons of 8 States between 1985 and 1989. In fact, studies dating back at least to 1950 have shown that the incidence of TB is higher in prisons than in the total population.[3]

Prison inmates are often moved from facility to facility. This mobility provides new opportunities to spread infection. Almost all inmates return to the communities from which they came and, if they carry infection with them, they can add to increasing rates of TB in these communities.

Treatment

Periods of incarceration afford opportunities to implement preventive therapy and treatment that can help inmates with TB and protect people in present and future close contact with them.

The probability that an infection will progress to active disease is considerably reduced with preventive therapy. Individuals who are *infected* with TB are often prescribed a course of preventive therapy, which involves taking an anti-tuberculosis medication for 6 to 12 months, depending on HIV status. The drug most frequently used for preventive therapy is isoniazid, which can be given daily or twice weekly. CDC recommends that a medical worker (or a specially trained corrections officer) should watch the inmate swallow each dose of medication and should monitor the patient for adverse reactions; this process constitutes directly observed preventive therapy.[4]

Treatment for TB disease may involve a battery of drugs. The actions of the three major anti-TB drugs are different, but each acts in combination with the body's defenses to effect healing. Treatment regimens are relatively long.

Tuberculosis Glossary

Extrapulmonary TB: Active TB where the disease is not localized in the lungs, but in other anatomical sites such as the kidneys, spine, or intestines. It is rarely infectious. Transmission is possible in the rare cases of contact with a discharge (such as from an open wound) that contains TB bacilli.

Mantoux (also known as the PPD) test: The preferred skin test for detecting TB infection. A purified protein derivative (ppd) of killed TB bacteria is injected between the top layers of the skin. Between 48 and 72 hours later, a health care worker determines the presence or absence of TB infection based on the diameter of the swelling at the injection site.

Multi-drug Resistant TB (MDR-TB): Primary or Reactivation TB that is resistant to at least two TB medications, most commonly isoniazid and rifampin. MDR-TB occurs primarily in individuals with active disease who interrupted, inaccurately followed, or failed to complete the initially prescribed medical regimen.

Mycobacterium bacilli: The Latin medical term for the Tuberculosis bacteria.

Primary TB: The infection progresses directly to active disease within a few months to a year or 2 after initial infection. This occurs in about 5 percent of newly infected persons, but may be more common in individuals with HIV infection or other immunosuppressive conditions.

Pulmonary TB: Active TB where the disease is localized in the lungs. This form of the disease is usually infectious since the bacilli move easily into the air through tiny droplets exhaled when individuals with pulmonary TB cough or sneeze.

Pulmonary TB should be suspected among offenders with heavy coughing, chest pain, hoarseness, and spitting blood, which are indicative of advanced stages of the disease. Offenders with these symptoms should receive a chest radiograph and bacteriologic examination of sputum in order to confirm the diagnosis of TB regardless of the skin test result.

Reactivation TB: TB infection is latent for 1 or 2 years, sometimes longer, but then progresses to active disease. Overall, infected persons have an estimated 5 to 10 percent risk of developing active disease during their lifetime. For persons co-infected with TB and HIV, the risk increases dramatically to 10 percent each year.

Individuals with *active disease* must be isolated until they are no longer infectious and must generally take two or more anti-tuberculosis medications for 6 to 12 months, again depending on HIV status and drug susceptibility test results. Again, CDC recommends directly observed therapy in treatment of active disease.[5]

By completing the prescribed course of treatment, persons with active infectious disease can achieve a noninfectious state where the progress of the disease is arrested. Incomplete or inconsistent treatment can result in the development of drug resistance. This drug-resistant TB (MDR-TB) can then spread to other noninfected individuals. The emergence of drug resistance has posed serious problems for TB control. In some cases of MDR-TB, effective drug regimens have not been identified.

Control

Public health measures can help to interrupt the cycle of disease transmission and safeguard those who work and live with inmates or former inmates.

