

November 12, 1993 / Vol. 42 / No. RR-15

Recommendations and Reports

# Tuberculosis Control Laws — United States, 1993

## Recommendations of the Advisory Council for the Elimination of Tuberculosis (ACET)

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES Public Health Service Centers for Disease Control and Prevention (CDC) Atlanta, Georgia 30333 The *MMWR* series of publications is published by the Epidemiology Program Office, Centers for Disease Control and Prevention (CDC), Public Health Service, U.S. Department of Health and Human Services, Atlanta, Georgia 30333.

## SUGGESTED CITATION

Centers for Disease Control and Prevention. Tuberculosis control laws—United States,1993: recommendations of the Advisory Council for the Elimination of Tuberculosis (ACET). MMWR 1993;42(No. RR-15):[inclusive page numbers].

Centers for Disease Control and Prevention
The material in this report was prepared for publication by:
Office of the Director Walter R. Dowdle, Ph.D. Acting Director
Office of the General CounselGene W. Matthews, J.D. <i>Legal Advisor</i>
National Center for Prevention ServicesAlan R. Hinman, M.D., M.P.H. Director
Division of Tuberculosis EliminationKenneth G. Castro, M.D. Director
The production of this report as an MMWR serial publication was coordinated in:
Epidemiology Program OfficeBarbara R. Holloway, M.P.H. Acting Director
Richard A. Goodman, M.D., M.P.H. <i>Editor,</i> MMWR <i>Series</i>
Scientific Information and Communications Program
Recommendations and ReportsSuzanne M. Hewitt, M.P.A. Managing Editor
Rachel J. Wilson Project Editor
Morie M. Higgins Visual Information Specialist

Copies can be purchased from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325. Telephone: (202) 783-3238.

## Contents

Frequently Used Terms	ii
Introduction	1
Methods	2
Results and Recommendations	3
Reporting Requirements	3
Additional Reporting Recommendations	5
Management of TB Cases	6
Conclusion	
References	
Bibliography	
Appendix	

## FREQUENTLY USED TERMS

The following are the recommended definitions for key terms in tuberculosis (TB) control laws:

- Active TB. TB disease as demonstrated by clinical, bacteriologic, and/or radiographic evidence. Persons who have not completed a course of anti-TB treatment are considered to have active TB and may be infectious.
- Adherent. Taking anti-TB medications as prescribed.

Case. An occurrence of active TB.

**Commitment**. The confinement of a person who has infectious TB or who is noninfectious, but who has not adhered to prescribed treatment. The purpose of commitment, which occurs under judicial or administrative order, is to prevent the transmission of tubercle bacilli to others, to prevent the development of drug-resistant organisms, or to ensure that persons receive a complete course of treatment.

Contact. A person exposed to a patient who has infectious TB.

- **Contact investigation**. Interviewing, counseling, educating, examining, and investigating activities directed at persons who have been in close contact with patients who have infectious TB.
- **Detention**. The temporary confinement of a person who has or who is suspected of having TB.
- **Directly Observed Therapy (DOT)**. Treatment in which health-care providers or other designated persons observe patients ingesting anti-TB medications.
- **Enabler**. Anything that helps the patient to more readily complete therapy (e.g., bus fare and gasoline).
- **Exposure**. The sharing of air with a person who has infectious tuberculosis.
- **Incentive**. Anything that motivates the patient to adhere to treatment (e.g., food, coupons, and personal items).
- **Infected**. Having been exposed to someone with infectious tuberculosis, or having a positive response to a tuberculin skin test, but not having clinical or radiographic evidence of disease. Some patients who are anergic may not respond to a skin test but still be infected.
- **Infectious TB**. TB disease in a communicable or infectious stage as determined by a chest radiograph, the bacteriologic examination of body tissues or secretions, or other diagnostic procedures.
- **Isolation**. An infection control practice designed to prevent the transmission of tubercle bacilli.
- **Nonadherent**. Not taking medications as prescribed or not following the recommendations of the attending physician or health officer for the management of TB.
- **Noninfectious**. Not capable of transmitting tubercle bacilli. A determination of non-infectiousness can be made when a patient shows significant clinical improvement (e.g., the resolution of cough and/or fever) and has negative sputum smears on 3 consecutive days.
- **Quarantine**. A limitation on the movement of persons exposed to, or infected with, TB to prevent the exposure of other persons.
- Suspected Case. A person with signs or symptoms of TB for whom the results of diagnostic studies are still pending completion.

- **Tuberculosis (TB)**. Disease caused by *Mycobacterium tuberculosis* complex (i.e., *M. tuberculosis*, *Mycobacterium bovis*, or *Mycobacterium africanum*).
- **TB Control Officer**. A person appointed by the state to be responsible for the administration of state TB programs.

The following CDC staff members prepared this report:

Brian M. Willis, J.D., M.P.H. Office of the General Counsel Office of the Director

Lawrence Paul Schwartz, M.P.H. Division of Tuberculosis Elimination National Center for Prevention Services

Sarah B. Knowlton, J.D., M.S.W. Office of the General Counsel Office of the Director

## Tuberculosis Control Laws — United States, 1993

## Recommendations of the Advisory Council for the Elimination of Tuberculosis (ACET)

#### Summary

Because of its communicable nature, tuberculosis (TB) is treated differently than other nonairborne infectious diseases, as there are many state laws specific to the control of TB. Many of these laws predate the current public health recommendations for the prevention and control of TB. In 1989, CDC published A Strategic Plan for the Elimination of Tuberculosis in the United States that was developed by the Advisory Committee (now Council) for the Elimination of Tuberculosis (ACET) (1). The Plan called for the establishment of a national goal of TB elimination (i.e., achieving a case rate of <1 per million population) by the year 2010. One of the methods for improving disease containment in the Plan was for the use of quarantine measures for nonadherent patients. The Plan called for revision of state and local laws to "facilitate the cure of persons with infectious tuberculosis," (1). The issue of outdated state TB laws was also identified as a problem in the National Action Plan to Combat Multidrug-resistant Tuberculosis (2).

