Tuberculosis (TB) is the second-leading infectious disease killer in the world, taking 1.4 million lives per year. Currently, about a third of the world’s population is infected with the TB bacterium. TB is a leading global killer of women of reproductive age and the leading cause of death among people with HIV/AIDS. The rise in HIV infection levels and the neglect of TB control programs have caused a global resurgence of TB. While most TB prevalent today is a preventable and curable disease when international prevention and treatment guidelines are used, many parts of the world, such as Africa, are struggling to implement them. The global TB pandemic, including the spread of drug resistant TB, poses a public health threat to the U.S. We recommend that the FY14 State-Foreign Operations Appropriations bill provide $400 million for USAID’s global tuberculosis program.

Drug Resistant TB as a Global Health Crisis

The WHO estimates that about 5% of all TB cases are multi-drug resistant (MDR) and that less than 20% are receiving appropriate treatment. MDR-TB is very complex and expensive to treat and as a result of these factors, fatality rates from MDR-TB in developing countries are high. XDR-TB, extensively drug resistant TB, which has been identified in most countries, including the U.S., is deadlier and in 2011, totally drug resistant TB (TDR) emerged in India and other
countries. The convergence of several factors threatens to result in drug resistant TB occurring on a much broader scale. The major factors include inadequate attention to and funding for basic TB control measures in high TB burden, resource-limited settings, which also have high HIV prevalence, and the lack of investment in new drugs, diagnostics and vaccines for TB. But less than half of the high MDR-TB burden countries have the capacity to diagnosis MDR-TB, let alone mount effective prevention and treatment efforts. The best way to prevent drug resistant TB is to invest in TB control programs around the globe.

**HIV/AIDS-TB Integration**

TB is a major killer of people with HIV globally and the leading cause of death for people with HIV in Africa. Because of the rapid fatality rates associated with TB in people with HIV/AIDS, it is critically important to increase efforts to detect and treat TB among this population. Yet, WHO data indicates that only about 10% of people living with HIV/AIDS are screened for TB. If active TB is left untreated, a TB-HIV co-infected person can die within weeks even if (s)he is on antiretrovirals for HIV. The continued TB pandemic threatens to undo much of the progress made by the U.S. investment in the fight against HIV/AIDS through PEPFAR, particularly in sub-Saharan Africa.

**TB in Women & Children**

TB is the third leading cause of death among women of reproductive age. An estimated 3.6 million women develop TB and about 500,000 die of the disease around the world annually. TB presents a serious risk for pregnant women and infants. Studies from Mexico and India have shown that pregnant women with TB are four times more likely to die in childbirth.

TB is an under-recognized child health issue. In 2009, over 1 million children developed TB and at least 70,000 died as a result. Also, the WHO has reported that in 2010, there were 10
million children orphaned as a result of at least one of their parent’s dying of TB. Children have less developed immune systems and are more susceptible to getting severe forms of TB, such as TB meningitis, that are often fatal. TB can have devastating long term effects on children who can be left deaf, blind and/or totally paralysed from TB meningitis, even after it is cured.

**Need for New TB Tools**

Although drugs, diagnostics, and vaccines for TB exist, these technologies are antiquated and are increasingly inadequate for controlling the global epidemic. The recent introduction of the new Xpert diagnostic test, developed with funding from the NIH, has the potential for dramatically improving our ability to diagnose TB quicker, including among HIV-infected people. The Xpert test can diagnose TB in less than 100 minutes, a vast improvement over the old standard TB diagnostic tool, sputum microscopy, which takes several days to complete diagnosis. USAID is a leading implementor of Xpert. Although preliminary information shows that Xpert is more effective at diagnosing TB in children than sputum microscopy, a more child-friendly and accurate diagnostic tool is still needed to diagnose pediatric TB. Current diagnostic tests to detect drug resistance take at least one month to complete. Faster drug susceptibility tests must be developed to stop the spread of drug resistant TB. The TB vaccine, BCG, provides some protection to children, but it has little or no efficacy in preventing pulmonary TB in adults.

There is an urgent need for new anti-TB treatments, and particularly for a shorter drug regimen. Currently, the drug regime for TB treatment is 6-9 months. A shorter drug regimen with new classes of drugs active against susceptible and drug-resistant strains would increase compliance, prevent development of more extensive drug resistance, and save program costs by reducing the time required to directly observe therapy for patients. There is also a critical need for drugs that can safely be taken concurrently with antiretroviral therapy for HIV.
The Comprehensive TB Elimination Act, enacted into law in October 2008, provided authorization language to spur the development of new TB diagnostic, treatment and prevention tools through the National Institutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC). Provision of the ATS's recommendation level of $243 million in FY2013 for CDC’s Division of TB Elimination would accelerate early-stage research and epidemiology studies that are critical to the development of these new tools. In addition, USAID plays a vital role in supporting research into diseases that affect the developing world, including tuberculosis, and appropriate funding for USAID’s TB research program will provide a strong U.S. reinvestment into new TB tools to help ease the global disease burden.

USAID TB Program

The U.S. Agency for International Development (USAID) is the largest bilateral donor supporting global TB prevention and control in 30 countries, including Afghanistan, Bangladesh, India, South Africa, Uganda and Ukraine. USAID’s TB program has proven to be highly effective in the prevention and treatment of TB and in saving lives. Over the past twenty years, the mortality rate from TB has decreased by 40% and in 2009, the Global Plan to Stop TB treatment success rate target of 85% was achieved. USAID’s technical assistance to the 40 most highly burdened countries has been essential to this success. Furthermore, USAID has made notable progress in addressing multi-drug resistant (MDR) TB in just one year (2009 – 2010) by initiating 63% more MDR-TB patients on appropriate treatment in its focus countries. Yet many countries still have insufficient capacity, including laboratory and infection control measures. Significantly more resources are required to rapidly scale up these efforts and prevent the further spread of TB in general and drug resistant TB.
USAID’s overall goal is to contribute to the global reduction of morbidity and mortality associated with TB. USAID supports the implementation of the Stop TB strategy in priority countries and the goals and targets set forth in the Global Plan. USAID provides financial and technical support to five main areas including DOTS (directly-observed treatment short course therapy) expansion and enhancement, scaling up management of MDR/XDR, addressing HIV/TB co-infection, strengthening health systems and human resource capacity and developing new tools and improved approaches. Priority countries are selected based on epidemiology of TB, including a high burden of TB cases, high HIV/AIDS prevalence, and prevalence for drug resistance, and lagging case detection and treatment success rates.

Recommendations
The Lantos-Hyde Act authorized $4 billion over five years for global TB programs through USAID. We recommend that the FY2014 State-Foreign Operations Appropriations bill provide $400 million for USAID’s global tuberculosis program. The appropriation of an additional $40 million for CDC’s global TB activities through the FY14 Labor-HHS Appropriations legislation will provide the coordinated global TB investment envisioned under the Lantos-Hyde Act. Over two-thirds of international funding for global TB control is provided through the Global Fund to Fight AIDS, Tuberculosis and Malaria, so it is critical that the U.S. provide an appropriate investment, particularly at this time when the Fund is projecting a significantly increased need to combat these diseases of poverty. We recommend that FY14 State-Foreign Operations Appropriations bill provide $1.65 billion in FY2014 for the Global Fund to Fight AIDS, TB and Malaria.

We appreciate the opportunity to submit this statement for the record.