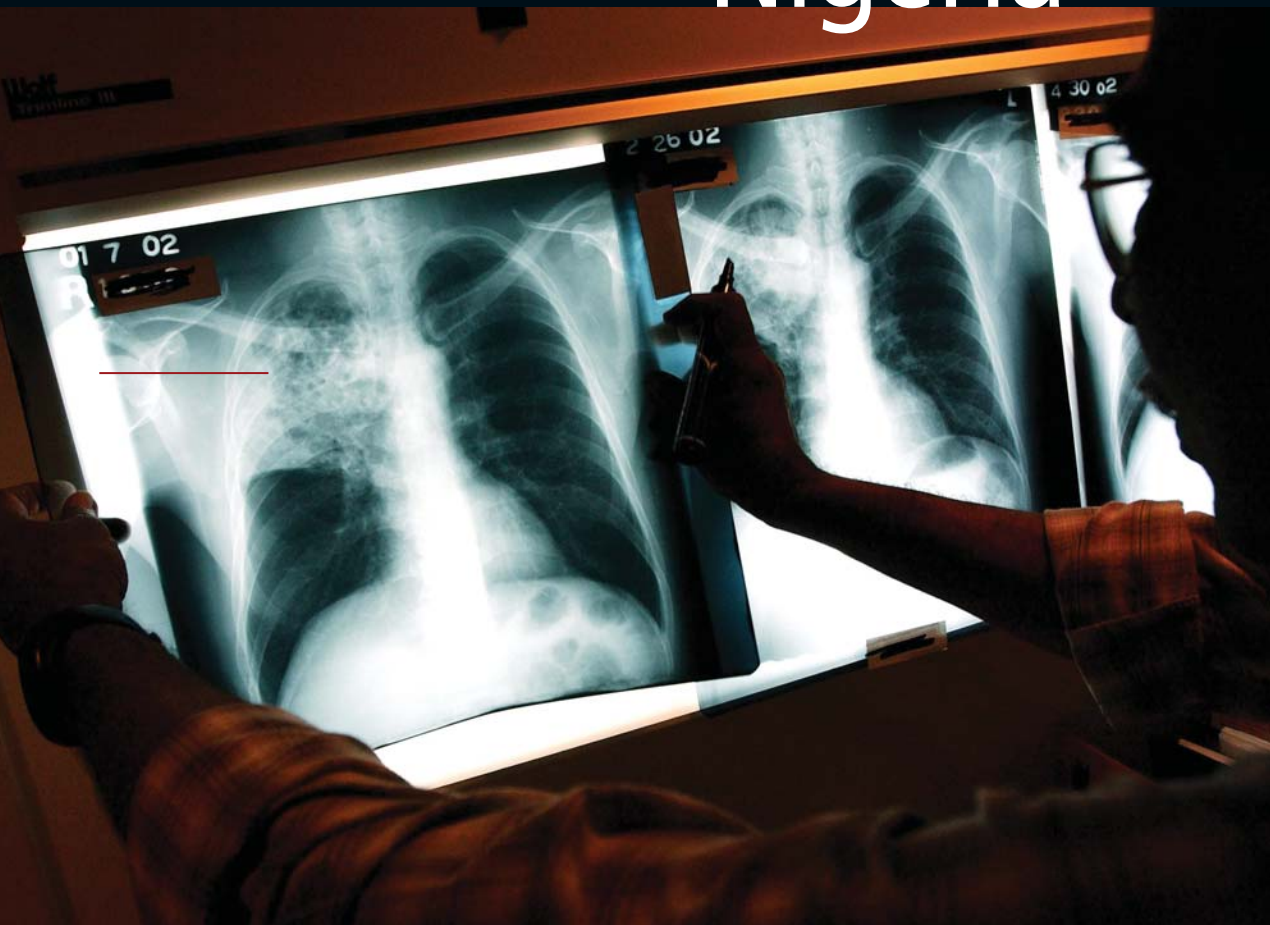


# TB POLICY IN

# Nigeria



## A Civil Society Perspective

*A series of reports on TB policy in  
Bangladesh, Brazil, Nigeria, Tanzania, and Thailand*

**PUBLIC HEALTH WATCH**



OPEN SOCIETY INSTITUTE  
Public Health Program



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# Preface

On the first World TB Day of the new millennium, ministerial representatives of the 20 countries carrying 80 percent of the global tuberculosis (TB) burden adopted the Amsterdam Declaration to Stop TB. By adopting the Declaration, these governments pledged to take bold new steps in addressing the TB epidemic in their countries and affirmed their commitment to “implement, monitor and evaluate” their national TB programs according to the TB control strategy recommended by the World Health Organization (WHO).

In the Declaration, the governments also expressed their will to “promot[e] the development of . . . partnerships to stop tuberculosis with all stakeholders in society, including government departments and organizations, the private health sector, industry, *non-governmental organizations and the community*” (emphasis added).

Public Health Watch supports independent monitoring of governmental compliance with the Amsterdam Declaration as part of its mandate to promote informed civil society engagement in policymaking on tuberculosis and HIV/AIDS—two closely linked diseases that lead to millions of preventable deaths annually. Established by the Open Society Institute’s Public Health Program in 2004, Public Health Watch also supports civil society monitoring of governmental HIV/AIDS and TB/HIV policies, examining compliance with the United Nations Declaration of Commitment on HIV/AIDS and the WHO Interim Policy on Collaborative TB/HIV Activities.

For the TB Monitoring Project, Public Health Watch civil society partners in Bangladesh, Brazil, Nigeria, Tanzania, and Thailand have prepared assessments of national TB policies based on a standardized questionnaire, which facilitates structured review of governmental compliance with key elements of the Amsterdam Declaration and the WHO TB control strategy. Public Health Watch researchers come from a range of backgrounds, including academia, development, journalism, and independent activism, and from both large and small nongovernmental organizations (NGOs).

The Public Health Watch monitoring methodology incorporates multiple opportunities for dialogue and exchange with a range of policy actors during report preparation. Researchers convene an advisory group of national TB experts, activists, and policy actors. They prepare draft reports on the basis of input from the advisory group, desktop and field research, interviews, and site visits. Researchers then organize in-country roundtable meetings to invite feedback and critique from policymakers, academics, government officials, representatives of affected communities, and other key stakeholders. Finally, Public Health

Watch supports researchers in conducting targeted advocacy at the domestic and international levels around their report findings and recommendations.

To access all five country reports of the TB Monitoring Project or to learn more about Public Health Watch, including the HIV/AIDS Monitoring Project and the TB/HIV Monitoring and Advocacy Project, please see: [www.publichealthwatch.info](http://www.publichealthwatch.info).

## Acknowledgments

*TB Policy in Nigeria: A Civil Society Perspective* was researched and drafted by Journalists Against AIDS (JAAIDS) with Olayide Akanni as the lead researcher. The staff of Public Health Watch prepared the overview and provided editing and administrative assistance. Additional editing and production assistance was provided by the Communications Office of the Open Society Institute.

Public Health Watch would like to acknowledge the significant contributions of the Nigerian Advisory Group in helping to conceptualize the Nigeria report, reviewing earlier drafts of the document, and planning advocacy efforts around its key findings and recommendations. Public Health Watch would also like to acknowledge the contributions of the staff of JAAIDS, the Open Society Initiative for West Africa (OSIWA), as well as Nnenna Ike, Solomon Adebayo, Jumai Danuk, and Benjamin Mbakwem, who conducted some of the field interviews.

JAAIDS hosted a roundtable meeting on January 25, 2006, to invite feedback and critique on a draft of this report; participants included representatives from the government, nongovernmental organizations, and international agencies. (See appendix for list of roundtable meeting participants). The final report has undergone revisions, based on valuable comments and suggestions from the roundtable participants, with additional input from other health experts.

## Note on the research process

Nigeria is a massive country of about 130 million people living in 36 states and the Federal Capital Territory (FCT). Given the size of the country and limited period of the research, the author focused research on six different areas of the country: Lagos, Oyo, Ogun, Kano, and Imo states and the FCT. These six regions range in population density, but all have functioning DOTS and HIV/AIDS care and support programs.

# Public Health Watch TB Monitoring Project

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## Public Health Program

The Open Society Institute's Public Health Program promotes health policies based on social inclusion, human rights, justice, and scientific evidence. The program works with local, national, and international civil society organizations to foster greater civil society engagement in public health policy and practice, to combat the social marginalization and stigma that lead to poor health, and to facilitate access to health information.

## Open Society Institute

The Open Society Institute works to build vibrant and tolerant democracies whose governments are accountable to their citizens. To achieve its mission, OSI seeks to shape public policies that assure greater fairness in political, legal, and economic systems and safeguard fundamental rights. On a local level, OSI implements a range of initiatives to advance justice, education, public health, and independent media. At the same time, OSI builds alliances across borders and continents on issues such as corruption and freedom of information. OSI places a high priority on protecting and improving the lives of marginalized people and communities.

Investor and philanthropist George Soros in 1993 created OSI as a private operating and grantmaking foundation to support his foundations in Central and Eastern Europe and the former Soviet Union. Those foundations were established, starting in 1984, to help countries make the transition from communism. OSI has expanded the activities of the Soros foundations network to encompass the United States and more than 60 countries in Europe, Asia, Africa, and Latin America. Each Soros foundation relies on the expertise of boards composed of eminent citizens who determine individual agendas based on local priorities.

[www.soros.org](http://www.soros.org)

## Abbreviations

ACSM	Advocacy, communication, and social mobilization
ART	Antiretroviral therapy
ARV	Antiretroviral drug
CIDA	Canadian International Development Agency
CiSHAN	Civil Society on HIV/AIDS
COPOP	Council of Positive People
DFID	Department for International Development (United Kingdom)
DOTS	The internationally recommended strategy for TB control
FCT	Federal Capital Territory
FHI	Family Health International
FIDELIS	Fund for Innovative DOTS Expansion through Local Initiatives to STOP TB
FMC	Federal Medical Centre
FMOH	Federal Ministry of Health
GHAIN	Global HIV/AIDS Initiative Nigeria
GLRA	German Leprosy and Tuberculosis Relief Association
HSSP	Health Sector Strategic Plan
ICASA	International Conference on AIDS and Sexually Transmitted Infections in Africa
IEC	Information, education, and communication
ILEP	International Federation of Anti-Leprosy Associations
IMF	International Monetary Fund
IUATLD	International Union Against Tuberculosis and Lung Disease
JAAIDS	Journalists Against AIDS
KfW	German Reconstruction Bank
LGA	Local Government Area
MDR-TB	Multidrug-resistant TB
MOU	Memorandum of understanding
MSF	Médecins Sans Frontières
NACA	National Action Committee on AIDS
NASCAP	National AIDS and STIs Control Programme
NCW+	Nigerian Community of Women Living with HIV
NDHS	National Demographic Health Survey
NEPWHAN	Network of People Living with HIV/AIDS in Nigeria
NGN	Nigerian Naira currency
NGO	Nongovernmental organization

NIMR	Nigeria Institute of Medical Research
NSF	National Strategic Framework
NTBLCP	National Tuberculosis and Leprosy Control Programme
OSIWA	Open Society Initiative for West Africa
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PHC	Primary health care
PPM	Public-private mix
STBLCO	State Tuberculosis and Leprosy Control Officer
STI	Sexually transmitted infection
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary counseling and testing for HIV infection
WHO	World Health Organization

**I.**

**PUBLIC HEALTH WATCH**

**Overview**

## Estimated Global TB Burden Among High-Burden Countries, 2004

		Population 1,000s	TB Incidence (all forms) number 1,000s*	TB Incidence (all forms) per 100,000 population	TB Mortality (all forms) per 100,000 population	HIV Prevalence in Incident TB Cases %
1	India	1,087,124	1,824	168	30	5.2
2	China	1,307,989	1,325	101	17	0.9
3	Indonesia	220,077	539	245	46	0.9
4	Nigeria	128,709	374	290	82	27
5	South Africa	47,208	339	718	135	60
6	Bangladesh	139,215	319	229	51	0.1
7	Pakistan	154,794	281	181	40	0.6
8	Ethiopia	75,600	267	353	79	21
9	Philippines	81,617	239	293	48	0.1
10	Kenya	33,467	207	619	133	29
11	DR Congo	55,853	204	366	79	21
12	Russian Federation	143,899	166	115	21	6.8
13	Viet Nam	83,123	147	176	22	3.0
14	Tanzania	37,627	131	347	78	36
15	Uganda	27,821	112	402	92	19
16	Brazil	183,913	110	60	7.8	17
17	Afghanistan	28,574	95	333	92	0.0
18	Thailand	63,694	91	142	19	8.5
19	Mozambique	19,424	89	460	129	48
20	Zimbabwe	12,936	87	674	151	68
21	Myanmar	50,004	85	171	21	7.1
22	Cambodia	13,798	70	510	94	13

\* The WHO ranks the high-burden countries by the absolute number of new TB cases in each country and is not adjusted due to population size.

Source: "Table 6: Estimated TB burden, 2004," in WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing*, WHO, Geneva 2005, p. 28.

The Public Health Watch TB Monitoring Project partners with civil society researchers in Bangladesh, Brazil, Nigeria, Tanzania, and Thailand, all of which are WHO-designated TB high-burden countries, to monitor and advocate for improved governmental policies and services to control TB. The five reports that have resulted from their monitoring efforts reveal a number of overarching themes regarding TB and TB/HIV.

Researchers all found low levels of awareness of the basic facts about TB and TB/HIV coinfection among political officials and the general population, including within high-risk groups such as people living with HIV/AIDS. Widespread ignorance of how TB is spread and the fact that the disease can be cured contribute to high levels of stigma and discrimination against people living with TB. Media coverage of TB is limited, and national TB programs (NTPs) generally lack strong communications strategies and staff with the experience and skills to interact effectively with the press.

Reports from all five countries highlight a number of other issues as well.

First, inadequate attention to the linkages between TB and poverty has resulted in a paucity of government measures to address the hidden costs of treatment that burden the poor and other vulnerable groups, including women.

Second, the fact that TB patients often rely on private service providers leads to inequitable access to quality services, constrains government capacity to monitor the course of the epidemic, and raises concerns about the potential of increasing resistance to first-line TB drugs.

Third, context-specific approaches to TB control that integrate community participation are showing positive results but require additional support and funding from domestic and international sources.

Finally, Public Health Watch research suggests that in the absence of public awareness and engagement around TB and TB/HIV, political and financial accountability for TB control efforts falters. At present, there are few structured mechanisms to encourage broad public participation in the design, implementation, and evaluation of TB policy at the domestic or international level.

In addition to the common themes and findings outlined in this overview, country-specific recommendations can be found at the end of each national report.<sup>1</sup>

## High-level political commitment?

The adoption of the Amsterdam Declaration to Stop TB in 2000 marked an important milestone in the attempt to muster high-level political commitment to a reinigorated global TB control effort. Governments of the countries with the highest burden of TB pledged to expand access to the WHO-recommended DOTS framework for TB control in their countries;<sup>2</sup> to ensure sufficient human and financial resources to support implementation; to monitor and evaluate their national TB programs in line with WHO standards; to ensure “quality, access, transparency and timely supply” of TB drugs; and to support partnerships with NGOs and the community.<sup>3</sup>

However, rhetorical commitment to the Declaration has not been reflected in adequate budgetary allocations at the national and subnational levels. Without strong national leadership, state and local officials are less likely to give budgetary priority to either TB control, particularly in highly decentralized political systems as in **Brazil** and **Nigeria**, or health care reforms, as in **Tanzania** and **Thailand**, where cost-cutting measures have had a dramatic impact on the capacity of national TB programs, particularly with regard to monitoring and evaluation, staffing, and training.

Underfunding of the health sector in general has compromised capacity to treat TB within existing public health systems in **Bangladesh**, **Nigeria**, and **Tanzania**. The executive director of Nigeria’s National Primary Health Care Development Agency commented that “where [primary health care] services are available, the quality is such that people prefer to go elsewhere for the services.”<sup>4</sup> Public Health Watch researchers from all five countries judged that government spending on TB was inadequate to ensure the effective implementation of national TB policies. For example, only about two-thirds of all Bangladeshi laboratories have the capacity to perform high-quality smear tests,<sup>5</sup> and laboratory rooms in some subdistricts are small and poorly ventilated, creating health risks for staff. As researcher Afsan Chowdhury noted, “If you measure political commitment [in Bangladesh] in terms of resource mobilization—if you see this as a measure of the extent to which TB is on the political agenda—it’s low, there’s not much.”<sup>6</sup> TB workers are underpaid and overworked, leading to high turnover, sagging morale, and low recruitment. As funding for TB control has declined in Brazil over the past few decades, so has the prestige of TB work, even as increased investment in HIV/AIDS since the early 1990s has helped enhance the status of HIV/AIDS workers.

In **Brazil**, **Nigeria**, **Tanzania**, and **Thailand**, the HIV/AIDS epidemic has fueled a dramatic resurgence in TB rates and put an additional strain on health infrastructures, yet governments have been slow to respond with corresponding increases in TB budgets and personnel. In **Tanzania**, the resurgence in TB rates—a six-fold increase in the number of cases between 1983 and 2003—has largely been attributed to the HIV epidemic. HIV preva-

lence among TB patients in **Nigeria** increased more than four-fold over the period between 1991 and 2001.<sup>7</sup> In **Thailand**, the resurgence of TB and the number of patients coinfecting with TB/HIV has been similarly dramatic, yet the integration of the TB control program into the more powerful and better funded National AIDS Control Programme—intended to promote collaborative TB and HIV policies and services—has instead dissipated the authority and resources of the TB program.