In response to this issue, CDC conducted a survey of state TB control laws and ACET developed recommendations to address discrepancies between previously published recommendations and guidelines for the control of TB and state TB control laws. In order to address these discrepancies, states updating TB control laws should incorporate current recommendations and guidelines from CDC, ACET, and the American Thoracic Society. State laws should permit policies and practices to be rapidly reviewed and amended as new data becomes available and new recommendations and guidelines are published.

## INTRODUCTION

In 1989, the Advisory Committee (now Council) for the Elimination of Tuberculosis (ACET) published *A Strategic Plan for the Elimination of Tuberculosis in the United States* (1). The plan promoted the goal of eliminating tuberculosis (TB) (i.e., achieving a case rate of <1 per million population) in the United States by the year 2010. However, the plan was not fully implemented, and the number of TB cases reported in the United States increased. From 1953 to 1984, the number of reported TB cases in the United States declined at a rate of approximately 5% per year—from >84,000 cases in 1953 to approximately 22,000 cases in 1984. However, from 1985 through 1992, reported TB cases increased 20%. In 1992, 26,673 cases of TB were reported in the United States—an incidence rate of 10.5 per 100,000 population. The cases from 1985 through 1992 represent an excess of >51,000 cases based on the 1980–1984 trend. The increase in TB cases has been attributed to human immunodeficiency virus (HIV)-associated TB, immigration from countries with high TB prevalence, substance abuse, homelessness, poverty, and a deterioration in the public health infrastructure, among other factors.

The increase in cases of drug-resistant TB is also of concern. From 1982 through 1986, the proportion of new cases resistant to both isoniazid and rifampin was 0.5%, but by 1991 the proportion had increased to 3.3%. Likewise, the proportion of TB cases among recurrent cases resistant to both drugs increased from 3.0% (1982–1986) to 7.2% (1991).

Drug resistance is prevalent in certain areas. For example, in a survey of cases in New York City, 33% had organisms resistant to isoniazid or rifampin and 19% had organisms resistant to both drugs. Resistance to both drugs lengthens the course of treatment from 6 months to 18–24 months, increases the cost of treatment, and decreases the cure rate from approximately 100% to 60%.

Several outbreaks of multidrug-resistant TB (MDRTB) have occurred in institutional settings. From 1990 through 1992, CDC participated in investigations of outbreaks in hospitals and correctional facilities that involved nearly 300 cases of MDRTB. These patients had a mortality rate of 43%–89%. To address the problem of MDRTB, in December 1991 the CDC Director convened a TB Task Force composed of representatives of federal agencies. In 1992, the TB Task Force developed a *National Action Plan to Combat Multidrug-Resistant Tuberculosis*, which details steps to be taken by federal agencies regarding MDRTB.

Interventions listed in the *National Action Plan* (e.g., the rapid reporting of confirmed and suspected TB cases) are addressed in state TB-control laws and regulations. The *National Action Plan* recommends that states revise their laws and regulations to facilitate the cure of persons with infectious TB. In the fall of 1991, CDC conducted a survey of state TB-control laws and regulations. One of the objectives of the *National Action Plan* was for ACET and CDC to develop recommendations that address legal issues of TB controls and to publish these recommendations by 1993. This report summarizes the results of the survey and provides recommendations to assist states in revising their TB-control laws and regulations. These recommendations also may be applicable to county and municipal health departments. Documents summarizing recommendations and guidelines from ACET, the American Lung Association (ALA), the American Thoracic Society (ATS), and CDC are provided in the bibliography.

The goal of state TB-control programs should be to prevent, control, and eventually eliminate TB. To protect the public from TB, these programs should ensure that persons with TB receive appropriate treatment. In addition, states should develop and encourage implementation of comprehensive programs that address the needs of persons who have TB, including the integration of TB services with drug and alcohol treatment programs and the expansion of public education, particularly for populations at increased risk for TB. States also should require the application of recommended infection control measures in health-care facilities and congregate-living settings (e.g., correctional facilities).

### **METHODS**

TB-control officers in all states were asked to provide copies of their TB-control laws and regulations to CDC. Certain provisions of these laws and regulations were examined: TB reporting requirements (i.e., the persons required to report cases of TB, the time frame for reporting, penalties for failure to report, and the duty to report

patients who do not adhere to prescribed treatment), the restriction of some persons from activities or employment, the screening of certain populations, contact investigation, procedures for control and treatment, penalties for patients who do not adhere to prescribed treatment, the provision of treatment facilities, and the financing of treatment (Appendix). After the laws and regulations were examined, the TB-control officers reviewed the findings for their respective states to clarify any discrepancies. A draft of the survey and recommendations was made available for public comment from October 2 through November 16, 1992. Public comments were solicited through a notice published in the *Morbidity and Mortality Weekly Report* (3). A total of 48 persons representing private organizations and state, county, and local health departments provided comments about the draft.

## **RESULTS AND RECOMMENDATIONS**

#### **Reporting Requirements**

#### Persons Required to Report Cases of TB

All states require designated health-care professionals to report cases of TB to local or state health departments. Physicians are most frequently required to report cases of TB (42 states). Others required to report test results or cases are laboratory directors (33 states), hospitals and hospital administrators (31 states), other health-care workers (23 states), school authorities (22 states), nursing home administrators (15 states), and hospital infection control officers (six states). Eight states also require parents and guardians to report cases of TB among household members. Cases are reported by all states to CDC using the *Report of Verified Case of Tuberculosis* (CDC Form 72.9).

#### **Recommendation**

States should require health-care providers and allied professionals who diagnose TB or treat or otherwise care for TB patients to report confirmed or suspected cases to the appropriate health agency. Among these providers and professionals are physicians, pharmacists, nurses, infection control officers, medical examiners, morticians, and the administrators of laboratories or other facilities where TB patients receive health-care services. Appropriate systems should be developed that maximize the reporting of new cases and minimize the reporting of duplicate cases and suspected cases and that protect the confidentiality of reports.

