Living with HIV, Dying of TB

A Critique of the Response of Global AIDS Donors to the Co-epidemic

Advocacy to Control Tuberculosis Internationally (ACTION)

March 2009

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The ACTION project is an international partnership of advocates working to mobilize resources to treat and prevent the spread of tuberculosis (TB), a global disease that kills one person every 20 seconds. ACTION's advocacy is premised on the belief that more rapid progress can be made against TB by mobilizing resources and building support for effective TB programming among policymakers and other opinion leaders in both high TB burden countries and donor countries.

ACTION is a project of AIDES (France), Avocats Pour la Santé dans le Monde (France), Global Heath Advocates, Indian Network of People Living with HIV/AIDS, Kenya AIDS NGOs Consortium, RESULTS Canada, RESULTS Japan, RESULTS UK, and RESULTS Educational Fund (US).

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Contents

List of Figures, Boxes, and Tables

List of Boxes

List of Figures

List of Tables

Acronyms

3DF	Three Disease Fund
ACTION	Advocacy to Control Tuberculosis Internationally
AIDS	Acquired Immunodeficiency Syndrome
APPG	All-Party Parliamentary Group
ART	Antiretroviral Therapy
ARV	Antiretroviral
CAP	Country Assistance Plan
CCM	Country Coordinating Mechanism
COP	Country Operational Plan
CPT	Cotrimoxazole Preventive Therapy
DFID	Department for International Development [UK]
DOTS	Directly Observed Treatment, Short-course
FY	Fiscal Year
GBP	Great British Pound
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immunodeficiency Virus
HSS	Health System Strengthening
ICAP	International Center for AIDS Care and Treatment Programs
ICR	Implementation Completion and Results Report
IHP+	International Health Partnership
IPT	Isoniazid Preventive Therapy
JICA	Japanese International Cooperation Agency
LTBI	Latent Tuberculosis Infection
MAP	Multi-Country HIV/AIDS Program for Africa
MDR-TB	Multidrug-Resistant Tuberculosis
MNCH	Maternal, Newborn, and Child Health
M&E	Monitoring and Evaluation
OED	Operations Evaluation Department
OGAC	Office of the US Global AIDS Coordinator
OI	Opportunistic Infection
PAD	Project Appraisal Document
PEPFAR	The US President's Emergency Plan for AIDS Relief
PLWHA	People Living With HIV/AIDS
PMTCT	Prevention of Mother-to-Child Transmission
PRSP	Poverty Reduction Strategy Papers
SRHR	Sexual and Reproductive Health and Rights
STI/D	Sexually Transmitted Infection/Disease
SWAp	Sector-Wide Approach
TB	Tuberculosis
TRP	Technical Review Panel
UK	United Kingdom
UNAIDS	Joint United Nations Programme on HIV/AIDS
US	United States
USAID	United States Agency for International Development
USD	United States Dollar
USG	United States Government
VCT	Voluntary Counseling and Testing
WHO	World Health Organization
XDR-TB	Extensively Drug-Resistant TB

Methodology

This report analyzes how and to what extent four of the largest international HIV/AIDS donors address TB-HIV through their policies and programming. ACTION conducted this analysis via the following methodology:

- Review and analysis of publicly available program reports; policy and technical guidance documents; country-specific project documents such as project proposals, appraisals, funding agreements, and performance reviews; and other relevant documents for each major funder addressed in this report, accessed via respective websites.
- Review and analysis of epidemiological data and technical guidance from the World Health Organization's (WHO) 2008 Global Tuberculosis Control report, Interim Policy on TB/HIV Collaborative Activities, and other relevant documents available on the WHO website.

Each donor was assessed in four areas: policies, programming, funding, and monitoring and evaluation. The decision was made to forego an in-depth analysis of project outcomes due to the lack of available information on the impact of TB-HIV activities to date. For each area of analysis, the report focuses on the following attributes:

- Policies: general funding policies and funding policies specific to TB-HIV collaborative activities, if available.
- Programming: collaborative TB-HIV activities supported (compared against recommendations in WHO's Interim Policy on TB/HIV Collaborative Activities).
- Funding: USD (or GBP) amounts budgeted or spent on collaborative TB-HIV activities (compared against needs assessment developed by ACTION in collaboration with WHO and Treatment Action Group).
- Monitoring and Evaluation: indicators used to monitor TB-HIV co-infection and evaluate the efficacy of interventions targeting TB-HIV.

The report focuses on activities carried out in sub-Saharan Africa, given the region's disproportionate burden of TB, HIV/AIDS, and TB-HIV co-infection, and that the World Bank's Multi-Country HIV/AIDS Program operates only in Africa.

Executive Summary

Though preventable and treatable, tuberculosis (TB) is the leading killer of people living with HIV/AIDS (PLWHA). Without proper treatment, approximately 90 percent of PLWHA die within months of developing active TB. New, extensively drug-resistant TB (XDR-TB) strains pose a particular and growing threat, with mortality rates from XDR-TB exceeding 95 percent in PLWHA in some cases.

The deadly synergy of TB-HIV presents a massive public health threat to PLWHA and to the communities in which they live. Since 1990, annual new TB cases have tripled in countries with a high prevalence of HIV, and the newest data — generated as a result of improved efforts to provide HIV counseling and testing to TB patients — show that the epidemics have converged to a greater extent than previously realized. In 2007 the World Health Organization (WHO) estimates that 1.4 million people were newly co-infected with TB and HIV — double the previous year's estimate. In Africa, which bears the highest rates of both diseases, more than half of estimated TB deaths in 2007 were among PLWHA.

In 2002, WHO laid out clear policy recommendations for implementing an integrated response to the co-epidemic. Since that time, it has become crystal clear that effective HIV/AIDS program must address TB as the disease most likely to kill people living with HIV. Despite a wealth of evidence and clear guidance, however, a concerted, integrated response has yet to coalesce: in 2007, WHO estimates that worldwide only 2 percent of people with HIV were screened for TB.

For this report, the ACTION project analyzed the responses to the co-epidemic of four of the largest HIV/AIDS donors. Acknowledging that much of the response to TB-HIV must be driven by affected country governments and implementing programs, ACTION asked a simple question: are donors doing all they can to ensure that the HIV/AIDS programs they fund are addressing the most likely cause of death among the people they serve?

To answer this question, ACTION analyzed the TB-HIV policies, funding, programming, and monitoring and evaluation (M&E) efforts supported by the United States President's Emergency Plan for AIDS Relief (PEPFAR), the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), the UK Department for International Development (DFID), and the World Bank's Multi-Country HIV/AIDS Program for Africa (MAP). The results of this analysis are described below.

Resources are insufficient. To varying degrees across the donors, TB-HIV activities remain under-funded. WHO projects that approximately $19 billion will be needed to reduce TB-HIV deaths by 80 percent by 2015, including $6 billion specifically for integrated TB-HIV activities. The Global Fund makes its funding levels transparent and accessible, but data show that only a small portion of total HIV/AIDS and TB funding is directed toward TB-HIV activities. In some cases, Global Fund grant proposals include ambitious TB-HIV activities, but without the budget to match. PEPFAR is unique among the donors in having a dedicated budget line for TB-HIV, and available data show a significant scale-up in funding over time. Beyond aggregate funding levels for each country, however, PEPFAR's TB-HIV spending is hard to track. And despite clear increases in funding from year to year, TB-HIV activities continue to comprise only 4 percent of PEPFAR's program budget. DFID and World

Bank documents give no information about funding levels for TB-HIV, and available information about the programs each supports suggests funding levels are likely minimal.

TB-HIV policies vary considerably — from clear and ambitious to incoherent or nonexistent. PEPFAR has coherent, ambitious TB-HIV policies that must be better leveraged to scale up activities at the country level; country implementation of current policy guidance varies widely. The Global Fund Board recently approved a new decision point that calls on grantees to ensure better integration of TB and HIV/AIDS services. To date, however, the Global Fund Secretariat's policy guidance has been weak, embodied by a single footnote on the grant application that encourages TB-HIV integration, and it has relied heavily on technical support provided to applicants by international agencies to ensure that TB-HIV is adequately addressed in proposals. While the Bank's HIV/AIDS Agenda for Action commits to integrating HIV/AIDS services with those for other diseases, particularly TB, the MAP has no strategy for integrating TB and HIV/AIDS efforts. While collaborative TB-HIV activities are eligible for MAP funding, they are not required components of MAP projects. DFID's AIDS strategy recognizes that "more needs to be done" to expand access to TB-HIV services, but it lays out no guidance for doing so.[1] Among 24 DFID country offices responding to a survey, none of their Country Assistance Plans included any mention of TB-HIV.

Unprecedented resources have been invested in HIV/AIDS throughout developing countries, but without a concomitant scale-up in basic TB control and without a concerted response to TB-HIV. TB now threatens the successes borne out of that investment.

Programming is inadequate. PEPFAR planning documents show an upward trend in planned TB-HIV activities over five years, but the scale of planned activities remain modest and PEPFAR's own planning guidance calls TB-HIV scale-up "slow."[2] Further, PEPFAR's TB-HIV activities are characterized primarily by the provision of HIV counseling and testing within TB settings; while this is hugely important, PEPFAR's comparative advantage is to address TB within HIV settings, yet here PEPFAR is lagging. Almost 80 percent of recent Global Fund TB grant proposals, and 40 percent of HIV/AIDS proposals, include at least one TB-HIV collaborative activity. However, an analysis of proposals from nine countries that accounted for more than half of the world's TB-HIV burden in 2006 shows that TB-HIV activities tend to be narrow in scope and fail to include adequate budget lines to achieve specified goals. World Bank MAP project documents make passing reference to TB-HIV, with few planned activities and no discernible budget lines. Though DFID has implemented a small number of important bilateral projects that include collaborative TB-HIV activities, its shift away from project funding toward directly financing country budgets makes it difficult to assess what activities it supports.

Monitoring and evaluation of TB-HIV activities is non-existent, inconsistent, or inadequate. PEPFAR has an M&E framework for TB-HIV, and programs are required to report on several TB-HIV indicators. To date, however, programs have not routinely tracked the numbers of PLWHA screened for TB. PEPFAR is currently in the process of revising its indicators for use during the initiative's second phase, with additional TB-HIV indicators under consideration. The Global Fund recommends a set of TB-HIV indicators

1. DFID. 2008a. Achieving Universal Access – The UK's strategy for halting and reversing the spread of HIV in the developing world. <http://www.dfid.gov.uk/pubs/files/achieving-universal-access.pdf>
2. PEPFAR. 2007b. PEPFAR FY2008 Country Operational Plan Guidance. Washington, DC: OGAC.

for TB and HIV/AIDS programs. However, in-country stakeholders decide which indicators programs will track, creating tension between a country-driven process and the need to ensure programs adequately monitor and evaluate TB-HIV activities. The inconsistency with which TB-HIV indicators have been adopted across Global Fund-supported programs has prevented the Secretariat from monitoring and evaluating the efficacy of TB-HIV activities in the aggregate. The Africa MAP's new M&E framework includes no required TB, TB-HIV, or opportunistic infection (OI) indicators. DFID's new AIDS strategy includes no quantitative TB-HIV indicators within its M&E framework.

Given the immense impact that TB has on the lives of people living with HIV, the above donors have an obligation to pursue TB-HIV integration in an ambitious, transparent, and measurable way. Unprecedented resources have been invested in HIV/AIDS throughout developing countries, but without a concomitant scale-up in basic TB control and without a concerted response to TB-HIV. TB now threatens the successes borne out of this investment. As PLWHA gain greater access to health services, the risks of heightened TB transmission in clinical settings becomes real and substantial. In the worst case, intensive global efforts to reduce the burden of HIV/AIDS may be, albeit unintentionally, facilitating the transmission of the disease most likely to kill people living with HIV.

KEY FINDINGS

United States President's Emergency Plan for AIDS Relief

- PEPFAR has strong policy guidance on TB-HIV, including program-wide goals to achieve, as part of a global effort, universal access to core TB-HIV services. While PEPFAR country teams set annual targets for TB-HIV service implementation, the program does not set aggregate targets.
- Strong guidance backed with significant funding has contributed to several important "success stories" in TB-HIV programming that now must be taken to scale across all supported programs.
- Since 2004, PEPFAR Country Operational Plans (COPs) have shown an increasing number of PEPFAR project components planning to implement at least one TB-HIV activity. Despite progress, in FY08 COPs, just 23.1 percent of project components reported plans to implement at least one TB-HIV activity.
- PEPFAR has had some success scaling up HIV testing in TB settings, but has largely missed leveraging the program's comparative advantage to scale up TB services in HIV settings.
- Country teams are encouraged to screen all PLWHA for TB as a priority, and anecdotal reports suggest that implementing partners are increasingly providing screening. However, PEPFAR does not routinely monitor TB screening for PLWHA and does not know how many PLWHA in its programs have been screened for TB. New "next generation" indicators, if adopted as planned, will make TB screening a standard part of PEPFAR's M&E framework.

Global Fund to Fight AIDS, Tuberculosis and Malaria

- In current Global Fund TB and HIV/AIDS grant application forms, the only guidance recommending TB-HIV integration is included as a footnote, resulting in limited attention paid to TB-HIV in grant proposals.

- An analysis of Global Fund TB and HIV/AIDS proposals from funding Rounds 5 through 7 for nine countries, together accounting for more than half all new estimated TB-HIV cases in 2006, shows that most lacked the basic set of TB-HIV services as recommended in the WHO interim policy.
- In these nine countries only an estimated $6.8 million was budgeted for TB-HIV activities in 2008, and in some cases TB-HIV activities had no associated budget line.
- Global Fund programs have not effectively monitored the implementation of key TB-HIV activities. TB-HIV indicators are recommended, though not required. Variability in the use of indicators across projects has hampered capacity to monitor and evaluate TB-HIV activities in the aggregate.
- In 2008 the Global Fund board adopted a decision point that, if implemented effectively, could lead to significantly improved TB-HIV integration within proposals in future funding rounds.

UK Department for International Development

- Despite a strong policy commitment to TB-HIV, DFID has provided little evidence with which to measure the scale or impact of its support for collaborative TB-HIV activities on the ground. DFID's HIV/AIDS strategy does not outline what specific measures the agency will take to implement its TB-HIV recommendations.
- Half of DFID country offices responding to a survey identified insufficient TB-HIV collaboration as a challenge to addressing TB. Sixty-three percent of country offices anticipated an increase in TB-HIV co-infection rates over the next five years.
- DFID does not track or disaggregate what proportion of its bilateral funding goes to support TB-HIV activities, which may fall under HIV, TB, or broader health budget lines. A survey of DFID country offices demonstrated that they were unable to report how much funding support they have provided for TB-HIV in their respective host countries.

World Bank's Multi-Country HIV/AIDS Program for Africa

- An analysis of publicly available documents suggests that the Africa MAP's efforts to address TB-HIV have been inconsistent and poorly tracked; neither a comprehensive strategy nor M&E framework for TB-HIV has guided activities within the program.
- Though TB-HIV activities are eligible for MAP funding, from public documents it is impossible to determine how much funding, if any, has been provided to support TB-HIV programming.
- MAP projects have not tracked the numbers of PLWHA screened for TB or provided with appropriate follow-up services. The MAP's new M&E framework includes no required indicators to track activities relating to TB-HIV or even OIs generally.
- Compared to first-generation MAP projects, second-generation projects demonstrate limited progress toward carving out space for TB-HIV efforts. A few projects from among the sample analyzed monitor TB-HIV indicators and discuss TB as the OI most likely to kill PLWHA, but it remains impossible to determine the extent to which these projects support TB-HIV activities.

Introduction

"We can't fight HIV/AIDS unless we do much more to fight TB."

~ *Nelson Mandela, 2004*

TB: The Biggest Killer of People Living with HIV

Over the past 10 years, as a consequence of greater political will and the mobilization of massive resources, the world has made historic strides toward reaching the poor with life-saving HIV/AIDS interventions. There is still considerable ground to cover before achieving universal access to services, but in less than a decade over 3 million people in low- and middle-income countries have accessed antiretroviral therapy (ART).