International donors cover a large share of TB control budgets in **Bangladesh**, **Nigeria**, and **Tanzania**. For instance, the Tanzanian government in 2003 contributed 10 percent of the National TB and Leprosy Programme’s total annual budget.<sup>8</sup> As one Nigerian health care provider noted, “remove the donor, and everything would crash.”<sup>9</sup> Public Health Watch researchers unanimously recommend that donors should take greater care to ensure that assistance programs strengthen long-term capacity to conduct TB control activities without external support. “Most international cooperation is project-based,” researcher Akramul Islam of Bangladesh said. “But we’re trying to do long-term thinking. Many international organizations think they will come here and transfer knowledge—but how can you just transfer knowledge and then wash your hands?”<sup>10</sup>

Even in countries such as **Brazil** and **Thailand**, where domestic spending accounts for the greater part of the health budget, donor resources are playing an increasingly significant role in TB control. In 2005, 45 percent of the Thai National TB Programme budget came from the Global Fund to Fight AIDS, Tuberculosis and Malaria. In recent years, bilateral agencies such as the US Agency for International Development (USAID) and other external public and private funding sources have provided most of the investment in clinical and operational research in Brazil. Access to global funding streams is making a clear contribution to national TB control efforts in all five countries. Yet Public Health Watch researchers all expressed concern about the potential for displacement of government responsibility and the impact on the capacity of governments to sustain TB control efforts in the long term.

There has been minimal public mobilization around the need to hold governments accountable for their commitments to reach Amsterdam Declaration targets. Without effective pressure from domestic constituencies, governments have had little incentive to improve their performance on TB control. Researcher Ezio T. Santos Filho believes that the position of a middle-income country such as **Brazil** on the list of TB high-burden countries can only be explained by the absence of mechanisms to ensure that critical scrutiny of government TB control efforts includes the participation of people from communities most directly affected by TB. And **Bangladeshi** researcher Afsan Chowdhury insists that the involvement of dedicated National TB Programme officials is not enough; other sectors must lend their support as well. “We need a broad cross-section of actors involved to have an effective TB control policy,” Chowdhury said. “We need advocates *around* the minister of health—we need to make TB activists out of politicians. And TB needs to be pushed onto

the political agenda, not only of the health ministry, but also of the ministries of finance and planning.”<sup>11</sup>

The marginality of the Declaration at the country level is symptomatic of a broader issue: insufficient public awareness of the scope and seriousness of the TB epidemic. Global incidence of TB has increased over the past 10 years.<sup>12</sup> TB kills approximately 2 million people a year<sup>13</sup> and is a leading cause of death by infectious disease for people living with HIV/AIDS. Yet when contrasted with the extent of social mobilization around health issues such as HIV/AIDS, the general lack of awareness that TB is a serious health threat is striking.

## Lack of awareness

*There is nothing more than a poster on the wall in health facilities to promote awareness.*

—Ezio T. Santos Filho, *Public Health Watch* researcher, Brazil<sup>14</sup>

Public Health Watch researchers from all five countries identified lack of awareness about TB at all levels as a critical issue—one that has multiple adverse consequences and implications for the effectiveness of TB control efforts.

In the high-burden countries under study, many people do not know the basic facts about TB: how the disease is transmitted; that it can be treated and cured; and where to access free treatment. In **Bangladesh**, where over half of the population is infected with the TB bacillus, a recent study found that some women believed they could get TB by wearing torn slippers.<sup>15</sup> According to one Nigerian doctor, “most people [in Imo State] still think that TB patients have been poisoned. Some think it is a curse from the gods—especially when many family members get infected—and go to fortune tellers and prayer houses for deliverance.”<sup>16</sup> Even groups at an elevated risk of TB infection, including people living with HIV/AIDS, appear to lack information about TB. For example, a recent series of social mobilization workshops among HIV/AIDS activists in **Brazil**—where TB is one of the leading causes of death by infectious disease for people with HIV/AIDS—revealed that few participants knew even the basic facts about TB transmission and treatment.<sup>17</sup>

Lack of information can lead to delays in accessing treatment, increasing the potential for transmission of the disease. One recent study in Tanzania found that only 42 percent of TB patients visited a health facility within three months of the onset of symptoms; the median duration between onset of TB symptoms and visiting a health facility was about eight months.<sup>18</sup>

The low level of awareness extends to high-level political officials as well. The leader of one faith-based organization in **Thailand** remarked that “the general perception among political leaders as well as in Thai society is that TB has been completely eradicated.”<sup>19</sup>

In **Tanzania**, where over 50 percent of people living with HIV/AIDS are coinfecting with TB, many politicians and local government leaders believe that TB is a “disease of the past” that affects relatively few people and therefore do not consider TB a priority.

The scarcity of information and educational resources adapted for use at the community level is an obstacle to the initiation of awareness-raising efforts. And patients who do not understand the requirements of treatment are more likely to default, raising the risk of multidrug-resistant TB (MDR-TB), which few high-burden countries, including **Bangladesh**, **Nigeria**, **Tanzania**, and **Thailand**, have the capacity to detect and treat. **Brazil** has a strong system in place for treating its relatively few cases of MDR-TB but has undertaken a national investigation to determine whether high treatment default rates could be affecting national rates of drug resistance. A prominent TB doctor in Bangladesh expressed frustration that so little effort has been made to produce and disseminate culturally sensitive materials in the local language: “We are producing documents in English—for whom? For the donors! [We need TB materials] in Bangla, Bangla and more Bangla. And we have to remember that only one in three people can even read Bangla.”<sup>20</sup> Researcher Jamillah Mwanjisi reported that available information on TB in **Tanzania** is overly technical and jargonistic, especially in comparison to resources on HIV/AIDS, and that TB officials make little attempt to communicate the basic, essential information that people need in language they can understand. “There is quite a lot of room for social mobilization around TB—for activists to get involved,” she said. “The problem is that TB is so closed to [everyone except] the experts.”<sup>21</sup>

People from the communities most affected by TB and TB/HIV must be involved in the creation of materials about TB that are accurate and sensitive to local social and cultural contexts. Direct support to community activists and leaders would help them develop and use such materials to promote TB awareness in their communities.

## Media involvement

*[World TB Day is like] a flash of the camera, and then it's gone.*

—Somsak Akksilp, director, Office of Disease Prevention and Control, Thailand<sup>22</sup>

Except for official statements on World TB Day, the NTPs in all five countries have made little attempt to communicate important information about TB through newspapers, television or radio outlets on a systematic and continuous basis. NTPs generally lack strong communication strategies and staff has little experience working with the media.

Mirroring the situation within the general population, most journalists know little about TB. **Nigerian** researcher Olayide Akanni—a journalist herself—found that journalists are reluctant to report on TB because they are not sufficiently aware of the issues. “The majority of journalists,” she said, “do not even know that TB is an issue.”<sup>23</sup> At one recent

meeting organized by Akanni’s organization, Journalists Against AIDS, a group of health correspondents from major Nigerian media outlets acknowledged that they had limited knowledge about the seriousness of the TB epidemic, how TB is spread, the linkage between TB and HIV, and other related issues.<sup>24</sup> “Journalists are not able to write articles about [TB], because we lack information,” a **Bangladeshi** journalist said. “We don’t receive information from TB experts and programs in a way that we can use it.”<sup>25</sup> Editors and media owners in **Nigeria**, **Tanzania**, and **Thailand** are reportedly reluctant to cover TB and other health topics because they do not believe these “softer” issues will generate enough public interest. Few government or donor-supported media training programs have focused on TB and TB/HIV.

In the absence of a well-articulated NTP communications strategy, few government TB officials have received media training or support in obtaining the necessary skills for working with the press. Journalists in **Nigeria** and **Tanzania** have found that the primary sources of information on TB—public health officials and health care workers—are reluctant to grant interviews. According to Akanni, to reach Nigerian public health officials, “there are bureaucracies you have to overcome, and you have to book an interview about two weeks in advance.”<sup>26</sup> Mwanjisi added that in Tanzania, “When you go to interview [TB officials], they’ll tell you a string of expert jargon, and when you ask, ‘Can you please explain it to me?’ they say, ‘Oh, you would not be able to understand it.’ That kind of attitude puts off a lot of journalists.”<sup>27</sup>

The fact that few civil society organizations are dealing with TB further limits potential sources of information for journalists. Mwanjisi commented that “even HIV support groups, who are referring people living with HIV to TB services, do not know anything about what is happening with the national TB program.”<sup>28</sup>

## Stigma and discrimination

*Stigma is frustrating access to TB treatment especially for people living with HIV . . . [and] the hostile attitude of health care officials . . . is responsible for this. Nobody would want to go to a place where he or she is likely going to be treated like an outcast. No matter how effective the treatment becomes, at the end of the day, you will simply avoid such places. If that is the only place where such treatment exists, so be it; some individuals would rather die than go there.*

—Yinka Jegede-Ekpe, coordinator, Nigerian Community of Women  
Living with HIV<sup>29</sup>

Lack of public awareness contributes to an environment in which people living with TB are more likely to feel shame and to face stigmatization and discrimination, even from health care workers, reinforcing their reluctance to seek treatment and care. Women, migrants, and members of other at-risk groups are particularly stigmatized. In areas of high HIV prevalence, people with TB are often assumed to have HIV as well, intensifying the level of stigmatization they experience.

Without an understanding of how TB is spread and that it can be cured, an atmosphere of suspicion, fear, and hostility toward people with TB can easily develop. In **Bangladesh**, BRAC research has shown that “common people would not like to associate with TB patients [for] fear of transmission,” making people with TB reluctant to seek diagnosis and care.<sup>30</sup> Though TB prevalence is reportedly quite high in factories (particularly among garment workers and in Export Processing Zones) and on tea plantations in Bangladesh, BRAC reports that factory owners are reluctant to allow access to TB service providers, and workers are reluctant to be tested for fear of losing their jobs if they test positive for TB.<sup>31</sup> A **Nigerian** TB patient reported that many TB patients abandon their jobs due to stigmatization from fellow workers who fear infection as well as more blatant forms of discrimination, including being fired by their employers.<sup>32</sup>

Mwanjisi sees a direct link between lack of reliable information about TB and TB/HIV coinfection and the high level of stigma attached to TB in **Tanzania**: “As soon as it is suspected that someone might have TB, everybody thinks that he or she also has HIV. . . [and t]his is because there is very limited information about TB—almost nothing—especially at the community level.”<sup>33</sup> The fears and prejudices of some health workers also add to the stigmatization of people living with both diseases.

Public Health Watch research strongly suggests that women are particularly vulnerable to stigmatization and discrimination and may be more hesitant to seek diagnostic and treatment services as a result. For example, research in Kanchanburi, **Thailand**, uncovered a common belief that TB is a “male” disease, associated with a high-risk lifestyle and “unfeminine” behaviors, so for women the onset of TB symptoms is accompanied by intense feelings of shame and loss of esteem.<sup>34</sup> In many communities in **Bangladesh**, women with TB face social disapproval for displaying physical symptoms such as coughing in public as well as a greater prospect of rejection by their husbands (or by prospective husbands if they are unmarried). As a result, Bangladeshi women are more likely than men to attempt to hide or deny TB infection, trying home and traditional remedies first and seeking professional services only as a last resort.<sup>35</sup>

Gender-related stigma is exacerbated by the fact that women typically face greater barriers in accessing health care than men. Women often have more restricted access to private income to cover the hidden costs of treatment such as nutritional supplements and transportation. In both **Bangladesh** and **Tanzania**, women cited cost as a significant

barrier; reportedly, **Tanzanian** women often have to “choose between traveling [to a clinic] and getting their medications or buying food for the family”<sup>36</sup>—and often opt against accessing TB care.

There are strong indications that TB is a serious health threat among migrants to **Thailand** from neighboring Burma, Laos, and Cambodia. Unable to read or speak Thai, lacking official documentation, and fearing deportation if they come into contact with public authorities, many are hesitant to seek treatment. Those who do seek treatment move so frequently that their treatment is often interrupted, raising serious concerns about MDR-TB.

TB is having a devastating impact on other vulnerable groups as well, including prisoners, refugees, and minority groups. Yet some NTPs have failed either to conduct the necessary monitoring and data analysis themselves or to support the collaborative research with academic institutions and NGOs that would allow them to identify vulnerabilities and to develop appropriately targeted programs and services. For example, in **Brazil**, since Brazilians of African descent are overrepresented among the poor, it seems likely that Afro-Brazilians—and particularly Afro-Brazilian women—also suffer higher rates of TB, yet there has been little research on this issue.<sup>37</sup> Where such data exists, as with regard to prisoners in **Thailand**, the government has been able to design and implement effective outreach programs.

## **TB and poverty**

There is abundant evidence that poverty increases vulnerability to TB. The malnutrition, overcrowding, poor air circulation, and unhygienic sanitation facilities commonly experienced by the poor all increase the probability of TB infection. People living in poor communities are also harder hit by the hidden costs of diagnosis and treatment and are therefore less likely to access TB services. One recent government study in Bangladesh found that 70 percent of patients at DOTS centers were below the poverty line.<sup>38</sup> TB prevalence and mortality rates in Brazil reflect broader socioeconomic patterns, with poor and disadvantaged communities suffering most.

TB, in turn, can make patients more vulnerable to poverty. TB treatment and associated costs are relatively higher for poor people. TB decreases an individual's mental and physical capacity to work, further adding to the financial burden of treatment and multiplying the extent and impact of poverty. As 90 percent of **Bangladeshi** TB patients are in the most economically productive age group (15–54 years), the economic and social burden to their families is massive. According to a document prepared by the Bangladeshi government, the economic impact associated with TB and TB coping strategies is credited with pushing 30 percent of nonpoor patients below the poverty line.<sup>39</sup>

## The hidden costs of treatment

*It is true that we receive free diagnosis and treatment, but [TB] drugs are very powerful, and they need to be taken with sufficient food. A majority of us [patients] are from poor families and we have only one meal per day. So sometimes we are forced to skip the drugs.*

—TB patient, Dar es Salaam, Tanzania<sup>40</sup>

Adhering to the six-month TB treatment regimen is a challenge, particularly for patients who are malnourished, taking antiretroviral drugs, grappling with other illnesses, or poor. Strict compliance with treatment requires a serious investment of patients' time, energy, and household resources. Reports from all five countries revealed that even though TB treatment is free, patients are often confronted with significant "hidden costs," including outlays for diagnostic tests, transportation to health facilities, nutritional supplements (since patients require an adequate diet to take their medications), and time away from work. In Tanzania, patients from rural areas in particular may spend several hours traveling to and from health facilities and one to six hours in the clinic waiting to receive medications—every day for the first two months of treatment. Similarly, in Nigeria, research revealed that states in the north, which are typically poorer, have far fewer TB centers available per capita, meaning that patients have to travel much farther for treatment. For example, as of January 2005, Zamfara State in the north had only 10 DOTS centers for a population of 3.6 million people, while Ogun State in the south had 116 DOTS centers for 2.3 million people.<sup>41</sup> For many patients, who also have to think about earning a livelihood and familial responsibilities, traveling such a long distance for TB care is simply untenable.

Yet despite the clear connection between TB and socioeconomic factors, governments continue to deal with the disease primarily as a public health problem rather than as a broader development issue. TB is usually left to the "experts," a small circle of medical and health professionals working within or connected to the Ministry of Health. For example, while maternal and child health, infant mortality, and HIV/AIDS are highlighted in **Thai** poverty reduction schemes, TB is not mentioned. The **Brazilian** government has long acknowledged that providing "incentives" such as nutritional supplements and transportation subsidies to TB patients is necessary to ensure treatment adherence. Yet under Brazil's decentralized system, individual states and municipalities have the responsibility to budget for the incentives, and thus their availability in practice varies greatly from state to state and within states.

Patterns of TB prevalence and the crippling hidden costs of treatment may help to explain why there has not been more civil society involvement around TB. People living in poverty, women, and members of other vulnerable groups are not generally well

represented in policymaking processes; these groups are most likely to lack higher education, political access, and allies in policymaking circles. People struggling to stick to a demanding treatment regimen are more likely to be focused on survival (while they are ill) and putting the experience behind them (after they are cured) rather than policy debates. Yet involving people living in the communities most affected by TB—especially those who have successfully completed treatment—is crucial to the development of more effective public outreach programs and to improving the quality and accessibility of services overall. Given the marginalization often faced by the people and communities most affected by TB, governments and international donors must take an active role in encouraging and supporting partnerships with community-based organizations to reach these groups more effectively.

## Public-private collaboration

*Management of TB patients in private practice is not of acceptable quality.*

*. . . [D]ifferent anti-TB regimens are prescribed depending on the experience of the private provider and on the patient's purchasing power.*

*—Report of Third Joint International TB DOTS/ HIV/AIDS Monitoring Mission to Nigeria<sup>42</sup>*

Many people with TB symptoms turn first to private practitioners in their communities, even in areas theoretically “covered” by governmental DOTS programs. People seek services from private providers because they lack knowledge about or sufficient access to free treatment, or because they are looking for better service than they expect to receive at publicly managed clinics. TB treatment regimens in private facilities are often based upon an individual’s purchasing power rather than on national guidelines for TB treatment. In Nigeria, for example, rather than relying solely on smear tests, private providers use chest x-rays to diagnose TB in people who can pay for this service. Widespread reliance on private providers who are not collaborating with the government also has a negative impact on the accuracy of official TB case recording and reporting and the likelihood of treatment default.