While in prison, inmates may be encouraged to be more compliant with treatment regimens. Monitoring mechanisms, such as directly observed therapy and directly observed preventative therapy, are easier to implement because of the greater control maintained over inmates than over citizens in the outside community. Indeed, CDC found that nearly 30 percent more correctional inmates than drug treatment clients completed their TB therapy.[6]

Infection control measures should be introduced whenever there is a risk of disease transmission. Facility infection control measures include the improvement of ventilation and the use of air filters and ultra-violet light. Individual control measures include:

- Isolating persons with known or suspected active TB.
- Monitoring TB infection status through the tuberculosis skin test to permit action to be taken where there is evidence of new infection.
- Ensuring that those who are infected or have TB comply with treatment regimens.
- Limiting close contacts with persons who have active TB.
- Asking all people to cover their mouths when coughing and dispose of soiled tissues in a careful manner.

These activities can continue into the community corrections system once the prisoner is released. Even though the offender is no longer incarcerated, he or she is still under the jurisdiction of the criminal justice system, is reporting regularly to a parole officer, and may be living in housing arranged by this system.

The correctional system's contacts with community corrections organizations can be used either to establish or encourage the releasee's continued involvement with a public-health-based

Tuberculosis in the United States

Tuberculosis is a mycobacterial disease with a worldwide distribution. In the United States prior to 1985, the incidence of TB had been declining steadily for several decades, with an average annual decline of about 5.8 percent. Between 1985 and 1992, however, the number of TB cases increased by 20 percent.

Who contracted TB in the United States during this period of resurgence? Research has shown that:

- Two-thirds of the "excess" cases—that is, the cases in excess of the numbers that would have been expected had the pre-1985 downward trend continued—were among males, and 90 percent of these cases were among individuals 25 to 44 years of age.[7]
- Increases in TB were also found to be heavily concentrated among racial and ethnic minorities, with case rates per 100,000 ranging from 4.0 per 100,000 in non-Hispanic whites to 46.6 in Asians and Pacific Islanders.
- Immigrants accounted for 60 percent of the total increase in the number of TB cases in the United States.
- Five States accounted for 92 percent of the total U.S. increase: California, Florida, New Jersey, New York, and Texas. The number of TB cases grew fastest in States with high cumulative rates of HIV/AIDS, which is not surprising given the established relationship between HIV and TB.[8]
- There was also a definite trend in the average annual incidence of TB according to socioeconomic status. Estimates ranged from 4.2 per 100,000 in the group with the highest median household income, to 33 per 100,000 in the group with the lowest.[9]

TB program. Integrating an awareness of the releasee's TB status into the community corrections process can also help staff protect themselves from TB infection and disease. Universal precautions represent the best approach to infection control. Even when TB is not thought to be present, clients and staff should be discouraged from coughing or sneezing without covering their mouths. However, staff should also be notified when releasees they are working closely with have active TB, so they can take additional precautions such as undergoing more frequent TB skin tests. Moreover, efforts to ensure that releasees have access to treatment and are compliant with medication regimens will be beneficial both for them and the community.

Current practices in six jurisdictions

Several jurisdictions have implemented procedures designed to introduce collaboration between public health and community corrections agencies, in an effort to help control the spread of TB. Their experiences are discussed below and summarized in exhibit 1.

