



The U.S. Government and Global Tuberculosis

March 2011

Overview

Tuberculosis (TB) is an airborne, infectious disease caused by bacteria which primarily affect the lungs. While both preventable and curable, TB remains one of the world's major causes of illness and death. Approximately one-third of the world's population, or two billion people, carry the TB bacteria, more than 9 million of whom develop "active" TB each year, which can be spread to others; ("latent TB" disease cannot be spread).<sup>1,2</sup> In 1993, the World Health Organization (WHO) declared TB to be a global health emergency and in 2000, the United Nations Millennium Development Goals (MDGs) adopted by all nations included global TB targets to halt and reverse TB incidence, prevalence, and deaths by 2015. TB is found in every country in the world, but the majority of TB cases are concentrated in developing countries, particularly those in Asia and Africa (see Figure 1).<sup>1,3</sup>

The U.S. government's involvement in global TB efforts was relatively limited until the late 1990s. Since that time, U.S. efforts to address TB have grown and funding has increased and today, the U.S. is one of the largest donors to global TB control efforts. With the passage of the U.S. Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003 (Leadership Act), which created the President's Emergency Plan for AIDS Relief (PEPFAR), a heightened priority was given to global TB efforts.<sup>4</sup> PEPFAR's 2008 reauthorization through the Lantos-Hyde U.S. Global Leadership Against HIV/AIDS, Tuberculosis, and Malaria Reauthorization Act (Lantos-Hyde) authorized specific funding levels and targets for TB.<sup>5</sup> Most recently, the Obama Administration's Global Health Initiative (GHI), launched in May 2009 as a \$63 billion six-year (FY 2009–FY 2014) effort to develop a comprehensive U.S. government strategy for global health, included TB as one of nine global health program areas.<sup>6</sup>

- **TB & HIV:** TB and HIV are frequently referred to as co- or dual-epidemics due to their high rate of co-infection, and TB is a leading cause of death among people with HIV, especially in developing countries.<sup>9</sup> In 2009, an estimated 1.1 million of the 9.4 million new TB cases were also HIV-positive; of the 1.7 million people who died from TB, an estimated 400,000 were HIV-positive.<sup>1</sup>
- **Drug-Resistant TB:** Drug-resistant TB — both multidrug-resistant TB (MDR-TB), which fails to respond to standard first line drugs and, extensively drug-resistant TB (**XDR-TB**), which fails to respond to both first and second line drugs, has emerged as a major challenge to global TB control efforts.<sup>3</sup> In 2008, there were an estimated 440,000 cases of MDR-TB and as of March 2010, XDR-TB had been reported in 58 countries and territories.<sup>1,10</sup>
- **Interventions:** DOTS, "directly observed treatment, short-course," is the internationally recommended strategy to control TB. DOTS aims to decrease TB-related morbidity, prevent TB deaths, and decrease TB transmission and is comprised of 5 components: sustained political and financial commitment, quality diagnosis via sputum-smear microscopy, treatments taken under direct supervision, a regular and uninterrupted supply of drugs, and standardized data collection.

The U.S. Government Response

History

- The U.S. Agency for International Development (USAID), the lead U.S. government agency on global TB control, began its TB control program in 1998.<sup>11</sup>
- Passage of the Leadership Act in 2003 included TB under its umbrella, and authorized bilateral funding in "such sums as necessary" to address TB as well as funding for the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund). Created in 2001, the Global Fund is an independent, international financing institution that provides grants to countries to address TB (as well as HIV and malaria).
- In 2004, USAID announced an expanded TB response plan which targeted 35 countries and outlined a specific set of goals.<sup>12</sup> This plan was updated in 2009, expanding the number of target countries and re-aligning the U.S. approach in support of the international Stop TB Strategy and Global Plan to Stop TB, both of which were released in 2006.<sup>13,14,15</sup>
- The passage of Lantos-Hyde in 2008 authorized specific funding levels (up to \$4 billion over 5 years) and targets for U.S. TB control efforts.<sup>5</sup> It also required the development of a five-year strategy for the U.S. government's global TB effort.<sup>5</sup>
- The GHI highlights TB as one of nine program areas and includes specific targets designed around the TB objectives outlined by the five-year Lantos-Hyde TB strategy and the Global Plan to STOP TB including: contribute to the treatment of a minimum of 2.6 million new sputum smear positive TB cases and 57,200 multi-drug resistant (MDR) cases of TB, and contribute to a 50 percent reduction in TB deaths and disease burden relative to the 1990 baseline.<sup>16,17</sup>

Figure 1: TB Incidence, Prevalence and Deaths by Region, 2009<sup>1,7</sup>

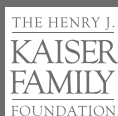
WHO Region <sup>8</sup> (# of HBCs)	Incidence*		Prevalence*		Deaths* (excluding HIV related)	
	No. in thousands (%)	Per 100,000 Pop	No. in thousands	Per 100,000 Pop	No. in thousands	Per 100,000 Pop
Global Total (22)	9,400 (100%)	137	14,000	201	1,300	20
Africa (9)	2,800 (30%)	345	3,900	475	430	52
Americas (1)	270 (3%)	29	350	38	20	2.1
E. Mediterranean (2)	660 (7%)	111	1,000	174	99	17
Europe (1)	420 (4%)	47	560	63	62	6.9
South-East Asia (5)	3,300 (35%)	182	5,000	278	480	27
Western Pacific (4)	1,900 (20%)	107	2,900	160	240	13

\* Represents WHO's "best estimate"; for each indicator the WHO presents a range of values.