Perversely, in the face of this remarkable global effort, the leading killer of people living with HIV/AIDS (PLWHA) continues to be a curable disease: tuberculosis (TB) (Getahun 2008). For upwards of two decades the HIV/AIDS community has known that TB and HIV/AIDS are intimately linked. For several years the World Health Organization (WHO) has asserted that integrating HIV/AIDS and TB services is essential in countries with substantial burdens of both diseases (WHO 2002). Despite a wealth of evidence showing that the TB and HIV epidemics have converged, however, and despite the existence of clear international guidance calling for the integration of TB-HIV efforts, an effective global response to the co-epidemic has not coalesced.

The news, of course, is not all bad. The global commitment to achieve universal access to ART continues to generate massive support, and some programs — such as those in Rwanda supported by the International Center for AIDS Care and Treatment Programs (ICAP) — have built strong models for delivering TB-HIV services in resource-poor settings. Since 2002, however, more than 2.8 million PLWHA are estimated to have died of TB.[1] Almost 460,000 PLWHA were estimated to have died of TB in 2007 alone, accounting for 23 percent of all estimated HIV/AIDS deaths in that year (WHO 2009b). In Africa, where rates of both diseases are highest, more than half of estimated TB deaths were among those co-infected with HIV. While the available diagnostic tools are by no means ideal, these deaths can be partially attributed to a persistent neglect to routinely screen PLWHA for the disease most likely to kill them. Worldwide, a mere 2 percent of PLWHA were reported to have been screened for TB in 2007 (WHO 2009b).

WHO projects that $19 billion is needed to reduce TB deaths among PLWHA by 80 percent by 2015; $6 billion of this total is needed for integrated TB-HIV activities such as screening PLWHA for TB and providing HIV counseling and testing to TB patients and others at high risk. As they continue to support the scale-up of HIV/AIDS efforts worldwide, donors have both the obligation and the opportunity to leverage their resources, knowledge, and infrastructure to meet these resource needs, and to see that PLWHA are no longer provided with the hope and the means of living with HIV only to die of TB.

Toward urging a concerted, effective response to TB-HIV, this report examines the efforts of four of the world's largest HIV/AIDS donors and asks: *to what extent have they pursued an integrated response to TB-HIV and worked to decrease the burden of TB among PLWHA?*

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1. Based on a March 24, 2009 data query to WHO's Global TB database, accessible via WHO's website.

Background : The TB-HIV Co-epidemic

Despite being curable in the vast majority of cases, TB is the leading cause of sickness and death among PLWHA (Getahun 2008). Approximately one third of all PLWHA are infected with latent TB infection (LTBI), and HIV's attack on the immune system greatly increases the risk that LTBI will progress to active TB — from a 10 percent lifetime risk among those who are HIV-negative to an 8 to 10 percent annual risk in PLWHA (Getahun 2008; Mendelson 2007). Without proper treatment, approximately 90 percent of PLWHA die within months of developing active TB disease (WHO 2009a).

Table 1. Global estimated burden of TB and TB-HIV, 2007

WHO region	No. of new TB cases	TB incidence rate (no. of new cases per 100,000 population)	% of new TB cases that occur in PLWHA	No. of TB deaths	% of TB deaths that occur in PLWHA
Africa	2,879,434	363	38	734,891	51
The Americas	294,636	32	11	40,616	19
Eastern Mediterranean	582,767	105	3.5	104,300	7.4
Europe	431,518	49	9.8	63,765	13
South-East Asia	3,165,139	181	4.6	537,616	7.5
Western Pacific	1,919,306	108	2.7	290,546	5.0
Global	9,272,799	139	15	1,771,773	26

Source: Global Tuberculosis Control: Surveillance, Planning, Financing. WHO Report 2009. Geneva: WHO. WHO/HTM/TB/2009.411

At the population level, HIV/AIDS has fueled a rapid growth in the TB epidemic. Coinciding with an increase in HIV prevalence, the number of annual new TB cases in high HIV-prevalent countries has tripled over the last two decades (The World Bank 2008b). With an estimated 65 percent of the world's HIV/AIDS cases and almost 80 percent of all new cases of TB-HIV co-infection, sub-Saharan Africa has borne a disproportionate burden of disease (UNAIDS 2008; WHO 2009b).

With the recent spread of drug-resistant TB, this already complicated interplay between TB and HIV has only become more deadly, more costly, and more difficult to address. In 2006, the first cases of extensively drug-resistant TB (XDR-TB) were reported in South Africa's rural KwaZulu-Natal province. Among the 53 patients with XDR-TB, 52 died — half within 16 days of being diagnosed. Of the 44 XDR-TB patients tested for HIV, all

were positive (Gandhi et al. 2006). Because most countries throughout Africa have little or no capacity to test for TB drug resistance, and due also to the increased difficulty of treatment and the already high mortality associated with standard TB-HIV co-infection, drug-resistant TB has resulted in mortality rates exceeding 95 percent in PLWHA in some settings (WHO 2008b).

The Policy Response

Responding to the threat posed by TB-HIV co-infection requires integrated service delivery and coordination between TB and HIV programs in endemic countries. However, even in countries with high burdens of both diseases, TB and HIV programs have tended to operate independently, addressing TB and HIV in isolation. Policy recommendations from international technical agencies in the late 1990s reinforced this framework, characterizing TB-HIV as a global health challenge that required "a dual strategy for a dual epidemic" (WHO 2002). Under this paradigm, reducing TB-related morbidity and mortality in high HIV-prevalent settings was best served by providing appropriate care for HIV/AIDS and by implementing a robust TB control strategy based on the DOTS model, with little need for integrated services.[1]

Donors and health programs that fail to address TB as a part of HIV/AIDS services miss the opportunity to impact the disease most likely to kill PLWHA in developing countries.

In order to more effectively tackle the co-epidemic, WHO released new policy recommendations on TB-HIV in 2002, calling for integrated service delivery and greater collaboration between TB and HIV programs (WHO 2002). These recommendations, supplemented and codified in 2004 as WHO's interim policy on collaborative TB-HIV activities, outlined measures to facilitate this collaboration as well as key health interventions for effectively addressing TB-HIV co-infection (Table 2) (WHO 2004). The interim policy explained that TB-HIV coordination does not require the creation of new disease control programs, but rather the establishment of mechanisms for collaboration between TB and HIV/AIDS programs, using existing infrastructure and resources to 1) decrease the burden of TB in PLWHA and 2) decrease the burden of HIV in TB patients. In addition, the policy highlighted that, while DOTS is and has been an effective method for controlling TB prevalence in the general population, additional measures are needed to decrease high HIV-associated TB incidence and to reduce the high risk of TB morbidity and mortality in PLWHA (Corbett et al. 2007).

1. Directly Observed Therapy Short Course, or DOTS, is the WHO's recommended clinical model for treating drug-susceptible strains of TB, combining standardized treatment guidelines with supervision and patient support.

Table 2. Recommended collaborative TB-HIV activities

A. Establish the mechanisms for collaboration
A.1 Set up a coordinating body for TB/HIV activities effective at all levels
A.2 Conduct surveillance of HIV prevalence among tuberculosis patients
A.3 Carry out joint TB/HIV planning
A.4 Conduct monitoring and evaluation
B. Decrease the burden of tuberculosis in people living with HIV/AIDS
B.1 Establish intensified tuberculosis case-finding
B.2 Introduce isoniazid preventive therapy
B.3 Ensure tuberculosis infection control in health care and congregate settings
C. Decrease the burden of HIV in tuberculosis patients
C.1 Provide HIV testing and counseling
C.2 Introduce HIV prevention methods
C.3 Introduce co-trimoxazole preventive therapy
C.4 Ensure HIV/AIDS care and support
C.5 Introduce antiretroviral therapy

Source: WHO. Interim Policy on Collaborative TB/HIV Activities. 2004.

In 2008, WHO branded these additional measures to reduce the burden of TB in PLWHA in hopes of spurring greater uptake and implementation of recommended policies in endemic countries (WHO 2008b). Coined the "Three I's," these interventions include:

- Intensified case finding: regularly screening people with at risk for HIV, as well as people in congregate settings (such as mines, prisons, or military barracks) for TB, providing appropriate treatment and care, and then providing the same services for household contacts.
- Isoniazid preventive therapy (IPT): providing isoniazid treatment to all PLWHA without active TB, which can reduce the chance of developing TB by 33-67 percent for up to two years.
- Infection control: taking measures to prevent the spread of TB germs to vulnerable patients, health workers, the community and people living in congregate settings (WHO 2008b).

Benefits of TB-HIV Integration

Providing routine HIV counseling and testing in TB clinics and TB testing in HIV sites allows patients to access a continuum of prevention, care, and treatment services for both HIV/AIDS and TB. Identifying and treating

TB in PLWHA can reduce early TB-related mortality and morbidity in co-infected patients and can sustain life long enough for PLWHA to access antiretroviral (ARV) drugs and other crucial HIV/AIDS treatments (Crofton, Horne, and Miller 1999). TB testing also provides access to key follow-up services for PLWHA who test negative for TB disease, most notably isoniazid preventive therapy, which protects against the development of active TB (Grant et al. 2005; Zar et al. 2006).

Some researchers estimate that the transmission of TB within clinical settings is responsible for up to 50 percent of TB disease in some HIV clinics, suggesting that a significant portion of new HIV-associated TB cases may therefore be an unintended consequence of the massive scale-up of HIV services (NAM 2008). Infection control measures, properly implemented, reduce TB transmission in health care settings, and can thus prevent HIV/AIDS facilities from themselves placing PLWHA at risk for TB infection (Escombe et al. 2007).

Since the release of WHO's interim policy, an increasing number of countries have begun to address TB-HIV in tandem and improve the coordination of their TB and HIV control efforts (WHO 2008a). As a result of the separate tracks historically taken by TB and HIV/AIDS programs, however, cross-screening rates (i.e., HIV testing for TB patients and TB screening among PLWHA) continue to be very poor, particularly in countries with some of the highest rates of both diseases. Similarly, the provision of follow-up services for the prevention, treatment, and care of co-infection has been anemic (ACTION 2008b; TB/HIV Working Group 2008).

To date, scaling up HIV counseling and testing for TB patients has produced some of the greatest successes in TB-HIV integration. Progress, however, has been strikingly uneven. The highest performing countries report screening over 80 percent of TB patients for HIV, but continent-wide, only 37 percent of all notified TB patients in Africa were reported tested for HIV in 2007 (WHO 2009b).[2]

In contrast, efforts to reduce the burden of TB in PLWHA have been uniformly poor. Worldwide, only an estimated 2.2 percent of PLWHA were screened for TB in 2007 (WHO 2009b). Similarly, in 2007 fewer than 30,000 people were reported to have been placed on IPT (WHO 2009b).[3] Though 100 countries have adopted national policies around IPT, only 29 of these countries reported having actually provided the service (WHO 2009b).

The recent scaling up of HIV testing in TB settings has led to a dramatic increase in the numbers of patients found to be co-infected, boosting global estimates — and creating a more accurate picture — of the numbers of PLWHA who annually develop and die from TB disease. Between 2006 and 2007, the number of new TB cases worldwide remained steady; the number (and proportion) of new TB cases occurring in PLWHA doubled. This is not to say that twice as many people were newly co-infected with TB and HIV/AIDS in 2007 than in 2006, but rather that previous years' estimates for TB-HIV co-infection were greatly understated, possibly by as much as half. WHO now estimates that 21 percent of those diagnosed with TB are HIV-positive, amounting to 1.4 million people in 2007. Almost 1.1 million (79 percent) of these newly co-infected persons live in the Africa region, where 38 percent of persons with TB are HIV-positive and 51 percent of TB deaths are among PLWHA. This epidemiological picture, far more serious than previously thought, heightens the urgency with which TB-HIV collaboration must be pursued in endemic countries.[4]

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2. This represents an increase over 2006, during which only 22 percent of TB patients in Africa were reported screened for HIV.
3. This number is based on reporting by only 42 countries that together account for 46 percent of estimated HIV-positive people eligible for IPT. As such, the provision of IPT in countries that did not report on this activity for 2007 is not reflected in this total.
4. Because TB-HIV data for 2007 did not become available until shortly before this report's release, this report's analysis of major HIV/AIDS donors was conducted in the context of 2006 data.

Risk and Opportunity

WHO projects that approximately $19 billion is needed to reduce TB-HIV deaths by 80 percent by 2015 (ACTION 2008a). This figure includes general TB control and TB research and development costs attributable to HIV, as well as roughly $6 billion specifically for collaborative TB-HIV activities (Table 3). As international donors invest substantial resources in HIV/AIDS programs in endemic countries, they must contribute their fair share of the $6 billion needed for TB-HIV activities. Donors and health programs that fail to address TB as a part of HIV/AIDS services not only miss the opportunity to impact the disease most likely to kill PLWHA in developing countries, but they risk exacerbating the TB-HIV co-epidemic as well, by increasing opportunities for the nosocomial transmission of TB among HIV/AIDS patients and health workers (Joshi et al. 2006).

Table 3. Global TB-HIV costs, 2008–2015 (USD Millions)

Year	TB Implementation Costs Attributable to HIV			Collaborative TB/HIV Activities	R&D	Total
	DOTS	MDR/XDR	ACSM			
2008	733	26	58	536	667	2,020
2009	791	35	61	615	667	2,168
2010	844	52	66	689	667	2,319
2011	866	54	70	742	667	2,400
2012	912	57	75	768	667	2,479
2013	961	59	81	795	667	2,564
2014	1,017	61	87	825	667	2,657
2015	1,076	61	94	858	667	2,756
Total	**7,201**	**404**	**594**	**5,828**	**5,336**	**19,362**

(Total Global Plan implementation costs, 2008-2015 equal U.S.$45.3 billion.)

DOTS & ACSM: costs were attributed to HIV according to the projected proportion of TB patients who are HIV-positive in each of the Global Plan's seven geographic regions. These subtotals were summed to provide the global totals provided above. Approximately one-third of total DOTS and ACMS implementation costs are attributable to HIV.

MDR/XDR-TB: costs were attributed to HIV based on the cost of treating MDR- and XDR-TB in people living with HIV/AIDS in 27 identified "high priority" countries, which account for nearly all global prevalence of drug-resistant TB.

R&D: One third of R&D resource needs as identified by Treatment Action Group are attributable to HIV, consistent with implementation costs.

This report considers the efforts to address TB-HIV co-infection of four of the world's largest HIV/AIDS donors: the United States President's Emergency Plan for AIDS Relief (PEPFAR), the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), the UK Department for International Development (DFID), and the World Bank's Multi-Country HIV/AIDS Program for Africa (MAP). These donors have a vested interest to keep TB from undermining their efforts — and the funding they have invested — in the fight against HIV/AIDS. By screening for, treating, and stopping TB's spread among PLWHA, and by providing routine HIV/AIDS testing, counseling, and treatment to patients in TB settings, they face an enormous opportunity to reduce the burdens of both diseases. Most importantly, they have an obligation to see that PLWHA are not provided with the hope and the means of living with HIV only to die of TB.

US President's Emergency Plan for AIDS Relief

KEY FINDINGS

- The United States President's Emergency Plan for AIDS Relief (PEPFAR) has strong policy guidance on TB-HIV, including program-wide goals to achieve, as part of a global effort, universal access to core TB-HIV services. While PEPFAR country teams set annual targets for TB-HIV service implementation, the program does not set aggregate targets.
- Strong guidance backed with significant funding has contributed to several important "success stories" in TB-HIV programming that now must be taken to scale across all supported programs.
- Since 2004, PEPFAR Country Operational Plans (COP) have shown an increasing number of PEPFAR project components planning to implement at least one TB-HIV activity. Despite progress, in FY08 COPs, just 23.1 percent of project components reported plans to implement at least one TB-HIV activity.
- PEPFAR has had some success scaling up HIV testing in TB settings, but has largely missed leveraging the program's comparative advantage to scale up TB services in HIV settings.
- Country teams are encouraged to screen all PLWHA for TB as a priority, and anecdotal reports suggest that implementing partners are increasingly providing screening. However, PEPFAR does not routinely monitor TB screening for PLWHA and does not know how many PLWHA in its programs have been screened for TB. New "next generation" indicators, if adopted as planned, will make TB screening a standard part of PEPFAR's monitoring and evaluation (M&E) framework.