#### Time Frame for Reporting

State laws regarding the time allowed for reporting cases of TB vary from reporting at the time of diagnosis to within 1 week of diagnosis. Thirteen states require reporting at the time of diagnosis, 14 states within 24 hours of diagnosis, seven states within 48 hours, three states within 72 hours, and six states within 1 week. Six states do not specify a time frame for reporting.

In nine states, the time frame for reporting cases of TB depends on the reporting source. For example, physicians may be required to report cases of TB within 7 days

of diagnosis, whereas institutions in the same state are required to report cases within 48 hours. Reporting requirements for laboratory directors vary from reporting at the time of identification of *Mycobacterium tuberculosis* to reporting results once a week.

## Recommendations

- Confirmed and suspected cases should be reported within 2 working days of identification of *M. tuberculosis* to the health agency with primary responsibility for TB control in that jurisdiction. Reporting should be based on a diagnosis or a presumptive diagnosis. Local health departments should report confirmed and suspected cases to the state TB-control agency within 1 working day of notification.
- When a case of TB is identified as being drug resistant, the case should be reported again within 2 working days in a manner consistent with the reporting of confirmed and suspected cases of TB. The report of drug-resistant TB also should include the results of susceptibility tests.
- All bacteriologic and pathologic laboratories that perform diagnostic services or perform related drug-susceptibility tests for *M. tuberculosis* should be required to report the results for any person whose sputa, gastric contents, or other specimens submitted for examination reveal the presence of tubercle bacilli. These results should be reported to the local health department within 1 working day of identification.
- Laboratories that perform diagnostic services on specimens from other states should be required to report the results to the state health department TB program from which the specimen was received. Reports should include the patient's name, address, and physician, and the person or agency referring the positive specimen for laboratory evaluation.

### Failure to Report Cases of TB

Twenty-nine states have statutory authority to impose a penalty on persons who are required to report TB cases but fail to do so. Five states impose a penalty only when the failure to report a case is willful. Those persons found guilty of failing to report cases may be convicted of a misdemeanor and fined from \$5 to \$500.

## Recommendation

Because the rapid and accurate reporting of TB cases is critical to the management of TB patients, states should have the authority to impose a penalty for the willful failure to report confirmed and suspected cases of TB within the required time frame. In addition to imposing a penalty, states may refer reporting violations to professional licensing boards or, in the instance of a laboratory, to the licensing agency.

#### Duty to Report Nonadherent\* Patients

Eleven states require health-care providers to report nonadherent patients. Two states also require the attending physician to notify the state health department when a patient has completed treatment for TB.

#### Recommendations

- TB patients who have demonstrated an inability or an unwillingness to adhere to
  a prescribed treatment regimen should be classified as nonadherent. Patients
  should be considered unable or unwilling to adhere to prescribed treatment if
  they do not report for directly observed therapy (DOT), refuse medication, or
  show other evidence of not taking medications as prescribed (e.g., incorrect pill
  counts or urine test showing no evidence of drug metabolites).
- Any health-care professional who is aware of a nonadherent TB patient should contact the appropriate health official for necessary interventions. The health official or a designated representative should meet with the patient to determine why the patient is nonadherent. The patient may be unwilling to continue treatment because the medication is causing side effects, because the patient may have difficulty obtaining additional medication, or because the patient believes the medication is no longer necessary. After determining why the patient is not adhering to the treatment regimen, the health official should take appropriate action, such as seeking court-ordered DOT.

#### Additional Reporting Recommendations

Reporting requirements should include any confirmed or suspected case of active disease caused by *M. tuberculosis* complex (i.e., *M. tuberculosis*, *Mycobacterium bovis*, and/or *Mycobacterium africanum*). State laws also should require drug susceptibility tests for all patients for whom a specimen is available. The results should be reported to local and/or state health departments. Reporting laws should require that all reports and records of clinical or laboratory examination for the presence of TB be kept in a confidential registry maintained by the state health agency.

When not prohibited by law, states also should require that information on the patient's HIV infection status, when known, be included in TB case reports. From a surveillance perspective, the inclusion of the patient's HIV status is important to determine the impact of the HIV epidemic on TB cases; this information also is important for case management and prioritizing contact investigations.

If HIV-related information is reported, states should ensure that this information is protected under their specific HIV and acquired immunodeficiency syndrome (AIDS) reporting laws and confidentiality laws. If a state does not have specific HIV or AIDS confidentiality laws, it should ensure that HIV-related information is protected by applicable confidentiality laws for infectious diseases, communicable diseases, or sexually transmitted diseases, or by other provisions for the protection of patient medical records.

Health agencies that maintain both an HIV or AIDS registry and a TB registry should permit the sharing of information between the registries to assist in case finding,

<sup>\*</sup>States use different terms to describe patients who do not follow a prescribed treatment regimen, including "noncompliant" and "noncooperative." Throughout this document, the term "nonadherent" is used to describe patients who do not follow a prescribed treatment regimen.

particularly when the HIV or AIDS registry has information regarding persons infected with TB whose names have not been reported to the TB registry. Information about a person's HIV or AIDS status must be protected, even when it is reported to or shared with another division within a health department.

Federally assisted substance-abuse treatment programs must report HIV- and TBrelated information for all patients in a manner consistent with federal regulations for completing Confidentiality of Alcohol and Drug Abuse Patient Records<sup>\*</sup>. Once the information from such treatment programs is reported to states, the information should be protected in a manner consistent with the regulations.

#### Management of TB Cases

#### **Provision of Treatment**

Sixteen states specify that state-supported outpatient treatment must be made available for persons with TB. Twenty-nine states recommend that TB patients voluntarily seek treatment before health officials seek state intervention.

