

Responsibilities of Public Health Departments to Control Tuberculosis

Purpose: Tuberculosis (TB) is an airborne infectious disease that endangers communities. This document articulates the activities that are the unique charge and responsibility of local and state health departments for TB control. This document also outlines activities that involve close oversight by health departments or that need to be done in concert with public health departments.

Audience: Policy makers, government agencies, providers caring for patients at risk for TB, and the public

Framework

Health departments are charged with public safety and with advancing and protecting population health. They are authorized and compelled by legal statutes to carry out specific duties. International and national standards define basic principles that guide health departments and represent a minimum practice to ensure success in protecting populations from TB. While many entities perform activities that reduce TB spread (e.g., evaluating and treating TB infection and disease), actions that are taken by health departments are time-sensitive, supported by a jurisdiction's legal framework, and focus beyond the individual level on safeguarding the community.

Framework of health departments

- Charged with public safety and advancing population health
- Authorized and compelled by legal statutes
- Guided by national and international standards

Legal authority

The unique scope of services and responsibilities of TB control is bound by a legal framework assigned to federal, state and local health departments. Legal authority for investigating persons with TB and persons exposed to TB, responding to TB outbreaks, enforcement of TB reporting, issuing orders of isolation, evaluation, and treatment, each rest with health departments.

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Partnership

Diagnosis and treatment of TB disease is accomplished by health department providers and by community providers, including correctional facilities. Oversight by health departments and partnership between health departments and community providers are critical ingredients for ensuring successful TB treatment and interrupting TB spread.

Health and safety

To ensure TB spread is interrupted, actions to protect the public from TB require a timely response to individual reports of suspected and confirmed TB throughout a jurisdiction, regardless of the provider, the payer source, or insurance status of the patient and those exposed.

Population health

The entire population is the focus of health departments while non-health department medical providers are responsible for individuals under their care.

Population health

Health departments are responsible for the public health and safety of the entire community or population. In contrast, community medical providers are responsible for individuals under their care in a given time period but are not charged with the health of a jurisdiction's population. If a TB patient's contact or

family member is not part of the practice or insurance membership, for example, the medical provider may not be able to offer services to ensure the care of that individual.

Safety net for the uninsured

Many persons with TB infection or disease are uninsured and or ineligible for health insurance and will remain uninsurable even with health care reform. The uncovered fraction is estimated to be nearly 1/3 of those with latent TB infection and TB disease; many of these individuals are undocumented or recently arrived and ineligible for health care insurance coverage. The safety net function of health departments requires ensuring care of this population to prevent disease spread to the larger community.

Span of activities

To ensure that an individual does not spread TB to others, health departments monitor each patient closely, regardless of payer source or insurance status, and make sure patients with TB receive effective treatment and are rendered noninfectious. Ensuring that there is an adequate and uninterrupted drug supply for timely treatment is a basic role of public health departments, as is ensuring access to effective and rapid TB laboratory tests. TB patients are supported intensively by health departments to continue treatment to cure. This may require housing, transportation, and interpreter services. To prevent the occurrence of the more costly drug resistant form of TB, public health workers deliver and directly observe TB medicine ingestion by patients. If an infectious TB patient abandons treatment, prompt measures are taken by health departments to isolate them from others. For persons exposed to TB, it is the health department that is responsible and resourced to determine who had contact with an infectious TB patient, locate those exposed, and facilitate access to evaluation and treatment services. It is crucial that health departments ensure that all TB cases and especially complicated TB cases such as those with drug-resistant TB receive effective treatment. The vast majority of clinicians now in practice have managed few cases of TB in their lifetime and health departments serve as a TB subject matter expert and function as a primary source for TB education and training for health workers.

Monitoring and oversight

To ensure safety from TB and achieve TB control in a jurisdiction, necessary actions are taken that are strategic and based on evidence from epidemiologic monitoring and analysis. Scientific information that takes into account both effectiveness and cost is considered. These actions are focused at the level of the jurisdiction's population and include providing guidance, implementing population-based interventions, as well as ongoing monitoring and evaluation of the jurisdiction's TB cases and deaths. TB prevention strategies promoted by the health department are aimed at preventing TB in the first place, reducing costly treatment of TB disease and drug resistant TB, and making progress towards TB elimination. The practices of physicians caring for TB patients and treatment outcomes of each TB patient are monitored in a jurisdiction from diagnosis to cure or death. Effective discharge planning and post confinement follow-up of inmates and detainees are also a necessary component of TB control. The

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To ensure an individual does not spread TB to others, health departments....