BACKGROUND

Administered by the federal Office of the Global AIDS Coordinator (OGAC), the United States (US) President's Emergency Plan for AIDS Relief (PEPFAR) is the US' primary vehicle for combating the global HIV/AIDS epidemic. Authorized by Congress in 2003, PEPFAR provided $18.8 billion from FY04 to FY08 to support HIV/AIDS prevention, treatment, and care services, mostly within 15 focus countries.[1,2] In 2008, Congress reauthorized PEPFAR for an additional five years, permitting the US government to provide at least $48 billion for global HIV/AIDS, TB, and malaria programs from FY09 through FY13.[3]

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1. The fiscal year for the United States Government runs from October 1 through September 31.
2. PEPFAR's 15 focus countries include Botswana, Cote d'Ivoire, Ethiopia, Guyana, Haiti, Kenya, Mozambique, Namibia, Nigeria, Rwanda, South Africa, Tanzania, Uganda, Vietnam, and Zambia.
3. The Tom Lantos and Henry J. Hyde United States Global Leadership Against HIV/AIDS, Tuberculosis and Malaria Reauthorization Act of 2008 authorized $4 billion for TB and $5 billion for malaria, included within the $48 billion total. The congressional appropriations process will annually determine the exact levels of funding devoted to these three diseases. Because the bill authorized $2 billion in FY09 for the Global Fund to Fight AIDS, Tuberculosis and Malaria and "such sums as necessary" thereafter, it is difficult to identify an exact authorized funding level for HIV/AIDS programs.

In PEPFAR's first year, TB-HIV received little attention and almost no funding. Since then, however, the initiative has increased support for TB-HIV activities each year, from $25.5 million in FY05 (2 percent of its program budget) to over $169 million in FY08 (4.3 percent of its program budget).[4] In FY07, PEPFAR identified TB-HIV as one of the initiative's three "priority program areas" (PEPFAR 2006d).

As a result of increased funding and more focused policy, PEPFAR has scaled up delivery of some TB-HIV services — notably the provision of HIV counseling and testing to TB patients and others at high risk for TB infection. Overall, however, PEPFAR's TB-HIV programming remains modest in light of both the need and the initiative's goals. PEPFAR does not know how many PLWHA have been screened for TB in its programs, and anecdotal evidence suggests minimal progress in this area over five years. Furthermore, FY08 Country Operational Plans (COPs) for the 12 focus countries in sub-Saharan Africa show that only 23.1 percent of all project components include at least one TB-HIV activity.[5] OGAC must collaborate with host governments and implementing partners to fill these program gaps, ensuring that all patients receiving support from PEPFAR have access to the full range of appropriate TB-HIV interventions.

POLICIES

US government teams working at the country level are instructed to "seek all opportunities to improve coordination of TB and HIV/AIDS interventions" and to allocate resources so as to achieve the following objectives:

- Diagnose, care, and treat all PLWHA with active TB disease;
- Provide HIV counseling and testing for all patients who are seeking care in TB programs; and
- Provide preventive TB care for PLWHA who are not diagnosed with active TB (consistent with local guidelines) and ensure that all eligible co-infected PLWHA receive antiretroviral therapy (PEPFAR 2006b).

These are ambitious goals to which PEPFAR expects to contribute as part of a global effort. They are not, however, specific project outcomes that PEPFAR plans to achieve on its own. PEPFAR has no aggregate five-year targets for TB-HIV services, as it does for HIV/AIDS prevention, treatment, and care. Instead, PEPFAR sets annual targets for TB-HIV activities for each focus country. COP Guidance notes, however, that these annual targets are "motivational targets" only, intended to serve as points of reference rather than hard targets for which country teams will be held accountable (PEPFAR 2005c).

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4. Total funding for the TB-HIV program area includes programmatic funding, as well as expenses associated with central procurement, supply chain, technical leadership and support, strategic information, management and staffing, policy analysis, systems strengthening activities, and other administrative or indirect costs that are attributed to the TB-HIV program area at the aggregate level.

5. OGAC requires each PEPFAR focus country team to submit an annual HIV/AIDS program plan, known as a Country Operational Plan. Country teams develop COPs based on initial country budgets and technical guidance provided by OGAC. Technical guidance is provided in the form of a Country Operational Plan Guidance document, which outlines COP requirements, priority interventions, limitations on PEPFAR support, and other guidelines that are applicable to each fiscal year. While COPs are not exhaustive planning documents, they do provide a picture of country priorities from year to year that generally track with PEPFAR's reported annual TB-HIV outputs. In instances where COPs described an increase over the previous year in the percentage of project components implementing at least one TB-HIV activity, PEPFAR reported an increase in patients reached with TB-HIV services during that year. In instances where COPs described a decrease in the percentage of project components implementing at least one TB-HIV activity, PEPFAR reported a decrease in patients reached. It important to note that an analysis of COPs is limited. In this case, while 23.1 percent of program components reported plans to implement at least one TB-HIV activity, there is no objective way to determine exactly what percentage of project components should include at least one TB-HIV activity in order to achieve PEPFAR's goals. In the absence of more detailed, publicly available programming data, however, the analysis of COPs provides a useful, if limited, method for evaluating country-level plans.

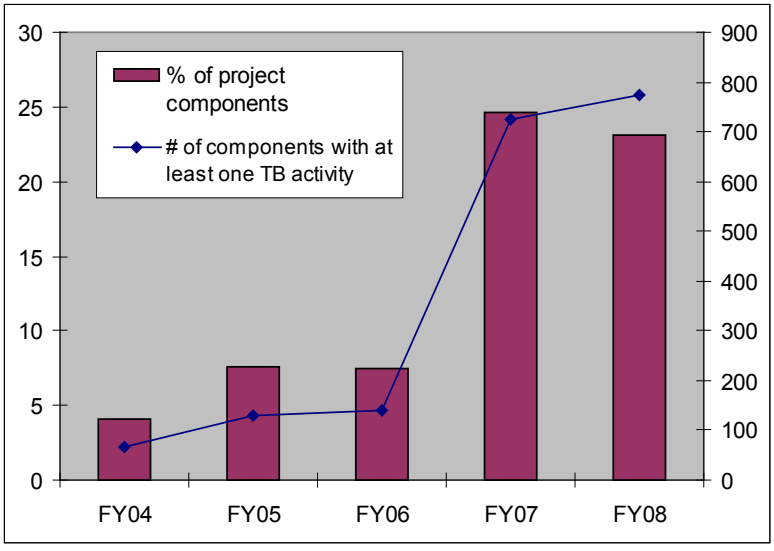
FY08 Country Operational Plan Guidance described previous years' efforts to scale-up of TB-HIV activities as "slow" and referred to "broad gaps" in TB-HIV programming in all PEPFAR focus countries (PEPFAR 2007b). To speed progress in scaling up TB-HIV service delivery, this guidance requested that PEPFAR country teams "significantly increase Emergency Plan resources and attention dedicated to this priority area" (PEPFAR 2007b). In FY09, OGAC officials report that further steps have been taken to improve TB-HIV service scale-up, specifically that requirements for TB screening and TB infection control have been established for PEPFAR's second phase (FY09–FY13) and that all care and treatment programs will be expected to have a TB-HIV strategy in place and a system to monitor its implementation (OGAC, personal communication 2009).

PROGRAMMING

To determine how the scale-up of TB-HIV activities has been reflected in country program planning, the ACTION project analyzed COPs for the 12 PEPFAR focus countries in sub-Saharan Africa for FY04–FY08. ACTION reviewed individual project components and identified those describing at least one TB-HIV activity.[6]

This analysis showed that the percentage of project components that included at least one TB-HIV activity increased from 4.1 percent in FY04 to 23.1 percent in FY08 (Figure 2). From FY06 to FY07 alone, the percentage of project components including at least one TB-HIV activity tripled from 7.5 percent to 24.6 percent. Though the number of project components including at least one TB-HIV activity increased from the previous year, the percentage dropped slightly to 23.1 percent in FY08. While this still represents a substantial increase over the FY04 baseline, less than one quarter of project components included at least one TB-HIV activity after five years of operation.

Figure 1. Project components in PEPFAR focus countries in sub-Saharan Africa that include at least one TB-HIV activity, FY04–FY08



6. COPs provide a short description of each individual project that will be implemented in a country during the next fiscal year. Projects descriptions are sometimes broken up into multiple entries, with each entry describing the portion of a project that pertains to each of several PEPFAR program areas (e.g., counseling and testing, ART, TB-HIV). For the purposes of this analysis, each entry constitutes a "project component." Examples of TB-HIV activities described in project components include but are not limited to: conducting VCT for TB patients, developing referral networks for co-infected clients, training for health workers and laboratory technicians, and technical assistance around TB-HIV integration.

PEPFAR publishes few outcome data describing its delivery of TB-HIV services. PEPFAR's annual reports to Congress provide data regarding its efforts to treat HIV/AIDS patients for TB (Table 4), but little other data are available regarding the extent to which PEPFAR has impacted the burden of TB among PLWHA or the burden of HIV/AIDS among TB patients.[7]

Table 4. Number of PLWHA receiving TB care and treatment services at USG-funded health centers in PEPFAR focus countries

Country	FY04	FY05	FY06	FY07	FY08	Total FY04–07
Botswana[a]	1,100	200	5,900	6,300	2,900	16,400
Cote d'Ivoire	7,500	1,400	1,500	2,700	3,900	17,000
Ethiopia	1,000	33,000	11,000	11,600	26,900	83,500
Guyana	15	200	300	200	200	915
Haiti	300	1,800	1,000	1,600	1,600	6,300
Kenya	59,700	63,200	59,800	57,900	40,000	280,600
Mozambique	0	0	1,700	5,900	7,000	14,600
Namibia	1,700	14,300	3,000	10,900	7,600	37,500
Nigeria	0	33,200	6,200	18,500	32,200	90,100
Rwanda	1,500	400	600	1,600	1,400	5,500
South Africa	3,300	14,100	28,800	54,600	81,200	182,000
Tanzania	200	400	6,200	8,100	15,400	30,300
Uganda	10,300	14,300	14,600	11,600	12,800	63,600
Vietnam	33	300	1,600	2,500	4,200	8,633
Zambia	15,100	2,600	2,700	12,000	22,500	54,900
Total	**101,748**	**179,400**	**144,900**	**206,000**	**259,800**	**891,848**

[a] Treatment numbers for Botswana for FY06 through FY08 incorporate both patients directly reached with TB-HIV services as well as patients reached with TB-HIV services through PEPFAR's support for health system strengthening. Only a single indicator incorporating both upstream and downstream treatment outcomes has been reported since FY06, following an agreement reached between the USG and the Government of Botswana.

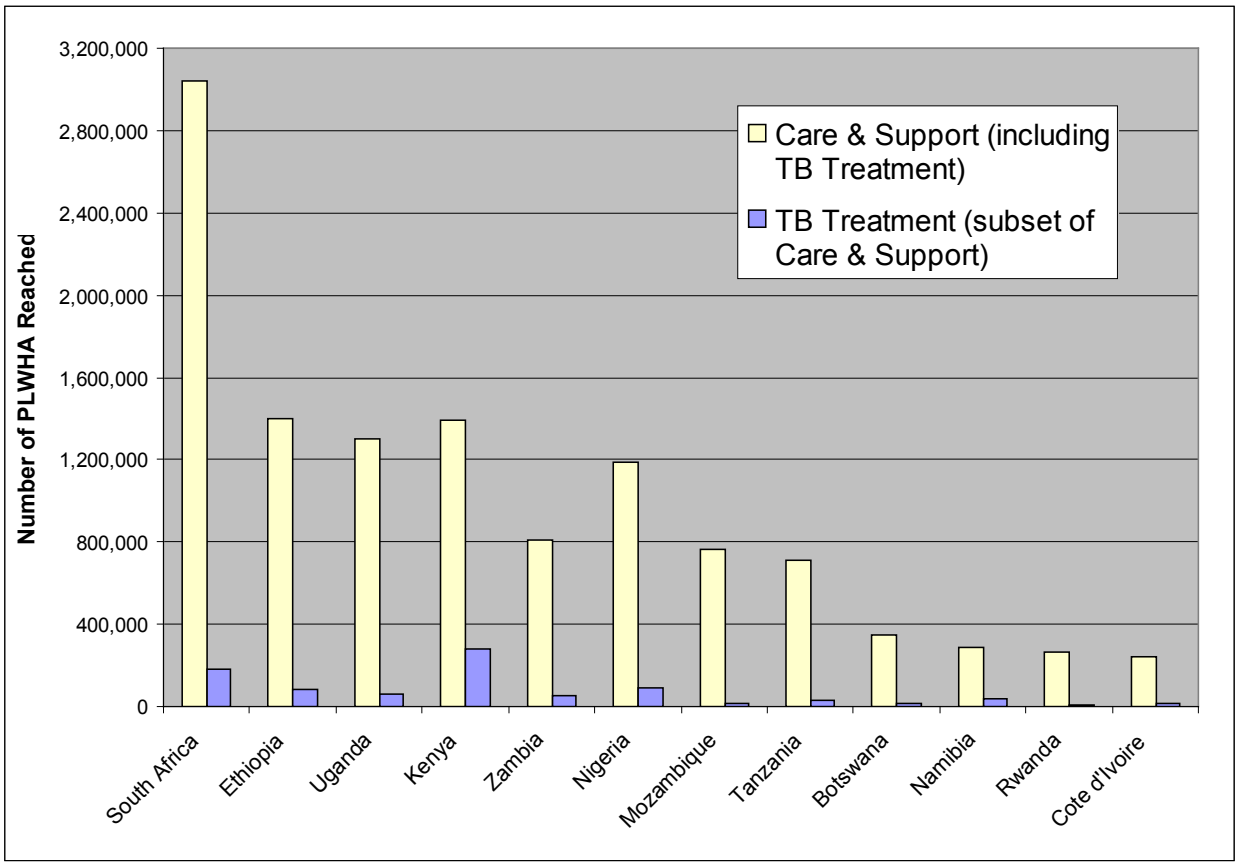
From FY04 to FY08, PEPFAR reports that it reached approximately 891,848 HIV-positive patients with TB care and treatment in United States Government (USG)-supported health care service centers.[8] Though a considerable number, PEPFAR has significant ground to cover before it is providing TB-HIV services to all PLWHA receiving care and support in health care facilities that receive PEPFAR funding. Figure 1 compares the number of PLWHA being treated for TB in PEPFAR-support facilities against the total number of PLWHA receiving care and support services in those facilities. As this graph shows, there is a pronounced gap between the total number

7. For FY05 and FY06, PEPFAR reported on the number of HIV-positive patients receiving "TB care and treatment." Beginning with FY07, PEPFAR began to report on the number of HIV-positive patients receiving "treatment for TB disease."

8. This number accounts for HIV-positive patients receiving treatment for TB disease in PEPFAR's 15 focus countries only. PEPFAR reports that an additional 658,200 HIV-positive patients were reached in its focus countries through "upstream" systems strengthening, which contributed to the provision of treatment for TB disease in settings not directly supported with PEPFAR funding. Annual reports do not provide the methodology used to quantify the numbers reached through upstream support.

of PLWHA receiving care and support services and those PLWHA who are being treated for active TB disease as part of their care package.[9] Roughly 33 percent of the PLWHA who were reported screened for TB in 2007 were found to have active TB disease and require treatment (WHO 2009b). In contrast, less than 7.5 percent of PLWHA receiving care and support services in PEPFAR-supported health facilities in the 13 PEPFAR focus countries in sub-Saharan Africa received treatment for TB between FY04 and FY08.