### Recommendations

- State laws should require that all TB patients receive immediate treatment according to the most recent ATS/CDC and ACET treatment guidelines. These guidelines include a) the examination of persons exposed to TB and persons suspected of having active TB, b) the treatment of persons who have latent infection or active TB, c) the duration of treatment, and d) the means for preventing TB patients from infecting other people. States also should require that health-care providers document patients' adherence to prescribed therapy.
- States should require that health-care workers providing care to patients with confirmed or suspected TB develop individualized, comprehensive treatment plans for all TB patients. The plans should be developed in cooperation with the patients and the appropriate health department and discussed with patients before they are discharged from treatment facilities. In addition, clinicians or other designated persons in all correctional facilities should develop individualized, comprehensive discharge plans for all TB-infected inmates who will be released from the facility before they complete the prescribed course of therapy.
- Patients who do not adhere to self-administered therapy should receive DOT. In addition, states should require the isolation of nonadherent, infectious patients while they are receiving treatment. Persons who have drug-resistant TB should be treated according to the most recent CDC treatment guidelines for drug-resistant TB.

#### Penalty for Nonadherent Patients

Three states have provisions for imposing a fine on TB patients who do not adhere to treatment. Four states specify certain behaviors that violate TB laws (e.g., breaking quarantine or willfully transmitting disease), and 29 states provide that anyone who violates the TB-control law may be quarantined. Two states have provisions for

imposing an undefined penalty on nonadherent patients. In one state, violation of a treatment plan or disruptive behavior within an institution justifies transfer to a correctional facility where treatment will be provided.

#### Recommendation

• Penalties for nonadherent behavior should be levied only after the use of incentives, enablers, voluntary or ordered DOT, and commitment for inpatient management have failed to result in adherence to treatment.

#### **Restrictions for Persons Infected with TB**

Sixteen states require that persons infected or suspected of being infected with TB be restricted from various activities. Typically, state laws require that persons infected with TB be excluded from work until they are no longer infectious or until the absence of TB has been medically demonstrated.

### Recommendation

• Restricting the activities of a person with TB should be based on whether the person has infectious TB and poses a risk to others. Restrictions should be terminated when the person is no longer infectious.

#### Quarantine of Persons with TB

Forty-three states provide for the quarantine of TB patients within their own homes. States define quarantine broadly and specifically. Statutes and regulations also provide guidelines for the movement of patients outside of the home. Thirty-five states specify that a quarantine should last until the person is no longer infectious. However, the health officer with jurisdiction over the patient frequently determines the exact length of quarantine.

## **Recommendation**

 Quarantine, the traditional public health intervention of isolating persons who are exposed to an infectious disease but are not yet infected, is no longer an appropriate TB control measure. For patients with active TB who adhere to treatment, temporary restriction to their primary residence may adequately protect others from exposure. Such patients should be restricted to their residence until they are noninfectious. Appropriate residence facilities should be designated for the care of homeless persons infected with active TB.

#### Commitment of Persons with Infectious TB to Treatment Facilities

Forty-two states permit the commitment of TB patients to treatment facilities. However, the legal process for commitment and the duration of commitment vary in each state. Twenty-four states require that persons committed for TB treatment remain hospitalized until they no longer pose a health threat to others. Many state laws specify that this condition be met when a patient becomes noninfectious. Seven states recommend that a patient remain hospitalized until cured, and six states allow commitment of persons with infectious TB for an unspecified period of time.

Some states allow patients who have been committed to petition the court for a discharge and/or to appeal the decision. One state provides the patient the right to

petition the court for discharge after 6 months, and nine states allow the patient to appeal the commitment.

## **Recommendations**

- Before committing TB patients for inpatient treatment, states should adopt stepby-step interventions beginning with DOT and supplemented by incentives and enablers. If a patient does not voluntarily adhere to DOT, the next step may be DOT that is ordered by a public health official or a court. Only after the patient has demonstrated an inability or an unwillingness to adhere to treatment regimens should admission to a treatment facility be initiated. Commitment for inpatient management should be viewed as the last measure for treatment of persons infected with TB. However, when a person who has active, infectious TB refuses to be isolated, emergency detention to isolate the person is appropriate.
- State laws should permit the involuntary isolation and detention of noninfectious patients who, after being offered less restrictive alternatives, refuse to adhere to a treatment regimen or to complete treatment. These persons are at risk for drug-resistant TB, which can be transmitted to others.
- Commitment laws should specify a) where patients will be treated, b) the duration of commitment (e.g., until treatment is complete or until there is evidence that the patient will adhere to the remainder of the treatment regimen), and c) the reimbursement mechanism for the treatment.
- States should authorize the examination of persons suspected of having TB and the emergency isolation and detention of persons who have infectious TB. Such laws will permit local health officers to examine the contacts of persons with infectious TB who are unwilling to seek evaluation and/or treatment. The laws would permit local health officers to isolate and detain persons who have infectious TB but who are unable or unwilling to receive treatment to prevent transmission. The court review of emergency detention should expeditiously follow the isolation of TB patients in a treatment facility. Voluntary treatment should be pursued; however, appropriate commitment procedures should be initiated immediately for patients who do not consent to isolation and treatment.
- As in commitment proceedings under state mental health laws, any law under which a person may be examined, isolated, detained, committed, and/or treated for TB must meet due process and equal protection requirements under state and federal statutes and constitutions. Also, all patients who are subject to these legal proceedings should be represented by legal counsel.

**Commitment Orders.** When determining whether the commitment of a person with TB is necessary to protect the health of the public, local health officers should determine whether that person presents a substantial risk for infecting others or developing drug-resistant disease. This determination should be based on an individualized assessment of the situation, including consideration of the following factors:

Laboratory results or, in the absence of laboratory tests, clinical signs and symptoms of infectious TB;

- Previous treatment for TB but failure to complete therapy for reasons unrelated to access to treatment or medication;
- Adherence to prescribed therapy;
- Risk for infecting others depending on the patient's housing and employment situation;
- Laboratory tests or a history of nonadherence to anti-TB chemotherapy indicate possible infection with drug-resistant *M. tuberculosis*.

When local health officers determine that commitment is necessary to protect the health of the public, they should issue a commitment order in writing to local authorities. The order should specify the name of the infected person, the period of time during which the order is to remain effective, the facility to which the person will be committed, and other terms or conditions necessary to protect the health of the public. When an order is issued, a copy of the order should be given to the person named in the order.

