World TB Day 2008

By Christina Dogbey, MPH
TB Program Epidemiologist

World TB Day is held annually on March 24th in order to raise awareness about the threat of TB and the steps needed to control the disease. World TB Day also commemorates the discovery of the TB bacillus by Dr. Robert Koch in March 1882. At that time, TB killed one in seven people in the United States and Europe. Although this disease can be cured and controlled, TB still remains the second leading cause of death among infectious diseases in the world.

According to the World Health Organization, the global healthcare community continues to make significant progress toward eliminating tuberculosis as a public health threat. Yet, despite efforts, each year TB continues to cause nine million new cases and one and a half million deaths worldwide. These alarming rates are partially attributed to the emergence of drug-resistant strains of *M. tuberculosis*.

The theme for World TB Day is “I am stopping TB,” a two year campaign initiated by the World Health Organization to encourage all individuals to do their part to combat tuberculosis. To commemorate World TB Day 2008, the Philadelphia Department of Public Health’s Tuberculosis Control Program is issuing this special commemorative edition of the Philadelphia TB Control Newsletter. Included in this edition are surveillance updates on TB in Philadelphia, information on the treatment of Latent Tuberculosis Infection (LTBI) and its role in controlling TB, and a description of the TB Control Program’s efforts with Burmese Refugees who are resettling in Philadelphia and more.

For more information about World TB Day, please visit the World Health Organization website at: http://www.stoptb.org/events/world_tb_day/2008/
Burmese Refugee Resettlement in Philadelphia

By Dan Dohony, MPH
CDC Senior Public Health Advisor

Amnesty International USA defines Refugees as people who have been forced to flee their home countries because of human rights abuse or fear of future abuse. The United Nations 1951 Convention Relating to the Status of Refugees defines refugees as persons who have crossed borders due to a “well-founded fear of being persecuted for reasons of race, religion, nationality, membership in a particular social group or political opinion.” Refugees do not include illegal aliens, foreign students, visitors and others who intentionally overstay their visa in violation of law.

There are two ways in which people can become refugees in the United States. First, they can apply from abroad to be classified by the U.S. government as refugees “of special humanitarian concern.” If selected, they are brought to the United States and resettled here. Before the start of each fiscal year, the President issues a final determination on refugee admissions, based on what appears justified by humanitarian concerns or is in the national interest. The US has a long history of taking refugees and as many as 70,000 refugees were authorized to enter in the US in FY 2006.

The second way for people to become refugees in the United States is to come here on their own and then seek asylum. Asylum seekers are people who enter the US and hope to be recognized as refugees at a later date. The United States is in the process of resettling approximately 14,000 Burmese refugees from the Mae La camp near Mae Sot, Thailand. About 120 Burmese refugees have arrived in the Philadelphia region since July and are being assisted by the Nationalities Services Center and other refugee resettlement agencies. Many of these refugees are receiving primary care at Thomas Jefferson University’s Department of Family and Community Medicine. With our partners, all refugees are evaluated for TB and provided necessary follow-up care.

A pre-departure medical examination (including TB screening) is mandatory for all refugees coming to the U.S. and all applicants outside the U.S. applying for an immigrant visa. Aliens in the United States who apply for adjustment of their immigration status to that of permanent resident are also required to be medically examined. The purpose of the pre-departure medical examination is to identify applicants with inadmissible health-related conditions. If an immigrant or refugee has an inadmissible health-related condition, a waiver is required for the applicant to come to the United States.