Figure 2. PLWHA directly reached with care and support and TB treatment in PEPFAR focus countries in sub-Saharan Africa, FY05–FY08



Publicly available data present an incomplete picture of TB-HIV services supported by PEPFAR in its focus countries. The data that are available, however, show a substantial increase in the expansion of HIV/AIDS services into TB settings. For example, in Rwanda PEPFAR has contributed to 89 percent of TB patients being tested for HIV, with 61 percent of those found to be co-infected provided with cotrimoxazole preventive therapy (CPT) and 39 percent put on ART (Dybul 2008). In Mozambique, 74 percent of patients in TB clinics have been tested for HIV as part of a PEPFAR-supported program implemented by ICAP (Ryan 2008). Of those found to be co-infected, 89 percent were given CPT and 95 percent were referred to ART services (Ryan 2008). In Tanzania, the percentage of TB patients tested for HIV in a TB-HIV pilot site in Tanzania's Kilimanjaro region increased from 50 percent to 83 percent between 2006 and the second quarter of 2008. Of those TB patients

9. Along with gaps in service delivery, Figure Y reveals a data gap, as the "treatment for TB disease" figures that are reported do not paint the whole picture. A more informative analysis would be possible if total care figures could be compared with the number of TB screenings in HIV settings, as well as with the number of PLWHA reached with other TB-HIV services, such as IPT.

found to be HIV-positive in 2008, 98 percent were referred to HIV clinics, and 98 percent were provided with CPT (Ryan 2008).

While expanding HIV testing and services into TB settings is critical to reducing TB-HIV co-infection, screening all PLWHA for TB is equally important. Yet here PEPFAR is lagging. Country teams are encouraged to screen all PLWHA for TB, and anecdotal evidence suggests a number of implementers are providing screening (PEPFAR, personal communication 2009). However, PEPFAR does not know how many PLWHA have been screened across all of its programs.

In those countries for which some information on TB screening among PLWHA is available, data show that PEPFAR-supported HIV programs are nowhere near providing routine screening. For example, in Tanzania, OGAC reported in 2008 that no TB screening was being performed at HIV identification points (e.g., voluntary counseling and testing [VCT] or prevention of mother-to-child transmission [PMTCT] sites), and that, while there was some increase in TB testing within HIV clinics between the first quarter of 2007 and July 2008, the size of this increase was not what OGAC hoped for (Ryan 2008). As recently as 2007, only 26 percent of the HIV patients in Mozambique's PEPFAR-supported ICAP program were being screened for TB, increasing to 50 percent in 2008 following the introduction of a new algorithm for diagnosing TB. PEPFAR identifies Mozambique as a high-performing country for TB-HIV (Ryan 2008).

PEPFAR has begun to identify obstacles to scaling up TB services in HIV settings — citing, for example, that ARV treatment sites in most supported programs have no method for recording when a TB screening takes place, that a standardized protocol for TB screening in HIV services does not exist, and that there is limited access to the necessary diagnostic tests for TB-HIV (Dybul 2008; Ryan 2008). Now that these obstacles have been identified, OGAC must address each one to ensure that all PLWHA receiving support are screened for TB and provided appropriate care. As evidence that this is occurring to at least some extent, OGAC reports that it is working with WHO and in-country stakeholders to develop and implement more sensitive screening tools for identifying TB in HIV/AIDS patients (PEPFAR, personal communication 2009).

In order to contribute to the goal of reaching all PLWHA with TB services, all qualifying HIV-positive individuals in USG-supported centers should be screened and started on either TB treatment or preventive therapy in line with national guidelines. However, even accounting for the relative success that PEPFAR has achieved in some countries — notably Kenya, where PEPFAR had been reaching over 50,000 PLWHA with TB treatment annually prior to FY08 — each focus country continues to show significant gaps in TB-HIV programming.

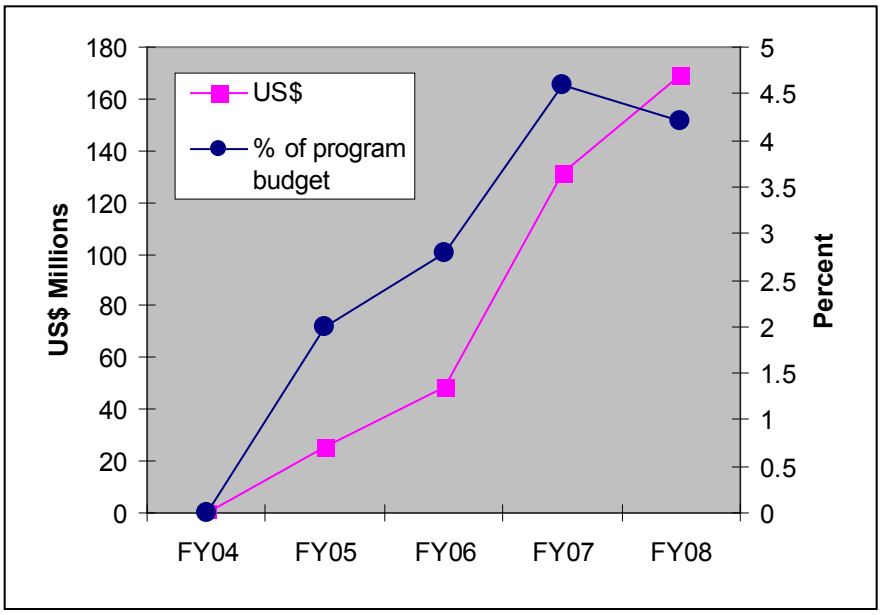
All PLWHA receiving treatment, care, or support from USG-supported centers should be screened and started on either TB treatment or isoniazid preventive therapy in line with international guidance.

FUNDING

Though its funding levels remain modest relative to the need, PEPFAR has substantially increased resources for TB-HIV activities since its first year of operation. From FY05 to FY08, PEPFAR increased funding for TB-HIV activities from 2 percent to 4.2 percent of its

total annual program budget — an increase of more than $140 million in annual spending — and total support for TB-HIV activities during its initial five-year period exceeded $374 million (Figure 3).

Figure 3. PEPFAR funding for TB-HIV activities, FY04–FY08.



According to WHO calculations, however, a minimum investment of $536 million in collaborative TB-HIV activities was needed in 2008 alone in order to contribute to reducing TB deaths among PLWHA by 80 percent by 2015. By this metric, PEPFAR's TB-HIV spending has been significant, but continued scale-up is still needed.

WHO projects that the annual minimum investment required for collaborative TB-HIV activities will rise each year. Moreover, as it moves into its second phase, PEPFAR must expand services to harder-to-reach communities and will engage with potentially many more countries as it moves beyond the focus country model. PEPFAR's support for TB-HIV must increase in line with both challenges.

MONITORING & EVALUATION

For FY08, PEPFAR country teams were required to set annual targets and to report on four TB- and TB-HIV-related indicators (PEPFAR 2007b):

- Service outlets providing clinical prophylaxis and/or treatment for TB to HIV-infected individuals (diagnosed or presumed) in a palliative care setting;
- HIV-infected clients attending HIV care/treatment services that are receiving treatment for TB disease;
- Individuals trained to provide clinical treatment for TB to HIV-infected individuals (diagnosed or presumed); and
- Registered TB patients who received counseling and testing for HIV and received their test results at a USG-supported TB service outlet.

In FY08, two changes were made to previous years' TB-HIV reporting requirements. First, PEPFAR added the indicator to track VCT for TB patients. Second, because there was little effective adoption of international recommendations around IPT in its focus countries, PEPFAR removed an indicator to track the number of HIV-positive clients provided with TB preventive therapy (PEPFAR, personal communication 2009). Eliminating this indicator reduced PEPFAR's capacity to evaluate the delivery of a critical service to co-infected patients, but the indictor could be re-instated for FY10, as described below.

As part of its effort to improve the M&E framework in its second phase, PEPFAR is revising its TB-HIV indicators. In addition to an indicator to track the percent of eligible HIV-positive patients who start IPT, other TB-HIV indicators under consideration include: the percent of HIV-positive patients who were screened for TB; the percent of HIV-positive patients diagnosed with TB who start TB treatment, and the percent of TB patients who had an HIV test result recorded in the TB register. Adopting these new indicators would improve PEPFAR's capacity to evaluate its TB-HIV programming and track progress toward its goals.[10] Further, PEPFAR is considering these new indicators in coordination with WHO, UNAIDS, and the Global Fund, and this collaborative effort should contribute to a harmonization of TB-HIV activities across donors through uniform data collection and the application of compatible evaluation criteria (PEPFAR, personal communication 2009).

RECOMMENDATIONS

As gaps persist in all focus countries, OGAC should work more proactively with country teams to expand and improve implementation of TB-HIV activities. In order to address these gaps, OGAC must continue to scale up resources for TB-HIV in order to meet the demand for services. Programming must be broadened to ensure that patients have access to the full range of TB-HIV interventions. Toward these ends, ACTION recommends the following:

- The same energy and focus with which HIV testing has been pursued in TB settings in some countries must be extended to ensure that every person receiving HIV services is routinely screened for TB.
- The implementation of the Three I's — intensified case finding, isoniazid preventive therapy, and infection control — should be a core element of all HIV/AIDS service scale-up in settings with high rates of co-infection.
- PEPFAR should set aggregate 5-year TB-HIV goals that will guide annual target-setting for individual countries.
- To continue expanding TB-HIV programming, PEPFAR should at minimum double TB-HIV expenditures to over $300 million in FY09.

10. At the time this report was written, OGAC was planning to soon finalize the new M&E framework.

Global Fund to Fight AIDS, Tuberculosis and Malaria

KEY FINDINGS

- In current Global Fund TB and HIV/AIDS grant application forms, the only guidance recommending TB-HIV integration is included as a footnote, resulting in limited attention paid to TB-HIV in grant proposals.
- An analysis of Global Fund TB and HIV/AIDS proposals from funding Rounds 5 through 7 for nine countries, together accounting for more than half all new estimated TB-HIV cases in 2006, shows that most lacked the basic set of TB-HIV services as recommended in the WHO interim policy.
- In these nine countries only an estimated $6.8 million was budgeted for TB-HIV activities in 2008, and in some cases TB-HIV activities had no associated budget line.
- Global Fund programs have not effectively monitored the implementation of key TB-HIV activities. TB-HIV indicators are recommended, though not required. Variability in the use of indicators across projects has hampered capacity to monitor and evaluate TB-HIV activities in the aggregate.
- In 2008 the Global Fund board adopted a decision point that, if implemented effectively, could lead to significantly improved TB-HIV integration within proposals in future funding rounds.

BACKGROUND

The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) was established in 2002 to mobilize new resources to combat HIV/AIDS, TB, and malaria in regions most in need of support. It has since become the largest external funder of TB programs and provides roughly one quarter of international funding for HIV/AIDS (GFATM 2005a). Funded through voluntary contributions from donor countries, foundations, and the private sector, the Global Fund is a financing agency only, granting funds in response to proposals submitted by stakeholders in low- and middle-income countries. The Global Fund has approved over $15.1 billion in grant funding, with over $7.29 billion disbursed and more than $10.4 billion committed.[1] Its innovative model of country-owned, transparent, results-driven funding has met with considerable success, demonstrating the efficacy of this new approach to financing development and saving an estimated 3.5 million lives to date.

Applicants for Global Fund grants have considerable freedom to structure their proposals as they see fit, provided they are technically sound and adhere to the Global Fund's core operational principles.[2] The Global Fund Secretariat reviews all proposals for funding eligibility, forwarding qualifying submissions to the Global Fund's

1. All funding amounts are based on a detailed grant report from the Global Fund's website, accessed on February 19, 2009.
2. Funding requested from the Global Fund must supplement, not replace, existing resources. Programs must also pursue tangible time-bound goals, reflect broad-based country ownership, align with national strategic plans for disease control, and move toward achieving sustainability of interventions.

Technical Review Panel (TRP). The TRP reviews them for "technical merit" based on soundness, feasibility, and sustainability (GFATM 2008e). Proposals failing to meet these criteria may be recommended for rejection or re-submission pending substantive revision.

Available information suggests that the Global Fund has supported comparatively few TB-HIV activities, and even fewer at the scale needed, as part of its $15.1 billion in approved grant funding. An analysis of Global Fund grant proposals for nine sub-Saharan African countries, together home to more than half of all new TB cases in PLWHA in 2006, shows that only an estimated $36.9 million was budgeted for collaborative TB-HIV activities in these countries during Rounds 5 through 7.[3] Only an estimated $6.8 million in Global Fund support was budgeted for the implementation of TB-HIV activities in 2008.

At its most recent meeting, the Global Fund Board adopted a decision point that calls on funding applicants to address TB-HIV in their grant proposals. In addition, the Global Fund reports that it will soon complete and widely disseminate a TB-HIV fact sheet, so that applicants are better informed of the need to include TB-HIV activities in Round 9 proposal submissions (GFATM, personal communication 2009). Both of these measures represent progress. However, further action is necessary to ensure that the Global Fund Secretariat, TRP, and Board encourage expanded and comprehensive TB-HIV programming so that TB-HIV services are actually taken to scale.

An analysis of Global Fund grant proposals for nine sub-Saharan African countries, together home to more than half of all new TB cases in PLWHA in 2006, shows that only an estimated $36.9 million was budgeted for collaborative TB-HIV activities during Rounds 5 through 7.

POLICIES

As a "country driven" funding mechanism, the Global Fund recognizes that "in-country settings have a significant impact on what is appropriate to particular country contexts…there is no 'one list' of what should be included in proposals" (GFATM 2008b). The principle of country ownership lies at the core of the Global Fund's model, and as such it allows grantees considerable flexibility in the design of programs.

However, while applicants are responsible for developing the core elements of grant proposals, grantees often seek guidance from international technical agencies during proposal development, and this guidance can play a significant role in shaping program content. The Global Fund itself also exerts some influence over specific aspects of proposed health programs, mandating that proposed health programs meet certain minimum requirements around quality and process.

All Global Fund-supported programs must procure second-line TB drugs through the Green Light Committee, for example, and funding recipients must draw pharmaceutical products from either national or international standard treatment guidelines or the WHO's essential medicines lists. If proposal applicants are from middle-income countries, proposed health programs must focus interventions primarily on key affected populations and those living in poor regions. As part of every grant proposal, applicants must answer specific questions regarding each of these issues, describing if and how each requirement will be met, or otherwise justify their request for an exemption.

3. The nine countries are Botswana, Ethiopia, Kenya, Lesotho, Malawi, Rwanda, South Africa, Swaziland, and Tanzania.

The Global Fund has not placed comparable weight on the importance of integrating TB and HIV/AIDS services. Since Round 5, the Global Fund has encouraged grantees to implement TB-HIV activities, but only by including the following text as a footnote on the Global Fund's grant application form:

> In contexts where HIV/AIDS is driving the tuberculosis epidemic, HIV/AIDS and/or tuberculosis components should include collaborative tuberculosis/HIV activities. Different tuberculosis and HIV/AIDS activities are recommended for different epidemic states; for further information see the 'WHO Interim policy on collaborative TB-HIV activities,' available at http://www.who.int/tb/publications/tbhiv_interim_policy/en/.

This language is merely advisory and serves as the single substantive mention of TB-HIV in either the proposal application or the accompanying instructions.[4] Applicants for TB or HIV/AIDS funding are not required to include TB-HIV activities in proposed health programs, nor are they required to integrate HIV/AIDS services with those for TB or vice-versa.

Recognizing the urgent need to scale up TB-HIV efforts within its programming, the Global Fund recently took steps to strengthen its TB-HIV guidance. At its November 2008 meeting, the Board adopted a decision point that "emphasizes that all applicants should include and implement significant, robust tuberculosis interventions in their HIV/AIDS proposals and HIV/AIDS interventions in their tuberculosis proposals" (GFATM 2008a). This decision point also instructed the Secretariat to amend guidelines for TB and HIV programs that have successfully completed an initial two-year phase and are requesting funds to continue (i.e., Phase 2 funding requests), requiring that "CCMs explain their plans for scale up to universal TB-HIV collaborative services and explicitly articulate what TB-HIV activities, funding, and indicators will be included in each proposal" (GFATM 2008a).[5] In adopting this decision point, the Board took an important step toward strengthening TB and HIV/AIDS programs as they enter Phase 2. To further its impact, the Board should extend this requirement to all new grant applications.