The commitment order should require that the person infected with TB be isolated until he/she is determined to be noninfectious. This decision should be based on laboratory results demonstrating that the person is smear negative and asymptomatic or based on the local health officer's determination that the person has completed a course of therapy consistent with the most recent ATS/CDC treatment recommendations. The person also should be ordered to receive treatment in a hospital or other appropriate facility until cured, unless the person's voluntary completion of the ordered therapy can be ensured. If the person refuses to consent to the ordered treatment, the health officer should have the authority to extend the commitment order as necessary.

After receiving information that a commitment order has been violated, health officers should notify the appropriate official in the jurisdiction (e.g., a judge in the county where the person resides) that a violation of the order has occurred. This notification should be in writing and should explain the rationale for the hospitalization and the facts about the violation.

#### **Treatment Facilities**

State statutes and regulations provide for TB treatment at public hospitals, sanitoria, and private hospitals that have entered into agreements for such treatment with states. Thirty-three states provide or approve facilities for the treatment of TB patients. Twenty-one states have adopted detailed guidelines for the testing, monitoring, and care of the TB patient in treatment facilities.

### Recommendations

• To more efficiently treat TB patients, states should permit cities, counties, or groups of counties to establish and maintain a variety of facilities for treating persons infected with TB. Such facilities include shelters for the homeless, half-way houses, and short- or long-term care facilities such as hospitals.

• State health departments should develop standards based on the current ATS/CDC recommendations and guidelines for local TB-control programs and facilities to use in treating TB and controlling its transmission.

#### Financing of Treatment

TB-control statutes in 46 states specify that the state will provide some reimbursement for patient care. Payment provisions vary among these states. For example, three states provide funding for the treatment of indigent patients only; three states offer sliding-scale payments according to the patient's financial status; and six states require that if a patient has third-party insurance, the third-party payor must be the first payor and the state the payor of last resort.

#### Recommendation

States should specify how the treatment of TB patients will be paid. The patient's
inability to pay for treatment should not be a barrier to receiving effective treatment. Assuring treatment for all patients, regardless of their ability to pay, is
critical to preventing the transmission of TB in the community.

#### Investigation of TB Cases

Forty-nine states require the investigation of reported cases of TB. Forty-five states specify that an investigation can be conducted when a health official receives a report of a confirmed or suspected case of TB. Forty-one states authorize health departments to investigate under certain circumstances, such as when a health officer suspects or knows of a case of TB. Twenty-nine states specifically require contact investigations for reported cases of TB.

### Recommendations

- States should require local health officers to conduct immediate contact investigations for all reported or suspected cases of pulmonary TB. During the investigations, each health officer should be authorized to examine and order the isolation of persons suspected of having or known to have infectious TB and to detain persons known to be nonadherent to prescribed therapy.
- Health officers should be authorized to order a physical examination of persons suspected of having TB. The examination order should be submitted in writing and should specify the name of the person to be examined, the time and the place where the examination is to be conducted, the medical basis for the examination order, and any other terms or conditions necessary to protect the health of the public. In addition, health officers should have the authority to review all patient records of both public and private institutions, clinics, and practices where TB patients are treated.

#### Screening for TB

Forty-four states require that certain populations be screened for TB. Screening is frequently required for school employees (20 states), employees of medical facilities (18 states), and day care employees (11 states). TB testing is typically required before the start of employment. Eleven states also require that schoolchildren be screened for TB.

#### Recommendation

To eliminate TB, states must interrupt the transmission of tubercle bacilli by preventing, identifying, and treating TB-infected persons. TB screening may include screening for latent TB infection, active disease, or both. Screening requirements should be based on an analysis of epidemiologic data (including disease frequency and the demographic and geographic distribution of disease in the community) and morbidity trends, and ALA/ATS/CDC/ACET recommendations and guidelines for screening populations, institutions (including health-care and correctional facilities), and personnel.

#### **TB-Control Officers**

State laws and regulations generally do not designate a TB-control officer to supervise the state TB-control program. However, every state currently has a designated person responsible for their state TB-control program.

#### Recommendation

 Each state should designate a TB-control officer to supervise TB-control programs. These officers should have sufficient authority to address the current problems in TB control.

**Responsibilities**. TB-control officers should be responsible for all statewide TBcontrol activities. They should cooperate with local health departments and other appropriate organizations to conduct or supervise clinics that diagnose, treat, and control TB throughout the state. The officers should maintain a registry of all cases, suspected cases, and contacts.

**Authority**. To conduct TB-control measures, TB-control officers must have the authority to examine all records, reports, and other data pertaining to confirmed and suspected TB patients. The records of the TB-control officer must be confidential and the identity of patients must not be disclosed, except where disclosure is necessary as part of official TB-control activities.

In addition, the officers should have the authority to examine or order the examination of any person known to have or suspected of having TB. The officers also should be authorized to perform or order any laboratory tests or radiographic examinations necessary to diagnose and treat any patient who has TB.

TB-control officers should have the authority to issue emergency examination, isolation, and detention orders for persons suspected of having active TB, and issue commitment orders for persons who have active TB or who are nonadherent to the prescribed therapy. Such decisions should be based on guidelines issued by the state health department. TB-control officers also should be directed to cooperate with state and federal agencies in the prevention and control of TB.

## CONCLUSION

A survey of state TB-control laws and regulations indicates that states differ in their approach to the control of TB. This report provides recommendations from the ACET that can be used in revising state TB-control laws. The purpose of providing these recommendations is to increase uniformity among TB-control programs. These

recommendations also are designed to encourage states to adopt flexible TB-control laws and regulations that will accommodate new TB-control recommendations and guidelines as they are published.

The goal of TB-control programs is to eliminate TB by appropriately treating persons infected with TB, to safeguard the confidentiality and civil liberties of persons who have TB, and to protect them from unlawful discrimination because of their disease (see box).