Because the Burmese refugees from the Mae La camp are the first population to be screened according to CDC’s new pre-departure TB screening instructions, the results of domestic

(Continued on page 4)
Eliminating TB: The Importance of Finding and Treating Latent TB Infection

By Barbara Watson, MD
Regional Pediatric TB Consultant

The goal of tuberculosis elimination requires the incidence of TB disease to be 1 case per 1 million people in the United States population and latent TB infection (LTBI) to be less than 1% per million and decreasing. However, the last national survey published showed the national prevalence of LTBI in the year 1999-2000 to be 4.2% per million or 11,213,000 persons. Of these persons, 63% were foreign born, 18.7% were non-Hispanic African Americans, 7% were Mexican Americans, and 6% were people living below the poverty line. Twenty five percent of these LTBI patients had been previously diagnosed, however, only 13.2% had been offered preventive therapy. These statistics represent the need for more identification of people at risk for infection by \textit{M. tuberculosis}, and more active treatment of LTBI to prevent the increase in incidence of active tuberculosis disease.

The first step in moving toward the goal of TB elimination is identifying infected individuals and offering them treatment. Those individuals who are at highest risk for infection and thus could most benefit from a Mantoux Tuberculin Skin Test include close contacts of active cases of pulmonary TB, contacts to multi-drug resistant (MDR) TB, young children, the immune compromised (including those who are HIV positive or may have other immunosuppressive conditions such as diabetes mellitus), immigrants who have been in the U.S. less than five years, and those with other known risk factors such as a history of substance abuse, homelessness or incarceration. Source case finding investigations are recommended when children under 2 years of age are found to have LTBI, since it strongly suggests recent transmission of tuberculosis.

Following identification and testing, treatment for Latent Tuberculosis Infection must be offered to patients. Treatment for LTBI is best accomplished with self administered medication regimens—the use of twice weekly Directly Observed Preventive Therapy (DOPT) is recommended for at risk adults and children who cannot or will not reliably self administer therapy. The highest priority patients within this group include children under five years of age and contacts to multi-drug resistant tuberculosis (MDR-TB).

Unlike patients with active disease, most patients with LTBI cannot be compelled by legal interventions to initiate and complete treatment for tuberculosis infection. Thus, patient education about tuberculosis, latent infection and the importance of treating the infection are key to creating ownership and buy-in on the part of the patient. Reinforcement of education on a consistent basis at every visit is very important, particularly since the patient may feel well and therefore is more likely to stop treatment or be inconsistent during the treatment period. Lastly, consistent evaluation of patients for adherence to and adverse reactions to treatment are key to ensuring successful completion of preventive therapy. If there are severe adverse reactions, instruct the patient to stop taking their medication. It is important to note that it is the number of doses, not duration of treatment that indicates completion. For more information about identifying and treating patients with LTBI, contact the PDPH TB Control Program.
evaluations are essential for evaluation of this program. It is important that CDC learn in a timely manner about any Burmese refugees diagnosed with tuberculosis disease after arrival to the United States. The Philadelphia Department of Public Health Tuberculosis Control Program is working with our partners to assure Burmese refugees are evaluated and treated for any tuberculosis condition after arrival to the United States.

**Trends in Tuberculosis**

By Nikki Pritchett, MPH
TB Program Epidemiologist

In 2007, the Philadelphia TB Control Program reported 133 confirmed cases of TB. This represents a 6% decrease from the prior year when 142 new cases of TB were reported. These cases represent approximately 48% of the total number of cases reported in Pennsylvania in 2007.

The majority of cases were male (51.1%) and between the ages of 45-65 years. The number of cases among children less than 5 years of age decreased from 11 (7.7%) in 2006 to 8 (6.0%) cases in 2007. Since TB disease in children indicates recently acquired infection and transmission, these data are of sentinel importance. Tuberculosis cases among those 65 years of age and older decreased from 23.2% in 2006 to 13.5% in 2007.

The percent of cases reported among African American and Hispanic patients decreased from 64% to 48.9% and from 8% to 5.3%, respectively. By contrast, the percent of cases among Asians and whites increased from 20% to 35.3% and from 7.3% to 10.5%, respectively.

More than half (54%) of the cases were foreign-born, representing the first time we have seen the number of foreign born cases exceed the number of U.S. born since this type of reporting started. Foreign born cases originated from 26 different countries with Vietnam (12.3%), the Philippines (3.8%), and India (3.8%) being the most common countries of origin.