Given that preventing and treating TB-HIV is critical to meeting the needs of both TB patients and PLWHA, the Global Fund should ensure, to the greatest extent possible, that its TB and HIV/AIDS programs provide for the integration of TB and HIV/AIDS services. Toward this end, the Global Fund should require that every TB and HIV/AIDS proposal provides for some measure of TB-HIV integration, and it should include a section in the grant application form in which applicants must describe how they will ensure all people in supported HIV/AIDS programs receive TB screening and follow-up services and vice versa. The form should clearly identify WHO's TB-HIV policy as the internationally recognized standard of care for TB-HIV co-infection. Because the policy recommends interventions appropriate for a range of epidemiological contexts, requiring applicants to adhere to it would not force them to include unnecessary activities or follow a cookie-cutter approach.

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4. The Guidelines for Proposals for Round 8 refer to TB-HIV co-infection in two places. On page 8, the guidelines state that collaborative TB-HIV activities can be included as part of both TB and HIV proposals. On page 41, the guidelines state that the portion of the application that deals with multi-drug resistant TB should be completed for TB and HIV proposals if collaborative TB-HIV activities are included. On page 59, applicants are informed that the TRP will evaluate proposals based, in part, on whether proposal rely on interventions that are consistent with international best practices, citing WHO and UNAIDS guidance but with no specific reference to WHO's policy on collaborative TB-HIV activities.

5. Grant proposals are submitted by a partnership of government, civil society, the private sector, and affected communities, operating as a collaborative body known as a Country Coordinating Mechanism (CCM). After grant approval, it is the CCM's responsibility to oversee progress during program implementation and report to the Global Fund on this progress.

PROGRAMMING

The ACTION project relied on two measures to assess the Global Fund's support for TB-HIV programming. The first was an analysis of all approved TB and HIV/AIDS proposals to determine which included at least one TB-HIV activity recommended by the interim policy — a relatively low threshold. This analysis showed that, over time, an increasing number of TB proposals have included at least one TB-HIV activity, increasing from 33 percent of proposals in Round 1 to 79 percent of proposals in Round 7 (Box 1). In contrast, HIV/AIDS proposals have not shown any discernible progress — hovering around 40 percent of proposals from Round 1 to Round 7.

The ACTION project also analyzed grant proposals, grant agreements, performance reviews, and other publicly available information on TB and HIV/AIDS programs to discern how and to what extent TB-HIV components were included.[6] An in-depth review of Global Fund-supported activities, budgets, and indicators from Round 5 through 7 for nine sub-Saharan African countries, together representing 54 percent (Table 5) of all new estimated cases of TB-HIV co-infection in 2006, shows that Global Fund-supported programs have considerable ground to cover before they comprehensively address TB-HIV.[7]

Table 5. Estimated 2006 TB incident cases

Country	2006 TB Incident Cases	2006 HIV-positive TB Incident Cases	HIV Prevalence in TB Incident Cases (%)
Malawi	51,172	35,781	70%
Swaziland	13,097	7,060	54%
Botswana	10,230	5,504	54%
Kenya	140,548	73,122	52%
Lesotho	12,670	6,137	48%
South Africa	453,929	200,693	44%
Rwanda	37,563	15,270	41%
Tanzania	123,140	21,653	18%
Ethiopia	306,330	19,220	6.3%
Total	1,148,679	384,440	33%
	% of all 2006 HIV-positive TB Incident Cases (709,000)		**54%**

Source: Global Tuberculosis Control: Surveillance, Planning, Financing. WHO Report 2008. Geneva: WHO. WHO/HTM/TB/2008/393.

During Rounds 5 through 7, Global Fund resources have supported few effective TB-HIV activities in the nine countries analyzed, and rarely at a scale needed to make progress toward universal access to quality TB-HIV services.[8] In proposals that identify TB-HIV as a major problem, proposed TB-HIV activities tend to be limited in scope and scale. In some cases, no TB-HIV activities are proposed at all, even in countries with a significant and growing burden of TB-HIV co-infection. Kenya's Round 7 HIV/AIDS proposal, for example, aims to significant-

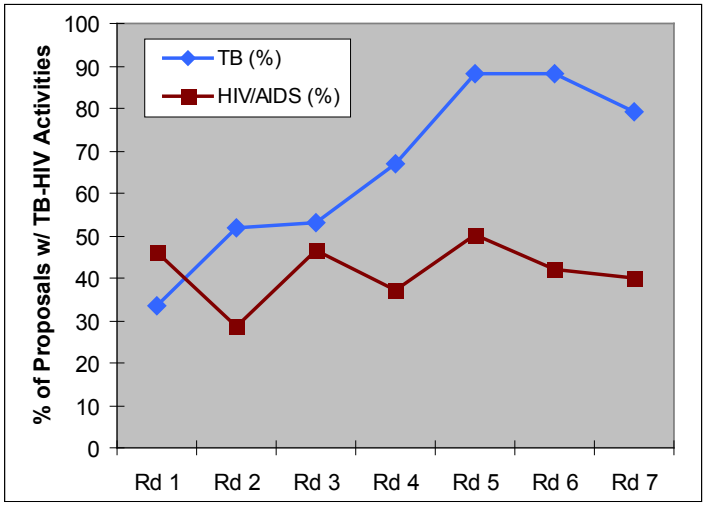
6. Where activities could not be clearly identified in grant agreements or performance reviews, this analysis relied on program descriptions in grant proposals.
7. This analysis is based on global TB surveillance data from 2006, the latest available at the time this report was written.
8. This analysis is based on publicly available documents published on the Global Fund website, and as such may not reflect actual grant implementation.

ly scale up ART, but makes no provisions for integrating TB-HIV services, including screening those on ART for TB. Swaziland had the highest TB-HIV co-infection rate in the world in 2006, yet its HIV/AIDS grant proposal from Round 7 does not include a single TB-HIV activity.

Box 1. Global Fund grant proposals with TB-HIV activities, Rounds 1–7

In Round 1, only 33 percent of TB proposals included at least one TB-HIV activity, increasing to 88 percent by Round 5 before dropping to 79 percent in Round 7.[9] HIV/AIDS proposals have not performed as well. The percentage of HIV/AIDS proposals that included at least one TB-HIV activity has hovered around 40 percent for all funding rounds, reaching as low as 29 percent in Round 2 and peaking at 50 percent in Round 5.

Figure 4. TB and HIV/AIDS proposals including at least one TB-HIV activity



Source: Data for Rounds 1-6 for TB proposals and Rounds 4-6 for HIV/AIDS proposals were taken from a presentation by Haileyesus Getahun at the Global Fund and Scientific Policy Seminar in Geneva, Switzerland on October 5, 2007. The remaining proposals were analyzed by ACTION using the same methodology.

Notes:

1. Each data point is marked with the total number of TB or HIV/AIDS proposals approved during that round.

2 .One Round 1 HIV/AIDS proposal is available on the Global Fund website only in French; the Round 1 percentage for HIV/AIDS is calculated out of 26 HIV proposals instead of the 27 that were approved.

3. One Round 2 HIV/AIDS proposal is available on the Global Fund website only in French; the Round 2 percentage for HIV/AIDS is calculated out of 42 HIV/AIDS proposals instead of the 43 that were approved.

4. Two Round 3 HIV/AIDS proposal are available on the Global Fund website only in French; the Round 3 percentage for HIV/AIDS is calculated out of 30 HIV proposals instead of the 32 that were approved.

5. One Round 6 TB proposal is missing; the Round 6 percentage for TB is calculated out of 34 TB proposals instead of the 35 that were approved.

6. Two Round 6 HIV/AIDS proposals are missing; the Round 6 percentage for HIV/AIDS is calculated out of 31 HIV/AIDS proposals instead of the 33 that were approved.

7. Two Round 7 TB proposals were not available on the Global Fund website; the Round 7 percentage for TB is calculated out of 19 TB proposals instead of the 21 that were approved.

8. One Round 7 HIV/AIDS proposal was not available on the Global Fund website; the Round 7 percentage for HIV/AIDS is calculated out of 25 HIV/AIDS proposals instead of the 26 that were approved.

9. For Rounds 1 through 4, proposals could be submitted under a separate TB-HIV category, but the category was eliminated due to the limited number and poor success rate of TB-HIV proposals. The board also concluded that "having a separate HIV/TB component seems to suggest to applicants that programming between the two diseases should be handled as a separate endeavor" (GFATM 2005b).

As part of its policy on TB-HIV collaboration, the WHO has identified three key interventions — branded the "Three I's" — to decrease the impact of TB on PLWHA: intensified case finding, isoniazid preventive therapy, and TB infection control (WHO 2008b). Among TB and HIV/AIDS grants approved during Rounds 5 through 7 for the nine countries reviewed, only one program explicitly provided for all of the Three I's (Table 6). Four out of the nine countries' proposals included no explicit provisions to carry out any of these activities. Fewer than half included systematic TB case-finding in HIV settings, a critical entry point for identifying PLWHA with TB disease as well as for offering IPT.

Table 6. Country requests for Global Fund support for the Three I's, Rounds 5–7

Country	Intensified Case Finding	Isoniazid Preventive Therapy	TB Infection Control
Malawi	X	X	X
Swaziland			
Botswana	X		
Kenya			
Lesotho			X
South Africa			
Rwanda	X	X	
Tanzania	X	X	
Ethiopia			

Of the countries reviewed, Tanzania and Rwanda were the only two countries to address TB-HIV in a substantial way. In Tanzania, the Round 6 TB grant provides $13.2 million to help integrate TB services into HIV settings and HIV services into TB settings and to build capacity for joint TB-HIV planning at the national, regional, and district levels. A Round 6 HIV grant contributes an additional $358,000 in support of TB-HIV activities in Zanzibar (Tanzania's semi-autonomous island territory), providing funding for TB-HIV policy development, strategic planning, health worker training, disease surveillance, and the establishment of a TB-HIV M&E system. In Rwanda, $10.1 million was requested as part of the country's Round 6 and Round 7 HIV/AIDS proposals to support the integration of HIV/AIDS treatment and care into TB centers and the expansion of TB care for PLWHA.

While Round 8 proposals were not made available in time to be included in this report's analysis, the TRP's Round 8 report states that in "both HIV and tuberculosis disease specific proposals, the TRP found that there were many missed opportunities for integration" (GFATM 2008d). As ACTION's analysis suggests, this conclusion just as accurately describes proposals from earlier funding rounds.

FUNDING

To supplement this programmatic analysis, ACTION assessed how much funding these proposals provided for TB-HIV activities.[10] Across countries and funding rounds, funding requests for TB-HIV were inconsistent and insufficient to drive progress toward universal access to TB-HIV services. From Rounds 5 through 7, during which more than $797 million in funding was approved for TB and HIV/AIDS grants for the nine countries, country applicants budgeted only an estimated $36.9 million (4.6 percent of total funding) to support targeted TB-HIV activities (Table 7). Some portion of an additional $37.6 million in requested funding may go toward TB-HIV programming, but there is no objective way to determine how much, if any, of this amount will support TB-HIV activities (Table 8).[11]

Table 7. TB-HIV budgets in TB and HIV/AIDS grants, Round 5–7 (USD)

Country	Round 5	Round 6	Round 7	Total
Botswana	411,695[a]	—	—	411,695
Kenya	0	9,171,789[b]	0	9,171,789
Malawi	0	—	1,385,425	1,385,425
South Africa	—	0	—	0
Swaziland	—	—	0	0
Lesotho	24,208	653,882	0	678,090
Rwanda	—	1,048,505	9,060,000	10,108,505
Ethiopia	—	1,608,200	0	1,608,200
Tanzania	—	13,557,288[c]	—	13,557,288
Total	**453,903**	**26,039,664**	**10,445,425**	**36,920,992**

[a] Only a confirmed $164,678 over two years was budgeted for TB-HIV collaborative activities. Based on average funding for these two years, and assuming consistent annual expenditures throughout the grant period, the five-year budget for TB-HIV would total an estimated $411,695.

[b] This grant does not focus on supporting delivery of TB-HIV services, but on expanding physical infrastructure, human resources, and health planning and management capacity to facilitate TB-HIV service delivery at the sub-national level.

[c] This amount includes $13.2 million as part of a TB grant and $360,000 as part of an HIV grant for Zanzibar.

Table 8. Budgeted amounts containing unspecified TB-HIV funding (USD)

Country	Round 5	Round 6	Round 7	Total
Kenya	6,822,059[a]	—	6,103,188[b]	12,925,247
Lesotho	21,823,175[c]	—	—	21,823,175
Tanzania	—	2,874,055[d]	—	2,874,055
Total	**28,645,234**	**2,874,055**	**6,103,188**	**37,622,477**

[a] No information is available on what portion of this $6.8 million, budgeted for behavioral change communication activities around TB and TB-HIV, will go toward TB-HIV messaging.

10. This analysis focuses on Rounds 5 through 7 because 1) these funding rounds occurred after the most recent TB-HIV guidance language was embedded in proposal cover sheets and 2) activity-specific budget information was not consistently available for all countries evaluated prior to Round 5.
11. The information found in Tables 7 and 8 is based on activity-specific budgets as outlined in grant proposals and grant agreements for the countries and funding rounds identified. Empty boxes signify that no TB or HIV/AIDS grant proposals were approved for that country during that funding round.

[b] $6.1 million was budgeted for the provision of prophylaxis for opportunistic infections (OI), but no explicit focus on TB or TB-HIV was identified. Other Kenyan Global Fund proposals distinguish between OIs generally and TB in particular, suggesting this $6.1 million will focus on OIs other than TB.

[c] In addition to the confirmed $24,208 that was budgeted for TB infection control activities, $21.8 million was budgeted for the integration of HIV/STI/OI services, some portion of which will go toward integrating TB services.

[d] An additional $2.87 million was budgeted in Zanzibar's HIV grant to support a number of HIV/AIDS activities. Some portion of this funding of which will support the integration of TB and HIV/AIDS services as well as public, private, and civil society outreach and mobilization around TB-HIV issues.

WHO has projected that it will cost an estimated $19 billion over eight years to reduce worldwide TB mortality among PLWHA by 80 percent by 2015. Of this total, a minimum of $536 million was needed in 2008 alone for the implementation of collaborative TB-HIV activities (ACTION 2008a). Despite this projected need, the Global Fund's estimated contribution for TB-HIV in 2008 for these nine countries (with 54 percent of the global TB-HIV burden in 2006) was only $6.8 million (Table 9). Furthermore, Tanzania, Rwanda, and Kenya account for approximately $5.9 million of this estimated $6.8 million. Combined, the other six countries budgeted less than $1 million for TB-HIV activities in 2008.

Table 9. Estimated Global Fund grant funding For TB-HIV activities, 2008 (USD)[a]

Country	Estimated 2008 Budgets	Assumptions[b]
Botswana	82,339	2008 is Year Three of Round 5 TB grant.
Kenya	962,428	2008 is Year Two of Round 6 TB grant.
Malawi	345,167	2008 is Year One of Round 7 TB grant.
South Africa	0	N/A
Swaziland	0	N/A
Lesotho	212,417	2008 is Year Three of Round 5 HIV grant and Year Two of Round 6 TB grant.
Rwanda	2,270,700	2008 is Year Two of Round 6 HIV grant and Year One of Round 7 HIV grant.
Ethiopia	325,270	2008 is Year Two of Round 6 TB grant.
Tanzania	2,648,104	2008 is Year Two of Round 6 TB grant ($2.5 million) and Year Two of Round 6 HIV grant ($127,606).
Total	**6,846,425**	N/A

[a] These calculations encompass all cost assumptions found in Table 7.