While those who can afford it often seek treatment from licensed private medical doctors, large numbers of TB patients seek treatment from a range of other, less qualified private providers, including traditional healers, pharmacists, and unlicensed doctors, few of whom can be counted on to follow NTP guidelines. A recent study in **Bangladesh** found that up to 70 percent of poor TB patients had consulted traditional healers, homeopathic providers, or allopathic doctors before seeking out DOTS services;<sup>43</sup> because these private providers charge fees for TB services, patients are more likely to appear for treatment only when they have enough money to buy drugs, or drop out entirely when their money runs out. Defaulting on treatment increases patients’ risk of developing (and spreading) MDR-TB.

Few private providers in **Bangladesh, Nigeria, Tanzania, and Thailand** systematically refer TB patients to public health clinics or report on the outcomes of the cases they treat. In **Brazil**, although most public health care providers also “moonlight” as private doctors to compensate for low public sector salaries, most TB patients access free treatment through the public health system. Private and public providers alike often view official case recording and reporting requirements as complicated and time-consuming, especially if no incentives to encourage compliance are in place.

Building incentives into public-private partnership agreements can have a positive impact. TB reporting from private hospitals in Bangkok, **Thailand**, improved significantly when the city’s Metropolitan Authority introduced a user-friendly computerized case recording and reporting system as well as concrete incentives such as free x-ray and sputum testing services, training, and TB education materials.<sup>44</sup> By contrast, similar public-private pilot projects have yielded less promising results in **Bangladesh** and **Nigeria**. As one Bangladeshi expert noted, “It’s very easy to say ‘public-private partnership,’ but it’s very hard to implement. . . . We have no dearth of policies; the question is how to implement them—that is the real challenge.”<sup>45</sup> Careful study is needed to assess why some pilot projects have succeeded and others have failed.

## The practicability of DOTS

*People living with HIV/AIDS become actively involved [in their own treatment]; they do home visit projects; they join committees at hospitals; they have a role in encouraging and supporting their fellow people living with HIV/AIDS to stick to treatment. This is the crucial role local communities have played in making AIDS programs successful [and] this . . . story could be replicated for TB patients.*

—Rev. Sanan Wutti, *The Church of Christ in Thailand*<sup>46</sup>

Quality-assured TB sputum microscopy and access to “directly observed treatment” (DOT) are two of the principal components of the WHO-recommended DOTS TB control strategy. Public Health Watch research suggests that financial and human resource constraints pose serious obstacles to guaranteeing DOT by public health care workers in many high-burden countries, and that ensuring strong community participation in TB control efforts can both help fill this gap and enhance public awareness and engagement around TB and TB/HIV. The emergence of the HIV/AIDS epidemic has highlighted the inadequacy of current TB diagnostic tools, even where these are available.

In many parts of the world, NTPs have interpreted DOT to mean that trained health care workers should supervise and observe patients on a daily basis in taking their

daily medication. This is one response to the acknowledged challenge of assuring treatment completion. However, in **Thailand** and **Bangladesh**, TB programs have recognized that it is simply not feasible for health care workers to observe all TB patients on a daily basis. For example, statistics from one TB treatment center in Chiang Mai, Thailand, indicate that fully 42 percent of patients self-administer treatment.<sup>47</sup> According to the director of a health facility in Bangkok, “The government and . . . the international community . . . say that people must receive DOT in every single case, . . . [but] . . . we can’t do this 100 percent. . . . Nurses have a lot of duties and many diseases to take care of—so no, they don’t get to everyone. We try to utilize community workers. . . . But [without] financial support, this won’t be sustainable.”<sup>48</sup> TB clinics in the **Brazilian** city of Rio de Janeiro offer patients the option of traveling back and forth to the clinic every day (or three times a week) to receive DOT, but many decline and choose to take responsibility for treatment themselves, often due to work responsibilities or a wish to avoid being identified publicly as a TB patient.<sup>49</sup>

In fact, a shortage of trained health care personnel and, particularly, of dedicated TB staff, affects the practicability of offering DOT in all five countries. In **Nigeria**, national debt and restrictions on public spending imposed by the World Bank and the International Monetary Fund (IMF) have historically placed major limitations on health sector allocations and spending, including on securing and retaining personnel.

The challenges for TB control are even greater in areas of high HIV prevalence, as many TB clinics are not equipped to meet the added challenge of diagnosing coinfecting patients. According to reports from **Brazil**, **Nigeria**, **Tanzania**, and **Thailand**, many HIV-positive patients die from TB without ever being diagnosed or treated. As a staff member from the National Reference Laboratory in **Nigeria** said, “Sputum tests alone [often do] not give the right diagnoses of TB, especially if the patient is HIV-positive. . . . We no longer refer TB patients to DOTS centers because they are often lost [seldom diagnosed or treated].”<sup>50</sup>

Though the WHO has issued an Interim Policy on Collaborative TB/HIV Activities<sup>51</sup> to help countries frame a coordinated response to the challenges of diagnosing and treating coinfecting patients, few countries—even those with high HIV prevalence such as **Nigeria** and **Tanzania**—have progressed beyond the planning and “pilot project” phase.

Though the importance of close supervision of TB treatment by trained medical experts is not debated, “top-down” efforts to ensure compliance need to be balanced with consideration for the importance of patient autonomy and the value of enlisting community-based support, as the WHO has increasingly recognized.<sup>52</sup> Still, Abdul-Mayeed Chowdhury, the executive director of BRAC, noted that within the current TB control paradigm, “Ordinary people are treated as the recipients of the services that are being delivered to them, rather than as equal partners in their treatment.”<sup>53</sup> Many TB advocates urge TB policymakers to draw upon examples of community-based ARV distribution among people living with HIV/AIDS as a useful model for developing community-based DOTS programs.

## Community-based DOTS

*TB should not be seen as an ‘experts-only’ disease; it affects everyone and everyone has a role to play.*

—Jamillah Mwanjisi, Public Health Watch researcher and director of  
Media Bank, Tanzania<sup>54</sup>

National TB programs in Bangladesh, Tanzania, and Thailand have sought to make TB treatment more accessible and affordable by initiating community-based TB programs, often in collaboration with NGOs. Though many of these programs have shown impressive results at relatively low cost, few have attracted sufficient investment and support for scale-up, either from domestic sources or international donors.

In response to lack of government capacity to administer DOT through health care workers in every community, BRAC and other NGOs provide community-based TB services in over two-thirds of **Bangladesh**. The BRAC approach—the most widely used model of its kind in the country—revolves around the *shastho shebika*, or female community health worker. *Shastho shebikas* are trained to identify TB symptoms and refer patients to TB diagnostic centers in the communities in which they live. Once a community member is diagnosed with TB, *shastho shebikas* obtain free TB drugs, administer DOT at the household level, and record and report relevant data to BRAC and to the NTP. *Shastho shebikas* receive significant support from BRAC in the form of regular training and refresher courses as well as the opportunity to earn income: they are permitted to sell pharmaceutical supplies in their communities, and for each TB patient cured, they receive a small fee of Tk 125 (approximately \$1.90). Many reportedly gain personal satisfaction and prestige from their jobs as well. As one *shastho shebika* noted in a recent interview, “I enjoy my work because it has gained me respect in my community.”<sup>55</sup>

The BRAC model of community-based care has achieved impressive results: treatment success rates at or above the global target of 85 percent,<sup>56</sup> at a cost of 50 percent less than the equivalent services in areas covered by the NTP.<sup>57</sup> BRAC’s community-based DOTS program has also reaped impressive social dividends. *Shastho shebikas* distribute information and raise awareness not only about TB, but about a range of health issues, and not just to people with TB symptoms, but to the entire community, thus defusing stigma. *Shastho shebikas* report that people who have recovered from TB are often their greatest allies in encouraging others to report symptoms and seek treatment. And the fact that BRAC’s TB services are implemented in collaboration with the Bangladeshi government, which provides free drugs, monitoring, and supervision, reinforces governmental capacity and leadership on TB control.

Pilot community-based DOTS programs have also demonstrated positive treatment outcomes at relatively low cost in the Kilombero and Temeke districts of **Tanzania**.

Following the initiation of the program, the cure rate in Kilombero jumped from 48 to 78 percent.<sup>58</sup> One district representative commented that the program was able to maintain a high quality of treatment services at a fraction of the cost to patients because travel costs had been eliminated.<sup>59</sup> One patient from the Temeke district of Dar es Salaam described the program as a “savior,” especially for communities far from health facilities or where roads are impassable during rainy seasons.<sup>60</sup> In Temeke, too, the program both maintained quality of services and improved cost effectiveness by 37 percent.<sup>61</sup> However, both pilot projects have now been terminated due to lack of funding. Community health workers continue to implement some community-based TB services on an ad hoc basis,<sup>62</sup> but without financial support for transportation or training from district health management teams these efforts have remained limited in scope.

In **Thailand**, village health volunteers and family members assist health workers in the provision of health services, including the distribution of TB drugs and the administration of DOT. However, there are some indications that the government has not devoted sufficient attention and resources to providing training and support for these volunteers. In addition to administering DOT, village health volunteers provide a wide range of primary health services, including TB education, in return for free medical care. Family volunteers do not receive even this level of compensation. Some village health volunteers report that they find their jobs are unappealing,<sup>63</sup> and others report that the responsibility of providing community and patient education is too great to be left to volunteers.<sup>64</sup> Many Thai health administrators agree that volunteer workers “need to be supported and salaried. We can’t make them work for free all the time.”<sup>65</sup>

Community-based DOTS programs provide a promising model for extending the capacity of government TB programs and engaging affected communities and individuals in becoming actively engaged in TB control efforts. However, Public Health Watch research suggests that NTP participation and leadership, particularly in providing infrastructural and technical support and training, may be important if the “scaling-up” and long-term sustainability of such programs is to be considered.

## Civil society engagement in TB policymaking

*Public pressure is still not felt by the National TB Programme; it's still a specialist program, and we're still telling the public what to do—that we know best. We need to show that the right belongs to the people [and the] provision of TB services has . . . to be seen as an obligation. Until we do this, [TB control] is not sustainable, and we won't reach the targets.*

—Afsan Chowdhury, Public Health Watch researcher and director of advocacy, BRAC, Bangladesh<sup>66</sup>

Civil society engagement in the design, implementation, and evaluation of TB policies at the national and international levels has been minimal. Though the importance of community involvement in addressing many of the issues raised in Public Health Watch reports is increasingly acknowledged at the rhetorical level, there are still far too few mechanisms and opportunities for meaningful participation. NGOs working in the field of health are still seen primarily as service providers; their role in promoting and demanding greater governmental accountability for delivering effective TB policies and services is not widely recognized.

At the national level, TB officials are not accustomed to receiving scrutiny from civil society actors. In **Nigeria** and **Tanzania**, Public Health Watch researchers found that TB officials were resistant to the idea that “nonexperts” could have a role to play in assessing quality of services or in helping to design and implement community-based and patient-centered programs. “The attitudes of some government health workers—maybe they have to change,” a health activist in **Thailand** said. “It seems like [TB experts] think they know everything. They are very knowledgeable, but they don't trust that NGOs can work on these issues . . . because we have not been formally trained.”<sup>67</sup> In other countries, there are initial signs of increasing support for civil society engagement in TB policymaking. For example, BRAC's impact on the development and implementation of TB policy in **Bangladesh** and beyond is widely acknowledged. And since 2003 the **Brazilian** NTP has indicated greater receptivity to community sector involvement in monitoring implementation of its policies; in 2004, the Ministry of Health announced its support for a new “Brazilian Partnership Against TB,” a visible sign of renewed support for a multisectoral TB control effort.

At the same time, civil society engagement at the international TB policymaking level has been minimal, though there are signs that this situation too may be changing with the increasing involvement of experienced HIV/AIDS activists and former TB patients in the Stop TB Partnership and other international bodies. To date, WHO officials have insisted that the primarily statistical and epidemiological nature of its annual *Global Tuberculosis Control* report must be preserved. As such, NGOs have not generally been invited to

participate in the preparation or review of government reports submitted to the WHO. There is currently no mechanism for civil society groups to provide independent assessments or recommendations during preparation of the *Global Tuberculosis Control* report on what could be done to improve the effectiveness of TB policies and services.

While the WHO's international case detection and treatment success targets are seen as helpful in motivating governments to demonstrate progress from year to year, without a transparent data collection and reporting system that allows for public review and feedback there is a strong incentive for governments to report greater progress than is actually being achieved. For example, a number of **Brazilian** officials and researchers have asserted that data gathered for WHO reports are not widely available at the national level;<sup>68</sup> that Brazilian experts are unaware of the methodology by which data are collected; and that there are significant discrepancies between the information reported to the WHO and national data with regard to DOTS coverage in particular, creating an inaccurate picture of the situation on the ground.<sup>69</sup> As long as governments see the Amsterdam Declaration and other regional and international commitments as a useful way of attracting international funding without incurring domestic responsibility, these commitments will not spur the desired broad public mobilization that is widely acknowledged to be a prerequisite for an effective, sustained TB control effort.

TB policymakers have noted the importance—and the absence—of a strong social mobilization component in TB control efforts to date.<sup>70</sup> There have been some incipient attempts to stimulate greater activity in this area. For example, in 2004 the Stop TB Partnership formed the Advocacy, Communications and Social Mobilization Working Group. The WHO Stop TB Department has begun to collect information on advocacy efforts in high-burden countries and has promised to establish a working group that includes community participation to develop indicators for more detailed reporting on communications and social mobilization activities as well. The Stop TB Partnership has also welcomed several community-led initiatives such as the creation of a community task force to ensure representation of people living with HIV/AIDS and/or TB in all of its decision-making structures.<sup>71</sup> In Round Five, the Global Fund awarded substantial grants to support TB advocacy, communications, and social mobilization activities in a number of high-burden countries. Perhaps most significantly, the new *Global Plan to Stop TB* (2006–2015), published in March 2006, identifies the following as one of its six key elements: “Engage people with TB and affected communities to demand, and contribute to, effective care, [involving] scaling up community TB care, creating demand through context-specific advocacy, communication and social mobilization; and supporting development of a patient’s charter for the tuberculosis community.”<sup>72</sup> However, the promise of these nascent structures and declarations of intent has yet to be fulfilled; the level of social mobilization around TB and community participation in TB policymaking processes is still inadequate.

Community mobilization and participation have proven essential in advocating for research, development of new tools, and the increased resources for the fight against HIV/AIDS. But many of those directly affected by TB lack resources and opportunities to engage in policy processes. Others may wish to distance themselves from the disease—and the stigma attached to it—once they have been cured. Ezio T. Santos Filho, a long-time HIV/AIDS activist in **Brazil**, asserts that waiting for the kind of “bottom-up” engagement and activism that was undertaken by the well-educated and politically connected constituencies first affected by AIDS in countries such as Brazil and the United States may not be realistic when so many of those affected by TB are from the poorest and most marginalized communities in their countries.<sup>73</sup> Greater social mobilization around TB and TB/HIV will be necessary to eradicate TB, but this will not occur without a concerted and sustained effort on the part of donors, policymakers, and community activists.

–Public Health Watch

# Notes

1. For all five national reports please see [www.publichealthwatch.info](http://www.publichealthwatch.info) or contact Public Health Watch at: [phwinfo@sorosny.org](mailto:phwinfo@sorosny.org).
2. The DOTS strategy has five principal components: sustained political commitment; access to quality-assured TB sputum microscopy; standardized therapy under proper case management conditions; uninterrupted supply of quality-assured drugs; and systematic recording and reporting of TB cases. Available at [www.who.int/tb/dots/whatisdots/en/index.html](http://www.who.int/tb/dots/whatisdots/en/index.html) (accessed May 17, 2006).
3. See Amsterdam Declaration to Stop TB, adopted at the Ministerial Conference on Tuberculosis & Sustainable Development on March 24, 2000, Amsterdam, The Netherlands, available at [www.stoptb.org/stop\\_tb\\_initiative/amsterdam\\_conference/documents/decla.pdf](http://www.stoptb.org/stop_tb_initiative/amsterdam_conference/documents/decla.pdf) (accessed May 16, 2006).
4. Executive director of the National Primary Health Care Development Agency (NPHCDA), *The Guardian*, May 30, 2005.
5. BRAC staff confirm a pressing need for more quality microscopes at the field level. Interview with Faruque Ahmed, director of health programs, BRAC, Dhaka, March/April 2005.
6. Comment by Afsan Chowdhury, Public Health Watch researcher and director of advocacy, BRAC, December 12, 2005.
7. NTBLCP/NASCAP Power point presentation, Graph 5: Trend of HIV seroprevalence in TB patients—1991–2001, NASCAP, 2001 Sentinel Survey Report.
8. “Table 1: NTLF funding and expenditure for 2003,” in MoH, *NTLP Annual Report* (Dar es Salaam, 2003), p. 4.
9. Interview with health care provider, Ogun State, February 16, 2005.
10. Comment by Akramul Islam, Public Health Watch researcher and manager of the health and nutrition program, BRAC, December 14, 2005.
11. Comment by Afsan Chowdhury, director of advocacy, BRAC, Dhaka, December 11, 2005.
12. “TB Overview,” Global Health Reporting, available at [www.globalhealthreporting.org/tb.asp](http://www.globalhealthreporting.org/tb.asp) (accessed May 25, 2006).
13. WHO, *Global Tuberculosis Control: Surveillance, Planning Financing*, (Geneva: WHO, 2006), p. 1.
14. Comment by Ezio T. Santos Filho, Public Health Watch researcher, Public Health Watch roundtable meeting, São Paolo, March 30, 2006.
15. Fazlul Karim, Insana Begum, Akramul Islam, and AMR Chowdhury, “Gender barriers to TB Control: Fade-out or in?” BRAC Research and Evaluation Division, September 2003, p. 6.
16. Interview with C.O. Nwakonobi, Imo State TB and leprosy coordinating officer, Imo State, April 11, 2005.
17. Ezio T. Santos Filho, Public Health Watch researcher, observations from social mobilization workshops, Rio de Janeiro, 2003.
18. Study by Healthscope Tanzania and the NTLF, reported in MoH, *NTLP Annual Report* (Dar es Salaam, 2003), p. 5.
19. Comments by Rev. Sanan Wutti, The Church of Christ in Thailand, Public Health Watch roundtable meeting, Chiang Mai, December 9, 2005.
20. Comment by Zafrullah Chowdhury, project coordinator, Gono Shahsthya Nagar Hospital (GK), *Daily Star* roundtable meeting, Dhaka, December 13, 2005.
21. Presentation by Jamillah Mwanjisi, Public Health Watch researcher and director of Media Bank, Global Health Council panel discussion, Washington, D.C., March 2006.
22. Comment by Somsak Akksilp, director, Office of Disease Prevention and Control Region Seven, Public Health Watch roundtable meeting, Bangkok, December 6, 2005.

