

Although tuberculosis (TB) incidence has decreased nationally since 1992, TB remains a public health concern in urban American Indian/Alaska Native (AI/AN) communities. In 2010, the TB case rate for AI/ANs nationwide was 6.4 cases per 100,000, more than seven times the rate among non-Hispanic Whites (CDC, 2011). In urban communities specifically, the TB mortality rate for AI/ANs (.76 per 100,000) was over six times the rate of non-Hispanic Whites (.12 per 100,000) (National Center for Health Statistics, 2003-2007). These disparities highlight the need for effective strategies among health care providers serving AI/ANs to prevent and identify TB.

Urban Indian health organizations (UIHO) are well positioned to address these challenges because of their expertise in urban AI/AN health. Recent budget cuts have forced local public health authorities to re-strategize the way limited resources are utilized to control TB. In this climate, it is becoming increasingly important for local TB control to be viewed as a community effort (PHSKC, 2011a). By entering into partnerships with public health authorities and other community organizations, UIHOs can utilize their community knowledge and play a larger role in the diagnosis, reporting and management of TB cases within their communities.

This response report examines how UIHOs in Seattle and San Diego partnered with county, state and federal health officials to prevent the spread of TB in their communities.

The Seattle Indian Health Board Experience

In late 2002, Public Health – Seattle & King County (PHSKC) detected an alarming increase in active TB cases among Seattle’s AI/AN community: from an incidence of 28.2 cases per 100,000 in 2001 to 67.6 cases per 100,000 in 2002 (CDC, 2003; PHSKC, 2011b). PHSKC reported that almost half (48%) of all TB cases associated with the outbreak in King County were AI/AN individuals, and all but three were homeless. The disproportionately high rate of active TB among AI/ANs was due in part to a high representation of AI/ANs among King County’s homeless population (PHSKC, 2005). Homelessness is associated with an increased risk of TB exposure. Overcrowding, poorly ventilated housing, malnutrition, smoking, stress, social deprivation and poor social capital are all factors associated with TB incidence (Haddad, Wilson, Ijaz, Marks, & Moore, 2005).

PHSKC partnered with the Washington State Department of Health (DOH) and the Centers for Disease Control and Prevention (CDC) to address the outbreak and identify individuals at highest risk for exposure (PHSKC, 2002). PHSKC interviewed providers serving homeless facilities to identify additional patient contacts and advised health care providers to be more vigilant in evaluating and treating patients for active and latent TB infection (CDC, 2003; PHSKC, 2002). Because of the high rate of

TB Incidence by Race and Year, 2001-2010, King County, Washington



Source: PH-SKC, 2011b

◆ AI/AN ■ White

active TB among homeless AI/AN, PHSKC alerted the Seattle Indian Health Board (SIHB) of the outbreak and briefed SIHB on the current numbers of active TB cases on a monthly, then quarterly basis. With assistance from PHSKC, SIHB mobilized their homeless outreach program, focusing street outreach resources on TB prevention and identification and providing bus passes for transportation to testing sites. SIHB provided additional education to outreach workers and clinical staff to increase screening of homeless patients for TB exposure. Staff also were advised to ask patients TB symptom-related questions and take a family history.

During the outbreak, SIHB utilized an emerging partnership with Chief Seattle Club, an AI/AN homeless service agency in the Seattle area that assists homeless and low-income AI/AN with basic needs, housing, education, individual support services and cultural programs. Many of the outbreak patients also were known to frequent Chief Seattle Club (PHSKC, 2005). As part of the Health Care for the Homeless Network (HCHN), SIHB provided nursing services at Chief Seattle Club on an on-going basis. In response to the outbreak, the outreach nurse at this site was immediately notified about the outbreak and worked with PHSKC to test Chief Seattle Club members for exposure to TB. This partnership with HCHN was later formalized through a Memorandum of Understanding (MOU). King County HCHN now contracts with PHSKC and SIHB to provide TB screening at Chief Seattle Club, as well as directly observed therapy (DOT) for homeless persons who have latent TB infection or active TB disease (PHSKC, 2009).

The outbreak in Seattle-King County caused a heightened awareness of and attention to TB among homeless AI/ANs. As a result of outreach, enhanced partnerships, provider education and more vigilant testing, an increased amount of latent TB cases have been identified and there has been a dramatic increase in the proportion of patients receiving therapy and case management (PHSKC, 2011a). Active cases of TB among AI/ANs have remained low since the outbreak subsided (PHSKC, 2011a). The most recent data show that among all racial groups in King County, AI/ANs experienced the largest decrease in TB incidence from 2009-2010 (16.5 per 10,000 in 2009 to 12.4 per 100,000 in 2010) (PHSKC, 2011a).

The San Diego American Indian Health Center Experience

In 2011, the San Diego American Indian Health Center (SDAIHC) was notified by the San Diego County Health and Human Services Agency (HHSA) that an active TB case had been diagnosed and identified to have been a patient at their clinic. Upon notification, SDAIHC's management team immediately employed their TB outbreak response plan based on the document "Ten steps to take when a tuberculosis outbreak is suspected" (Hance, Steingart, Hahn, Pascopella, & Nolan, 2007).

SDAIHC's management team appointed a public information officer who began coordinating with community partners including HHSA, CDC, the Indian Health Service (IHS), the local Council of Community Clinics and local tribes. In anticipation of meetings with county officials, the team worked quickly to compile a list of patients who were potentially exposed. Each individual who was seen at the clinic during the previous six months was notified of their possible exposure and informed about no-cost testing available at SDAIHC. IHS sent a staff member from the California Area Indian Health Service to assist in the process. HHSA also issued a press release to local media in conjunction with SDAIHC notification to patients of their risk of contact.

In order to assess the number of patients affected by the potential outbreak, SDAIHC held a series of two-day community testing events: one shortly after the case was identified and one two months later to assess whether an outbreak had occurred. On day one of each event, HHSA provided free on-site TB testing, and the SDAIHC outreach team greeted patients, provided refreshments and healthy snacks, and distributed TB education and awareness

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-Joe Bulfer, Executive Director of SDAIHC

materials. On day two of each event, community members with positive PPD readings were provided chest X-rays in a mobile lab, and patients were monitored and tracked by HSA to ensure that their case did not become active. In addition to holding the testing events, SDAIHC also set up a dedicated TB hotline and hired a Registered Nurse (RN) with TB training to monitor calls and answer the community's questions. In the end, no additional active TB cases were found; however some previously active cases were determined to be latent. Additionally, the incidence rate of TB among those tested at the community events was found to be lower than the rate of the county as a whole.

Through effective utilization of an emergency response plan, SDAIHC was able to avoid a possible outbreak of active TB in their community. Joe Bulfer, Executive Director of SDAIHC, stated, "An incident like this can happen at any clinic. How well you are prepared and how you react is what matters."

Successes in Collaboration

TB continues to be a significant health issue in urban AI/AN communities across the United States. Although health care providers are often aware of the severity of TB infection, knowledge of and access to preventive strategies and local resources may be more limited (Macdonald et al, 2010). Collaborations allow for the joining of UIHO community knowledge with public health TB control program expertise to address individual- and community-level determinants of TB. Timely communication between providers and public health officials is critical to ensure appropriate treatment and identification of those who have been exposed to infected patients.

The experiences highlighted in this report demonstrate the effectiveness of partnerships between community organizations and governmental health authorities in promoting awareness, screening and treatment of TB in urban AI/AN communities. In reacting to active TB cases within their communities, each of the responses represented here led to a heightened provider awareness of TB, an improved vigilance in testing patients, and better identification of both active and latent cases.

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