

NCET The National Coalition to Eliminate Tuberculosis

Statement of the National Coalition for the Elimination of Tuberculosis

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**House Appropriations Subcommittee on Labor, Health and Human
Service, Education and Related Agencies**

Recommendation: \$252.5 million for CDC Division of TB Elimination

Mr. Chairman, my name is Dr. Ed Zuroweste. I am the Medical Director of the Migrant Clinicians Network. For over 25 years as a practicing rural family physician, I have provided primary health care to a large number of migrant farmworkers and other mobile rural poor populations. At the local, state, national, and international level I have had the opportunity to witness first hand the tremendous health burden of tuberculosis. I have grown to understand the ongoing importance of a strong local and national public health system and the need for continued research to develop clinical tools to eventually eliminate tuberculosis. I am here today as the chairman of the 85 member National Coalition for the Elimination of Tuberculosis, the U.S. Stop TB Partnership.

Mr. Chairman, if you think Tuberculosis is under control in the United States today you would be wrong. In fact, in your state of Ohio, there was an 18.6% increase in cases from 2004 to 2005. While we have continued to make progress in the United States since devastating and costly resurgence between 1985 and 1992, the rate at which cases decline has stalled, much like the period of time just prior to that resurgence when it cost almost \$1 billion to regain control just in New York City.

Today we are able to cure most patients despite the need to treat patients for at least six to nine months with effective but poorly tolerated drugs. Health departments are able to protect most of those who are exposed to infectious tuberculosis using the century-old and cumbersome tuberculin skin test and a nine-month course of treatment that has not been improved in 50 years. Ominously, the slowing rate of decline may be catching up with us—we may well be reaching the limits of what can be accomplished with the resources we have at hand.

“The U.S. Stop TB Partnership”

The Institute of Medicine issued a report in 2000, *Ending Neglect: The Elimination of Tuberculosis in the United States*. The report stated that the resurgence of tuberculosis in the United States was the price of neglect reflected in earlier funding reductions and concluded that, with proper funding, improved prevention and control activities, and research to develop new tools, tuberculosis could be eliminated as a public health problem in the United States. The tools and strategies we desperately need to eliminate this scourge are now literally within our grasp. The National Coalition for the Elimination of Tuberculosis recommends an increase of \$115 million in project funding for the Centers for Disease Control, Division of Tuberculosis Elimination to undertake an unprecedented initiative—**Intensified Support and Activities to Accelerate Control (ISAAC)**—to enhance, maximize and target resources to sustain the momentum of tuberculosis control and elimination in the United States. Without this investment, we run the risk of yet another resurgence, and the cost of regaining control.

The first component of **IAASC** is tuberculosis and the U.S. Mexico border. \$38 million is needed to target resources to intensify tuberculosis control activities for persons who regularly cross the U.S. Mexico border. The incidence of tuberculosis along the U.S. Mexico border is more than 50% higher than national rate in either Mexico or the U.S. The 2,000 mile border region includes four states in the U.S. and six states in Mexico, 14 pairs of sister cities, and 12 million inhabitants. More than 164 million persons legally cross the border northbound each year.

Immigrants from Mexico contribute substantially to tuberculosis mortality in the U.S. In 2002, 25% of all reported cases were from Mexico with 70% of the cases in the four states bordering Mexico—Arizona, California, New Mexico, and Texas. However, other states are beginning to see rates increase as well.

There are several factors that make tuberculosis control along the border difficult and expensive. The counties along the border are among the poorest economically in the U.S. Further, 10 of the 24 counties along the border are medically underserved and of low socioeconomic status. Finally, Mexico-born tuberculosis born patients are about twice as likely to move or become lost to follow-up as U.S. born patients.

There are several regional strategies to combat tuberculosis along the border including CureTB and TBNet. The goals of these projects are to coordinate the referral of patients between the health systems of both countries and to ensure continuity of care and completion of treatment for patients who migrate between the U.S. and Mexico. This effort is intended to improve the understanding of migrating patients, ensure that they receive continuous care and allow the completion of the six month course of therapy.

In addition to tuberculosis along the U.S. Mexico border, tuberculosis in the foreign born continues to increase steadily from 27% of all cases in 1992 to 53% of cases in 2003. In 22 states more than half of the reported cases were among the foreign born and in seven states more than 70% of cases occurred among the foreign born. Preventing and controlling tuberculosis in foreign-born persons requires special resources. For example, in Minnesota 76% of the cases are in the foreign born including 25 countries representing 20 different spoken languages. Serving such a diverse population poses formidable challenges for health departments and clinicians.

The second component of **ISAAC** is to intensify efforts to prevent, detect, and treat tuberculosis in African Americans and reduce/eliminate the racial disparity in the incidence of tuberculosis in this population. This effort will require \$10 million to continue program activities. African Americans have a disproportionate share of tuberculosis in the United States. In 2002, the rate was 12.6 cases per 100,000 population in African Americans compared to 1.5 cases per 100,000 in white, non-Hispanic persons and 30% of all cases were in African Americans. The proportion of tuberculosis cases in African Americans is even greater if tuberculosis cases in only U.S. born persons is examined--the cases would then represent 47% of all U.S. born cases.

Although the rates of tuberculosis in both African Americans and whites have declined substantially over the past decade, the disparity remains. It is the legacy of poverty, racism and poor access to care. To close the gap, increased efforts must be made to eliminate tuberculosis in African Americans in the U.S.

The Division of Tuberculosis Elimination has focused its efforts on seven southeastern states where the tuberculosis rates have been consistently above the national average and more than half of the cases occur in African Americans including Alabama, Arkansas, Georgia, Louisiana, Mississippi, South Carolina, and Tennessee. Funded through the Tuberculosis Epidemiological Studies Consortium, an initiative is looking at how to improve treatment adherence among African Americans given that the current therapy for tuberculosis is a six month course of treatment with multiple drugs having variable levels of tolerance.