#### Goals for state tuberculosis control programs

States should have systems that incorporate the following guidelines:

- Ensure the mandatory reporting of each confirmed and suspected case of TB, and observe local laws and regulations protecting patient confidentiality;
- Examine persons at high risk for TB infection and disease, prescribe the appropriate preventive or curative treatment for these persons, and monitor their treatment;
- Monitor the treatment of patients, and require that a treatment plan be devised for all hospitalized patients before they are discharged;
- Ensure the rapid laboratory examination of specimens and reporting of results to the appropriate health department and the requesting clinician;
- Ensure that TB-infected patients receive treatment until they are cured;
- Protect the health of the public by isolating and treating persons who have infectious TB and detaining persons who, although not infectious, are unwilling or unable to complete their treatment and are at risk for becoming infectious and for acquiring drug-resistant TB;
- Finance the treatment of indigent patients.

References

- 1. CDC. A strategic plan for the elimination of tuberculosis in the United States. MMWR 1989; 38(S-3).
- 2. CDC. National action plan to combat multidrug-resistant tuberculosis; Meeting the challenge of multidrug-resistant tuberculosis: summary of a conference; Management of persons exposed to multidrug-resistant tuberculosis. MMWR 1992;41(No. RR-11).
- 3. CDC. Review of draft survey and recommendations of tuberculosis control laws in the United States. MMWR 1992;41:735.

#### Bibliography

- American Thoracic Society/CDC. Control of tuberculosis in the United States. Am Rev Respir Dis 1992;146:1623–33.
- CDC/American Thoracic Society. Core curriculum on tuberculosis. 2nd ed. Atlanta: US Department of Health and Human Services, Public Health Service, 1991.
- American Thoracic Society/CDC. Diagnostic standards and classification of tuberculosis. Am Rev Respir Dis 1990;142:725–35.
- CDC. Snider D, Hutton M. Improving patient compliance in tuberculosis treatment programs. 1989.

- CDC. Prevention and control of tuberculosis among homeless persons: recommendations of the Advisory Council for the Elimination of Tuberculosis. MMWR 1992;41(No. RR-5):13–21.
- CDC. Prevention and control of tuberculosis in U.S. communities with at-risk minority populations: recommendations of the Advisory Council for the Elimination of Tuberculosis. MMWR 1992;41(No. RR-5):1–11.
- American Thoracic Society/CDC. Treatment of tuberculosis and tuberculosis infection in adults and children. Am Rev Respir Dis 1986;134:355–65.
- CDC. The use of preventive therapy for tuberculosis infection in the United States: recommendations of the Advisory Committee for Elimination of Tuberculosis. MMWR 1990;39(No. RR-8):9–12.
- CDC. Approaches to improving adherence to antituberculosis therapy—South Carolina and New York, 1986–1991. MMWR 1993;42:74–5,81.
- CDC. Screening for tuberculosis and tuberculous infection in high-risk populations: recommendations of the Advisory Committee for Elimination of Tuberculosis. MMWR 1990;39:(No. RR-8):9–12.
- CDC. Prevention and control of tuberculosis in migrant farm workers: recommendations of the Advisory Council for the Elimination of Tuberculosis. MMWR 1992;41(No. RR-10).
- CDC. Prevention and control of tuberculosis in facilities providing long-term care to the elderly: recommendations of the Advisory Council for the Elimination of Tuberculosis. MMWR 1990;39(No. RR-10).
- CDC. Initial therapy for tuberculosis in the era of multidrug resistance: recommendations of the Advisory Council for the Elimination of Tuberculosis. MMWR 1992:42(No. RR-7).
- CDC. Purified protein derivative (PPD)-tuberculin anergy and HIV infection: guidelines for anergy testing and management of anergic persons at risk of tuberculosis. MMWR 1991;40(No.RR-5): 27–32.
- CDC. Control of tuberculosis in correctional facilities: a guide for health-care workers. Atlanta: US Department of Health and Human Services, Public Health Service, 1992.
- CDC. Prevention and control of tuberculosis in correctional institutions: recommendations of the Advisory Committee for the Elimination of Tuberculosis. MMWR 1989;38:313–32,325.
- CDC. Guidelines for preventing the transmission of tuberculosis in health-care settings, with special focus on HIV-related issues. MMWR 1990;39(No. RR-17).

blank

## **APPENDIX**

State	Hospital administrators	Military institutions	Food servers/storers	Parents/guardians	<b>Correctional facilities</b>	Patient-transport workers	Physicians	Nurses	Dentists	Infection control officers	Health-care workers	Medical examiners	Nursing-home administrators	Laboratory authorities	Pharmacists	Morticians	School authorities	Day care facilities	Emergency medical service employees
	Х				Х	Х	X	X X	Х		X X	Х	Х	X	Х		Х	Х	Х
AL AK AZ AR CA	X X			Х	х		X X X X X X	XXX	х		XXX	х	X X	X X X X X			X X	х	х
CO CT DE FL GA	X X		х	х	X		X X				х	х	X X X	X X		X X	х		
	х	Х	Х	Х	X X X X		X X	Х		Х			Х	X X		~	X X	х	
HI ID IL	X X		х	X X			X X X X X	X X	X X X	х	X X X X X		Х	X X X X			X X	X X	
ID IL IN IA	Х						X X	х			X X	х		Х			х		
	х			х			X X	Х	Х		Х		х	X X			Х		
KS KY LA ME MD	X X		х	X X	Х		X X X X X X	х	Х	х	х	х	X X	X X X X X	Х		X X X	X X	
MA MI MN MS MO	X X X X		х	Х	х		X X X X X	x x	X X	X X	X X	х	X X X	X X X X	х	х	X X X X	X X X X	
MT NE	Х						Х	Х	Х		Х	Х	Х	Х			Х		Х
NV NJ	X X				X X		X X			х	Х		х	X X			X X	X X	Λ

Tuberculosis reporting requirements: persons required by law to report confirmed and suspected cases, by state, 1993