[b] If the proposal budgets were broken down by a generic "Year One" through "Year Five," instead of by calendar years (e.g., 2006 through 2009), estimated 2008 budgets were based on the annual breakdown listed under "Year Three" for Round 5 proposals, "Year Two" for Round 6 proposals, and "Year One" for Round 7 proposals.

The distribution of funding presented in Table 4 demonstrates that even in grant proposals for which TB-HIV activities were described, there was generally little funding budgeted to support them (Table 10). Botswana's Round 5 TB grant, for example, included TB case finding among PLWHA and HIV screening for TB patients, but

budgeted only an estimated $82,339 per year to support these activities. Ethiopia's Round 6 TB grant, with a focus on health worker training and drug and supply procurement, aimed to expand TB screening to 340 health facilities and to provide HIV testing at all the TB diagnostic centers — but it budgeted only $1.6 million over five years to accomplish these tasks. Despite Malawi's having the highest estimated rate of TB-HIV co-infection in the world in 2006, less than $1.4 million was requested as part of Malawi's Round 7 TB grant to finance a broad set of proposed TB-HIV activities.

Table 10. Proposed TB-HIV activity / funding requests in selected countries (USD)

Proposal	General Description of Proposed TB-HIV Activities	Total Funding Request (5 years)	Average Annual Expenditures (over 5 years)
Botswana Round 5 TB	TB case finding among PLWHA and HIV screening for TB patients.	$446,995	$89,399
Ethiopia Round 6 TB	TB case finding among PLWHA and HIV screening for TB patients.	$1,608,200	$321,640
Malawi Round 7 TB	Establish infection control procedures in health care settings, conduct screening for TB in HIV settings and vice versa, improve access to integrated TB treatment and ART, and develop and train health care workers on a policy around IPT.	$1,385,425	$277,085

The Global Fund Secretariat recently took steps to mobilize additional demand for TB-HIV resources. In November 2008, Global Fund staff participated in a WHO workshop with representatives from 14 sub-Saharan African countries, assisting in the development of action plans for TB-HIV scale-up that aimed to boost demand for TB-HIV funding. The Secretariat and technical partners should expand on this work and make demand-creation for TB-HIV resources a key priority moving forward.

MONITORING & EVALUATION

Though the Global Fund requires all grant proposals to include a comprehensive M&E strategy, it does not specify which indicators funding recipients must monitor. Rather, the Global Fund encourages applicants to select indicators based on local epidemiology, choosing "a balance of input, process, output and outcome indicators" that will "explain success and gaps in program implementation" (GFATM 2008c). The Global Fund recommends a standard set of TB-HIV indicators that should be monitored as part of any TB or HIV/AIDS program, but it is proposal applicants that decide whether or not to include them (Table 11). The Global Fund was revising its recommended indicator set at the time this report was written (with at least two indicators marked for revision), but the extent of potential changes was not yet clear.

Table 11. Global Fund recommended TB-HIV indicators (as of March 2008)

HIV/AIDS Programs
No. and % of PLWHA receiving HIV testing and counseling or HIV treatment and care services who were screened for TB symptoms*
No. and % of newly diagnosed HIV+ clients given treatment for latent TB infection*
No. and % of TB patients who had an HIV test result recorded in the TB register
No. and % of HIV+ TB patients who received CPT
No. and % of HIV+ TB patients referred to HIV care and support services during TB treatment
Estimated no. and % of HIV+ incident TB cases that received treatment for TB and HIV
TB Programs
No. and % of registered TB patients tested for HIV (during and before TB treatment)
No. and % of HIV+ TB patients who received at least one dose of CPT during their TB treatment

Source: Monitoring and Evaluation Toolkit: HIV/AIDS, Tuberculosis and Malaria; Second Edition; January 2006; Addendum March 2008. Geneva: GFATM.

*Under revision

Global Fund TB and HIV/AIDS proposals often include some indicators for tracking TB-HIV activities. At times, however, proposed indicators appear to not allow the efficacy of TB-HIV activities to be adequately evaluated. Process indicators fail to capture program outputs, for example, while some outcome indicators fail to track TB-HIV project outcomes. Botswana's Round 5 TB proposal tracks only the number of HIV counseling and testing staff trained on intensified TB case finding, but not the actual number of people screened for TB. According to Rwanda's Round 7 HIV/AIDS proposal, efforts to provide ART in all TB clinics will be measured by tracking the number and percentage of HIV-positive TB patients receiving ART. However, no information will be captured on the number of the TB clinic staff or community health workers trained in the provision of ART, the activities to which Global Fund resources will contribute.

At an aggregate level, having such variation in indicators from program to program limits the Global Fund's ability to evaluate whether supported programs are meeting standards of care. For example, TB is the leading killer of PLWHA in developing countries, yet the Global Fund Secretariat does not know what portion of people served in supported HIV programs have been screened for TB (GFATM, personal communication 2008; WHO 2008a). Such examples and M&E outcomes call for increased technical assistance to ensure effective use of indicators to track progress and identify changes that are needed.

RECOMMENDATIONS

The Global Fund should amend its application process to promote greater resource flows to TB-HIV, ensure that programs meet international TB-HIV standards of care, and adequately track the implementation and outcomes of TB-HIV activities. Such action would save more lives and help to safeguard global investment in the fight against both diseases. Toward these ends, the Global Fund should implement the following:

- For countries with moderate to high burdens of TB and HIV/AID, require all TB proposals to include robust, detailed, and costed HIV/AIDS components and HIV/AIDS proposals to include robust, detailed, and costed TB components, extending this requirement beyond Phase 2 funding requests.

- Amend the grant proposal form to require countries to articulate a plan to scale up to universal screening of PLWHA for TB, voluntary HIV testing and counseling to all TB patients, and comprehensive follow-up prevention and treatment as needed. If applicants do not include the activities, budget, and indicators to contribute to this plan, they should be required to justify the omission.
- Provide clear instructions on how to operationalize the November 2008 Board decision point on TB-HIV. This guidance and these instructions should be incorporated into the Guidelines for Proposals for Round 10 and for all subsequence funding rounds.
- Brief TRP members about the elements of TB-HIV services that must be included in TB or HIV/AIDS programs in order to meet recommended standards of care. Ensure a TRP process that allows applicants to re-write proposals that lack essential TB-HIV services.
- WHO, UNAIDS, and other technical agencies must prioritize and actively recommend the incorporation and rigorous monitoring of key TB-HIV indicators as part of Global Fund TB and HIV/AIDS programs.

UK Department for International Development

KEY FINDINGS

- Despite a strong policy commitment to TB-HIV, DFID has provided little evidence with which to measure the scale or impact of its support for collaborative TB-HIV activities on the ground. DFID's HIV/AIDS strategy does not outline what specific measures the agency will take to implement its TB-HIV recommendations.
- Half of DFID country offices responding to a survey identified insufficient TB-HIV collaboration as a challenge to addressing TB. Sixty-three percent of country offices anticipated an increase in TB-HIV co-infection rates over the next five years.
- DFID does not track or disaggregate what proportion of its bilateral funding goes to support TB-HIV activities, which may fall under HIV, TB, or broader health budget lines. A survey of DFID country offices demonstrated that they were unable to report how much funding support they have provided for TB-HIV in their respective host countries.

BACKGROUND

The United Kingdom (UK) is a leader in the global effort to tackle HIV/AIDS and has stated its commitment to scaling up toward the goal of universal access to comprehensive HIV prevention, treatment, care and support. Until recently, the UK Department for International Development (DFID) had overlooked the need to address TB-HIV co-infection as a key component of its AIDS response, with its efforts to address TB and HIV/AIDS remaining largely separate. In June 2008, DFID launched an updated AIDS strategy, *Achieving Universal Access*, which recognizes the need to scale up TB-HIV activities over the next seven years.

In 2008, the UK's All-Party Parliamentary Group (APPG) on Global TB asked DFID to carry out a survey to gather information about its response to TB at the country level. The survey was completed by 24 country offices (Table 1). According to WHO estimates for 2006, all 24 countries have a high TB incidence rate of at least 99 per 100,000 people, and more than half have an incidence rate of over 300 per 100,000 people. In seven of the African countries — Kenya, Malawi, Mozambique, Rwanda, South Africa, Zambia and Zimbabwe — 30 percent or more of TB patients are co-infected with HIV.

In responses to the APPG survey, 12 of 24 (50 percent) DFID country offices identified insufficient collaboration between TB and HIV programs as one of the challenges faced by their host country in addressing the TB epidemic (DFID 2008e). Fifteen out of 24 (62.5 percent) offices said that they expected to see a rise in the number of TB-HIV cases in their host country over the next five years (DFID 2008e).

Table 12. TB-HIV co-infection rates and TB-HIV activities in DFID survey countries

Country	TB rates – all forms (per 100,000)	HIV prevalence in incident TB cases (%)	Insufficient TB-HIV collaboration a challenge to addressing the TB epidemic	Expect TB-HIV rates to rise over next 5 years
Bangladesh	225	≤ 0.05		x
China	99	0.3	X	X
Pakistan	181	0.3		X
Kyrgyzstan	130	0.5		
Indonesia	234	0.6	X	X
India	168	1.2		X
Nepal	176	1.4	X	X
Burma	171	2.6		X
Sudan	242	4.6		X
Sierra Leone	517	5.2		
Ethiopia	378	6.3		
Ghana	203	7		
DR Congo	392	9.2	X	
Cambodia	500	9.6		X
Nigeria	311	10		
Uganda	355	16	X	X
UR Tanzania	312	18	X	
Mozambique	443	30	X	X
Zambia	553	37	X	X
Rwanda	397	41		X
Zimbabwe	557	43	X	X
South Africa	940	44	X	
Kenya	384	52	X	X
Malawi	377	70	X	

Despite strong policy recommendations on TB-HIV, DFID provides little evidence to measure the scale or impact of its collaborative TB-HIV activities on the ground. DFID's increasing focus on health system strengthening (HSS) and sector-wide approaches (SWAps) to health has resulted in a reduction in support for targeted disease-control programs and presents challenges for the accurate monitoring and evaluation of its impact on TB-HIV.

POLICIES

DFID policies are developed by the organization as a whole, including inputs from DFID country offices. Numerous DFID policy and practice papers have acknowledged that HIV is the most important factor behind the dramatic increase in TB in many parts of the world (DFID 2005; DFID 2008a). Despite the overlapping epidemiology of the two diseases, however, DFID's efforts to support partner countries tackling TB and HIV were

not always integrated. In *HIV and AIDS Treatment and Care Policy*, published in 2004, DFID advocates for a comprehensive approach to treatment and care for PLWHA, including the provision of diagnosis and treatment for opportunistic diseases such as TB (DFID 2004a). The document also calls for increased collaboration between TB and HIV/AIDS programs, especially in the delivery of ART and other services. However, these policy recommendations were not reflected in the UK's 2004 AIDS strategy, *Taking Action*, which made no reference to TB or TB-HIV co-infection.

DFID's recently updated AIDS strategy for the period 2008-2012, *Achieving Universal Access*, does address TB and TB-HIV. It states:

> In particular, in hyper-endemic countries, TB and HIV are fuelling each other and the need for integration is made more urgent by the steep rise in drug resistant TB infections. In places where the TB burden is high, progress has been made on screening for TB and HIV and on treating both diseases, but more needs to be done to make these services more accessible (DFID 2008a).

Within the updated AIDS strategy, DFID pledges to support progress toward a number of areas where it is believed that priority action is needed to achieve the goal of halting and reversing the spread of HIV. TB-HIV is included as a priority within DFID's commitment to support "the integration of HIV and AIDS with TB, malaria and SRHR [sexual and reproductive health and rights], including MNCH [maternal, newborn, and child health], services."

Achieving Universal Access does not outline what specific measures DFID will take to implement its recommendations on TB-HIV. Increasingly, DFID is moving away from funding targeted interventions that address specific diseases in favour of supporting the broader health sector plans of developing country governments. DFID has also been instrumental in the development of the International Health Partnership (IHP+) and other initiatives that encourage donors to provide coordinated assistance aligned to national government plans and systems.[1] Through such efforts, DFID hopes to help build the capacity of health systems and to improve the way health services diagnose and treat major illnesses, including TB and TB-HIV.

Achieving Universal Access recognizes that epidemics within and across countries and regions may have different characteristics to which responses to AIDS and to TB-HIV must be tailored. At the country level, Country Assistance Plans (CAPs) lay out the framework of cooperation between DFID and partner countries as part of the effort to support their poverty reduction strategy papers (PRSPs). TB-HIV co-infection was not specifically mentioned in any of the CAPs for the 24 countries that responded to the APPG survey.[2]

PROGRAMMING

DFID's strategic priorities are carried forward through decentralized bilateral country programs as well as through some regional programs. Working in line with the UK's AIDS strategy and other policy directives, country offices are responsible for the design and delivery of HIV/AIDS and TB responses as agreed in negotiation

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1. IHP+ is a global compact between donor countries and international agencies, designed to improve coordination between actors, to strengthen health systems for health outcomes, to build momentum at a national level for improving existing country-led health plans, and to support countries seeking to scale-up work to improve the health-related MDGs.
2. Based on analysis of CAPs available on the DFID website on 09 February 2009. It should be noted that a number of the CAPs that were available online were out of date and many are currently being updated.

with the host government and other key stakeholders, taking into account the local context, domestic commitment, and DFID's overall financial framework.

It is difficult to measure the number of TB-HIV programs directly supported by DFID countries, because UK investment in health is increasingly channeled through instruments such as budget support, SWAps, and basket funding. This shift is intended to increase the capacity of recipient governments to develop and implement effective health services. This does not, however, preclude specific project support where DFID feels it is appropriate at country level.

Examples of TB-HIV programs that DFID supports include:

- In India, DFID supports both the Government of India's Revised National TB Control Program and its National AIDS Control Program to improve collaboration. DFID also supports operational research into TB and HIV and provides technical assistance through WHO to specifically improve programs addressing TB-HIV co-infection.
- In Burma, DFID has joined five other donors in establishing the Three Disease Fund (3DF) to help reduce the burden of AIDS, TB, and malaria in response to the suspension of grants by GFATM. One of the activities of the 3DF is to strengthen and expand TB-HIV collaboration and intervention with the National AIDS Programme and partners.
- Under its Multisectoral HIV and AIDS Programme, DFID South Africa has funded eleven projects aimed at strengthening the South African Government's response to TB. In operational research, studies were undertaken on VCT uptake for TB patients by the University of the Free State, the impact of highly active antiretroviral therapy (HAART) and IPT in TB patients by the Perinatal Research Unit, and a novel method for collecting sputa from HIV positive TB patients by the University of KwaZulu Natal.
- DFID Kenya is supporting collaborative TB-HIV activities through their HIV programs. For example, DFID support has helped to develop a model system of cross referral between HIV and TB diagnostic and clinical services to ensure that patients with combined TB-HIV co-infection receive appropriate management for both conditions at both health facility and community levels.

A number of DFID country offices state that they are not supporting specific TB-HIV interventions to avoid duplicating the efforts of the Global Fund or another agency that they consider to already be taking a lead on this issue. For DFID in Cambodia, for example, "TB and TB-HIV co-infection have not been selected as priority areas … as donor funding is currently being provided by GFATM, USAID, JICA and World Bank, allowing DFID to prioritise other health issues such as reproductive and maternal health" (DFID, 2008e).

FUNDING

The UK is the second largest bilateral donor of HIV/AIDS-related assistance, providing nine percent of total bilateral disbursements for HIV/AIDS in 2006 (UNAIDS 2008). DFID's statistics department provided ACTION with a summary of its bilateral expenditures on health over the last several years, and from this information a number of observations can be made (DFID 2008b).