Current Global Snapshot

TB disproportionately affects people in resource-poor settings - more than 90% of new TB cases and deaths occur in developing countries, posing significant challenges to the livelihoods of individuals and developing economies as TB primarily affects people during their most productive years.<sup>1,2,7</sup>

- **TB Cases & Deaths:**<sup>1</sup> In 2009, an estimated **14.0 million** people were living with (active) TB, including **9.4 million** new cases, and there were an estimated **1.7 million** TB deaths. Twenty-two countries are considered "**high-burden countries (HBCs)**," accounting for approximately 81% of new TB cases each year.



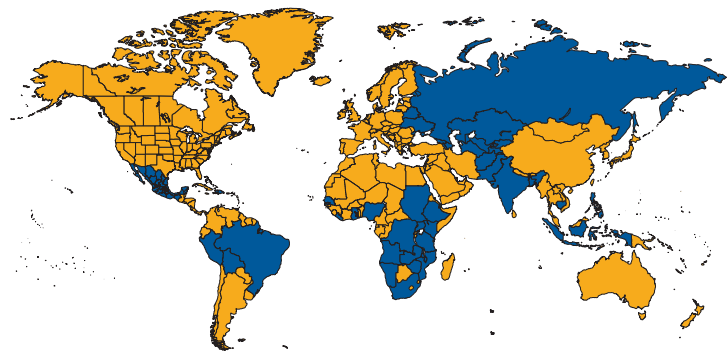
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The Kaiser Family Foundation is a non-profit private operating foundation, based in Menlo Park, California, dedicated to producing and communicating the best possible information, research and analysis on health issues.

**Figure 2: U.S. GHI Tuberculosis (TB) Countries, FY 2010**



### Structure and Approach

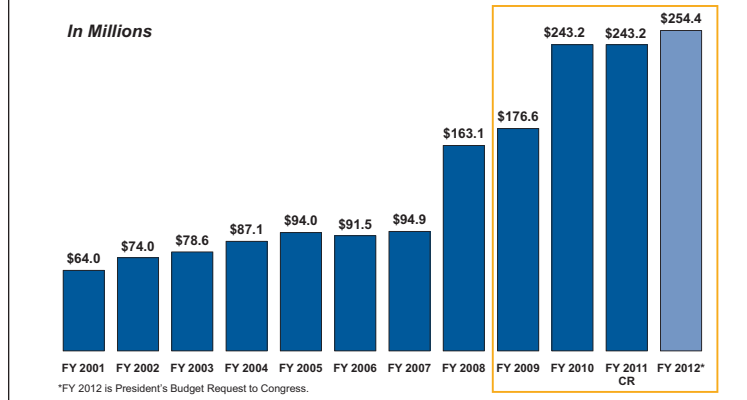
- The USG has designated 40 “priority” countries in its efforts to address TB (in FY10 42 countries received funding), including 18 of the 22 HBCs (see Figure 2).<sup>17,18</sup> Programs are tailored to support specific country needs as outlined in a partner country’s national TB strategic plan.<sup>17</sup>
- As the lead agency, USAID’s efforts to fulfill the TB goals as outlined in the GHI are guided by the Lantos-Hyde TB Strategy, which highlights four key interventions: accelerated detection and treatment of TB for all patients; scaled up prevention and treatment of MDR-TB; expanded coverage of interventions for TB-HIV co-infection in coordination with USG HIV efforts under PEPFAR; and improvements in the overall health system. This strategy also calls for an intensified effort to be conducted in up to 25 of the 40 priority countries with country selection based on disease burden and the potential to achieve and sustain the greatest impact.<sup>17</sup>
- Other departments and agencies involved in the USG’s international TB response include: the Office of the Global AIDS Coordinator (OGAC) at the State Department, which leads the USG’s efforts to address TB-HIV co-infection; the Centers for Disease Control and Prevention (CDC), which provides technical support on epidemiology and surveillance, laboratory strengthening, and clinical operations/operational research; and the National Institutes of Health (NIH), which conducts basic, applied, and clinical research for the development of new drugs, vaccines, and diagnostics.<sup>19</sup> Additionally, an inter-agency, technical-level working group focused on international TB efforts operates under the Federal Tuberculosis Task Force.<sup>19</sup>
- In addition to bilateral TB efforts, the USG also partners with international institutions such as the World Health Organization (WHO), and the Stop TB Partnership - an international network of public and private entities working to eliminate TB that was created in 1998 with the WHO serving as a lead agency and Secretariat.<sup>19</sup> Additionally, the U.S. is the largest donor to the Global Drug Facility, a mechanism of the Stop TB Partnership that provides grants to countries for TB drugs, and the Global Fund which has committed over \$3.2 billion in funding for TB programs.<sup>19,20</sup>