23. Presentation by Olayide Akanni, Public Health watch researcher and senior programme officer, Journalists Against AIDS (JAAIDS), Global Health Council panel discussion, Washington D.C., March 2006.
24. JAAIDS, "TB/HIV, Confronting a Dual Epidemic," JAAIDS media roundtable meeting, Lagos, March 16, 2005.
25. Comment by Razu Ahmed, *Daily Amar Desh* (daily Bangla language newspaper), BRAC/Public Health Watch roundtable meeting, Dhaka, December 12, 2005.
26. Presentation by Olayide Akanni, Public Health watch researcher and senior programme officer, Journalists Against AIDS (JAAIDS), Global Health Council panel discussion, Washington D.C., March 2006.
27. Presentation by Jamillah Mwanjisi, Public Health Watch researcher and director of Media Bank, Global Health Council panel discussion, Washington D.C., March 2006.
28. Presentation by Jamillah Mwanjisi, Public Health Watch researcher and director of Media Bank, Global Health Council panel discussion, Washington D.C., March 2006.
29. Comment by Yinka Jegede-Ekpe, coordinator, Nigerian Community of Women Living with HIV (NCW+), JAAIDS media roundtable meeting, Lagos, March 16, 2005.
30. Fazlul Karim, Insana Begum, Akramul Islam, and AMR Chowdhury, "Gender barriers to TB Control: Fade-out or in?" BRAC Research and Evaluation Division, September 2003, p. 6.
31. Observations on basis of BRAC's experience at a DOTS treatment center in Chittagong. See also Fazlul Karim, Insana Begum, Akramul Islam, and AMR Chowdhury, "Gender barriers to TB Control: Fade-out or in?," BRAC Research and Evaluation Division, September 2003, p. 5, noting reports of people losing their jobs after receiving a TB diagnosis.
32. Interview with TB patient, Broad Street Chest Clinic, Lagos, February 10, 2005.
33. Presentation by Jamillah Mwanjisi, Public Health Watch researcher and director of Media Bank, Global Health Council panel discussion, Washington, D.C., March 2006.
34. Soonthornhdhada et al., *Community Perceptions and Experiences of TB in Kanchanaburi, Thailand: A Gender Equity Analysis*. Institute for Population and Social Research. Mahidol University, 2003, Publication No. 287.
35. Fazlul Karim, Insana Begum, Akramul Islam, and AMR Chowdhury, "BRAC Research and Evaluation Division, September 2003, pp. 28–29.
36. Presentation by Jamillah Mwanjisi, Public Health Watch researcher and director of Media Bank, International Union Against Lung Disease and TB Annual Conference, Paris, France, October 21, 2005.
37. Statement by Lucia Maria Xavier de Castro, coordinator of *Grupo Crioula* (the Brazilian Association of Black Women), Brazilian CCM meeting, Brasilia, April 2005.
38. Ministry of Health and Family Welfare, *Study on Tuberculosis and Poor* (Dhaka: Government of Bangladesh, June 2002).
39. WHO/IUATLD, Global Project on Anti-tuberculosis Drug Resistance Surveillance, cited in WHO 2005 and Country Coordination Mechanism, *Application form for Proposals to the Global Fund* (Dhaka: Ministry of Health and Family Welfare, 2003), pp. 26–27, 112.
40. Interview with TB patient, Dar es Salaam, February 2005.
41. NTLF, "Comprehensive list of health facilities providing DOTS nationwide," January 2005.
42. *Report of Third Joint International TB DOTS/ HIV/AIDS Monitoring Mission to Nigeria*, March 2004, p. 21.
43. Ministry of Health and Family Welfare, *Study on Tuberculosis and Poor* (Dhaka: Government of Bangladesh, June 2002).
44. Comment by Pruthi Israngkul Na Ayudya, director, BMA Health Center 21, Public Health Watch roundtable meeting, Bangkok, December 6, 2005.

45. Comment by Salehuddin Ahmed, BRAC University, *Daily Star* roundtable meeting, Dhaka, December 13, 2005.
46. Comment by Rev. Sanan Wutti, The Church of Christ in Thailand, Public Health Watch roundtable meeting, Chiang Mai, December 9, 2005.
47. Interview with Attapon Cheepsattayakorn, director, 10th Zonal TB and Chest Disease Center, December 8, 2005.
48. Comment by Pruthi Israngkul Na Ayudya, director, Health Center 21, Bangkok, Public Health Watch roundtable meeting, Bangkok, December 6, 2005.
49. Interviews with TB patients and clinic staff in Rio de Janeiro, São Paulo, Porto Alegre, and Brasilia, November 2005–March 2006.
50. Comment by Rosemary Adu, National Reference Laboratory, Nigerian Institute of Medical Research (NIMR), JAAIDS media roundtable meeting, Lagos, March 19, 2005.
51. Available at [www.who.int/hiv/pub/tb/tbhiv/en/](http://www.who.int/hiv/pub/tb/tbhiv/en/) (accessed May 25, 2006).
52. “To enable them to adhere to treatment, TB patients need support and care that is sensitive to their needs. In practice it means providing a treatment partner or supporter acceptable to patients to reinforce their motivation to continue treatment and counter the tendency of some to interrupt treatment.” WHO, “The Five Elements of DOTS,” available at [www.who.int/tb/dots/whatsdots/en/index2.html](http://www.who.int/tb/dots/whatsdots/en/index2.html) (accessed on May 17, 2006).
53. Abdul-Muyeed Chowdhury, executive director, BRAC, *Daily Star* roundtable meeting, Dhaka, December 13, 2005.
54. Presentation by Jamillah Mwanjisi, Public Health Watch researcher and director of Mediabank, Global Health Council panel discussion, Washington D.C., March 2006.
55. Interview with *shastho shebika* in the Dhamrai region, December 14, 2005.
56. A Mustaque, R Chowdhury, Sadia Chowdhury, Akramul Islam et al, “Control of tuberculosis by community health workers in Bangladesh,” *The Lancet*, Vol. 350, July 19, 1997, pp.169–72. BRAC’s 2004 annual report notes a treatment success rate for new patients of 89 percent. *BRAC Annual Report*, 2004, p. 49.
57. Md. Akramul Islam, AMR Chowdhury, J. Patrick Vaughan et al, “Cost-effectiveness of community health workers in tuberculosis control in Bangladesh,” *Bulletin of WHO*, 2002; 80 (6) pp. 445–450.
58. Interview with assistant district TB and leprosy coordinator, Kilombero, February 2005.
59. Interview with assistant district TB and leprosy coordinator, Kilombero, February 2005.
60. Interview with male TB patient, Kilombero, February 2005.
61. E. Wandwalo, B. Robberstad, and O. Morkve, “Cost and cost-effectiveness of community-based and health facility based directly observed treatment of tuberculosis in Dar es Salaam, Tanzania,” *Cost Effectiveness and Resource Allocation*, 2005.
62. Interview with health workers, Ifakara, February 2005.
63. Interview with NTP consultant to the Bureau of AIDS, TB and STIs, October 3, 2005.
64. Group discussion with village health volunteers in Mae Sod District, Tak province, January 26, 2005.
65. Comment by Sumalee Amarinsangpen, Office of Disease Prevention and Control Region 10, Public Health Watch roundtable meeting, Chiang Mai, December 9, 2006.
66. Comment by Afsan Chowdhury, Public Health Watch researcher and director of advocacy, BRAC/ Public Health Watch roundtable meeting, December 12, 2005.
67. Comment by Jutatip Chaisakul, Health Development Networks, roundtable meeting, Chiang Mai, December 9, 2005.
68. Comments by participants in Public Health Watch roundtable meetings, Rio de Janeiro, São Paulo, and Brasilia, March 28, 30, and 31, 2006.

69. According to the most recent statistics released by the WHO, 52 percent of the Brazilian population was covered by the DOTS strategy in 2004, a figure many Brazilian experts believe to be significantly overestimated. See WHO, *Global Tuberculosis Control: Surveillance, Planning Financing*, (Geneva: WHO, 2006), p. 79.
70. See, e.g. Stop TB Partnership, *Report on the Meeting of the second ad hoc Committee on the TB epidemic: Recommendations to Stop TB Partners*, WHO, 2004, p. 15.
71. See “Call To Action for TB and HIV Community Activists and Advocates To Stop Tuberculosis (TB),” at [www.aidsinfonyc.org/tag/tbhiv/wtbd2005.html](http://www.aidsinfonyc.org/tag/tbhiv/wtbd2005.html) (accessed June 19, 2006).
72. Stop TB Partnership, *Global Plan to Stop TB 2006–2015*, Geneva: World Health Organization, 2006. See [www.stoptb.org/globalplan/assets/documents/GlobalPlanFinal.pdf](http://www.stoptb.org/globalplan/assets/documents/GlobalPlanFinal.pdf) (accessed May 25, 2006).
73. Meeting on March 9, 2006 between representatives from USAID and Public Health Watch staff and researchers, Washington, D.C.



**II.**

**Report on TB Policy  
in Nigeria**

# Executive Summary

Nigeria ranks fourth on the World Health Organization's list of TB high-burden countries. HIV is fuelling the TB epidemic, leading to a 6 percent annual increase<sup>1</sup> in the number of TB cases and a four-fold increase in HIV rates among people living with TB between 1991 and 2001. TB/HIV coinfection has made detection and treatment of TB even more challenging. Despite these alarming facts, TB awareness among political officials and health workers as well as the public at large is low, and this contributes to widespread misconceptions about TB and stigmatization of the people who have the disease.

The Nigerian government formally launched its National TB and Leprosy Control Programme (NTBLCP) in 1991 and adopted the World Health Organization (WHO)-recommended DOTS strategy in 1993. Although detection of smear-positive TB cases has tripled over the past eight years, the overall case detection rate of 27 percent<sup>2</sup> is far short of the WHO target of 70 percent. And while the treatment success rate hovered between 71 and 74 percent from 1996 to 2002—slightly below the global target of 85 percent—the latest annual treatment success rate was only 59 percent.<sup>3</sup>

Despite expressions of political will to control TB and a clearly articulated national TB policy, implementation has been severely hampered by a lack of funding. A recent grant from the Global Fund to Fight AIDS, Tuberculosis and Malaria is expected to help close the government's budgetary gap by providing new resources for TB control. However, government delays in disbursing even the limited funding that has been allocated to TB control are still widespread. Insufficient domestic budgetary allocations have also made it more difficult to attract additional support from the Global Fund in the past. Although there is some evidence of increasing government support, additional domestic funding is still required to guarantee that Nigeria will be able to ensure implementation of essential TB control activities across the country in the long term.

The NTBLCP provides technical and strategic support for TB control activities to Nigeria's 36 autonomous states, and this includes effective and systematic data collection. However, planning and implementation of TB services is largely decentralized to highly autonomous State TB and Leprosy Control Officers (STBLCOs) and Regional National TB Professional Officers. NTBLP efforts to raise awareness about TB and the requirements of the DOTS strategy and to increase political commitment to high-quality TB control programming must therefore focus on the state level as much as on the federal government.

Due to past patterns of donor involvement, states in the north still have far fewer TB services than those in the south. Donors, the NTBLCP, and regional and state officials must devote particular attention to expanding TB control activities in the northern states. In addition, states must develop targeted services to address the higher concentrations of TB

among vulnerable groups, including the urban poor, people living in remote areas, prisoners, migrant laborers, and people living with HIV.

The NTBLCP identifies the use of “strategic information/education and communication” as a key strategy for reducing TB prevalence. However, national and state-level efforts to publicize DOTS services are mainly one-time events organized around World TB Day. The NTBLCP, National AIDS and STIs Control Programme (NASCAP), and nongovernmental organizations (NGOs) must all increase their awareness-raising efforts, placing special emphasis on the curability of TB. The NTBLCP should seek opportunities to involve former patients who have completed treatment in campaigns to increase community- and patient-driven demands for improved TB and integrated TB/HIV services.

Particularly when contrasted with media coverage of HIV/AIDS, TB media coverage has been very sparse. NGOs should sensitize and mobilize reporters and editors of print, electronic, and broadcast media about the impact of TB on society. Media training should focus on basic knowledge about TB; assessment of government TB policy, budgets, and spending; and the government’s success or failure in upholding international health commitments. NTBLCP and donor support for NGO activities in this area could increase media attention to TB and provide a much-needed boost to the level of community involvement in TB control efforts simultaneously.

Although the government provides TB treatment and diagnostic services free of charge, up to 60 percent of health services are provided through the private sector, which includes for-profit providers, local NGOs, faith-based mission hospitals, and traditional healers. Yet collaboration between the NTBLCP and private practitioners is very limited. Private facilities are not required to report data to the NTBLCP. Quality assurance of private services is not regulated, and many private practitioners do not provide TB treatment according to DOTS strategy. Patients often commence treatment with private practitioners, but run out of money before completing treatment and either switch to a public DOTS clinic or abandon treatment altogether. Action to encourage greater participation in DOTS strategy implementation by private providers should be an NTBLCP priority, especially given the rising threat of multidrug-resistant TB (MDR-TB).

Through bilateral assistance, the WHO, and international NGOs, the international community provides significant support to the NTBLCP. The recent push for scaling up of HIV/AIDS antiretroviral (ARV) drugs represents an opportunity for simultaneous expansion of integrated TB/HIV services and for renewed efforts to address the health worker shortage and gaps in the health infrastructure. While the media, the private sector, and NGOs can all play an important, supplementary role in TB control, the Nigerian government must demonstrate increased political will at all levels to support TB control efforts that will be sustainable in the long-term.