			3	•		•		•	,						•		, ,		
State	Hospital administrators	Military institutions	Food servers/storers	Parents/guardians	Correctional facilities	Patient-transport workers	Physicians	Nurses	Dentists	Infection control officers	Health-care workers	Medical examiners	Nursing-home administrators	Laboratory authorities	Pharmacists	Morticians	School authorities	Day care facilities	Emergency medical service employees
	X	Х	Х	Х	Х		X		Х		Х		Х	Х			Х	Х	
NM NY NC ND	X X X X		х				X X X X X	Х					~	X X	Х		х	х	
	X X							х	Х					X X	Х	Х			
oh ok or pa ri	X X X X X			х			X X X X X	X	Λ		X X X		X X	X X X X		~	X X		
RI													Х				Х		
SC SD TN	X X X X X			Х			X X X X X	Х			Х			X X X			.,		
TN TX UT	X X			Х	Х		X X		X X		Х	X X					X X X		
								Х	Х		Х	Х	Х	Х					
VT VA WA	X X X X X						X X X X X X X X	Х			Х			X X			X X		
WV	X X						X X	х			Х				Х				
WI WY	Х						X X	X X		Х				Х			Х	Х	

Tuberculosis reporting requirements: persons required by law to report confirmed and suspected cases, by state, 1993

Vol. 42 / No. RR-15

		Time fran	ne for reporti	ng confirm	ed or suspected cases			Duty to report
State	24 hours	48 hours	72 hours	1 week	At time of diagnosis	Unspecified	Penalty for failure to report	nonadherent patients
AL AK AZ AR	Х			х	Х		Х	
AR CA	Х			X				
CO CT	X X						X X	Х
DE FL GA			Х		Х		Х	
HI ID IL	Х			х	Х			
N A			Х	~	x		Х	
KS KY LA ME	х	Х			х		Х	
ME MD		X X			~		X X	
MA MI	Х			Х			Х	Х
MN MS MO	Х			х	Х		Х	X X
MT NE					Х			
VV VJ VH	х				Х	Х	Х	
	х				Х	v		х
NĊ ND OH	х					X X		х

Tuberculosis reporting requirements: time frame for reporting, penalty for failure to report, and duty to report nonadherent patients, by state, 1993

18

Tuberculosis reporting requirements: time frame for reporting, penalty for failure to report, and duty to report nonadherent	
patients, by state, 1993	

					ed or suspected cases			Duty to report nonadherent
State	24 hours	48 hours	72 hours	1 week	At time of diagnosis	Unspecified	Penalty for failure to report	
	nouis	nouis	nouis	Week		Unspecified	to report	patients
)K )R				Х	Х			
A				Λ	Х			
21		Х					Х	
С	Х							
D				X				
N X				Х	Х			
Ĥ					Λ			
T				Х				
Å				Λ				
/A	Х						Х	
/V		Х			X		X	V
/I /Y					X X		X X	Х

Vol. 42 / No. RR-15

State	Medical facility employees	School employees	Foster home residents	School- children	School bus drivers	Incarcerated persons	Food handlers	Park employees	Child or day care employees	Long-term care facility residents	Barbers/ beauticians	Correctional facility employees	Nursing home employees
AL AK AZ AR	х	х	Х	х	Х								х
CA	X X	X X		х		Х	X X	Х	х	Х		X X	X X
CO CT	Х												
CO CT DE FL GA	X X	Х		Х		X X	Х		х	X X		X X	X X X
HI													
ID IL IN IA	X X X	x x	Х		х	Х			Х	X X X		х	X X X
		XXX		Х							Х		X
KS KY LA ME	Х						Х		X X	Х	~		X X
MD MA		X X			Х	Х					Х		
MI MN MS	х	Х	Х	V	х	Х	X X X		х	Х	х	Х	Х
MÖ MT NE	Х	Х	Х	Х			X		Х				
NE NV NJ NH	X X	X X		Х			Х			Х		х	х
NM NY NC	XXX	X		Х	Х				Х	X			X X
ND OH	х	Х			Х				х				Х

Populations subject to tuberculosis screening, by state, 1993

State	Medical facility employees	School employees	Foster home residents	School- children	School bus drivers	Incarcerated persons	Food handlers	Park employees	Child or day care employees	Long-term care facility residents	Barbers/ beauticians	Correctional facility employees	Nursing home employee
NH OK OR PA RI	X X			х									X X X
SC SD TN		Х							Х				
TX JT	Х	X X		х	Х				х				Х
VT VA WA WV	х	x		х		х			х	х			х
NÎ NY	Х	Ŷ		Х						Х			Х

## Populations subject to tuberculosis screening, by state, 1993

23

Tuberculosis control programs, k	by state, 1993
----------------------------------	----------------

	Initiatio	on of invest	tigation				Proced	ures for treat	ment and c	ontrol		
State	Upon receipt of report	When health officer has knowledge or suspicion	Tracing of contacts		Outpatient treatment		Commitment	Commitment until no longer a threat	Commitment until cured	Commitment for unspecified time	Consideration of carrier's religious beliefs	Penalty for nonadherent patients
AL AK AZ	Х	Х		Х	X X	Х	Х	Х	X X		Х	Х
AZ AR CA	X X X	X X X	X X	X X X		X X X	X X X	х	Х		Х	х
CO CT	X X X	X X X X X		~	Х		X X	X X	X		X	X
DE FL GA	Х	X X	X X X	X X	X X X	X X X X X	X X X	X X		Х		X X
HI ID	X X	X X	Х	Х	Ň	X X	X X	Х	Х	X		
IL IN IA	X X	Х	X X X X	X X	Х	X X X X X	X X X			Х		х
KS KY	X X X	X X	Х	Х	Х	X X	X X	Х				Х
LA ME MD	x x	х	X X X X	х		X X X X X	X X X	X X			Х	X X
MA MI	X X	X X X X			Х	X	X X	XXX		Х	X	X
MN MS MT	X X X	X X	X X X X	X X		X X	X X X	Х		Х		Х
MO NE	Х	X X		X X X X	X X	X X X	XX	X X				
NV NJ NH	X X X	x x	X X	X X	Х	X X X	X X	Х			Х	Х
NM NY	X X	х	X X	X X X X	х	Х	Х	X				х
NC ND OH	X X X	X X	X X X	X X	х	X X	X X X	X X		х		