### U.S. Government Funding<sup>21</sup>

- Most U.S. government funding for TB is part of the “Global Health and Child Survival” (GHCS) account at USAID. Additional TB funding is provided through the Economic Support Fund (ESF) and Assistance for Europe, Eurasia and Central Asia (AEECA) accounts.
- Congressional appropriations to USAID for TB have increased from \$64 million in FY 2001 to \$243 million in FY 2011 [FY 2011 is currently funded at FY 2010 enacted amounts under a Continuing Resolution (CR)] – cumulative funding during this period reached over \$1.4 billion.<sup>21</sup> The FY 2012 budget request for TB is \$254.4 million, which would represent an increase of \$11 million (5%) above FY 2011 (see Figure 3) and comprise 3% of total GHI funding.<sup>21</sup>

- All TB funding is counted as part of PEPFAR, which also includes funding for U.S. global HIV/AIDS efforts and U.S. contributions to the Global Fund. These amounts are now counted under the broader umbrella of the GHI, which brings together several different existing funding streams for global health.

**Figure 3: U.S. Government Funding for Global TB, FY 2001–FY 2012<sup>21</sup>**



### Looking Ahead

The U.S. is one of the largest donors to TB control efforts and has highlighted TB as a key component of the GHI. Key issues and challenges going forward include:

- Implementing TB control programs in the context of weak health systems, limited laboratory capacity, treatment barriers and complications, and the emergence of drug-resistant TB;
- Coordinating TB control efforts with other programmatic areas of the GHI, particularly HIV due to the problem of TB-HIV co-infection, but also maternal and child health and other key GHI priorities;
- Coordinating efforts with other donors, including the Global Fund, in order to maximum the impact of available resources, given the challenges that remain.

<sup>1</sup> WHO. *Global Tuberculosis Control 2010*; November 2010.

<sup>2</sup> WHO. *Tuberculosis, Fact sheet No. 104*; November 2010.

<sup>3</sup> WHO. *2010/2011 Tuberculosis Global Facts*; November 2010.

<sup>4</sup> U.S. Congress. Public Law No: 108-25; May 27, 2003.

<sup>5</sup> U.S. Congress. Public Law No: 110-293; July 30, 2008.

<sup>6</sup> The White House, Office of the Press Secretary, *Statement by the President on Global Health Initiative*; May 5, 2009.

<sup>7</sup> Kaiser Family Foundation Analysis.

<sup>8</sup> WHO region definitions: [www.who.int/whr/2004/annex/topic/en/annex\\_member\\_en.pdf](http://www.who.int/whr/2004/annex/topic/en/annex_member_en.pdf).

<sup>9</sup> WHO. *Frequently asked questions about TB and HIV*; <http://www.who.int/tb/challenges/hiv/faq/en/>.

<sup>10</sup> WHO. *Multidrug and extensively drug-resistant TB (M/XDR-TB): 2010 Global Report on Surveillance and Response*; March 2010.

<sup>11</sup> USAID. *Fast Facts, Tuberculosis*; October 2010.

<sup>12</sup> USAID. *Expanded Response to Tuberculosis*; September 2004.

<sup>13</sup> USAID. *Expanded Response to Tuberculosis*; Updated January 2009.

<sup>14</sup> WHO. *The Stop TB Strategy*; March 2006.

<sup>15</sup> The Stop TB Partnership. *The Global Plan to Stop TB (2006–2015)*; January 2006.

<sup>16</sup> U.S. Government. *United States Government Global Health Initiative Strategy Document*; March 2011.

<sup>17</sup> USAID. *Lantos-Hyde United States Government Tuberculosis Strategy*; March 2010.

<sup>18</sup> KFF analysis of data from U.S. Foreign Assistance website, [www.foreignassistance.gov](http://www.foreignassistance.gov).

<sup>19</sup> USAID. *Building Partnerships to Control Tuberculosis: Fiscal Year 2009 Report to Congress*; October 2010.

<sup>20</sup> KFF. *The U.S. & The Global Fund to Fight AIDS, Tuberculosis and Malaria*; November 2010.

<sup>21</sup> KFF analysis of data from FY 2012 Budget Request; Agency Budgets and Congressional Budget Justifications; U.S. Foreign Assistance website, [www.foreignassistance.gov](http://www.foreignassistance.gov); and KFF personal communication with Office of Management and Budget.