Exhibit 1. *TB Control Strategies in Six States*

States	Testing	Discharge/Compliance	Education	Interagency Cooperation
New York	Screening for both parolees and staff. Frequency depends on TB status.	Parole officers receive medical data on parolees. Parolees receive referrals to medical providers. Incentives for compliance with treatment.	Given to parolees, their heads of household, and staff.	Intensive Releasee Assistance Program for clients with HIV and TB. Matching program with health department to identify parolees noncompliant with TB regimen. Housing program for parolees co-infected with HIV and TB.
Arkansas	For inmates and at hiring for employees.	Medication and counseling on release provided by county health departments. Failure to seek treatment is a parole violation.	TB education for PPD-positive inmates.	Cooperation between criminal justice and health authorities.
Georgia	Staff are tested.	Policy under development.	Currently no education on TB; only on HIV/AIDS.	Interagency task force is defining policy on HIV, TB, and Hepatitis B.
South Carolina	Mandatory screening for parolees in residential placements.	Failure to comply with treatment is a parole violation.	Staff training and distribution of materials.	Networking among agencies, including the Departments of Corrections and Probation and Parole.
Minnesota	Mandatory annual screening of correctional inmates.	Inmates with infectious TB are placed in isolation in hospitals instead of being released to community. County health departments are responsible for ensuring compliance.	Correctional officers and inmates receive training on bloodborne pathogens and TB. No TB education for parolees.	Criminal justice and health agencies collaborated on 1993 TB screening statute and are working together on policy for providing TB medications.
Texas	Mandatory testing of correctional inmates and staff, but not parolees.	Employees with positive tests must show physicans' proof that they do not have active TB.	TB training program for managerial staff of institutional and community corrections agencies.	Close cooperation between criminal justice and health authorities in drafting and implementing TB laws.

New York State

The incidence of TB disease is much higher in New York (and in the other heavily urban States of the Northeast and Middle Atlantic regions) than in other parts of the country. Control measures appropriate and necessary in New York may not be as necessary outside large urban areas.

The New York State Division of Parole has developed a series of TB policies. Approximately 180 persons with active (and potentially infectious) TB are released from State correctional facilities into the New York City community each year.[10]

TB screening policies. New York has separate guidelines for inmates who are infected with TB, those who have active disease but are not infectious, and those who have active disease and are infectious. TB screening is required for both parolees and staff. TB status is determined on admission to a program (including drug and alcohol treatment programs), and followup testing is conducted for clients who have had negative tests. All staff receive preemployment screening for TB, but those at the highest risk of exposure are tested every 6 months. Testing is performed by the Employee Health Service at the worksite and by local health care organizations. These policies are intended to protect the health and welfare of both staff and parolees.

Because of this staff safety emphasis, the Division of Parole has considered it natural and necessary to involve the officers' union in the development of TB policy and training. A TB training curriculum was designed by a joint task force of labor and management. The Division of Parole has also brought in a regular medical consultant for the first time. All of these initiatives have resulted in good cooperative working relations between management and labor on TB issues. Despite relatively high annual rates of skin test conversions among parole staff (5.6 percent per year statewide, but as high as 23 percent per year in some New York City sites), staff alarm regarding TB has been effectively defused.

Discharge planning policies and procedures. Discharge planning for inmates with TB is a critical starting point for an effective community corrections TB policy. Through a collaborative effort between leaders and line staff of the New York State Department of Correctional Services (DOCS), the State Division of Parole, and the Health Department, some effective discharge planning and followup procedures for inmates with infectious TB have been developed. Unfortunately, because of resource limitations, the same level of service is not given to persons on TB preventive therapy.

The facility parole officer includes information on TB status and the treatment regimen on the medical summary for each releasee with TB infection or active disease. Compliance history and plans for medical followup are checked. Consent forms for releasing medical information are obtained from the inmates. If consent is given, the discharge summary is sent to the Health Department in the county to which the individual is being released. However, even if consent is refused, State law requires notification of the Health Department of all cases of active TB. The medical summary is sent to the field parole officer. Before the prisoner is released, he or she is given instruction on the importance of complying with TB treatment or prophylaxis as well as a referral to a public-health-based TB program. Releasees also receive a supply of their medications.

All persons with active TB who are about to be released are given an appointment with the Health Department or a private care provider in the community in which they will live. The referral and appointment sheet includes the names and telephone numbers of three individuals (who actually have knowledge of the case): a DOCS health services staff member, a Division of Parole staff member, and a Health Department staff member or private health care provider.

Each New York City releasee with active TB also receives an incentive to follow through on treatment—a $25 voucher good for transit tokens or food coupons. One-half of the value is redeemable upon keeping the first treatment appointment and the other half on completion of 1 week's directly observed therapy. Outreach workers employed by the New York City Department of Health assist in locating patients and inducing them to remain on their medication.