- Take prompt measures to isolate patients who are infectious
- Determine who was exposed to an infectious TB patient; locate them and facilitate evaluation and treatment of TB
- Ensure patients receive effective treatment and become noninfectious
- Monitor each patient closely, regardless of ability to pay
- Ensure there is an uninterrupted drug supply and access to TB laboratory tests
- Provide resources to keep patients in treatment such as, housing, transportation, and interpreters
- Deliver and directly observe patients take their TB medicine
- Provide expert clinical consultations

outcome of each person with TB and practices of each physician caring for TB patients make a difference for community safety.

It is the health department's unique function to actively monitor TB disease in aggregate in a jurisdiction to inform public health action. This involves receiving and investigating case reports, maintaining a case registry, examining data over time, and detecting spikes in cases. In addition, health departments proactively engage in investigation of health events that may impact the community (e.g., childhood TB clusters, TB deaths, outbreaks). These events may require health departments to alert and respond to media inquiries to inform the public about TB.

As stewards of public resources, health departments have an important charge to develop strategic and cost-effective prevention efforts based upon a jurisdiction's unique TB epidemiology. They create and share the evidence basis for public health policy decisions and provide TB control and prevention guidance for institutions and individual providers.

To keep the nation safe from infectious agents such as tuberculosis, the essential public health activities afforded by laws and international standards are carried out and supported by local, state, and federal government programs; these activities benefit the entire community by protecting health and preventing disease.

Consequences when health departments do not have effective TB control programs

We can go many places around the globe and observe communities that do not have an effective TB control program. In the U.S., public health departments, like fire departments, are charged with protecting public safety and are supported by public dollars. If the fire department was not publically supported and ready to respond to each fire, then each neighbor and surrounding community would be unprotected when a fire started in a single house. Similarly, when one person develops TB, disease can spread unless health departments take key steps. If tied to, or dependent on, an individual's payer source, these time-sensitive steps may not be done for everyone exposed or diagnosed with TB, leaving room for TB to spread.

Opportunities

Many opportunities exist to increase the identification and treatment of TB infection by community providers, to prevent TB in the first place and drive down TB rates. These opportunities invite public health departments to initiate new partnerships and strengthen existing ones to enhance the public's health. TB can be cured and prevented and future generations can have a chance of being spared death and disability from TB. This is possible only if each partner, public and private, work in concert.

Monitoring and oversight

Actions taken by public health departments are focused at the level of the jurisdiction's population, including providing guidance, implementing population-based interventions and ongoing monitoring and evaluation. The health department has the unique role to measure and evaluate outcomes in order to spot gaps and to improve the chances that TB transmission is prevented.

Public health ensures public safety

Health departments, like fire departments, are supported by public dollars and are an essential benefit in America.

Responsibilities of Public Health Departments to Control Tuberculosis

Public Health Actions	Legal Statute / Public Health Standards and Measures
Report TB and Conduct Surveillance	
1. Receive and rapidly act on all reports of suspected and confirmed TB from health care providers, laboratories and schools. Maintain a comprehensive TB case registry of patients with TB disease	<i>HSC* 121365 CCR** Title 17 Sections 2500; 2502; 2504; 2508; 2509 PHAB ***1.2.1</i>
2. Facilitate timely and complete case reporting by all laboratories and health care providers in the jurisdiction	<i>HSC 121361; 121362 CCR Title 17 Section 2500 PHAB 1.2.2</i>
3. Report TB cases and TB outbreaks to the state as required by law	<i>HSC 120185; 120190 CCR Title 17 Sections 2501; 2502 PHAB 1.2.4</i>
4. Conduct epidemiologic analyses and monitor disease trends for jurisdiction's population. Create and issue summary reports to inform community and health care providers about TB disease trends and actions to reduce disease spread	<i>PHAB 1.3 PHAB 1.3.2</i>
5. Investigate unusual events: TB clusters, case spikes, pediatric TB, each TB death, adverse events associated with treatment requiring public health action	<i>PHAB 2.1 PHAB 2.2</i>
Diagnose and Treat TB Disease	
6. Ensure all patients with suspected or confirmed TB regardless of provider and payer source or ability to pay, receive timely diagnosis and effective treatment	<i>HSC 120175; 121360 CCR Title 17 Section 2501</i>
7. Receive and follow-up on notifications of newly arriving immigrants with a TB condition (B-classification) and promptly arrange for TB evaluation to prevent spread of imported TB	<i>HSC 121365</i>
8. Ensure individuals with infectious TB in jurisdiction are rapidly isolated at home or in another secure setting	<i>HSC 120175; 120215; 121365</i>
9. Review and approve the hospital and correctional facility discharge of patients with suspected and confirmed TB to coordinate care and protect the safety of the public	<i>HSC 120175; 121361; 121362</i>
10. Take prompt action when patient prematurely stops treatment to ensure patient is not a threat to the public's health	<i>HSC 120175; 121362</i>