# Background

Nigeria is one of the most populous<sup>4</sup> and resource-rich countries<sup>5</sup> in Africa, but it ranks among the poorest countries in the world.<sup>6</sup> About 66 percent of Nigerians subsist on less than one U.S. dollar per day. The country faces severe socioeconomic disparities, with a small number of wealthy families living in highly desirable housing districts, and a much larger number of poor families residing in overcrowded areas. Poverty levels are also higher in rural areas, where incomes are 30 percent lower than in urban areas.<sup>7</sup>

Until recently, Nigeria's economy has been severely strained by foreign debt. At the end of 2004, the country was indebted by over \$30 billion (NGN 4.0 trillion). Rising debt—coupled with restrictions on public spending imposed by the World Bank and the International Monetary Fund (IMF)—placed major limitations on health sector funding allocations and spending, including the ability of public health programs such as the NTBLCP to secure and retain personnel. Per capita expenditure on health decreased by 75 percent between 1980 and 1987.<sup>8</sup> In October 2005, the Paris Club agreed to cancel \$18 billion (NGN 2.4 trillion) of Nigeria's debt.<sup>9</sup> The federal government has announced its intention to channel NGN 100 billion (\$816 million) of the annual savings from the debt relief gain into pro-poor programs that will assist the country in achieving the Millennium Development Goals. In the 2006 government budget, the health and education sectors were to receive the highest percentage (21 percent each) of the stated NGN 100 billion (\$816 million).<sup>10</sup> Of this amount, the federal government has allocated NGN 4.4 billion (\$35.9 million) for interventions on HIV/AIDS<sup>11</sup> and NGN 65 million (\$530,000) for interventions to track patient treatment and manage TB and HIV/AIDS treatment adherence.<sup>12</sup>

Between 1994 and 1997, government health spending represented only 4.5 percent of the entire government budget.<sup>13</sup> In the 2006 budget, only 7 percent is allocated to health,<sup>14</sup> a minor improvement from previous years, but still a far cry from the Abuja Declaration's recommended target of 15 percent.<sup>15</sup>

## Baseline statistics

Many Nigerians die as a result of preventable diseases that are linked with poverty. As of the year 2000, the average life expectancy for males stood at 52 years and for females, 55 years.<sup>16</sup> The under-five mortality rate is 146 per 1,000; it is estimated that close to 15 percent of children do not survive to their fifth birthday.<sup>17</sup> Nigeria has one of the highest levels of maternal mortality in the world, with estimates ranging from 704<sup>18</sup> to 1,500<sup>19</sup> maternal deaths per 100,000 live births.<sup>20</sup>

Nigeria ranks fourth among the 22 WHO-designated high-burden countries and has the highest number of new TB cases in Africa.<sup>21</sup> An estimated 300,000 TB cases are recorded every year, resulting in more than 30,000 deaths annually.<sup>22</sup>

Detection of smear-positive cases tripled between 1996 and 2004.<sup>23</sup> Much of this increase can be attributed to expansion of DOTS services and increased donor support during this time period. Nevertheless, the percentage of cases detected—27 percent of all TB cases, according to the Ministry of Health<sup>24</sup>—is still far below the WHO target of 70 percent.<sup>25</sup> (According to the WHO, the case detection rate was 21 percent during the same period.<sup>26</sup>) And while the treatment success rate hovered between 71 and 74 percent from 1996 to 2002—slightly below the global target of 85 percent—the current annual treatment success rate is only 59 percent.<sup>27</sup>

HIV is fuelling the TB epidemic and has made TB case detection even more challenging. The National AIDS and STIs Control Programme (NASCAP) estimated that the HIV/AIDS epidemic has caused a 6 percent annual increase in the number of TB cases.<sup>28</sup> Nationally, HIV prevalence among TB patients increased more than four-fold between 1991 and 2001.<sup>29</sup> According to WHO estimates, 27 percent of adult TB patients in Nigeria are HIV-positive.<sup>30</sup> Results from a 2001 assessment of HIV prevalence among TB patients in 12 out of the 36 states showed an HIV prevalence ranging from less than 5 percent in Oyo State to as high as 35 percent in Benue State.<sup>31</sup> HIV/AIDS is not only fueling TB incidence by compromising people's immune systems; it is also making TB harder to diagnose. The estimated percentage of smear-negative cases among total TB cases detected rose from approximately one-third in 1997 to nearly two-thirds in 2001, which is consistent with the increase in TB/HIV coinfection during that period.<sup>32</sup>

## Political commitment

The federal government formally launched the National TB and Leprosy Control Programme (NTBLCP) in 1991 and adopted the WHO-recommended DOTS strategy in 1993. President Olusegun Obasanjo has also demonstrated his political commitment to TB control through his active participation in high-level meetings of the Stop TB Partnership, African heads of state, the African Union, and the World Economic Forum. However, public awareness of government-sponsored TB services at the federal, state, and local levels is still low.

The government affirmed its commitment to TB control in 2000 by adopting the Amsterdam Declaration. The Declaration has directly informed federal TB policy, most visibly in the development of the DOTS expansion plan.<sup>33</sup> This commitment was reinforced at the regional level when President Obasanjo hosted African heads of state at the Summit

on HIV/AIDS, TB and Malaria in Abuja in April 2001, resulting in the Abuja Declaration to Fight HIV/AIDS, Tuberculosis and Malaria.<sup>34</sup> President Obasanjo hosted the Abuja +5 Summit in May 2006, which resulted in new targets to extend universal access to prevention, care, support, and treatment for HIV-related services by 2010, including access to voluntary counseling and testing (VCT) and ARV services for all TB patients who are living with HIV.<sup>35</sup>

In January 2006, President Obasanjo helped to launch the WHO's Global Plan II with philanthropist Bill Gates and the UK Chancellor of the Exchequer, Gordon Brown, at the World Economic Forum in Davos, Switzerland. During the Forum, Obasanjo was quoted in a Stop TB Partnership press release:<sup>36</sup> "The Global Plan is fundamental for Africa, where tuberculosis was declared an emergency by 46 countries in 2005. . . . We hope the African Union will endorse this plan, and call upon African governments to commit their share of the resources needed to implement it."

Aside from these landmark meetings, key federal government officials have generally limited their political statements about TB to the occasion of World TB Day.

Unfortunately, the resolve reflected in these public statements has not been reflected in funding allocations, either in the federal<sup>37</sup> or state budgets.<sup>38</sup> TB awareness at the state and local level is low, although federally led DOTS expansion efforts have motivated some state government officials to become more involved in TB sensitization and advocacy activities.<sup>39</sup>

Where government commitment is lacking, religious and traditional leaders can sometimes play an influential role in advancing TB and HIV awareness, particularly at the community level. During the International Conference on AIDS and Sexually Transmitted Infections in Africa (ICASA) held in Abuja in 2005, both Muslim and Christian leaders highlighted the important role of religious leaders in the response to HIV/AIDS. For the most part, however, TB has not garnered such support, primarily because religious leaders are not sufficiently aware of the magnitude of the problem in Nigeria.<sup>40</sup> The Kano State TB program manager recalled one notable exception in which the Emir of Kano spoke extensively about both HIV/AIDS and TB in his Sallah message, urging Muslims to be tested for both diseases.

To win greater political commitment to TB control programming and support for increased resource allocation to TB control, state- and local-level officials need to be better informed about the burden of TB in their regions. The NTBLCP's awareness-raising efforts must target the state level as well as the federal government with accessible information detailing the facts about TB in Nigeria and the requirements of the DOTS strategy, and NTBLCP policies.

## Public mobilization

The level of public awareness of TB and the TB/HIV coepidemic is generally low, and misconceptions about TB are widespread. Particularly when contrasted with media coverage of HIV/AIDS, TB coverage has been very sparse and has contributed little to raising awareness, countering stigmatization, or promoting greater government accountability on TB policy implementation. The media, nongovernmental organizations, and government all have a crucial role to play in increasing public awareness about TB and TB/HIV.

## Media coverage

*TB issues have not received much media coverage because TB is not considered a major issue.*

—Sola Ogundipe, senior editor and health correspondent,  
Vanguard Newspapers<sup>41</sup>

Reporting on TB issues is mainly event-driven, with most stories appearing on or near World TB Day. Such stories generally focus on federal- and state-level spending on TB control and the availability of free TB treatment. Practical information such as the location and availability of TB services receives the least media attention.

With regard to TB, the media has not played a “watchdog” role. There has been little coverage of government performance *vis-à-vis* international commitments, and little investigative reporting on controversial matters such as the federal health budget, even though insufficient governmental contributions to TB programs resulted in the rejection of two Global Fund proposals.<sup>42</sup> Similarly, coverage of the role of international organizations generally provides information on donors’ financial contributions or the conclusion of agreements with state governments, rather than evaluation of the impact of program implementation, or the role that international actors play in supporting the development and implementation of NTBLCP policy.

The poor quality of media coverage likely stems from the fact that journalists and editors have insufficient knowledge of TB. At one recent meeting, a group of health correspondents from major media houses said they had limited knowledge about the seriousness of the TB epidemic, how TB is spread, the linkage between TB and HIV, and other related issues.<sup>43</sup> In fact, some articles have presented inaccuracies about the nature of the TB epidemic in Nigeria, and in Africa more broadly.<sup>44</sup> Several organizations—including Journalists Against AIDS—have begun to address these gaps through training workshops for selected journalists, but such workshops need to occur on a more regular basis.<sup>45</sup>

This lack of knowledge is exacerbated by the fact that journalists face difficulties in obtaining information from persons involved in implementing TB programs, including government officials.<sup>46</sup> Government officials are often unwilling to grant press interviews without permission from a superior,<sup>47</sup> and they often hesitate to speak freely with the press for fear of being misquoted or misrepresenting the government agency.<sup>48</sup>

By contrast, reporters who write stories on HIV/AIDS tend to have access to a much wider range of information sources, including government officials as well as civil society groups, NGOs, and people living with HIV/AIDS. As a result, HIV/AIDS receives significant media coverage. The media itself has also mobilized around the need to highlight HIV/AIDS. Thanks in part to a greater number of media workshops, editors and media owners tend to see HIV/AIDS as a major development challenge and a “political” issue, while TB and other health topics are viewed as “soft” issues, which will not generate enough public interest.<sup>49</sup>

Targeted efforts to educate and mobilize media owners, editors, and journalists around the economic and social toll of the TB epidemic (in addition to the personal health risks) could pay big dividends in terms of increased media coverage and heightened public awareness with regard to TB and TB/HIV. Media training should focus on improving skills for investigative reporting; assessing government policy, budgets, and spending; encouraging ongoing dialogue with policymakers; and monitoring government policy vis-à-vis international commitments.

Government, civil society organizations, and health advocates should mount joint efforts to encourage a greater sense of responsibility among the media to fulfill a public education function with regard to TB. At the same time, TB program implementers should be more forthcoming with information on policy and programs, and should make an effort to forge more constructive partnerships with the media.

## Public awareness of TB and TB/HIV

*People may not be aware that a person has TB until he or she dries up and is almost at death's door.*

—Danjuma Adamu, coordinator, the Council of Positive People (COPOP)<sup>50</sup>

Levels of public awareness vary depending on people's educational background, age, the strength of the TB control program in their region, and other factors. Even some health providers still lack knowledge about the relationship between TB and HIV/AIDS.<sup>51</sup> To date, no comprehensive, nationwide assessments of TB awareness have been conducted.

One of the few studies to assess public awareness about TB was conducted in Enugu State, where at least 60 percent of the population was found to know about TB prevention, transmission, and where to access TB treatment services.<sup>52</sup> By contrast, in the neighboring Imo State, also in the southeastern region, the State TB and Leprosy Control Officer (STBLCO) acknowledged that people are not as well informed about TB,<sup>53</sup> though some DOTS clinics provide patient education programs and conduct public outreach about TB control efforts in the state, including through opportunities such as the annual August meeting of Umuada, a gathering of women of Igbo origin. Imo State TB authorities also plan to work with the Ministry of Women's Affairs to broaden their community outreach efforts.<sup>54</sup> While both Enugu and Imo states have long-standing TB control programs, several factors may affect the varying levels of public awareness in the two states, including funding levels for TB control programs, prioritization of community education and mobilization, and literacy levels.

Public awareness about the linkage between HIV/AIDS and TB is generally low, even among people living with HIV. Although many support groups for people living with HIV—especially those based in urban centers—generally provide information and promote discussion on the symptoms of TB along with information on other opportunistic infections,<sup>55</sup> the general public and even members of these support groups often lack basic knowledge about TB such as the location of treatment centers. The national coordinator of the Network of People Living with HIV/AIDS in Nigeria (NEPWHAN) explained:

*Even I don't know where to access anti-TB drugs. . . . NEPWHAN has 110 support groups<sup>56</sup> in all the states and we need to have a good understanding of the DOTS program. HIV treatment can benefit from DOTS; if compliance is a problem on ARVs and DOTS is successful on this, we can learn lessons on how to improve the ARV treatment program.<sup>57</sup>*

One recent study showed that only about 8 percent of 148 people living with HIV in Lagos and Kaduna had some knowledge of TB.<sup>58</sup> About 92 percent had heard about TB, but did not know how TB is transmitted and treated. Twelve percent were unaware that they had received treatment for TB-related infections and not just a persistent cough.<sup>59</sup>

The coordinator of the Council of Positive People, a support group for people living with HIV based in Kano, also noted that awareness of TB and its linkage to HIV/AIDS is low in his state. The Kano STBLCO asserted that the available information, education, and communication materials on TB provided in both *Hausa* (a local language) and English were still inadequate.<sup>60</sup>

As a result of a lack of knowledge about the importance of drug adherence, people with TB sometimes stop taking their medications as soon as they feel better. The FCT's TB programme manager noted that even though TB treatment is free, many patients do not adhere to treatment: "Patients need to help themselves, too. It can be quite frustrating when clients refuse to take treatment."<sup>61</sup> Treatment literacy activities are needed in order to help patients comply with treatment regimens.

## Stigmatization and discrimination against TB patients

*Most people [in Imo State] still think that TB patients have been poisoned. Some think it is a curse from the gods (especially when many family members get infected), and they go to fortune tellers and prayer houses for deliverance.*

— C.O. Nwakonobi, Imo STBLCO<sup>62</sup>

Lack of information about the availability of effective TB treatment fuels stigmatization and negative attitudes about TB and TB patients. Before the advent of DOTS, it was commonly believed that TB treatment was expensive and life-long, and this fueled a widespread belief that TB could not be cured at all.<sup>63</sup> Even though the number of DOTS centers has increased since 2002, the general public<sup>64</sup> continues to harbor misconceptions about TB, including the belief that people with the disease have been "poisoned."<sup>65</sup> Former TB patients sometimes hold negative attitudes towards TB and TB patients, because they fear reinfection.<sup>66</sup>

Stigmatization can be a major obstacle to the implementation of effective TB control programs. According to the Oyo STBLCO, "[Setting up] TB clinics in most LGAs [Local Government Areas] is a Herculean task for us. Many people associate TB and leprosy together and normally kick against situating a TB clinic in their vicinity."<sup>67</sup> Stigmatization associated with TB colors the attitudes of public officials as well: the Oyo State TB Programme had to appeal to state-level officials to ensure cooperation from local governments.

Health care workers sometimes contribute to TB-related stigmatization, as the director of a support group for women living with HIV in Lagos reported:

*Stigma is frustrating access to TB treatment especially for people living with HIV and this is increasing the problem of drug-resistant TB. The hostile attitude of health care officials to people living with HIV and TB patients is responsible for this. Nobody would want to go to a place where he or she is likely going to be treated like an outcast. No matter how*

*effective the treatment becomes, at the end of the day, you will simply avoid such places. If that is the only place where such treatment exists, so be it; some individuals would rather die than go there.*<sup>68</sup>

The chief environmental health officer at a TB clinic in Oyo State noted that some health workers prefer not to be posted to TB clinics for fear of infection. To address this issue, his clinic holds periodic “enlightenment” seminars and workshops for medical personnel on TB and TB treatment procedures.<sup>69</sup> “I have been working in the TB field for the past 10 years, and I am still hale and hearty,” he added.<sup>70</sup>

Health care providers differ on the necessity of isolating hospitalized TB patients.<sup>71</sup> One NASCAP official defended the practice, explaining that it is not based on discrimination, but because of the infectious nature of the disease: “Care providers have the responsibility of safeguarding public health by ensuring that a TB client who is capable of infecting others does not do so.” At the same time, he acknowledged that the isolation of TB patients in hospitals may hinder “free communication with [TB patients].” Other Nigerian experts and community members believe this type of isolation is medically unnecessary and contributes to the stigmatization.<sup>72</sup> A health care provider at the Nigerian Institute of Medical Research concluded that “officials at the DOTS centers should be trained on how to care for TB patients, especially on the need to show concern and love.”<sup>73</sup>

Training and education can help ensure that health workers—both providers of TB services and administrative staff—receive accurate information about TB and develop greater sensitivity to the needs of TB patients.<sup>74</sup>

## **Effect of stigmatization and discrimination on TB patients’ behavior**

The discrimination and stigmatization that TB patients experience can affect patients’ care-seeking habits, treatment compliance, job security, and personal relationships. The STBLCO in Imo State reported that stigmatization and discrimination dissuade many people from accessing the state’s 41 TB treatment centers: treatment coverage is only 14 percent and the case detection rate is 27 percent.<sup>75</sup> The state TB programme manager in the FCT noted that stigma gets in the way of effective client follow-up in some communities in Abuja,<sup>76</sup> where clients sometimes provide fictitious addresses to avoid being traced to their homes. In some communities, patients have complained about the fact that the motorcycles used by TB health workers are easily recognized, and broadcast one’s TB status to their families and communities. To work around these problems, some health workers encourage their clients to provide mobile phone numbers to facilitate communication. To avoid the danger that TB patients might suffer stigmatization simply because they visit DOTS clinics, some

STBLCOs recommend that TB services and other health services should be offered at the same sites, so that TB patients cannot be easily distinguished from people seeking treatment for other ailments.<sup>77</sup>

TB-related stigmatization and discrimination may also affect job security. One TB patient in Lagos State claimed that many TB workers have abandoned their jobs due to pressure from fellow workers concerned about becoming infected and that other TB patients have reported discrimination and even dismissal by supervisors after receiving a TB diagnosis.<sup>78</sup>

## Government, donor, and NGO public outreach

*There is [a] need for massive public enlightenment. We can fight stigma when senior government officials begin to support TB control, just like they have supported HIV control and the National Programme on Immunization.*

—C.O. Nwakonobi, Imo STBLCO<sup>79</sup>

The NTBLCP identifies the use of “strategic information/education and communication” as a key strategy to reduce the prevalence of TB significantly.<sup>80</sup> However, national and state-level efforts to publicize DOTS services have consisted mainly of events or announcements on World TB Day. The low national case detection rate is widely seen as a result of “inadequate public awareness campaigns and involvement of communities in DOTS.”<sup>81</sup> The NTBLCP and NASCAP must increase their awareness-raising efforts, working together and in partnership with NGOs—particularly those with experience in raising public awareness about HIV and AIDS—to place special emphasis on the curability of TB and to address TB- and HIV-related stigmatization in the Nigerian context.

The NTBLCP has implemented several well-designed outreach campaigns, but on a very limited scale. For example, in 2004, the NTBLCP funded a Pidgin-language radio show called “Oga Driver,” which focused on raising awareness around TB transmission and treatment. The NTBLCP publicity campaign on World TB Day in 2004 emphasized three key messages: TB is curable; treatment is free; and treatment is available.<sup>82</sup> This publicity campaign also employed an effective theme: “DOTS cured me. . . . It can cure you, too.” These campaigns should be intensified and expanded to target both youths and adults throughout the country, and throughout the year.