Compliance in the community. As a result of these and other strategies, overall compliance with medication regimens among persons with active TB released from New York City correction facilities has increased from about 10 percent to about 70 percent in a single year.

Inmates determined to be infectious are released to health care facilities for isolation and treatment until they are no longer infectious. Such parolees are permitted to make arrival reports to their parole officers by telephone

rather than in person. The parole officer then contacts the health care facility to arrange to be informed when the parolee is no longer infectious.

Once the individual is released to the community, his or her field parole officer reviews the medical summary and discusses treatment status with the parolee. The officer also provides additional referrals as needed and ensures that the file contains a consent to release medical information. Even where no consent is obtained, the field parole officer is expected to contact the county or city health department to provide information that can facilitate followup with the releasee.

If a parolee is discovered after release to be infectious or to have been infectious while incarcerated, the parole division is responsible for identifying and advising staff who may have had significant contact with the individual. Specific recommendations are made for different situations.

The Releasee Assistance Program (RAP) is a specialized program of the New York Division of Parole for clients with HIV disease and TB. RAP serves only New York City, where most of these patients live, and provides intensive case management, crisis intervention, medical advocacy, and other supportive services. RAP parole officers, who have much smaller than normal caseloads, have provided critical assistance to many parolees in the areas of medical care, housing, entitlements, substance abuse treatment, and reestablishment of relations with their families. RAP parole officers do not provide directly observed therapy for parolees on TB medications. However, the program works with parolees to adhere to their regimens and offers incentives for adherence, such as vouchers for subway tokens and food coupons.

TB education programs. Education about TB is available for parolees in New York State, as well as for families of parolees and for parole staff. The division issues an information kit called "A Healthy New Start" to all persons being released on parole. The kit is also sent to the head of the household to whom the inmate will be released. The Division of Parole also has a tuberculosis training program for staff, including information on symptoms, infection control measures, treatment, the connection between HIV and TB, the problem of MDR–TB, contact investigation, case reporting, and Division of Parole procedures for contact between staff and releasees.

Cooperation with health department. There has been active cooperation and information sharing on TB cases between the State Department of Health and the Division of Parole. The New York State Department of Health assisted the Division of Parole with information and advice on development of policies, guidelines, and education programs and materials.

In the spring of 1994, the Bureau of Tuberculosis Control of the New York City Department of Health and the State Division of Parole agreed to conduct a pilot data matching program, in which the Division of Parole assisted in the location and return to treatment of parolees with TB who were non-compliant with medication regimens. This was done by matching the list of "unable to locate" cases provided by the Health Department with the data base of parolees maintained by the Division of Parole. Health Department personnel, in turn, informed the appropriate parole officer of control measures or precautions that should be used in further contacts with the parolee. This pilot program identified only 6 complete matches out of 100 names; 1 of these individuals was subsequently located. The number of matches achieved in this pilot test was lower than expected.

Another match of 100 names from the Health Department's "unable to locate" list and the parolee data base was attempted during 1994, and no matches were found. Health Department staff suspect that this result may have been an outcome of better followup with State prison parolees so that they rarely appeared on the "unable to locate" list. In any case, another match attempt will probably be made during 1995.

Although the New York experience has not yielded many matches, the approach remains a promising strategy for jurisdictions seeking to improve TB followup with parolees and others released from correctional facilities.

This matching program illustrates important differences in the perceived roles of agencies that are attempting to forge cooperative relationships to combat TB. Under the program, the Parole Division helps locate parolees who are noncompliant with TB treatment, but the Health Department does not reciprocate by helping the Parole Division locate persons who are violating their conditions of parole. This is because the success of the Health Department, as a health agency rather than a justice system agency, depends on building trust with clients; disclosing information to criminal justice or immigration authorities would quickly undermine this trust.

The most recent example of interagency cooperation with respect to TB in New York is in the development of a community-placement pilot program for housing individuals co-infected with HIV and TB. The Department of Correctional Services, the Division of Parole, and the AIDS Institute of the Health Department are working together to identify two or three sites for this purpose. The facilities will be open to the community at large, and thus other agencies could place patients there as well. The Division of Parole will be able to place its clients in these residential facilities but will not be guaranteed a fixed number of beds in them.

