**Tuberculosis and Farmworkers**

**By Josh Shepherd, NCFH Resource Center Manager**

**T**uberculosis (TB) is a bacterial infection that spreads through the air. Only people who are sick with TB in their lungs are infectious. When infectious people cough, sneeze, talk or spit, they propel TB germs, known as bacilli, into the air. A person needs only to inhale a small number of these to be infected. Tuberculosis commonly attacks the lungs but can also affect the central nervous system, the lymphatic system, the circulatory system, the genitourinary system, bones, joints and even the skin. It estimated that over one-third of the world’s population now carries the TB bacterium, and new infections occur at a rate of one per second. It is also estimated that 1.6 million people worldwide died from TB in 2005.

While tuberculosis continues to be a problem in the underdeveloped countries of Africa and Southeast Asia, TB rates in the United States actually reached an all-time low in 2006. The 2006 U.S. national TB case rate — 4.6 cases per 100,000 persons — was the lowest since reporting began in 1953. However, it is unclear how this decline actually affects migrant and seasonal farmworkers, while the overall numbers of TB cases are at an all-time low, foreign-born people and racial/ethnic minority populations continue to be affected disproportionately by TB in the United States.

In 2006, the TB rate among foreign-born people in the United States was 9.5 times that of U.S.-born people, while the TB rates among Blacks, Asians, and Hispanics were 8.4, 21.2, and 7.6 times higher than rates among Whites. According to the most recent National Agricultural Workers Survey, 78% of farmworkers are foreign born and 83% of farmworkers identify themselves as Hispanic. Thus, farmworkers fall into two categories of individuals with higher TB rates.

It is unknown what the exact rate of tuberculosis is among farmworkers, but they remain a very vulnerable population that is perceived to be at higher risk for TB. The studies that have been done on farmworkers, while older, indicate that they have especially high rates of tuberculosis infection. Studies of screening tests among migrant farmworkers have revealed that 37% of farmworkers tested positive for TB in the Delmarva Peninsula, 41% were positive in North Carolina, 44% in Florida, and 48% in Virginia. It is important to note that many developing countries vaccinate their citizens for TB. Thus, if individuals have previously been vaccinated their skin tests for TB screenings can lead to false positive results. Many farmworkers enter this country from areas of the world where tuberculosis rates are much higher than in the U.S., such as Southeast Asia, Latin America, and Haiti. Mexico, for instance, which is the point of origin of many farmworkers, has a rate of 27 cases of tuberculosis per 100,000 people, significantly higher than that of the United States.

Tuberculosis in migrant farmworkers presents special problems because of the need for long-term treatment or preventive efforts, contact examinations, population mobility, fear of deportation, cost of treatment, and other barriers to health care. The transient nature of farm work and the long duration required for tuberculosis treatment make it difficult to assure patient compliance with screening programs, preventive therapy, and chemotherapy for farmworkers. Language barriers and limitations in knowledge about tuberculosis may contribute to misunderstandings about the importance of screenings and if identified, completing the treatment regimen. In addition, crowded living conditions and malnutrition may contribute to the spread of tuberculosis among this population. This issue of the Newsline is dedicated to tuberculosis and farmworkers and offers a variety of information on model programs, educational tools, and resources as well as exploring the issue of continuity of care.

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**References**

**Vivir a Todo Pulmón: Increasing Tuberculosis Awareness and Treatment Adherence in Spanish-speaking Communities**

By Francine Ricardo, BA, Director of Education, Rural Women’s Health Project; Robin Lewy, MA, Director of Development, Rural Women’s Health Project; Myrtha Barbara E. Forges, MD, MPH, Research Coordinator and Medical Consultant, Rural Women’s Health Project

**The incidence of tuberculosis among foreign-born in the U.S. has been on the rise since 1993.**1 Although the disease had previously been under control, there has been a documented increase of TB in immigrant populations. It is also noted that in 2000, migrant farm workers in the U.S. were assumed to be six times more likely to develop tuberculosis when compared to the overall U.S. population of employed adults.2

Most significantly, since 2003 there have been more cases of TB reported among Hispanics than any other racial/ethnic population.3 In the United States, racial and socioeconomic disparities are associated with tuberculosis, and it has been a difficult issue to address with the immigrant communities. Further complicating the challenges of the target community’s need for services and information is the reality of tuberculosis-related stigma among both the Hispanic population in the U.S. and their service providers. As stated in an article by M. Hadley and D. Maher,

> “The benefits of getting well are unlikely to outweigh the costs of social and family rejection and the loss of employment and accommodation at the early stages of the disease.” (Hadley and Maher, 2000).