Some STBLCOs have initiated successful public awareness campaigns. For example, the Oyo State TB Programme organizes an annual public education campaign on World TB Day, including a mini carnival to sensitize people about TB and the link between TB

and HIV. In addition to organized events, the state program encourages current and cured patients to tell others about the importance of early TB diagnosis and treatment throughout the year. According to an STBLCO, these peer education activities have paid off: The number of patients attending DOTS clinics in Oyo State has doubled.<sup>83</sup>

In other states, STLBCOs have deliberately limited their communications activities on the basis of the WHO's recommendation that TB services should not be widely publicized until they are actually available.<sup>84</sup> Although the NTBLCP was officially launched in 1991, expansion of DOTS services only commenced in 2002 and did not reach all states until the end of 2003. The STBLCO in Kano State explained why information had not yet been disseminated to the media and the public:

*We have not really disseminated any information about the State TB Programme to the media because the programme is still in the pilot phase. We do not want to publicize these centers because we are still studying them to see what we can learn from our mistakes and achievements.*<sup>85</sup>

Now that DOTS services are more widely available in most states, public awareness activities should be stepped up to increase awareness of the services they offer.

The lack of national and state-level activities to increase public awareness is largely due to the lack of NTBLCP funding for this purpose. With limited budgets and high advertising and media costs,<sup>86</sup> few state programs have developed their own communication strategies. In Imo State, the STBLCO noted that the state program has no budget to support public-awareness activities and that, in addition to increasing allocations to the state level, the federal government should subsidize state-owned media organizations, the private sector, and NGOs, especially those working on HIV/AIDS to design and implement TB awareness campaigns.<sup>87</sup>

Until recently, donors have not filled the budgetary gaps for awareness-raising activities; with few exceptions, donor support has focused on providing DOTS services. The Global Fund's Fifth Round five-year grant will devote approximately \$15.9 million (NGN 2.1 billion) to advocacy, communication, and social mobilization (ACSM),<sup>88</sup> which could help to address this gap if allocated and spent as planned. The grant was awarded in October of 2005, but as of September 2006, the grant agreement had not been signed. The Global Fund stipulated that the Nigerian government restructure its Country Coordinating Mechanism (CCM), among other things, before the agreement could be finalized.

At the local level, DOTS centers can play an important educative role. For example, many DOTS clinics in Ibadan and the FCT provide ongoing "enlightenment" talks on TB and the relationship between TB and HIV, which has had a direct and positive impact on patients' level of awareness.<sup>89</sup> However, individuals interviewed outside of the vicinity of

the DOTS clinics in Ibadan seemed to be unaware of the basic facts about TB.<sup>90</sup> Federal and state-level governments should encourage outreach initiatives in these and other states, targeting populations who are not already attending DOTS facilities. The NTBLCP could provide support by designing and disseminating well-designed and accessible IEC materials, adapted for print, radio, and television.

Some NGOs have initiated their own TB awareness-raising projects. For example, the Ummah Support Group, a faith-based organization for people living with HIV, has taken steps to educate its members about TB, refer suspected TB cases to DOTS clinics, and provide treatment support to those who receive a positive diagnosis.<sup>91</sup> The NTBLCP should seek out opportunities to involve people living with HIV as well as TB patients who have completed treatment in campaigns to increase community- and patient-driven demands for improved TB and integrated TB/HIV services. NASCAP and the NTBLCP should also increase attention to the linkage between TB and HIV in their own communication interventions, including through expanded partnerships with support groups of people living with HIV.

# Government Program for TB and TB/HIV Control

## Program content

In principle, since 1993, the NTBLCP has embraced and adopted the WHO-recommended DOTS strategy to achieve its objective of “reducing the prevalence of TB to a level where it no longer constitutes a public health problem.”<sup>92</sup> While the government’s commitment to TB control has increased since the program’s formal launch in 1991,<sup>93</sup> the realities on the ground reveal the NTBLCP faces numerous obstacles in effectively addressing the five elements of DOTS, especially in the areas of human resource capacity, laboratory infrastructure, and monitoring and reporting.

The government’s commitment to TB is detailed in the NTBLCP’s Strategic Plan<sup>94</sup> and the *Workers’ Manual* and in the Federal Ministry of Health’s (FMOH’s) Health Sector Strategic Plan. Of these three documents, the *Workers’ Manual* contains the most practical guidelines for TB and leprosy control activities and provides important technical and operational instructions for diagnostic and treatment procedures, as recommended by the WHO. Although the NTBLCP manager at the Central Unit in Abuja insisted that the most recent 2004 edition of the *Workers’ Manual* has been distributed to all state programs,<sup>95</sup> the availability of the manual varies from center to center. In Oyo State, for example, the manual was readily located by doctors in the clinics visited.<sup>96</sup> The chief matron at the Lagos Mainland Hospital confirmed the manual was available both at that facility and at most other DOTS centers in the country.<sup>97</sup> However, a common trend with government policy guidelines in Nigeria is that even when such documents are available in a particular facility, the guidelines may not be readily accessible to all staff who need them. The Ogun STBLCO note, for example, that the manual was available on a limited basis in Ogun LGA facilities because it “contained typographical errors which were being corrected.”<sup>98</sup>

A lack of funding has hampered the ability of the NTBLCP to implement these clearly articulated policies and plans—an issue that was underscored in a recent report by an international monitoring team.<sup>99</sup>

## DOTS expansion

Through a rapid expansion program involving all donor partners, the NTBLCP had established DOTS programs in all 36 states and the FCT (and 548 out of the 774 LGAs) by December 2005, increasing access to DOTS from about 45 percent coverage in 2002 to about 70 percent by the end of 2005.<sup>100</sup> According to the NTBLCP, increased DOTS coverage has resulted in a near doubling of the case detection rate over the 2002–2004 period.<sup>101</sup> (The WHO attributed the rise in case detection for the period between 1994 and 2004 to increased TB incidence associated with the spread of HIV.<sup>102</sup>)

Despite this dramatic expansion of DOTS, much of the population remains underserved by TB diagnostic and treatment services. The DOTS strategy is not always implemented according to the guidelines provided in the Strategic Plan and the *Workers' Manual*. In a number of centers visited in the FCT, for example, health workers noted that several of their clients came from neighboring states (such as Kogi and Nassarawa) because treatment centers were not available in their own LGAs. Even within a state, clients have been reported to travel a distance of about 40 kilometers every day to receive treatment,<sup>103</sup> which may be a contributing factor to relatively high rates of default on treatment; according to health workers interviewed in the FCT, some patients stop making the trip to the clinic as soon as they feel better.

Several state programs have made adjustments in their implementation of the *Workers' Manual* recommendations to increase treatment adherence and to improve efficiency. For example, while the *Workers' Manual* states that three sputum samples must be taken from TB patients for laboratory tests, only two samples are collected per patient in Lagos State.<sup>104</sup> State officials made the adjustment because of difficulties encountered by laboratory staff in providing diagnostic results for an increased patient volume in a timely basis. In order to produce results more efficiently, the Lagos State TB Programme also plans to provide florescent microscopes in 2006 with support from the International Union Against TB and Lung Disease (IUATLD).<sup>105</sup>

The DOTS center in the Asokoro General Hospital in Abuja has also adopted some programmatic changes to make treatment more convenient for clients and to improve overall efficiency. For clients in the first two months of treatment who are unable to come to the facility daily, the hospital packages drugs based on a weekly dosage.<sup>106</sup> Patients who take the weekly dosage must bring a designated family member who has agreed to watch the patient take his or her medications during the week. After two months, the clients can then receive a month's supply of drugs at a time to take home. These programmatic adjustments suggest that states and DOTS centers require some flexibility in order to improve case detection and treatment adherence.

With the additional support expected from the Global Fund's Fifth Round grant, the NTBLCP aims to increase the national case detection rate to 50 percent by 2008; increase

accessibility to TB diagnostic tests by establishing 900 additional laboratories in both the public and private sectors by 2010; and establish community-based DOTS programs in six states.<sup>107</sup>

Patient-centered approaches such as community-based DOTS represent a promising model for achieving better DOTS coverage in a country as vast as Nigeria, though implementation will have to be adapted to different regional contexts. Expanded partnerships with civil society organizations and volunteer programs could bring DOTS closer to patients' homes and help address the shortage of trained TB workers.

## TB/HIV coinfection

*Sputum tests alone [often do] not give the right diagnoses of TB, especially if the patient is HIV-positive. . . . We no longer refer TB/HIV coinfecting patients to DOTS centers because they are often lost.*

—Rosemary Adu, a clinician, National Reference Laboratory<sup>108</sup>

So far, there are only limited linkages between the NTBLCP and NASCAP, and these are primarily at the federal level. In July 2006, the FMOH established a National TB/HIV Working Committee and announced that DOTS would be instituted in all ART centers in the country.<sup>109</sup> (A time frame for this plan was not specified.) In addition, recent efforts to scale up access to ARVs represent a significant opportunity to expand collaborative TB/HIV services.

With technical support from the WHO and U.S. Agency for International Development (USAID), the NASCP, NTBLCP, and National Action Committee on AIDS (NACA) endorsed a draft National TB/HIV Strategic Plan for 2006–2008. Based on this Strategic Plan, the FMOH plans to:<sup>110</sup>

- Establish the mechanisms for collaboration between TB and HIV/AIDS programs at the national level and in the 36 states and FCT by the end of 2007;
- Implement TB prevention (using isoniazid preventive therapy) in 36 states and in the FCT by the end of 2007;
- Expand HIV prevention and care in 36 states and the FCT by the end of 2007;
- Conduct TB/HIV pilot activities in six states.<sup>111</sup>

Some state and local TB control offices have already begun to implement these activities. For example, the NTBLCP and NASCAP have identified focal points to coordinate interagency activities<sup>112</sup> and the WHO plans to recruit a staff person to coordinate their

TB/HIV activities.<sup>113</sup> TB/HIV pilot activities are underway in the six states, with TB and HIV program managers from these states meeting regularly to develop and discuss progress on their collaborative TB/HIV strategies.<sup>114</sup> Some state AIDS control programs in southwestern states are setting up VCT services within DOTS centers,<sup>115</sup> and Asokoro Hospital in Abuja (which also houses a DOTS center) has begun to refer its TB clients for VCT services within the same facility. However, one hospital employee noted that “not all TB clients are interested in doing an HIV test.”<sup>116</sup>

But there are still a number of barriers to establishing effective TB/HIV services. First, even though early diagnosis of TB among people living with HIV/AIDS is critical in the management and treatment of HIV to prevent rapid progression to AIDS, many TB clinics are not equipped to diagnose TB in TB/HIV coinfecting patients.<sup>117</sup>

The Zankli Medical Center, a private medical and operational research facility in Abuja, is currently the only facility in Nigeria equipped to perform cultures for TB patients.<sup>118</sup> Obtaining the diagnostic equipment needed for early diagnosis of TB among people living with HIV, who are among those at greatest risk of contracting the disease, should be a top priority for the Nigerian government. Unlike TB tests, which are free, HIV tests sometimes have a fee attached. The NASCAP should make every effort to minimize or eliminate these fees.

Second, health care workers are often “territorial” and reluctant to collaborate with people working in other fields. Clinicians may also lack information about the reliability of existing tools such as smear tests in diagnosing coinfecting patients in research-strapped settings.<sup>119</sup>

The NTBLCP should provide ongoing training on TB/HIV for health care providers, emphasizing the importance of collaboration in achieving early TB diagnosis among people living with HIV.<sup>120</sup> State governments also need to commit added resources and personnel to encourage more effective linkages between TB and HIV programs.<sup>121</sup>

### ***National policy on HIV/AIDS***

Both the National Strategic Framework (NSF) on HIV/AIDS (2005–2009) and the Health Sector Strategic Plan (HSSP) for HIV/AIDS include several references to TB/HIV. The National Policy on HIV/AIDS explicitly emphasizes the need to provide a comprehensive continuum of care for people living with HIV, including nationwide access to cost-effective drugs to treat “tuberculosis and all other opportunistic infections” and ongoing training on the management of opportunistic infections for all health care providers.<sup>122</sup> Despite this policy, some HIV/AIDS activists believe that insufficient attention is given to opportunistic infections. According to the coordinator of NEPWHAN, less than one-third of people living with HIV are in immediate need of ARVs; for those individuals, treatment for TB and opportunistic infections may be of greater urgency.<sup>123</sup>

Early in 2005, President Obasanjo mandated the federal minister of health to increase the number of people living with HIV on antiretroviral therapy (ART) from 30,000 to 250,000 by the end of 2006.<sup>124</sup> An effort of this magnitude represents a major opportunity to expand TB/HIV services. In fact, the Plan to Scale Up Antiretroviral Treatment for HIV or AIDS in Nigeria (2005–2009) includes several references to TB/HIV coinfection.<sup>125</sup> For example, the government is identifying DOTS centers for commencement of ARV provision, and plans to offer ART and TB services at a greater number of tertiary and secondary facilities.<sup>126</sup> However, additional planning will be required to achieve greater integration of TB into the ARV scale-up effort. Planning should include measures to ensure provision of VCT services at every DOTS center; TB diagnostic and treatment services (or at least referral mechanisms) at all VCT and HIV/AIDS treatment and support centers; and training for health care personnel on the administration of drugs to coinfecting patients.

### ***NGO and donor-led programs for integration of TB/HIV services***

NGOs and donors such as USAID, CIDA, the International Federation of Anti-Leprosy Associations (ILEP), Médecins Sans Frontières (MSF), and Family Health International (FHI) have provided some level of support for TB/HIV integrated services. For example, the Global HIV/AIDS Initiative Nigeria (GHAIN) is partnering with the German Leprosy and Tuberculosis Relief Association (GLRA) to provide TB/HIV palliative care services and to strengthen drug storage and laboratory facilities for TB/HIV centers. The Fifth Round Global Fund grant includes approximately \$6.8 million (NGN 908 million) for TB/HIV activities.<sup>127</sup> TB/HIV activities are also included in the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), which is supporting HIV/AIDS prevention, care, and support interventions in six states through an \$84.4 million (NGN 11.3 billion) five-year grant.<sup>128</sup>

### **MDR-TB**

The NTBLCP primarily focuses on ensuring basic DOTS coverage<sup>129</sup> and has no separate budget line for prevention or treatment of multidrug-resistant TB (MDR-TB).<sup>130</sup> Relatively few cases of MDR-TB have been recorded in Nigeria,<sup>131</sup> but this may be because most laboratories lack the capacity to monitor drug resistance.

Nigeria's treatment success rate of 59 percent is among the lowest for any high-burden country<sup>132</sup> and raises serious concerns about elevated risk of a serious MDR-TB problem developing and about the country's capacity to deal with the problem should it arise. According to one NIMR researcher, "because the pattern of drug resistance among TB strains circulating in Nigeria has not been studied, it is difficult to determine the ideal second-line drugs for our population."<sup>133</sup> A drug sensitivity study is now underway in Enugu State by the University of Nigeria Teaching Hospital, cosponsored by the WHO and GLRA.<sup>134</sup>

NTBLCP's protocol for management of MDR-TB seems unclear to some STBLCOs. For example, the Kano STBLCO noted that the Kano State government could request the second-line drugs used to treat MDR-TB from the NTBLCP.<sup>135</sup> However, the Ogun STBLCO and other experts stated that second-line drugs are not available through the NTBLCP.<sup>136</sup> Treatment programs for MDR-TB are virtually nonexistent at the state level. A few private hospitals offer second-line drugs at a cost of between \$5,475 (NGN 731,000)<sup>137</sup> and \$10,000 (NGN 1.3 million) per patient<sup>138</sup> annually, putting these drugs out of the reach of most Nigerians.

In order to apply for quality second-line drugs at a reduced price through the WHO's Green Light Committee, the government must first demonstrate the capacity to administer the first-line drugs effectively.<sup>139</sup> However, with support from the Fifth Round Global Fund grant, the NTBLCP plans to establish six reference zonal laboratories that will be equipped to conduct drug sensitivity testing; this will provide the infrastructure to support an application to the Green Light Committee.<sup>140</sup>

The NTBLCP should step up its support for NGOs and community-based organizations to conduct peer support and treatment literacy activities to promote treatment adherence. Doing so would bring the added benefit of relieving the burden on health care personnel, who otherwise struggle to ensure that sufficient counseling and support is provided to clients, patients' relatives, community groups, and support groups for people living with HIV.

## Case recording and reporting

The NTBLCP has an effective, centrally coordinated system for collecting basic TB data.<sup>141</sup> However, the accuracy of the government's TB statistics is compromised by the fact that a significant percentage of the population seeks TB services from private practitioners, many of whom do not report to the NTBLCP.

The NTBLCP requires officially designated DOTS centers to record and report case data. And for the most part, state governments and public DOTS centers—including prisons<sup>142</sup> and armed services facilities<sup>143</sup>—are complying with NTBLCP requirements.<sup>144</sup> State and zonal data are compiled and reviewed at the central level on a quarterly basis,<sup>145</sup> with technical assistance from the WHO.<sup>146</sup> International NGOs supporting national TB control efforts are also partnering with state programs to provide such information, to the NTBLCP.<sup>147</sup>

However, a large number of people with TB symptoms seek treatment from a range of private providers, including private hospitals, "patent medicine stores" (where patients can purchase drugs without a prescription), nursing homes, and traditional healers, who

usually do not report case data to the NTBLCP.<sup>148</sup> Given the fact that these providers do not report their data to the NTBLCP, it is likely that national case statistics underestimate the total TB caseload.