* California Health and Safety Code

** California Code of Regulations

*** Public Health Accreditation Board standards, version 1.0

11. Issue health officer orders for patient isolation, evaluation, treatment or detention as needed to protect the public from TB	<i>HSC 120175; 120280; 121365</i>
12. Monitor and ensure patient-centered TB treatment and ensure they become noninfectious and complete treatment which may require directly observed treatment, food, shelter, incentives, transportation, and language services	<i>HSC 120175</i>
13. Provide or ensure access to consultation with a clinician who has expertise fluent with complex and drug resistant TB cases	<i>PHAB 5.1</i>
14. Engage with state and federal partners to investigate and mitigate drug shortages, laboratory insufficiencies and other resource gaps to diagnose and treat TB	<i>PHAB 4.1</i>
Find and Evaluate Persons Exposed to Infectious TB	
15. To interrupt spread of TB, promptly interview infectious TB patients to identify persons who were exposed. Evaluate or arrange for evaluation individuals exposed, prioritizing those most vulnerable/at highest risk	<i>HSC 120175; 121363</i>
16. Ensure infected contacts are treated to reduce likelihood of developing disease	<i>PHAB 7.1 PHAB 7.2</i>
17. Investigate TB disease in children under age 5 to identify infectious source case and prevent further spread	<i>HSC 120175; 121365</i>
18. Take immediate action to investigate and contain TB spread in response to TB outbreaks, and large scale, complex exposures and exposures in vulnerable settings	<i>HSC 120175; 121365 120195</i>
Prevent TB in High-Risk Populations	
19. Examine local tuberculosis disease surveillance reports to identify populations at high risk for infection and progression to TB disease and recommend for targeted testing and treatment	<i>PHAB 1.3 PHAB 1.4</i>
20. Prevent TB in high-risk groups through targeted testing and treatment. Build partnerships and collaborate with community agencies working with populations at high risk for TB to promote TB prevention and control	<i>HSC 121364 PHAB 2.1; 2.2; 4.1; 12.3</i>
Educate the Community About TB and Assess Effectiveness of Interventions	
21. Educate the public on TB events by providing media alerts and responding to media inquiries. Develop and disseminate guidelines and evidence-based interventions	<i>PHAB 3.1; 3.2 PHAB 5.1 PHAB 10.1 PHAB 10.2</i>
22. Educate and train clinical providers and public health workforce on TB standards and practices, including prompt feedback when errors occur that put public at risk	<i>PHAB 8.2</i>
23. Monitor and evaluate TB control practices and effectiveness of interventions in halting transmission and decreasing new cases of TB disease	<i>PHAB 9.2</i>

Appendix: **Statutes, Regulation and Public Health Standards/Measures**

California Health and Safety Code (HSC)

Local Health Officers must take measures to prevent spread of communicable diseases or occurrence of additional cases.
HSC 120175

In the case of a local epidemic of disease, the health officer shall report at those times as are requested by the California Department of Public Health (CDPH) all facts concerning the disease, and the measures taken to abate and prevent its spread.
HSC 120185

Each health officer shall immediately report to CDPH every discovered or known case or suspect case of those diseases designated for immediate reporting by the Department. Within 24 hours after investigation each health officer shall make reports as the CDPH may require.
HSC 120190

Each health officer shall enforce all orders, rules, and regulations concerning quarantine or isolation prescribed or directed by the CDPH.
HSC 120195

Upon receiving notification of the existence of a contagious, infectious or communicable disease, the local health officer shall ensure adequate isolation of each case.
HSC 120215

Local health officer may detain persistently nonadherent tuberculosis (TB) patient in any appropriate facility, penal institution, or dwelling approved by the health officer after the District Attorney prosecutes the patient for violations of health orders as provided in HSC 121365.
HSC 120280

Pulmonary tuberculosis is an infectious and communicable disease, dangerous to the public health, and all proper expenditures that may be made by any county, pursuant to this chapter, are necessary for the preservation of the public health of the county.
HSC 121360