Arkansas

The TB control program in the Arkansas Department of Corrections (ADC) is funded through a grant from the Centers for Disease Control and Prevention. A central TB Control Program Director oversees both the Health Department and ADC, and an ADC employee directs TB control activities for inmates and those about to be released.

Prisoners being released who are receiving medication for TB treatment or prophylaxis leave the facility with a supply of medication, and a notification letter is sent to the health department in the county where they will live. Medication and counseling are provided by the county health departments free of charge to the parolees. Parolees in Arkansas who are on TB medication must, as a condition of their parole, report to their county health department within 7 days of their release. If a releasee does not show up for treatment, the health department notifies the parole officer, as failure to seek treatment constitutes a parole violation in Arkansas.

The county health departments supervise TB treatment and medication compliance. Parole officers become involved if parolees fail to show up for treatment but are not otherwise charged with responsibilities for testing, referral, and the monitoring of compliance in Arkansas. The county health departments monitor treatment compliance for parolees more closely than for other patients, but directly observed therapy is not the norm.

Arkansas community corrections staff are tested for TB infection when they are hired. In late 1994, State officials implemented a mandatory TB screening program for corrections staff, paid for by ADC and performed by the county health departments.

Georgia

An interagency task force involving representatives from the State criminal justice system and the State health department is drafting a policy for infectious disease control in community corrections that will cover HIV, TB, and Hepatitis B. Agencywide staff testing for tuberculosis infection was undertaken in the State's parole agency in 1992. This was intended to serve as a baseline. Staff screening was carried out again in the fall of 1994, and the agency is working toward a policy of annual testing. Testing is done through the correctional system's health services facilities, except when a parole officer is too far from such a facility. In these cases, testing is done at a nearby county health department. As yet, however, there is no screening of parolees in Georgia.

South Carolina

The Department of Probation and Parole is not routinely notified of the TB status of parolees. Rather, the Department of Corrections notifies the appropriate county health department when parolees with TB are released to that jurisdiction.

Parolees in residential placements (for example, restitution centers, half-way houses) receive mandatory annual screening for TB infection. Parolees living at home are not required to undergo annual testing, however. Parole officers are required to send parolees with suspected active TB for followup. Failure to comply with treatment for active TB may be a parole violation in South Carolina if the offender has been notified of his or her obligations in this regard. During the last year there has been increased interagency networking in South Carolina intended to enhance TB control in community corrections. There have also been increases in inservice staff training and distribution of informational materials on TB to community corrections staff.

Minnesota

In Minnesota, a State statute provides for TB screening of inmates and employees of facilities operated, licensed, or inspected by the Department of Corrections. However, it does not cover parole officers, who are not viewed as being at risk in Minnesota. Neither officers nor parolees receive annual screening for TB.

Under no circumstances are inmates with infectious TB released to live in the community in Minnesota. Instead, they are placed in isolation in hospitals. Inmates who need TB preventive therapy are referred to a county health department. It is not a responsibility of the parole officer in Minnesota to determine whether or not a parolee is compliant with treatment regimens.

Texas

Texas law requires TB screening of inmates, staff, and volunteers in county jails, prisons, and other community corrections settings. Parolees living in the community are not required to be screened for TB, however. Employees and volunteers must be tested for TB infection, and if they test positive, must show proof from their own physicians that they do not have active TB. The employee must pay the expense of the screening test and any followup or treatment. Inmates must be tested if they are to be confined in any facility for more than 14 days. The Texas Department of Health supplies the materials for testing and treatment, and the Texas Department of Criminal Justice provides funds for administering the screening, further testing, and treatment for offenders suspected of having active TB disease. Counties share in this funding for certain classes of inmates. TB cases must be reported to the appropriate health authority within 3 days.