	Initiation of investigation			Procedures for treatment and control								
State	Upon receipt of report	When health officer has knowledge or suspicion	Tracing of contacts	Voluntary treatment	Outpatient treatment		Commitment	Commitment until no longer a threat	Commitment until cured	Commitment for unspecified time	Consideration of carrier's religious beliefs	Penalty for nonadherent patients
OK OR	х	X X	Х	X		X X	X X	V			X	
PA RI SC	х	X	Х	X		X	x x	X X			X	
SD TN	X X	X X	Х	X	X	X X	X X	V		х	Х	Х
TX UT VT	× × ×	х	Х	x	x x	X X	x x	X X			X X	Х
VA WA	X	X X	Х	X X	Ň	X X	X X	X	Х		Х	Х
WV WI WY	X X X	Х	Х		X X	X X X	X X	X X				X X

	Treatment	facilities					
	State	State provides guidelines for	Financing o	of treatment	Health department access to medical	Confidentiality	
State	provides/approves	patient care	Public	Private	records	provisions	
AL	Х		Х		X X	Х	
AK AZ AR CA	Х	X			Х	X	
AR		X X X				X X X X X	
	Х		Х		Х		
CO CT	Х		X X X X		X X	X X	
/1 )F	Х		X X	х	X		
DE FL	X X X	Х	X	X X		X X	
GA							
ll D	X X X		X X X	х	Х	X	
	X	X X	X	Λ	X X	x	
N A		Х	х	х	Х	X X X X X	
	Х	Х	× ×	× ×		× ×	
(S (Y	Λ	~				~	
_A ∕∕IE	Х		X X	X X		V	
VIE VID	^	Х	^	~	Х	X X	
ЛA	Х	Х	Х	Х			
ΛI			X X X X X	X X X X	Х	Х	
/IN /IS	Х	Х	X X	X	x	х	
/10	Х		X		X X	X X	
ΛT	X X X	X X	X X X				
NE NV	X X	X	X X	X X	Х	X X	
1J							
IH	Х	Х	Х	Х	Х	Х	
IM IY		х	x	Х	X	X X X X X	
IC	Х	~	X X		X X	Â	
ID	X X X	х	X X	X X	Х	X	
) H	٨	۸	٨	Ā	^	۸	

Provisions of treatment for persons with tuberculosis, by state, 1993

	Treatment	facilities					
	State	State provides guidelines for	¥	of treatment	Health department access to medical	Confidentiality	
State	provides/approves	patient care	Public	Private	records	provisions	
OK OR	Х	х				X X	
PA RI SC	××	х	х	Х	х	X X	
SD FN FX	××	Х	X X	X X X	X	X	
лт /Т	× ×	Х	X	X	*	â	
/A NA NV	××	Х	X X	X X	X X	Х	
v v VI VY	×	X	XXX	X X	Х	X X	

Provisions of treatment for persons with tuberculosis, by state, 19	93

27

	Patient information							Case information				
State	Name	Address	Telephone number	Date of birth	Sex	Race/ ethnicity	Place of work/school	Treating physician	Physician's address	Date of onset	Basis of diagnosis	Contact information
AL AK AZ AR CA	× × × × ×	X X X X X	X X X	X X X X X X	X X X X X X	x x x	x x	X X X X	X X X X	X X X	х	
CO CT DE DC FL	X X X X X	X X X X X	X X	X X X X X	X X X X X X	X X X X X	X X X	X X	х	х	Х	
GA HI ID IL IN	X X X X	X X X X	x x	X X X X	X X X	X X X	Х	X X X	X X X	x x		
IA KS KY LA ME	X X X	X X X	х	X X X	X X	X X		x x	x x	X X X	х	
MD MA MI MN MS	X X X	X X X	X X	X X X	x x	X X X	X X	X X	X X	X X X	х	Х
MO MT NE NV	X X	Х		X X	Х	Х		Х	Х	X X		
NJ	Х	Х	Х	Х	Х			Х		Х		
NH NM	Х	Х		Х	Х	Х	Х	Х		Х		
NY NC	Х	Х	Х	Х			х				Х	
ND	Х	Х		Х	Х		Х			Х		

Tuberculosis reporting requirements: patient and case information that must be reported to state health department, by state, 1993

20

			Patient	informatio	n	Case information						
State	Name	Address	Telephone number	Date of birth	Sex	Race/ ethnicity	Place of work/school	Treating physician	Physician's address	Date of onset	Basis of diagnosis	Contact information
oh ok or pa	X X	X X	X X	х	х	Х		X X	X X	X X X	х	
RI	x	â		Х	Х	Х	Х	Χ.	^	^		
SC SD	Х	Х		Х	Х	Х						
TN TX UT	X X X	X X X		X X X	X X X	X X				X X		
VT VA WA	X X X	X X X		X X	X X	X X	Х	Х			X X	
WV WI WY	X X	X X	Х	X X	х	Х				х		

Tuberculosis reporting requirements: patient and case information that must be reported to state health department, by state, 1993

Vol. 42 / No. RR-15

MMWR

State	Food handlers	School- children	School employees	Care providers*	Household contacts
AL AK AZ AR CA	х	х	х		
CO CT DE FL GA				х	
HI ID IL IN IA	X X	X X X	X X	х	Х
KS KY LA ME MD		x x	x x x		Х
MA MI MN MS MO	х	x x x	х		
MT NE NV NJ NH	x x	Х		Х	
NM NY NC ND OH	х	х	x x	x	
OK OR PA RI SC	х	x x x	Х	Х	X X
SD TN TX UT VT		х	х	х	
VA WA WV WI WY		х	X X	х	

Persons restricted from activities and/or employment if infected with tuberculosis, by	
state, 1993	

\*Includes day care providers, nursing-home employees, and home health-care workers.

The Morbidity and Mortality Weekly Report (MMWR) Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 783-3238.

The data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday. Inquiries about the *MMWR* Series, including material to be considered for publication, should be directed to: Editor, *MMWR* Series, Mailstop C-08, Centers for Disease Control and Prevention, Atlanta, GA 30333; telephone (404) 332-4555.

All material in the *MMWR* Series is in the public domain and may be used and reprinted without special permission; citation as to source, however, is appreciated.

☆U.S. Government Printing Office: 1993-733-131/83047 Region IV