Similarly, Tao Kwan-Gett, M.D. adds

> “This stigmatization has obvious consequences for health care providers. In addition to complicating adherence to diagnostic and therapeutic plans, it makes household contact tracing a sensitive issue. In a close-knit community, where two or three families may live under one roof, people are as reluctant to share information about their diagnosis of TB as they would be about HIV” (Kwan, 1998).

To address this health issue, the Southeastern National Tuberculosis Center and the Rural Women’s Health Project partnered to develop *Vivir a Todo Pulmón*. The project employed a two-pronged approach that combined Community Education Sessions (CES) and lay-health worker facilitated surveys to gather information on the perceptions, cultural beliefs and knowledge of TB in the Hispanic immigrant community. The assessment findings have since served as the foundation for the development and implementation of a comprehensive education plan for Spanish-speaking immigrants living in the southeastern United States. This plan supports clinicians’ efforts to screen, treat and diminish the incidence of TB in the Spanish-speaking immigrant community, as well as increasing community awareness of the existence of TB in the United States.

Findings from the 306 open-ended *Vivir a Todo Pulmón* surveys found that Spanish-speaking immigrants are at an elevated risk for contracting TB. The findings show that inaccurate information about TB is the primary obstacle. In addition to complicating adherence to diagnostic and therapeutic plans, it makes household contact tracing a sensitive issue. In a close-knit community, where two or three families may live under one roof, people are as reluctant to share information about their diagnosis of TB as they would be about HIV (Kwan, 1998).

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The *Vivir a Todo Pulmón* project has developed a series of tuberculosis education materials that are now available for health centers, state agencies and grassroots organizations serving Spanish-speaking immigrant communities. These clinician education tools and community materials (available in Winter, 2007) are the result of two years of community work carried out by the Rural Women’s Health Project.

To meet the objectives of the project the RWHP partnered with community-based organizations4 committed to utilizing trained community liaisons (lay-health workers), each with an established outreach program capable of serving the target population’s follow-up needs. The project had six sites in total, divided evenly between Kentucky and Florida.

Three hundred and six people were surveyed (59% female, 41% male; 83% were from Mexico; 67% spoke no English; 78% were uninsured, and; 26% worked in agriculture). Thirty-three percent of the respondents had never heard of TB, yet 49% believed that TB is a problem in their community, while 97% did not know the correct mode of TB transmission. Although 73% mentioned receiving the Bacille Calmette-Guérin (BCG) vaccine, they were not knowledgeable of its purpose, and many believed that since they had been vaccinated, they were no longer susceptible to contracting TB. Eight-four percent had never heard of latent or inactive TB.

When asked about barriers to seeking medical services, 26% listed economic reasons as their main obstacle, while 34% articulated socio-linguistic barriers (fear, deportation, lack of legal documentation, limited language skills, lack of knowledge of resources). When asked about how they would know if they had TB, the respondents replied that a Purified Protein Derivative Standard (PPD), x-ray or other exam was necessary to confirm TB (27%) and that they would go to a doctor if they suspected they had TB (74%).

The outcome of *Vivir a Todo Pulmón* is a multi-year program to develop a comprehensive education plan that will include the development of patient education materials to support clinician education, materials to launch community awareness campaigns (to diminish stigma and increase community knowledge) and a training DVD to support clinician education. All these materials are developed by the RWHP and will be available for free from the Southeastern National Tuberculosis Center, which offers many of the materials for download from their website at http://sntc.medicine.ufl.edu. Working together, we can take steps to reduce the incidence of tuberculosis in the Spanish-speaking immigrant communities. For more information, contact the Rural Women’s Health Project (RWHP) at (352) 372-1095 or http://www.rwhp.org.

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**References**


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4 Florida: Healthy Start of Manatee County (Bradenton) and Alianza de Mujeres Activas (Pierson/Seville). Kentucky: North Central Kentucky AHEC (Lexington area).