Local health officer must approve TB patient written treatment plan (within 24 hours of receipt of the plan) when hospitalized inpatients are discharged or transferred (unless transfer is for higher level of care).
HSC 121361

Each health care provider must report suspected or active tuberculosis disease to the health department and shall promptly report to the local health officer when there are reasonable grounds to believe that a person with suspected or active tuberculosis ceases treatment (fails to keep appointments, relocates without transferring care, or discontinues care). In the case of a parolee under the jurisdiction of the California Department of Corrections and Rehabilitation, the local health officer shall notify the assigned parole agent, when known or the regional parole administrator when the parolee ceases treatment for tuberculosis.
HSC 121362

Each health care provider who treats a person with active TB disease shall examine, or cause to be examined, all household contacts or shall refer them to the local health officer for examination. When requested by the local health officer, a health care provider shall report the results of any examination related to tuberculosis of a contact.
HSC 121363

Within the territory under his or her jurisdiction, each local health officer may order examinations for TB infection for the purpose of directly preventive measures
HSC 121364

Each local health officer is directed to use every available means to ascertain the existence of, and immediately investigate all reported or suspected cases of active tuberculosis disease in the jurisdiction, and to ascertain the sources of those infections. The local health officer may issue any orders (TB examination, isolation, completion of appropriate treatment, directly observed therapy, detention, exclusion from attendance at the workplace if infectious) he or she deems necessary to protect public health or the health of any other person, and may make application to a court for enforcement of the orders.
HSC 121365

The local health officer may detain in hospital or other appropriate facility
HSC 121366

California Code of Regulations (CCR), Title 17. Public Health

Health care providers, clinics, health care facilities, labs and schools are required to report TB.
CCR Title 17 Section 2500

Local health officer is required to investigate and control TB cases & outbreaks.
CCR Title 17 Section 2501

Local health officer is required to prepare and send to CDPH individual TB case and outbreak reports.
CCR Title 17 Section 2502

Whenever a health care provider's identification of a case or suspected TB case includes laboratory findings from an out-of-state lab, the health care provider shall include those findings along with performed drug susceptibility testing.
CCR Title 17 Section 2504

It shall be the duty of anyone in charge of a public or private school, kindergarten, boarding school, or day nursery to report at once to the local health officer the presence or suspected presence of any of the communicable diseases.
CCR Title 17 Section 2508

Local health officer is required to maintain records as deemed necessary by CDPH.
CCR Title 17 Section 2509

Public Health Accreditation Board (PHAB) Standards and Measures, version 1.0

Maintain a surveillance system for receiving reports 24/7 in order to identify health problems, public health threats, and environmental public health hazards
PHAB Measure 1.2.1

Communicate with surveillance sites at least annually
PHAB Measure 1.2.2

Provide reports of primary and secondary data to tribal and local health departments located in the state
PHAB Measure 1.2.4

Analyze public health data to identify trends in health problems, environmental public health hazards, and social and economic factors that affect the public's health
PHAB Standard 1.3

Provide statewide public health data to various audiences on a variety of public health issues at least annually
PHAB Measure 1.3.2

Provide and use the results of health data analysis to develop recommendations regarding public health policy, processes, programs, or interventions
PHAB Standard 1.4

Conduct timely investigations of health problems and environmental public health hazards
PHAB Standard 2.1

Contain/mitigate health problems and environmental public health hazards
PHAB Standard 2.2

Provide health education and health promotion policies, programs, processes, and interventions to support prevention and wellness
PHAB Standard 3.1

Provide information on public health issues and public health functions through multiple methods to a variety of audiences
PHAB Standard 3.2

Engage with the public health system and the community in identifying and addressing health problems through collaborative processes
PHAB Standard 4.1

Serve as a primary and expert resource for establishing and maintaining public health policies, practices, and capacity
PHAB Standard 5.1

Assess health care capacity and access to health care services
PHAB Standard 7.1

Identify and implement strategies to improve access to health care services
PHAB Standard 7.2

Assess staff competencies and address gaps by enabling organizational and individual training and development
PHAB Standard 8.2

Develop and implement quality improvement processes integrated into organizational practice, programs, processes, and interventions
PHAB Standard 9.2

Identify and use the best available evidence for making informed public health practice decisions
PHAB Standard 10.1

Promote understanding and use of research results, evaluations, and evidence-based practices with appropriate audiences
PHAB Standard 10.2

Encourage the governing entity's engagement in the public health department's overall obligations and responsibilities
PHAB Standard 12.3