DFID's total bilateral health expenditures have increased annually over the last several years, from £385 million in FY04/05 to £591.3 million in FY07/08. A breakdown of these expenditures, however, reveals a slight reduction in the proportion spent on HIV/AIDS and sexually transmitted disease (STD) prevention, from 25

percent in FY04/05 (£96.7 million) to 23 percent in FY07/08 (£134.2 million), and a similar trend can be observed with regards to infectious disease control programs, which saw their share fall from 24 percent to 17 percent over the same period (£92.5 million to £99.7 million).[3] In contrast, available data on DFID's bilateral support for TB control (which includes support for UNITAID, the Stop TB Partnership, WHO, and the Global TB Drug Alliance) indicates that there was, from FY04/05 to FY05/06, a dramatic increase in expenditures on TB as a portion of total infectious disease spending (£8.8 million to £17.94 million).[4] Though there was no significant increase in TB spending in the two subsequent years (£19 million in FY06/07 and £18.2 million in FY07/08), the proportion of infectious disease spending attributed to TB still nearly doubled between FY04/05 and FY07/08, from 9.5 percent to 18.3 percent.

As the proportion of health spending dedicated to disease-specific interventions has fallen, the proportion of total health expenditures channeled through budget support for government health programs has increased, from 16 to 31 percent during the period FY04/05 to FY07/08 (£63.1 million to £182.6 million). As a signal that the proportion of health expenditures spent on targeted disease-specific programs will likely continue to fall, *Achieving Universal Access* outlines a plan to spend £6 billion on health systems and services by 2015, which DFID argues will help maximise progress on HIV/AIDS through the closer integration of HIV/AIDS, TB, and other services. In comparison, the previous AIDS strategy, *Taking Action*, committed £1.5 billion over three years specifically for HIV/AIDS programmes.

DFID's current monitoring mechanisms have not allowed, and continue to prevent, the proportion of bilateral funding that is going to support TB-HIV activities to be clearly measured; TB-HIV activities may fall under HIV/AIDS, TB, or broader health budget lines and cannot be disaggregated from broader TB, HIV/AIDS, and/or HSS spending. In response to the 2008 APPG survey, individual DFID country offices were unable to identify the total amount spent on combating TB-HIV in their particular country. This information-gap is likely to become only more entrenched in the future, as DFID increasingly focuses on monitoring key national health outcome indicators in favor of attributing funding that is directed toward HSS to specific diseases.

MONITORING & EVALUATION

The UK House of Commons International Development Committee found DFID's updated AIDS strategy "to be strong on rhetoric but weak in communicating how DFID will implement it." They argued that there "are few measurable targets or indicators of how the Strategy's effectiveness will be assessed [and it] fails to explain how the high-level funding

The International Development Committee is "not convinced that DFID is taking sufficient steps to ensure that the specific challenge of interaction between the two diseases is tackled. Nor has DFID set out how it will measure the effectiveness of its Strategy in addressing the interaction."

3. The figures for HIV include only direct expenditure; cross-cutting activities and multilateral expenditure are not included.

4. Figures are taken from a list of bilateral projects on infectious disease control provided by DFID, and includes only direct expenditure on TB; cross cutting activities are not included.

commitments will be broken down by country or sector, making it difficult to understand how implementation will occur on the ground" (House of Commons IDC 2008).

In a letter to the APPG on Global TB, a DFID Minister reinforced that "[t]racking how these resources [channeled through budget support] deliver TB outcomes is critical, so DFID country offices work with governments to ensure that health programmes that we support include TB outcomes as part of their monitoring frameworks" (DFID 2008d).

On TB-HIV specifically, the International Development Committee said that they were "not convinced that DFID is taking sufficient steps to ensure that the specific challenge of interaction between the two diseases is tackled. Nor has DFID set out how it will measure the effectiveness of its Strategy in addressing the interaction."

In the M&E methodology document for the AIDS strategy — published at the same time as the International Development Committee's report — DFID states that:

> Monitoring the performance and evaluating the impact of UK activities to halt and reverse the spread of HIV in the developing world is seen as a central part of DFID's corporate performance systems. Keeping track of the inputs, processes, outputs, outcomes and impacts of DFID funded bilateral and multilateral programmes … is key to ensuring that the UK responds quickly to fill gaps in performance as well as ensuring transparency and accountability (DFID 2008c).

It also notes that "DFID operates a decentralized structure and decisions about programs and support are taken at the country level." As a result, *Achieving Universal Access* does not contain any specific, quantitative indicators that could measure progress toward improving treatment, and reducing the incidence, prevalence, and deaths related to TB-HIV co-infection. Rather, overviews of the AIDS response from DFID staff in country offices and London will be collated every two years to provide information on progress against the priorities for action set out in the strategy.

Two of the questions relevant to TB-HIV that DFID country offices and regional divisions may choose to report on are:

- What is DFID doing in relation to supporting national and community-level strategies for care (including palliative care, cotrimoxazole, and TB and HIV co-infection)?
- What is DFID doing to support the integration of HIV and AIDS with TB, malaria, and SRHR, including maternal, newborn and child health services? (DFID 2008c)

Despite the apparent specificity of these questions, serious challenges remain for the accurate monitoring and evaluation of DFID's impact on TB-HIV. Where results are available on the ground on collaborative TB-HIV activities it may not be possible to attribute these outcomes to DFID, because DFID does not seek to attribute its financing toward specific diseases in all settings. Furthermore, it is not yet clear what kind of qualitative information the M&E framework for the AIDS strategy will generate since the questions are subject to the respondent's interpretation. DFID country offices will not be required to respond to all of the questions in the M&E framework, so the amount of information that will be provided about TB-HIV activities is also unknown.

RECOMMENDATIONS

DFID has clearly stated that addressing TB-HIV co-infection is a priority and has committed to do more to support the integration of HIV/AIDS and TB services. This political rhetoric must now be translated into action by all DFID offices working in countries affected by the two diseases.

Given the UK Government's leadership on HIV/AIDS and health issues in the developing world, the following recommendations highlight the three areas in which DFID should accelerate progress in the fight against TB-HIV co-infection:

- DFID should incorporate TB-HIV into its Country Assistance Plans, including specific targets and indicators to effectively address TB and TB-HIV co-infection in countries with high disease burden. DFID should also work with partners to ensure that the IHP+ and other health initiatives are sufficiently addressing TB-HIV in their planning and implementation.
- DFID should explain how it will implement TB-HIV recommendations outlined in the updated AIDS strategy and how TB-HIV outcomes will be measured. In countries with a high burden of TB-HIV, and in those anticipating an increase in TB-HIV cases over the next five years, DFID offices should consult with the national government and other development partners in order to define what actions it is best placed to take to support the integration of TB and HIV programming.
- DFID should work with partners to develop M&E frameworks that include TB and TB-HIV indicators. Country offices should be encouraged to report every two years on what measures they have taken to address TB-HIV as part of the evaluation of *Achieving Universal Access*.
- DFID should disaggregate data on its bilateral expenditure on TB-HIV. In particular, DFID should explain how its £6 billion commitment to strengthen health systems will be broken down by year, by country, and how much will support the fight against HIV/AIDS, TB, and TB-HIV.

World Bank's Multi-Country HIV/AIDS Program for Africa

KEY FINDINGS

- An analysis of publicly available documents suggests that the Africa MAP's efforts to address TB-HIV have been inconsistent and poorly tracked; neither a comprehensive strategy nor M&E framework for TB-HIV has guided activities within the program.
- Though TB-HIV activities are eligible for MAP funding, from public documents it is impossible to determine how much funding, if any, has been provided to support TB-HIV programming.
- MAP projects have not tracked the numbers of PLWHA screened for TB or provided with appropriate follow-up services. The MAP's new M&E framework includes no required indicators to track activities relating to TB-HIV or even opportunistic infections (OI) generally.
- Compared to first-generation MAP projects, second-generation projects demonstrate limited progress toward carving out space for TB-HIV efforts. A few projects from among the sample analyzed monitor TB-HIV indicators and discuss TB as the OI most likely to kill PLWHA, but it remains impossible to determine the extent to which these projects support TB-HIV activities.

OVERVIEW

Launched in 2000, the World Bank's Multi-Country HIV/AIDS Program for Africa (MAP) provides a "central mechanism" for implementing the Bank's HIV/AIDS strategy, aiming to significantly increase access to HIV prevention, care, and treatment through comprehensive support for national HIV/AIDS programs (The World Bank 2007). The MAP was envisioned as a 12 to15 year program, to be implemented in three phases by way of individual multi-year funding commitments.

To date, MAP efforts have focused on developing national capacity for planning and coordination, strengthening the health system to improve the delivery of HIV/AIDS services, and expanding stakeholder involvement in the provision of HIV/AIDS services. Future phases of the MAP will aim to scale up successful intervention models and expand service delivery to the hardest-to-reach populations, ultimately helping to achieve universal access. Countries in which MAP projects were first implemented have begun to focus on these second-level objectives, but most MAP projects continue to concentrate on capacity building and health system strengthening.

The MAP's conceptual document recognized the Bank's role in seeing that national policies include HIV/AIDS as an important issue in the control of sexually transmitted infections (STIs) and TB. This document, however, narrowly saw TB as one among a number of OIs requiring treatment — though an important one (The World Bank 2000). The Bank's *HIV/AIDS Agenda for Action, 2007-2011* identifies lessons learned from this narrow

approach and calls for the fuller integration of HIV/AIDS and TB efforts. In later MAP project documents, however, TB-HIV activities still appear to be inconsistently implemented and poorly tracked, with no comprehensive strategy or M&E framework to guide and report on TB-HIV integration.

To ensure its HIV/AIDS portfolio in the Africa region impacts those with TB-HIV, the MAP should develop a comprehensive TB-HIV strategy and work more proactively with recipient countries to ensure that TB-HIV activities, indicators, and outcome targets appropriate to the country context are included during project design. To complement MAP resources, the Bank should also scale-up its concomitant investment in basic TB control in the region.

POLICIES

Though MAP project resources can be used to address TB-HIV if a country's epidemiological context calls for it, MAPs are not required to implement or monitor TB-HIV activities (The World Bank 2006). The extent to which MAP projects address TB-HIV depends on decisions made by the various in-country stakeholders involved in MAP project planning and implementation, and on the degree to which TB-HIV collaboration is incorporated into a country's national HIV/AIDS strategic plan (The World Bank 2000; The World Bank 2008a). Bank staff are heavily involved in the MAP project design process, and local staff maintain the Bank's involvement during project implementation by participating in ongoing project supervision (The World Bank 2000).

TB-HIV activities still appear to be inconsistently implemented and poorly tracked, with no comprehensive strategy or M&E framework to guide and report on TB-HIV integration.

The Bank is also a lead organization providing technical support for national HIV/AIDS strategic plans (UNAIDS 2005). The MAP's project appraisal document (PAD) suggests it would work to integrate national efforts against TB and HIV/AIDS, stating the Bank "is playing a rapidly growing role in bringing into country policies the importance of HIV/AIDS in addressing opportunistic diseases such as STIs and TB" (The World Bank 2000).[1] Since its inception, MAP resources have been available to finance "essential expenditures to strengthen HIV/AIDS prevention, care, treatment, and impact mitigation," including "the treatment of … opportunistic infections — notably tuberculosis." Further, the MAP's log frame includes several "STI/TB/OI" outcomes toward which the MAP would contribute (The World Bank 2000).[2]

In addressing TB as one among a number of OIs and STIs — albeit an important one — the MAP PAD glossed over TB's uniquely devastating impact on PLWHA and the full range of integrated activities needed to reduce TB-HIV co-infection. Reflecting current WHO policy recommendations, *The World Bank's Commitment To HIV/AIDS In Africa: Our Agenda For Action, 2007 – 2011* calls for a more integrated approach to TB and HIV/AIDS, asserting that

1. PADs summarize the operations of the proposed project and provide the basis for the Bank's appraisal and approval of project commencement. In this case, the PAD refers to the entire MAP program. Each individual project implemented under the MAP also has its own PAD.
2. These include: 1) Increase in percent of population receiving quality HIV/AIDS/STI/TB case management, 2) Increase in percent of adults with access to quality STI/TB/OI case management, 3) Percent decrease in reported STI/TB/OI prevalence, 4) Percent increase in number of facilities implementing and evaluating STI/TB diagnosis and treatment activities

"[t]reating HIV/AIDS as a single disease has been a significant deficiency in national HIV/AIDS programs" (The World Bank 2008b). It recognizes that the number of new TB cases in Africa has tripled since 1990, and that "the complexity of the interactions between TB and HIV have magnified" with the emergence of drug-resistant TB (The World Bank 2008b). The first pillar of the *Agenda for Action* — Focus the Response through Evidence-Based and Prioritized HIV/AIDS Strategies — states the Bank's intent to "recognize the crucial links [of HIV/AIDS] with the health system as well as TB, malaria, reproductive health, and nutrition; and help integrate these considerations into the HIV/AIDS agenda" (The World Bank 2008b). Stating that strengthening the links between TB and HIV/AIDS services will "take on greater priority," the document lists the need to integrate TB and HIV/AIDS services as one of a number of "key lessons going forward from the MAP experience." It recognizes that "the frequency of co-infection with TB (and the emerging Extensively Drug Resistant TB) and other opportunistic diseases, require providers to offer integrated services" (The World Bank 2008b).

PROGRAMMING

The ACTION project analyzed first- and second-generation MAP project documents for seven countries: Burkina Faso, Burundi, Ethiopia, Kenya, Madagascar, Rwanda, and Tanzania. In 2006, all seven countries were in the top quintile of TB incidence rates, though with varying levels of TB-HIV co-infection. All countries except Tanzania have completed an initial MAP project, and all countries except for Rwanda and Tanzania have begun to implement a second-generation project.

Most of the project documents for these countries recognize TB as a burden among people with HIV, and they show that the MAP is providing some support for TB-HIV integration — how much support, however, is unknown; project documents do not provide detailed budget information and M&E does not effectively track TB-HIV outputs. Even in the absence of concrete data, project planning documents, project completion reports, and program-wide evaluations carried out by the Bank provide some evidence that TB treatment was frequently considered as part of the MAP's efforts to scale up HIV/AIDS services. However, these documents also suggest that the actual implementation of TB treatment in MAP projects, as well as support for the other recommended collaborative TB-HIV activities, has been limited.

First Generation MAP Projects

Of the first-generation MAP projects analyzed, only Ethiopia, Burundi, and Rwanda included plans to implement TB-HIV activities (Table 12). The focus of these activities, however, tended to be narrow. For example, Burundi's and Ethiopia's PADs were limited to treating TB among PLWHA. The Rwanda MAP's PAD discussed a "promising strategy" for integrating TB and HIV/AIDS services as part of an expansion in the number of VCT sites in the country, complementing one of Rwanda's early Global Fund grant applications, but the inclusion of this level of strategic thinking around TB-HIV in early MAP planning documents was an exception (The World Bank 2003a).[3] In Tanzania and Burkina Faso, TB activities were described as eligible for funding but not as planned project outputs. Tanzania's PAD, for example, includes "better diagnosis and treatment of tuberculosis

3. A 2007 request for additional financing for Rwanda's MAP project did not reference the proposed strategy for integrating TB and HIV/AIDS services as part of VCT expansion. It lists an output indicator for percentage of TB patients tested for HIV in the MAP's three target provinces, but provided only 2005 values for the indicator and noted that the indicator would not be tracked as part of the MAP's extended project period.

and other opportunistic infections and improved nutrition" in a list of anticipated "benefits and target population," but does not include related activities as part of the project's planned outputs.

Table 13. TB activities described in a sample of first generation MAP project PADs

Country	Fiscal year approved	2006 HIV prevalence in TB incident cases (%)	TB-specific activities described as eligible for MAP support	No TB activities described	Planned TB-specific interventions described	General discussion of TB-HIV
Madagascar	2002	0.4		X		
Ethiopia	2001	6.3			X	
Burundi	2002	7.6			X	
Burkina Faso	2002	17	X			X
Tanzania	2004	18	X			X
Rwanda	2003	41			X	X
Kenya	2001	52		X		

Within the PADs analyzed, there was little discussion of efforts to screen PLWHA for TB. In almost all countries, identifying and treating TB-HIV co-infection by integrating HIV/AIDS testing and treatment services into TB clinics was similarly not considered, with Ethiopia providing the sole exception among the PADs reviewed.