The third component of **ISAAC** is intensifying the utilization of Universal Genotyping--DNA fingerprinting—for all reported cases of tuberculosis in the U.S. To do so will require an additional \$17 million for the Division of Tuberculosis Elimination. When confronted with a new case of active tuberculosis, public health officials must identify other individuals who have had close contact with the infected person. The goal is to identify all people at risk and to offer them treatment. Only in this way can an outbreak be limited and prevented from spreading.

For decades, contact investigations have been based on a patient's response to a set of standard questions and a tremendous amount of "show leather" from public health workers. The tool of DNA fingerprinting is now helping TB controllers identify links between cases even when they are widely separated in time and/or place. Just as the DNA molecules of individual humans differ from each other in slight but detectable ways, the DNA molecules in different strains of the TB germ can be distinguished through DNA fingerprinting. TB Controllers can use molecular epidemiology to study the pattern of TB transmission within their communities.

The final component of **ISAAC** is the intensification of research efforts to for new tools for the diagnosis and treatment of tuberculosis. We have estimated that \$50 million is necessary to begin this component. Extensive basic science research funded by the NIH and private industry has brought forth exciting new diagnostic tools and drugs that require clinical evaluation in field trials to determine which ones can be safely and effectively used in tuberculosis elimination.

The Division of Tuberculosis Elimination supports several applied research programs including the Tuberculosis Trials Consortium (TBTC) and the Tuberculosis Epidemiologic Studies Consortium (TBESC). Additional applied research is done by CDC scientists. All of these efforts take advantage of the CDC's well-recognized expertise in doing population-based research.

The CDC is mandated by the U.S. Public Health Service to conduct tuberculosis therapy trials. For more than 35 years, the CDC has been responsible for conducting clinical trials to evaluate new drug regimens for preventing and treating tuberculosis. Ongoing clinical trials are currently being done by the Tuberculosis Trials Consortium, a consortium of 28 academic clinical centers and Veterans Administration Centers in the U.S. and in Brazil, Canada, South Africa, Spain, and Uganda. The Tuberculosis Trials Consortium's newest project, Study 27, is evaluating the use of moxifloxacin, a fluoroquinolone, to decrease the infectious period. This has the potential to shorten and/or simplify the treatment of tuberculosis.

Another study is comparing the effectiveness and tolerability of two regimens for treatment latent tuberculosis infection. This is a very important study since the pool of persons with latent infection is the largest source of new cases of active tuberculosis and is the biggest challenge to tuberculosis control.

The Tuberculosis Epidemiologic Studies Consortium conducts epidemiologic, behavioral, economic, laboratory and operational research. The studies provide data for more effective and efficient tuberculosis control. The work of the Consortium includes studies to improve surveillance to identify missed opportunities for preventing tuberculosis in foreign born persons, develop a national genotyping registry for molecular epidemiologic analysis of multi-drug resistant strains of tuberculosis germs and identify and overcome barriers to treatment adherence to latent tuberculosis infection in African Americans.

Mr. Chairman, I have spent the majority of my time talking about an unprecedented initiative to maximize and target resources to sustain the momentum for tuberculosis elimination in the United States. However we are quite rapidly losing the battle of control in all honesty. While tuberculosis control is a shared federal, state and local responsibility, the federal dollars are a critical part of tuberculosis control in every state and local government. The funds for this effort are provided through the Division of Tuberculosis Elimination to 68 jurisdictions through cooperative agreements.

At a time when the U.S. should be redoubling its tuberculosis control efforts, the Division of Tuberculosis Elimination is facing its most severe budget crisis in years. Federal funding, in adjusted dollars, has not kept pace with inflation for the past decade. The current FY 06 funding level of \$137.4 million represents a 23% decrease over the past decade when adjusted for inflation.

Even with **ISAAC** in place, it will still take decades beyond the target date 2010 to reach tuberculosis elimination in the U.S. Last year in the U.S., Tuberculosis

Controllers had to secure the resources to identify and treat 14,093 individuals with tuberculosis. They then had to find and test all of their contacts to determine if they, too, were infected and if so, provide appropriate treatment. To do this, each Controller first determined whether the person who had symptoms actually had the disease—this required a tuberculin skin test, a chest x-ray, and collection of sputum for microscopic analysis. When the diagnosis was confirmed, a patient centered treatment plan was developed to ensure the patient completed therapy. This often involved six to nine months of directly observed therapy by an outreach worker who actually watched the patient take each and every dose of medication. All contacts of the patients were investigated to determine whether they needed to be treated as well.

To do this also required a robust public health infrastructure that has:

- Healthcare workers with appropriate technical training and increasingly, with cross-cultural training to work with foreign-born patients;
- A network of laboratories with the technical staff and equipment need to deliver timely, accurate results;
- An information management system that enables timely reporting of cases, the management of individual cases and contact investigations, and the evaluation of program performance; and
- Education and training materials for healthcare providers, patients and their communities.

Mr. Chairman, I hope I have convinced you that we cannot stop doing what we are doing—it will only get more expensive as it did the last time resources declined and we were unable to maintain the public health infrastructure necessary to maintain control of tuberculosis. But even more important, without the investment in research, in the new tools, we will never have a more effective and efficient set of tools with which to work.

The National Coalition appreciates the fiscal challenges this country faces, but a short-sighted approach to balancing the budget undermines our public health obligation to eliminate tuberculosis. The approach we have presented provides additional resources needed for both local and state tuberculosis control programs and research for new tools to enhance and improve our ability to eliminate this ancient scourge.

Mr. Chairman, thank you for this opportunity to comment.