In fact, the Joint International Monitoring Mission raised serious concerns about the accuracy of NTBLCP data, given that it does not reflect cases reported within the private sector.<sup>149</sup> Though some states, including Lagos, have made attempts to collect data from private hospitals and traditional healers as well as from public facilities,<sup>150</sup> their efforts have foundered, in part because private facilities are not required by law to comply. According to the WHO south west zonal coordinator, additional cases are lost because diagnostic procedures are inconsistent within facilities that are not practicing DOTS (private facilities often use chest x-rays to diagnose TB)<sup>151</sup> and because data reported by private facilities are not comparable to data from public facilities since their standards of diagnosis and treatment are different from those utilized by the NTBLCP.

To improve the accuracy of its national data, the NTBLCP should consider taking positive measures to encourage private practitioners to comply with its case recording and reporting guidelines. This could include developing a system to require and enforce DOTS implementation from all private practitioners who offer TB services or providing incentives to those who voluntarily participate, such as periodic training sessions on data collection and reporting.

### ***TB/HIV data collection***

Only a few public and private facilities collect data on TB/HIV coinfection on an ongoing basis.<sup>152</sup> For example, only one of the three facilities<sup>153</sup> providing integrated TB/HIV services visited for this report in Abuja was collecting such data. The few TB/HIV surveys that have been conducted suggest that coinfection could be on the rise in some parts of the country.

Several NGOs have conducted studies to estimate TB/HIV coinfection. For example, one GLRA study in Ebonyi State revealed that 18 percent of TB patients in one mission hospital were HIV-positive in 2003.<sup>154</sup> A Damien Foundation pilot study in two NGOs that offer free VCT tests in Osun and Oyo states found that 14 percent of TB patients were HIV-positive in 2005.<sup>155</sup>

The FMOH reported a marked increase in both TB and HIV between 1991 and 2000 based on data from a HIV sentinel survey, which included rates of TB, HIV, and STIs among antenatal clinic attendees in 12 states. The HIV rate among TB patients increased over the 10-year period. In 1991, approximately 2 percent of the antenatal clinic attendees surveyed had active TB and approximately 1.8 percent were HIV-positive.<sup>156</sup> By 2000, approximately 19 percent of antenatal clinic attendees had active TB and approximately

5.8 percent were HIV-positive.<sup>157</sup> By 2003, the rate of TB coinfection among people living with HIV was estimated to be 27 percent.<sup>158</sup>

However, rates of coinfection differ from state to state. In Imo State, for instance, the Federal Medical Centre (FMC) is the only government-run ARV center in the state, and one of the few facilities providing coordinated TB/HIV programs and collecting data on coinfection.<sup>159</sup> Of the 389 TB cases at the FMC's Chest Unit (TB ward) between October 2003 and March 2005, just four patients tested positive for HIV.<sup>160</sup> It is not clear whether the TB/HIV rate is significantly lower in Imo State, or whether this relatively low rate results from an under-diagnosis of coinfection despite the availability of integrated services.

According to the WHO national professional officer for HIV/AIDS, results of the sentinel surveys on HIV/AIDS and TB/HIV coinfection are only estimates.<sup>161</sup> Since 1991, seven sentinel surveys on HIV/AIDS have been conducted, but these only survey women attending antenatal clinics at public health facilities. Findings from this sample are then used to extrapolate the results for the general population. This excludes people who seek care at private facilities as well as many groups who are considered to be of higher risk for HIV, such as sex workers, prisoners, truck drivers who travel long distances, and men who have sex with men.

To obtain a better estimate of TB/HIV coinfection in the country, the government could conduct sentinel surveys more regularly, taking care to include a more representative sample of at-risk groups.<sup>162</sup> However, given the country's large population, this would be a very expensive undertaking. A proxy would be to incorporate indicators for TB/HIV coinfection in the National Demographic Health Survey (NDHS), which is conducted every five years. Findings from the NDHS, which provides information on a range of health issues, could then be compared with the standard sentinel survey.<sup>163</sup> In addition, the government should encourage clinics that do offer integrated TB/HIV services to record data on coinfection.

## Targeting vulnerable populations

The NTBLCP's 2006–2010 Strategic Plan identifies “targeting vulnerable and underserved populations” as a strategy for promoting overall behavior change and client uptake of services<sup>164</sup> and for ensuring the availability and accessibility of TB services across the country. In practice, government and donor efforts to extend TB services to vulnerable groups have been inadequate. TB control efforts have failed to target groups at risk of HIV, including migrants, sex workers, men who have sex with men, orphans, vulnerable children, and injection drug users. People living in poor or remote areas and migrants are particularly vulnerable to TB infection and confront significant barriers to accessing information and treatment.

NTBLCP data are not disaggregated to detect patterns of TB infection among specific vulnerable groups or among different income levels. However, anecdotal evidence and recent research on TB and TB/HIV suggest that TB incidence is significantly higher among communities affected by poverty.<sup>165</sup> Poor housing conditions and overcrowding contribute to the high concentration of TB cases among poor communities, particularly in densely populated areas such as the city of Lagos,<sup>166</sup> and people living in these areas often lack access to basic information about TB and the link between TB and HIV.<sup>167</sup>

There are also significant regional disparities in access to TB treatment services. Northern states offer far fewer TB services than those in the south, due at least in part to the fact that southern states have received significant donor support from ILEP partners. As of January 2005, Zamfara State in the north had only 10 DOTS centers for a population of 3.6 million people, while Ogun State in the south had 116 DOTS centers for 2.3 million people.<sup>168</sup> The uneven distribution of diagnostic and treatment centers also affects the quality of NTBLCP case data; with an insufficient number of facilities to diagnose and track patients, state programs in the north are almost certainly underreporting the number of TB cases in their states to the NTBLCP.

The picture is gradually changing. Since 2002, new funding for DOTS expansion from the Canadian International Development Agency (CIDA), USAID, WHO and ILEP partners has helped to change the uneven distribution of DOTS services. However, disparities persist, and continued attention to TB control in the northern states is still warranted.

TB programs often fail to reach migrant laborers and patients who reside in remote areas. In some urban areas such as the FCT, the government has recently implemented a campaign to demolish the illegal dwellings that abound in poorer areas of the city. Folashade Momoh of the FCT TB and Leprosy Control Programme said that tracking patients who have been displaced from their homes in these areas is proving to be an uphill struggle: “[In the FCT], residents have been forced to relocate to distant satellite towns, or to locations where they can no longer be traced by TB health workers.”<sup>169</sup>

To reach patients who live far from health facilities or who might be at risk for defaulting on treatment, the NTBLCP and donors sometimes equip TB supervisors with motorcycles or other vehicles to administer DOT in patients’ homes and to track “defaulters.”<sup>170</sup> In fact, many state programs have community health extension workers (CHEWs) who follow up with patients in their homes.

The government has made some progress in targeting prisoners. Following an outbreak of TB cases among the prison population, the NTBLCP’s programs for prisoners have expanded over recent years<sup>171</sup> in Akwa-Ibom, Borno, Cross Rivers, Edo, Ebonyi, Enugu, Delta, FCT, Abia, Rivers, Akwa, Oyo, Ondo and Imo states.<sup>172</sup> In Oyo and Lagos states, prison facilities do not have in-house medical personnel, but state TB program officials visit to collect sputum samples and to administer DOT. Still, one government official from Prisons

Services in Lagos noted that the prisoners were being “neglected” in terms of access to TB treatment.<sup>173</sup>

Following the example of the HIV/AIDS program, the NTBLCP should support research to identify those populations and communities that are most vulnerable to new TB infection, as the basis for developing targeted services to reach these populations more effectively.

## Program management

### Administration

The FMOH formulates health policies and provides strategic guidance, coordination, supervision, monitoring, and evaluation. It is also responsible for the management of teaching hospitals and medical schools, disease surveillance, essential drugs supply, vaccine management, and the provision of specialized health care services at tertiary health institutions.

Each of the three levels of government (i.e., federal, state, and local) has a constitutional responsibility to finance health care and their specific roles and responsibilities are clearly defined within the Nigerian Constitution.<sup>174</sup> However, since states operate as autonomous entities, the FMOH cannot compel the state ministries of health to implement the health policies and programs it develops. All national health policies are approved by the National Council of Health, which comprises all state health commissioners and the Federal Minister of Health. There is often a large gap between policy formulation by the FMOH and state and LGA programs.<sup>175</sup>

The NTBLCP operates under the FMOH’s Department of Public Health at the national level; at the state level, the STBLCP is situated under the office of the State Director of Public Health. The Central Unit of the NTBLCP provides technical and strategic support for TB control activities to the 36 states and the FCT. But planning and implementation of TB services is run by the STBLCOs, who, as state government officials, are not responsible to the NTBLCP. The STBLCPs in turn coordinate state-level TB activities and provide technical guidance and assistance to the LGA TB control offices. The *Workers’ Manual* contains detailed job descriptions of key personnel involved in the vertical management of the NTBLCP as well as guidelines for reporting and communication procedures among personnel at the federal, state, and LGA levels.<sup>176</sup>

According to the *Workers’ Manual*, at the national level, the NTBLCP director should “maintain active contact and cooperation with health-related ministries, departments,

organizations and research institutions with a view to promoting inter-sectoral and interdisciplinary collaboration.<sup>177</sup> At the state level, such collaboration has been inconsistent. For example, the Ogun STBLCO reported that there are no institutional linkages between STBLCPs and colleagues in other governmental departments, and the Damien Foundation's medical adviser noted that such linkages are presently nonexistent in Oyo State.<sup>178</sup> However, the state program implementation team in Kano State does include individuals from different government ministries, the Council of Traditional Leaders, and the Council of Ulama (religious leaders).

## Staffing

Insufficient funding of the health sector over the past 20 years has contributed to “brain drain” and a crisis in the health sector's ability to recruit, adequately support, and retain key health care personnel, including TB workers. TB program implementers have acknowledged that more health personnel are needed to implement its ambitious DOTS expansion plans,<sup>179</sup> particularly in laboratories.<sup>180</sup>

Until recently, health sector spending caps imposed by the World Bank and the International Monetary Fund (IMF) have placed major limitations on the recruitment of new personnel. In some regions, poor working conditions and nonpayment of staff benefits has led to the resignation of large numbers of doctors, nurses, and other health care workers, paralyzing service delivery.<sup>181</sup> Some of the best-qualified medical personnel have been “poached” by international donor agencies to staff and run their programs. In Lagos State, a WHO officer asserted that the state program is well staffed and hires and trains new personnel to support DOTS expansion as needed.<sup>182</sup> However, at one of the facilities in Lagos State visited for this report, only one nurse was available to attend to patients, suggesting that human resources at that facility may be insufficient.

All state- and LGA-level personnel recruited for implementation of the TB services are supposed to undergo comprehensive, performance-based training at the National Training Centre for TB and Leprosy in Zaria.<sup>183</sup> The NTBLCP provides regular staff training in most of the country. In Imo and Lagos states, the organization of ongoing training for TB control officers, supervisors, and laboratory scientists has been supported by partners such as the GLRA.<sup>184</sup> The Kano STBLCO noted that NTBLCP training is regularly provided to all staff on DOTS guidelines, and that extra training sessions have been arranged as new TB centers have opened.<sup>185</sup>

Interviews with TB officials in Imo and Ogun states suggested that TB personnel sometimes feel undervalued and insufficiently trained and supported. For example, the Imo STBLCO noted that financial incentives, recognition for good performance, and other forms of support from the state TB program are minimal.<sup>186</sup> Some TB personnel in Ogun State

also attested to an insufficient level of support: one lab scientist in Ogun noted that he had last attended a training session in 1999.<sup>187</sup>

It is still unclear what impact the Paris Club agreement will have on the hiring of additional health care workers. The federal government's plan to channel NGN 100 billion (\$816 million) of the annual savings from the debt-relief gain into pro-poor programs could be spent on the recruitment of health personnel in theory, but there has been a downsizing of civil service personnel as part of government reform programs in recent years.

The NTBLCP's Human Resource Development Work Plan indicates that the NTBLCP aims to recruit and train additional trainers for staff development programs, to support the development of operational research capacity among program managers at all levels, and to update the curriculum at medical schools. These activities should be complemented by additional incentives for TB workers as well as opportunities to train and support NGO and volunteer workers in community-based DOTS programs. International agencies and donors could also play a valuable role by explicitly supporting the further development and implementation of the NTBLCP Human Resource Development Work Plan to help the NTBLCP recruit and retain skilled TB workers.

## **Budgeting and expenditures**

Expressions of political will have not resulted in the allocation of sufficient financial support for the NTBLCP's TB control efforts at the national, regional, or local levels. According to the WHO, the NTBLCP budget for 2006 is \$19 million (NGN 2.5 billion), up from \$14 million (NGN 1.8 billion) in 2005, thanks in large part to the Fifth Round Global Fund grant<sup>188</sup> and over \$5 million (NGN 667 million) in support from other international donors.<sup>189</sup> Although donor support will help fill critical funding gaps, long-term core funding from the Nigerian government and a higher level of commitment and financial accountability by state- and local-level authorities will be necessary to support a sustainable response, especially in light of the impact of the HIV/AIDS epidemic on the spread of TB.

On April 26, 2006, during a recent Stop TB Partnership meeting held in Abuja, a few members of the Stop TB Board visited President Obasanjo. The meeting provided a platform to highlight the impact of the TB epidemic in Nigeria and the urgent need for increased government support to TB control efforts. The president made a commitment to increase funding to the program, although no specific amount was stipulated.

Funding bottlenecks exist at every level of government. At the federal level, bureaucratic holdups—known colloquially as “due process”—are responsible for delays in the release of approved funding from the Ministry of Finance to the FMOH to the NTBLCP's Central Unit. An NTBLCP official noted that the newly appointed director of public health is working to “fast track” the process.<sup>190</sup>

Similar funding bottlenecks occur at the state- and local-government levels.<sup>191</sup> According to the Ogun STBLCO, “Even when money has been approved by the highest authority, it takes time before all the necessary officials, who are signatories to the account, eventually countersign it.”<sup>192</sup> In Oyo State, for example, the state government had promised approximately \$76,000 (NGN 10 million) for TB control in 2004, but only about 25 percent had been released one year later.<sup>193</sup>

LGAs and state governments also fail to pay their share of funding agreed upon in memoranda of understanding (MOUs) with donor organizations. For example, in the MOUs between ILEP partners and state governments, states are typically supposed to provide 30 percent of the budget while the ILEP partner provides 70 percent. It is widely known among ILEP partners that many state governments do not hold to this agreement, and that government agencies are not held accountable for their financial commitments.<sup>194</sup> For instance, in 2004, the Damien Foundation, Oyo State, and the state’s LGAs had signed an MOU, but annual counterpart funding from the LGAs was still not available almost one year later.<sup>195</sup> As one health care provider in Ogun State said, “Remove the donor and everything would crash.”<sup>196</sup>

The Global Fund grant of \$68.3 million (NGN 9.1 billion) for 2006–2011 comes at a critical time to fill funding gaps for TB control activities. However, the government should not view this and other donor funding as an opportunity to absolve itself of financial responsibility in efforts to control TB. While international support has played a critical role in funding and in providing technical support to the NTBLCP, there are widespread concerns that the government remains too dependent on external support for the running of the TB control program. Donors should place more emphasis on tailoring donor support in ways to increase national capacity. The FMOH and NTBLCP must in turn accept greater financial responsibility and political commitment for TB control.

Few civil society organizations are involved in monitoring NTBLCP policies and spending or in efforts to advocate around the need for increased TB resources. ActionAid Nigeria, the Civil Society on HIV/AIDS (CiSHAN), and JAAIDS are actively tracking funding for HIV/AIDS control. Donors could make a valuable contribution by building the capacity of civil society organizations to monitor TB control efforts in Nigeria, including budget monitoring.<sup>197</sup>

### ***Monitoring and evaluation***

The NTBLCP has a functioning reporting system that could be effectively utilized to track progress on TB control from the Central Unit to the clinical level.<sup>198</sup> Although quarterly, annual, and zonal meetings facilitate regular monitoring and evaluation of TB services,<sup>199</sup> supervision, monitoring, and evaluation are relatively weak at all levels.<sup>200</sup> Currently, the

capacity at the central level for effective supervision is inadequate; resources for DOTS supervision at state and local government levels are insufficient.<sup>201</sup>

There is need to increase capacity at the central-level NTP in planning, monitoring, and supervision as well as to improve communication with individual state programs.<sup>202</sup> This will help in achieving a key strategic objective of the 2006–2010 plan: to “strengthen M and E systems at all levels to ensure at least 95 percent consistency and timeliness of reporting.”<sup>203</sup>

## Infrastructure, drugs, and research

### Public health care infrastructure

*Where [primary health care] services are available, the quality is such that people prefer to go elsewhere for the services.*

—Executive Director, the National Primary Health Care  
Development Agency<sup>204</sup>

The national health system provides three tiers of health care: the primary, secondary, and tertiary levels, which are funded by the federal, state, and local governments, respectively. The public health sector accounts for about 40 percent of the health services provided in Nigeria, while NGOs and the private sector—including hospitals, donors, clinics, and pharmacies—account for the other 60 percent. The National Health Policy of 1988, which was revised in 2004, is based on the principles of social justice and equity, yet government analysis reveals that during the 1992–2003 period, out-of-pocket expenses accounted for over 60 percent of health spending, while federal, state, and local governments provided only 13 percent, 4 percent and 2 percent, respectively.<sup>205</sup>

Since 1979, primary health care has been considered the cornerstone of the health system. The government also provides a range of integrated, preventive, curative, and rehabilitative health care services (although such services are not always free of charge). The DOTS program is intended to utilize the infrastructure of the existing primary health care system, yet this is not the case in practice. In Imo State, for example, the state TB program is unable to utilize some of the primary health care (PHC) centers for DOTS because of the poor conditions of the infrastructure and the laboratory facilities there.<sup>206</sup> In order for TB services to be better integrated into primary health care services, TB diagnostic and treat-

ment services should be considered part of the federally defined “minimum package of health.” PHC facilities also need to be upgraded to better serve the populace.