The Texas Department of Criminal Justice and the Department of Health worked closely together to draft the law relating to TB screening and treatment for staff and inmates of county jails and other correctional facilities. The implementation of the law also necessitated close cooperation.

A TB training program is offered periodically by health departments at the judicial district level in Texas. So far, this training has been provided to management staff of institutional and community corrections agencies but not to inmates or parolees.

Implications

Role definitions. Disease control is outside the normal scope of perceived responsibility and operation for most community corrections agencies. Like other criminal justice agencies, probation and parole departments see their primary purpose as law enforcement. The addition of a such a role in coordinating and monitoring TB treatment and compliance with medication regimens may also be seen to increase the workload of already overburdened and understaffed community corrections agencies.

However, it is in the best interests of staff who must work closely with offenders to be aware of TB cases and to be able to work toward protecting their own health as well as the health of their clients and of the public. The most important reason for establishing

How Health Departments and Community Corrections Agencies Can Work Together

Despite the complexities involved in working out TB control programs, the benefits for the community, for community corrections staff, and for clients are clear. Departments of public health, charged with protecting the public from the spread of disease, and faced with addressing this mission in a population that may be particularly at risk for developing TB, often have no systematic knowledge about populations involved with the criminal justice system or awareness of how to use the information that does exist to ensure uninterrupted compliance with TB therapy. Progress toward achieving high rates of treatment completion can be greatly enhanced through collaboration with community corrections agencies. Community corrections staff, charged with overseeing the reintegration of offenders into the community, can better protect themselves, their clients, and their communities by knowing about TB, participating in an active screening program, being aware of the TB status of their clients, knowing whether their clients are compliant with treatment, and encouraging their compliance.

Health departments can provide:

- Assistance in developing and evaluating polices and procedures (including systems for maintaining records) for TB control.
- Training of correctional facilites staff responsible for implementing TB control program.
- Information about TB to educate staff and the offender population.
- Coordination of services for screening, treatment, and prophylaxis for clients and staff of community corrections agencies.
- Investigation of contacts that TB patient has had within the correctional system and in the community.

Community corrections, in turn, can help health departments by:

- Referring clients with TB symptoms to TB programs.
- Helping to ensure TB treatment compliance.
- Helping locate noncompliant clients by offering to cross-match lists of parolees with health department lists of noncompliant individuals (as in New York City's pilot program).

As health departments and correctional systems establish linkages and begin to work together, other areas of potential collaboration may evolve, such as in HIV or other infectious diseases.

a new TB control role for community corrections staff may be to ensure their own and their families' health.

Lack of knowledge. Clarification of roles is not the only challenge. Lack of information and knowledge is another significant barrier to the effective involvement of community corrections staff in TB control. Parole and probation officers may know very little about TB or its means of transmission. They may not have information about resources to which they can refer their clients for care and treatment. Indeed, they may not be aware of available anti-TB medications. Further, community corrections staff may not be aware of the importance of treatment compliance, or of any of the other dimensions of TB control on which they may be able to have some impact in their day-to-day work with their clients. Education and training programs are needed to address these gaps in knowledge.

Particular problems of probation. There can be little discharge planning with regard to probationers except for those who spend pretrial time in jail. Universal TB screening of probationers and followup diagnostic workups on suspect cases of TB disease would provide information as to the medical needs of clients, but such a policy would be costly to implement. Given these obstacles, probation agencies are likely to receive little if any information on the medical needs of their clients.

Interagency cooperation. Interagency communication and information sharing are extremely important in effective discharge planning and community followup. However, medical records and information on TB status often do not accompany prisoners as they leave their institutions. Probationers and parolees living on their own in the community may see no reason to divulge information concerning their TB status. Health-related information is generally considered confidential, and working out a system involving medical release forms and practices that protect the privacy of clients may pose an additional difficulty for community corrections agencies. As correctional programs and health departments begin to work together, the whole area of confidentiality must be carefully considered.