Planning documents alone cannot rule out the possibility that early MAP projects supported more robust TB-HIV programming during implementation than was originally described. However, though only a handful of MAP projects have closed, available information from project completion reports and other outcome documents suggests that efforts to treat TB may have played a more limited role in these projects than was originally expected.[4]

Even though the PAD for Burkina Faso's first MAP project included an OI-related indicator that would be tracked during project implementation, the Implementation Completion and Results Report (ICR) stated that the OI indicator had no baseline data, that no targets for the indicator had been set, and that the indicator was ultimately eliminated in 2005 following Rwanda's request for a supplemental credit from the Bank. Nothing else in Burkina Faso's ICR suggested that OIs, or TB in particular, had been addressed through the MAP.

The ICR for Ethiopia's first MAP included a single TB-related indicator, which tracked the number of antenatal, TB, and sexually transmitted infection (STI) clinics into which affordable VCT services were incorporated. The ICR reports that the number of VCT sites in Ethiopia expanded from 17 to 658 over the course of the project, but it provides no information on how many new VCT sites were established in TB clinics. Given the scale of this expansion of VCT services, even a relatively small reach into TB clinics would mean a substantial increase in

4. Data on specific project outcomes is only released after the project has closed and the Bank has completed its review and assessment, compiled in an Implementation Completion and Results Report (ICR). For the MAP projects reviewed, the Bank has published an ICR for only Burkina Faso, Ethiopia, Kenya, and Madagascar.

access to VCT among those with TB. However, TB is mentioned only once in the narrative of the ICR, in regard to the expansion of a TB hospital's HIV/AIDS ward, and without disaggregating the outcomes that are included in the VCT indicator, it is impossible to estimate the full extent to which the project expanded access to critical TB-HIV services.

Several Bank-led reviews of MAP activities provide little further clarity on the TB-HIV integration being supported by first-generation MAP projects. An evaluation of the Bank's full portfolio of HIV/AIDS assistance, conducted by the independent Operations Evaluation Department (OED) in 2005, reported that 13 of 18 MAP projects were providing support for at least one TB activity (The World Bank 2004; World Bank Operations Evaluation Department 2005).[5,6] The evaluation noted that about a third of MAP projects supported prophylaxis for TB and other OIs, but provided no other information on the type or volume of TB activities that were supported and discussed TB-HIV's role in the MAP in no other context. A 2004 interim review of the MAP included no discussion of TB, TB-HIV, or OIs whatsoever, and a 2007 Bank assessment of MAP activities during the period 2000-2006 provided no information on TB-HIV activities or outcomes and was almost completely lacking in references to TB in general.[7] This 2007 assessment identified TB activities only in Eritrea's MAP project, but Eritrea's MAP was designed to address malaria and TB in addition to HIV/AIDS, and there was no information regarding TB-HIV integration.

Second Generation MAP Projects

The first of the MAP projects closed in 2005, and several countries have entered or are currently negotiating a second round of MAP funding. Considering lessons learned and the policy commitments outlined in the Bank's *Agenda for Action*, the MAP is in a position to strengthen its support for TB-HIV as several countries' MAP projects come up for renewal. However, despite the Bank's recently articulated commitments, it appears that few second-generation MAP projects have planned to implement robust efforts to address co-infection. In fact, based on the limited information available, second-generation MAP projects appear to be performing more poorly on TB-HIV than first-generation projects.

The PAD for Kenya's second MAP identifies the threat TB poses to PLWHA and procures TB drugs to counter this threat. Similarly, though Burkina Faso's second MAP project does not explicitly identify plans to provide TB treatment to PLWHA, it tracks TB cure rates as part of the M&E framework for the project's HIV/AIDS treatment and care component. None of the PADs reviewed included more comprehensive efforts to combat TB-HIV than were found in first-generation MAP projects, however. Likewise, none operationalized the commitments to TB-HIV integration articulated in the *Agenda for Action*.

5. At the time of the survey, there were 24 active MAP projects, only 18 of which responded.
6. The Operations Evaluation Department is now called the Independent Evaluation Group.
7. The 2004 interim review was carried out by a team of representatives from the World Bank, DIFD, UNAIDS, and MAP International, and included site visits to MAP projects in Benin, Burkina Faso, Ghana, Malawi, Mozambique, and Sierra Leone.

Table 14. TB activities described in second generation MAP project PADs

Country	Fiscal year approved	2006 HIV prevalence in TB incident cases (%)	TB-specific activities described as eligible for MAP support	No TB activities described	Planned TB-specific interventions described	General discussion of TB-HIV
Madagascar	2006	0.4		X[a]		
Ethiopia	2007	6.3			X	
Burundi	2008	7.6		X		
Burkina Faso	2006	17		X[b]		
Kenya	2007	52			X	X

a The PAD for Madagascar's second MAP project identified the treatment of OI in PLWHA as a planned activity, but TB was never referenced, either as part of or separate from OIs generally.

b The provision of TB treatment for PLWHA was not specifically identified as a planned activity or eligible expenditure in Burkina Faso's PAD. However, the project tracks TB cure rates as an outcome and results indicator, suggesting that TB treatment for PLWHA may be a planned, if unstated, activity.

Non-Lending Operations

In addition to project specific support, the Bank also carries out non-lending operations, some of which have focused on efforts to integrate TB and HIV/AIDS services in endemic countries. In December 2007, for example, the Bank organized a TB-HIV workshop in Nairobi, Kenya that focused on identifying priority areas for accelerating the implementation of collaborative TB-HIV activities in countries with a high burden of both diseases. The workshop included a training component for building capacity around strategic planning as well as an instructional segment on how to access Bank resources. Attending the workshop were participants from 10 different countries, including representatives from the World Bank, WHO, UNAIDS, and other development partners, as well as officials from Ministries of Health, civil society, and patient advocates.

As another example of a non-lending operation aimed at improving TB-HIV integration, the Bank produced a report in 2008 that closely examined the progress of TB-HIV integration in four African countries. Like the *Agenda for Action*, this assessment identified a need for the Bank to promote and facilitate the integration of TB and HIV/AIDS services in the countries in which it operates, specifically identifying the MAP as an effective modality through which this support can be provided (The World Bank 2008a). Going further than the *Agenda for Action*, however, this report also detailed a strategy through which the Bank, and the MAP in particular, could more effectively address the co-epidemic in the countries examined.

The report outlined a number of "critical support system preconditions" that in-country stakeholders in Tanzania and Ethiopia agreed would need to be met before making further progress in the implementation of targeted TB-HIV activities (The World Bank 2008a). These preconditions primarily revolved around improvements in the systems and processes involved in TB-HIV service delivery, and there was general agreement among stakeholders that the Bank was well positioned to provide for these preconditions.[8] Tanzanian stakeholders believed

8. Improvements to physical infrastructure, human resource development, financial management capacity-building, etc.

that the preconditions constituted "areas in which the [World Bank] was particularly strong" (The World Bank 2008a). In Ethiopia, stakeholders believed that the "structure [of Ethiopia's second MAP project] appears to enable the inclusion of proposals that address TBHIV … [specifically] the TBHIV-related preconditions" (The World Bank 2008a). Despite these recommendations, none of the second-generation MAP projects examined addressed these "support system preconditions" for effective TB-HIV integration.

FUNDING

To date, the MAP has committed almost $1.6 billion to combat HIV/AIDS in Africa, with over $1 billion disbursed among 40 country-specific projects and five regional initiatives.[9] Additional funding has been leveraged from development agencies like DFID and the Netherlands' Ministry of Foreign Affairs, both of which provide co-financing for specific MAP projects in accordance with each agency's development priorities.

In addition to dedicated funding to support MAP project management and M&E, a typical MAP project features three primary mechanisms for distributing funds to project implementers:

1. For institutional strengthening and capacity building, funds are provided directly to national, regional, and local HIV/AIDS coordinating bodies.
2. To expand multisectoral involvement in HIV/AIDS control, a fund is established to which government ministries (e.g., Ministries of Health, Education, Labor, Justice, etc.) can apply to support comprehensive, sector-specific HIV/AIDS strategies.
3. To stimulate greater community involvement, a fund is established to which local government and civil society/community-based organizations can apply to support the implementation of HIV/AIDS prevention, treatment, and care projects at the local level.

MAP projects do provide financing for TB-HIV activities. As discussed above, Kenya's second generation MAP project includes a budget line for TB activities, and the OED MAP evaluation indicates that some specific TB-HIV programming was carried out in the early years of the program. Furthermore, though outcome documents provide little information regarding how many MAP projects actually provided TB treatment and in what volume, TB treatment was routinely considered as an eligible MAP expenditure in planning documents, and treating TB was identified as a planned activity in a number of MAP projects.

It is impossible to tell from publicly available documents how much funding the MAP has provided for TB-HIV activities. Project documents generally lack budget lines for specific activities, comprehensive MAP evaluations provide little specific information regarding TB-HIV activities, and almost all indicators used in MAP M&E do not effectively track the TB-HIV outputs to which MAP funding may have contributed (discussed below).

MONITORING & EVALUATION

In order to proceed quickly from project planning to implementation, the MAP cut planning time and aimed to compensate with a more robust M&E (The World Bank 2007). Despite the greater importance placed on M&E

9. MAP funding is provided as a mixture of IDA credits and grant funding. The specific financing instrument used in each MAP country is determined by the applicable Bank policies associated with different IDA replenishment rounds and by country-specific circumstances. The IDA is funded primarily by contributions from donor countries, who meet every three years to replenish IDA funds and review IDA policies.

within MAP projects, however, according to the first MAP evaluation, "the overall record of the Africa MAP in implementing strong M&E to improve 'learning by doing' [was] weak," at least early during the early years of the program (World Bank Operations Evaluation Department 2005).

The Bank relies heavily on each MAP country's own health information systems to collect M&E data. As such, MAP projects budget substantial resources to improve or implement strategic information systems for HIV/AIDS in each country. Through 2006, however, the MAP's actual performance in strengthening endemic country M&E systems had been inadequate and under-funded, hampering efforts to collect information that could be used to evaluate and improve MAP performance (The World Bank 2004; The World Bank 2007; World Bank Operations Evaluation Department 2005).[10] Ethiopia's first MAP project provides an illustrative example: at project-end, there was no "reliable information on access to treatment" for OIs (The World Bank 2006). "[L]arge quantities" of OI drugs had been procured and distributed during the MAPs duration, but no hard data could be reported (The World Bank 2006).

In consultation with Bank staff, each country's national HIV/AIDS coordinating body has typically been responsible for choosing M&E indicators. Operating under this arrangement, the MAP projects analyzed for this report only sporadically included TB-HIV indicators. Burundi and Ethiopia's second MAP, Kenya's first MAP, Tanzania's only MAP, and both Madagascar's first and second MAP did not include any TB-HIV indicators. Burundi's first MAP noted that the measurement of project impact would focus on patterns of OI prevalence, but included no specific indicators or hard targets.

TB-HIV indicators that were included tended to have limited utility, often suffering from one of the following weaknesses: (1) TB-related activities are tracked as a component of a broader activity category (e.g., OIs), for which the TB portion is not disaggregated, or (2) the indicator tracked TB or TB-HIV activities, but the information tracked does not easily allow for evaluating the MAP's impact on the co-epidemic. In the Rwanda MAP, process and outcome indicators are not aligned, making it difficult to assess what impact project activities had on the outcomes achieved (Table 15).

Table 15. TB-HIV indicators identified in MAP project documents

Country	Process Indicators	Outcome Indicators
Burkina Faso I	No Indicators.	Increase in the number of infected people treated for OIs in participating provinces.[a]
Burkina Faso II	No Indicators.	Improvement in TB cure rate.
Ethiopia I	The number of affordable VCT services incorporated into antenatal, TB, and STI clinics.	Increase in access to treatment for opportunistic infections.[b] Proportion of health institutions in participating Woredas in which drugs for the treatment of STDs, TB, and OIs are available at project end.
Kenya II	Number of TB drugs distributed.	No Indicators.

10. Through 2006, only 4 percent of committed MAP funds were directed toward M&E strengthening instead of the 5-10 percent envisioned in MAP concept documents.

Country	Process Indicators	Outcome Indicators
Rwanda I	The number of health center attendees referred for VCT services.[c] The number of clients who bring partners for VCT services.[d]	Proportion of reported tuberculosis cases who are appropriately diagnosed and treated according to national guidelines.[e]

a The PAD for Burkina Faso's first MAP project distinguished between OIs generally and TB in particular, suggesting that this indicator might not track increases in the number of people treated for TB.

b Increases in access to TB treatment is not disaggregated.

c This indicator disaggregates both OI and TB patients from the total number health center attendees.

d This indicator disaggregates TB patients from the total number of clients.

e Another indicator tracks the proportion of OI cases treated according to national guidelines.

In 2007, the World Bank proposed a new "Generic Results Framework" for M&E that laid out a set of key indicators that all Bank-financed HIV/AIDS projects would be required to report. The new framework was created to improve the Bank's centralized data collection process, help guide the selection of appropriate and effective indicators within country projects, and harmonize indicators with international standards. No required indicators related to TB, TB-HIV, or even OIs generally were included in the framework.

RECOMMENDATIONS

Given the high rates of co-infection found in most African countries, all MAP projects should incorporate robust activities to reduce the burden and transmission of TB among people with HIV/AIDS. Toward this end:

- The MAP should articulate a comprehensive strategy by which it plans to address TB-HIV co-infection in countries receiving its resources.
- The MAP should provide explicit resources for collaborative TB-HIV activities.
- The MAP program policy should require countries to account for and take measures to implement the three I's as part of HIV/AIDS service scale-up in settings with high rates of both diseases.
- The MAP's M&E framework should include standard TB-HIV outcome indicators, including, at minimum:
  - Numbers of TB patients provided VCT and appropriate follow-up treatment and care
  - Numbers of PLWHA screened for TB and provided appropriate treatment and care, including IPT
  - Numbers of treatment sites upgraded and personnel trained to implement standard infection control procedures.
- The World Bank should apply lessons learned from large-scale, successful TB control projects in countries such as India, China and Russia, to expand and improve basic TB control in countries in the Africa region.

CONCLUSION

That TB and HIV fuel each other was long ago established. The policy recommendations to guide an integrated response to the co-epidemic have been in place for years. With uptake slow, some of these old recommendations have been newly branded in hopes of spurring action. In the meantime, the world's two most devastating infectious disease epidemics continue to merge, awaiting a concerted, sustained, and integrated response.

Over 3 million people are on ART, and millions of others have been reached with HIV prevention and care. But with 1.4 million PLWHA developing active TB in 2007, TB constitutes a direct and growing threat to the successes borne out of this remarkable global effort.

Every measure must be taken to jointly and comprehensively address the co-epidemic wherever it exists. Yet to varying degrees — and with some marked exceptions — the donors critiqued in this report have inconsistently, inadequately, and sometimes superficially pursued an integrated response to TB and HIV/AIDS. They must commit the resources, and thoughtfully plan and implement the interventions, needed to drastically reduce TB deaths among people living with HIV and measurably contribute to the goal of achieving universal access to TB-HIV services. In the Africa region in particular, this is the only way to make headway against either disease and meet the needs of those affected by both.

To continue on the current course poses potentially grave risks, both to successes achieved and to the very individuals donors aim to reach. As donors continue to scale up ART provision, those with weakened immune systems will increasingly congregate in clinical and other settings where care is received. Without a concomitant investment in DOTS, TB-HIV interventions, infection control, and other measures, these settings may actually facilitate the spread of TB among those most vulnerable. In the face of the latest data it becomes worthwhile to ask: to what extent is this already happening?

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Photos

Cover:

A young TB patient shows her TB medication at the MCD DOTS clinic in New Delhi, India. Gary Hampton.

TB-HIV march organized by Treatment Action Campaign, Cape Town, South Africa. Paul Jensen

A TB patient at World TB Day celebrations in Ghana. Pierre Virot.

Inside Cover:

Supervision of drug intake in the TB hospital in Cotonou, Benin. J-P Zellweger.

Back Cover:

Diagnosing TB at Beijing Laboratory of Molecular Biology in China. Pierre Virot.

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