Close inter- and intra-agency collaboration is needed for the integration of TB control into the accepted mission of community corrections. This takes time, effort, and commitment from all participants. The fact that public health and criminal justice agencies may have very different perceptions of their roles and responsibilities may pose difficulties as potential collaborations are explored. In the States where TB control programs in community corrections already exist, the health department has usually played a key role in offering training and developing materials for use in inservice education, as well as providing screening and treatment services for clients and staff.

The role of community corrections staff in TB control must be defined. This can be difficult, as a number of possibilities exist, each of which may have its own supporters within an agency. Community corrections staff may assist health departments by trying to locate clients who are noncompliant with treatment. They may also be given a significant role in enforcing treatment compliance if noncompliance is specified as a parole violation. Providing referrals for care may constitute another level of involvement for community corrections staff. Offering incentives for seeking and complying with treatment may also be considered for inclusion in a TB control effort. Such incentives may include additional services provided in a caring manner, as well as vouchers for transportation or food. Approaches combining incentives and threatened sanctions may work best. It is a delicate balance, a key to which is winning the confidence of clients that both the incentives and the sanctions will be forthcoming as appropriate.

Community corrections agencies have services to offer health departments in an attempt to achieve better TB control (see "How Health Departments and Community Corrections Can Work Together"). To the extent that they use these services, they can reduce the probability of infection among their own staff and reduce the spread of disease in the surrounding community. In the case of repeat offenders, they can also minimize the reintroduction of TB into correctional populations.

The potential impact that these agencies can have is of course shaped by the dimensions of the TB problem in their own jurisdictions. Even where the prevalence of TB is low, however, an isolated case of TB in prison can lead to an outbreak; and if controls like screening are in place, at least some level of protection is available. Where the prevalence of TB is high, such as in New York City and other major metropolitan centers, and known cases of active TB reenter the community each year, the involvement of community corrections programs is even more critical in controlling the spread of the disease.

Notes

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[4] Centers for Disease Control and Prevention, 1994. *Core Curriculum on Tuberculosis: What the Clinician Should Know*. Washington, D.C.: U.S. Government Printing Office, page 42.

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[9] Ibid.

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Selected Recent NIJ Publications in Corrections and Health

Listed below are some recent NIJ publications related to issues of corrections and health. These publications can be obtained free, except where indicated, from the National Criminal Justice Reference Service (NCJRS): telephone 800–851–3420, or email askncjrs@ncjrs.aspensys.com, or write NCJRS, Box 6000, Rockville, MD 20849–6000.

Please note that when free publications are out of stock, they are available in xerox copies for a minimal fee or through interlibrary loan. They are also usually available on the NCJRS Bulletin Board System or on the Department of Justice Internet gopher site for downloading. Call NCJRS for more information.

McDonald, Douglas, *Managing Prison Health Care and Cost*, NIJ Issues and Practices, March 1994, NCJ 152768.

National Institute of Justice, *National Institute of Justice Journal*, #228, December 1994, JR000228. (This issue features articles on health and justice.)

Hammett, Theodore M., *1992 Update: HIV/AIDS in Correctional Facilities*, NIJ/Centers for Disease Control and Prevention, NIJ Issues and Practices, January 1994, NCJ 143398.

Hammett, Theodore M., *Tuberculosis in Correctional Facilities*, NIJ/Centers for Disease Control and Prevention, NIJ Issues and Practices, January 1994, NCJ 143399.

McDonald, Douglas C., and Michelle Teitelbaum, *Managing Mentally Ill Offenders in the Community: Milwaukee's Community Support Program*, NIJ Program Focus, March 1994, NCJ 145330.

Rubin, Paula N., *The Americans With Disabilities Act and Criminal Justice: Providing Inmate Services*, NIJ ADA Bulletin, Research in Action, July 1994, NCJ 148139.

Kellerman, Arthur L., M.D., M.P.H., *Understanding and Preventing Violence: A Public Health Perspective*, Research in Progress Seminar, VHS Videotape, NCJ 152238, $19.00, includes postage and handling. (This videotape is one of a series of six currently available tapes featuring well-known scholars describing current criminal justice research studies; call NCJRS for more information.)

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