## Laboratory infrastructure

*[The NTBLCP should strengthen] supervision at all levels to improve sputum smear microscopy . . . access to TB services by expanding diagnostic coverage and reducing transport costs.*

—WHO, Global Tuberculosis Control: Surveillance, Planning, Financing<sup>207</sup>

The NTBLCP recognizes that efficient laboratory diagnosis is critical for TB control, yet lack of quality assurance continues to be a major problem throughout Nigeria. In many states, there are simply too few laboratories to analyze the volume of samples collected. The NTBLCP set a target to establish 1,500 microscopy centers for TB diagnosis by the end of 2010. As of December 2005, only 592 centers, or one center per 230,000 people, had been established.<sup>208</sup> The NTBLCP urgently needs to implement systematic quality assurance of smear microscopy in all six zones and to increase the number of laboratories and personnel equipped to analyze sputum samples.<sup>209</sup>

One major infrastructural limitation observed at TB diagnostic centers at the PHC level is that these centers do not have well-equipped laboratories under the same roof. Such centers usually send sputum samples to laboratories at other facilities that have the requisite equipment and reagents to conduct smear testing. For example, of the several primary health care posts visited in Lagos, Imo, and Oyo states, none contained the basic infrastructure for laboratory testing.<sup>210</sup> Supervisors take sputum samples to the nearest general hospital or clinic when enough samples have been collected to justify the trip. The logistical challenges and the time delay associated with the transportation of samples raise concerns about the quality of test results obtained from these samples.

The WHO observed that “most primary health centers are in generally poor condition, lacking equipment and reagents for sputum microscopy.”<sup>211</sup> The 2004 International TB Monitoring Mission conducted a number of site visits and interviews, and noted the following major challenges: absence of a national network for quality assurance for sputum microscopy; limited capacity to conduct cultures, including sensitivity testing;<sup>212</sup> weak capacity to diagnose extrapulmonary, smear-negative, and pediatric TB;<sup>213</sup> lack of communication between NTBLCP administrative offices and laboratories regarding numbers of patients examined and numbers of TB cases; and insufficient coordination between the National Reference Laboratory and the NTBLCP.<sup>214</sup>

To address some of these challenges, the 2006–2010 Strategic Plan has listed strengthening laboratory services as among the central activities for scale-up of TB control.<sup>215</sup> The NTBLCP aims to have 1,548 microscopy centers (almost triple the current number) by 2010.<sup>216</sup> With technical assistance from the WHO, the FMOH is working to provide quality assurance and more advanced equipment and qualified laboratory personnel.<sup>217</sup> A NTBLCP report notes that training workshops on TB diagnosis using sputum microscopy for laboratory technicians were conducted in 2004 and 2005 in 17 states.<sup>218</sup>

One-off training workshops are not sufficient; laboratory staff, STBLCOs, and supervisors must be trained on an ongoing basis to address common errors in smear reading, recording, and reporting in order to ensure effective supervision and diagnoses.<sup>219</sup> Regular training and monitoring of health and laboratory personnel will also help to ensure that logistical arrangements for transportation of sputum samples are as seamless as possible. In addition to building more laboratories, recruiting additional laboratory technicians will be necessary to conduct smear microscopy tests, which will allow patients to receive results more quickly.

There is also an urgent need for the National Reference Laboratory and the NTBLCP to strengthen laboratory supervision at all levels and to develop and implement a system to monitor laboratory stockpiles of supplies and reagents.

## **Drug distribution systems**

Although drug shortages were a problem in the past, the supply of first-line drugs has been adequate since 2003<sup>220</sup> and no problems are anticipated, thanks to strong support from the Global Drug Facility and other donors.<sup>221</sup> STBLCOs in Oyo, Ogun, Kano, Lagos, and Imo states confirmed that drug supplies have been adequate and buffer stocks have been regularly available.<sup>222</sup> However, the International Monitoring Mission report stressed the need for the FMOH to improve arrangements for port clearance of the drugs as well as to facilitate domestic transportation of TB drugs to zonal and state levels to prevent any possible drug shortages.<sup>223</sup>

## **Education and research**

There is a lack of operational research on TB and minimal government support for such activities. Zankli Medical Center, a private hospital in Abuja, is one of the few facilities in Nigeria that is conducting operational research to inform TB/HIV policy and programs. One recently published study compared sputum smear tests with cultures and found that “scanty” smear tests in high HIV and TB prevalence areas are “more likely to be true than

false-positives.” In the absence of equipment to conduct cultures, the authors concluded that it makes sense to treat patients who have “scanty” smear tests with anti-TB medication: “This would be particularly useful in African countries with high TB prevalence (where the test would have a high predictive value), whose populations often have low access to services and whose diagnostic facilities are overburdened.”<sup>224</sup> The Zankli Center is now in the final stages of a separate study looking at the effect of micronutrient consumption among TB patients.<sup>225</sup>

The government and donors should sponsor additional studies like these to promote the engagement of Nigerian researchers in TB control activities and to provide critical, context-specific input for the further development of NTBLCP policies.

# Partnerships

## Collaboration with private sector

*TB is stigmatized for its association to HIV, hence patients will tend to seek private treatment to protect privacy and avoid stigma. Management of TB patients in private practice is not of acceptable quality. Diagnosis is often based on chest x-rays rather than sputum smear. Several different anti-TB regimens are prescribed depending on the experience of the private provider and on the patient's purchasing power.*

—Report of the 2004 Joint International DOTS and TB/HIV Monitoring Mission to Nigeria<sup>226</sup>

Private practitioners are estimated to provide up to 60 percent of Nigeria's health services.<sup>227</sup> There are several reasons for this: private providers are believed to offer higher quality services; more courteous treatment and shorter waiting times; and greater accessibility, especially since public facilities are known to experience frequent strikes by health workers protesting nonpayment of salaries and poor working conditions.

Yet few of these for-profit providers are collaborating with the NTBLCP in DOTS implementation. Because private providers do not operate under the auspices of the NTBLCP, quality assurance of the TB services they provide is an issue of concern. For example, most private providers involved in TB treatment in Imo State and other parts of the country are not practicing DOTS and some private providers administer streptomycin to clients instead of the NTBLCP's standard regimen.<sup>228</sup> Patients often begin treatment with private practitioners (including medical doctors, traditional healers, and prayer houses),<sup>229</sup> but switch to a public clinic or abandon treatment altogether when they run out of money. The profit motive prevents most private providers from referring patients to public facilities that treat clients free of charge.<sup>230</sup>

There is no specific forum for information sharing—including information about guidelines and case data—between private providers and the government program, but the NTBLCP reports having attempted to reach out to private medical practitioners through umbrella professional groups such as the Nigerian Medical Association and the Guild of Medical Directors.<sup>231</sup> Some private practitioners feel they are being sidelined by the NTBLCP and its partners in TB control efforts. At the same time, it is believed that donor restrictions that place more emphasis on public providers and free treatment may limit the government's incentives to address public-private collaboration.<sup>232</sup>

Some private providers assert that for a mixed, public-private DOTS program (PPM) to be effective, the NTBLCP should work in consultation with organizations of private practitioners (such as the Association of Medical Practitioners), provide education and training for private providers, offer incentives to private providers for referral of TB patients to public DOTS centers, and improve their access to national guidelines and IEC materials.<sup>233</sup>

The Gombe State TB Programme initiated a PPM DOTS program in 2004. As part of the program, seven private clinics and the state TB program signed an MOU. The state program provides free TB drugs to the private clinics and the clinics in turn are required to give the drugs free of charge to patients, but they are permitted to charge consultation fees. Clinical staff at private facilities also benefit from capacity-building programs, such as trainings on DOT and other forms of technical assistance. In exchange, the facilities are expected to report case data to the state TB program regularly. While the PPM concept seems promising, only 17 smear-positive cases were reported in 2005 by the seven clinics to the Gombe State Programme. However, a study conducted by the FMOH and World Bank showed that fewer people in northern states such as Gombe rely on health facilities in the private sector, so this low number of smear-positive cases may also be a reflection of the relatively small number of people who use health services in those seven clinics. The state program plans to expand the PPM program to include additional private facilities, but limited funding for supervision is currently available.<sup>234</sup> The GLRA is piloting a similarly modeled PPM program in Abia and Anambra states.

The Fund for Innovative DOTS Expansion through Local Initiatives to STOP TB (FIDELIS) is supporting the NTBLCP to implement a new PPM project in selected states (Enugu, Gombe, Lagos, Kano, Plateau, and River states).<sup>235</sup> The project is placing special emphasis on helping private practitioners to provide more accurate TB diagnostic services.

In addition, with the Global Fund grant, the NTBLCP will implement a PPM project with 350 private not-for-profit and 150 private for-profit care providers to engage in DOTS strategy by 2010. According to the Global Fund proposal, the project will actively seek to involve the Guild of Medical Directors in DOTS compliance. The NBLCP will also provide incentives to private providers involved such as diagnostic tools, drugs, and training programs for personnel. Facilities that have benefited from NTBLCP training will be expected to provide feedback on the program so the NTBLCP can learn from successes and mistakes.

This Global Fund PPM project could provide a promising basis for expanded engagement with private practitioners. Prior to implementation, the government should consult with the implementers of other PPM DOTS models such as the Gombe State TB Programme project and the FIDELIS model to learn from their experiences. Since such a large portion of the population relies on the private sector for medical support, there is a continued need to expand and scale up PPM models beyond the Global Fund project.

## Collaboration with local NGOs/community organizations

In contrast to civil society engagement in HIV/AIDS control, there has been very limited participation in TB control efforts.<sup>236</sup> Over the past three years, a few civil society organizations have taken on the issue of TB and HIV/AIDS; clinics, support groups, and advocacy organizations have increasingly recognized the need to integrate TB into their definition of comprehensive HIV/AIDS care.

When the Country Coordinating Mechanism convened to prepare Nigeria's Global Fund proposals during the Fourth and Fifth Rounds, NGOs and community groups were invited to provide input.<sup>237</sup> This was a positive step to increase civil society engagement in TB issues. The Global Fund Fifth Round grant includes an ACSM component, which should be used to help to build capacity in and encourage civil society organizations—particularly advocacy organizations and networks of people living with HIV/AIDS—to increase their engagement around TB and TB/HIV.<sup>238</sup> Doing so could provide support to the NTBLCP in expanding its own capacity.

Civil society organizations—particularly those that are community-based—are often well positioned to understand community needs and to mobilize community members to seek diagnosis and comply with treatment. Organizations such as the Ummah Support Group,<sup>239</sup> a support group for people living with HIV based in Abuja, and the Living Hope Care Organization, in Illesa, Osun State,<sup>240</sup> have already begun to provide educational support and necessary adherence support to TB/HIV coinfecting members. However, there is an urgent need for existing organizations of people living with HIV and civil society organizations to work jointly to promote TB/HIV advocacy efforts as well as to promote and support improved utilization and uptake of TB/HIV services.<sup>241</sup>

Given the inextricable link between TB and HIV, it is essential for HIV/AIDS groups to expand their commitment to TB control and to mainstream TB into their HIV/AIDS interventions, including in their efforts to expand treatment access. HIV/AIDS organizations—many of which have developed expertise in public mobilization and building awareness—can fill a critical void in the need for TB advocacy.

# Recommendations

## The government of Nigeria and the NTBLCP should:

- **Demonstrate political will at the federal, state, and LGA levels**, including by
  - Providing technical assistance to state and local officials to stay better informed about the burden of TB in their regions;
  - Ensuring more-effective distribution and spending of resources allocated to TB control activities at the federal, state, and local levels.
- **Increase government expenditure in health** to 15 percent of the national budget to meet the African heads of states' recommended target and the 2001 Abuja Declaration of Action, including by
  - Fulfilling the federal government's promise to channel NGN 100 billion (\$816 million) of the annual savings from the debt-relief gain into pro-poor programs;
  - Devoting increased resources and attention to TB control in the northern states to correct past patterns of concentrated donor involvement in the southern states.
- **Expand DOTS services**, including by
  - Reviewing models for patient-centered approaches, such as community-based DOTS, with a view to adapting these models for implementation in the Nigerian context;
  - Building the capacity of DOTS centers to conduct awareness-raising and outreach activities to encourage greater uptake of TB patients;
  - Building the capacity of primary health care providers (especially those involved in HIV/AIDS care) to administer TB services;
  - Encouraging greater participation in provision of TB services by private providers, learning from pilot projects such as the Gombe State TB Programme project and the FIDELIS model.
  - Expanding partnerships with civil society organizations to implement TB control activities.

- **Address higher concentrations of TB among vulnerable groups**, including by
  - Supporting operational research to help identify which groups are not accessing TB services and why, as the basis for developing targeted services for these groups;
  - Developing special outreach services for populations known to be at higher risk of TB, such as the urban poor, people living in remote areas, prisoners, migrant laborers, and people living with HIV/AIDS;
  - Earmarking funds in the NTBLCP and state budgets for TB services that target specific vulnerable populations, as practiced in HIV/AIDS control activities.
- **Increase awareness about TB and DOTS**, emphasizing the curability of the disease, including by
  - Allocating sufficient funding towards advocacy, communication, and social-mobilization activities;
  - Seeking opportunities to involve people who have completed TB treatment in campaigns to increase community- and patient-driven demand for improved TB and TB/HIV services;
  - Strengthening partnerships among the NTBLCP, NASCAP, and NGOs to promote treatment literacy;
  - Ensuring that state and local governments are informed about the requirements of the DOTS strategy by, among other things, disseminating and providing ongoing training on the most recent *Workers' Manual* to all state and LGA TB program offices and DOTS facilities.
- **Facilitate media coverage of TB**, including by
  - Encouraging TB program implementers to provide more public information on policy and programs;
  - Providing communication and media relations training for TB program managers and encouraging them to forge constructive partnerships with the media and civil society organizations;
  - Partnering with NGOs—especially those working on HIV/AIDS communication and mobilization—to conduct awareness-building campaigns;

- Funding civil society organizations (especially those with media experience dealing with HIV/AIDS) to engage journalists on TB and TB/HIV issues, to undertake outreach efforts and provide journalists training on TB and TB/HIV, and to create more information and resources for journalists to increase coverage of TB and TB/HIV issues;
- Working closely with community-based groups to design and disseminate accessible and compelling TB materials available in local languages for print, radio, and television reporters as part of their public information function.
- **Address the health worker shortage and gaps in the health infrastructure**, including by
  - Developing a strategy to recruit and retain adequate numbers of TB workers to staff existing and planned DOTS facilities;
  - Encouraging TB case recording and reporting among private practitioners and local NGOs; this might be accomplished by:
    - Designing public-private partnership programs in consultation with organizations of private practitioners (such as the Association of Medical Practitioners);
    - Supporting education and training for private providers by working with, among others, established groups such as the Guild of Medical Directors and the Nigerian Medical Association
    - Providing TB drugs free to private clinics in exchange for full reporting of all TB cases;
    - Enhancing private providers' access to national guidelines and information, education, and communication (IEC) materials.
  - Providing ongoing training for laboratory staff, STBLCOs, and supervisors to address common errors in smear reading, recording, and reporting and ensure effective supervision and diagnoses;
  - Recruiting additional laboratory technicians to conduct smear microscopy tests, which will enable patients to receive results more quickly;
  - Mandating the National Reference Laboratory to strengthen laboratory supervision at all levels and developing and implementing a system to monitor laboratories' stockpiles of supplies and reagents.

- **Expand integrated TB/HIV services, including by**
  - Taking full advantage of the scale up of HIV/AIDS ARV drugs to implement TB services at VCT and ARV centers and to integrate HIV testing and treatment into DOTS facilities;
  - Providing ongoing training and forums for health care providers on methods for early diagnosis of TB among people living with HIV;
  - Providing more sensitive diagnostic tools, including equipment to perform cultures;
  - Encouraging state governments to commit resources and personnel to creating programmatic linkages between TB and HIV control efforts;
  - Encouraging ongoing information-sharing among health care workers in both sectors to more effectively address TB and HIV/AIDS.
- **Address the threat of MDR-TB, including by**
  - Gathering baseline data on MDR-TB;
  - Increasing government capacity to provide second-line TB drugs;
  - Ensuring that sufficient counseling is provided to clients, patients' relatives, community groups, and support groups of people living with HIV to promote treatment adherence;
  - Working in partnership with NGOs to promote peer support for treatment adherence among TB patients; .
  - Offering incentives to private providers for referral of TB patients to public DOTS centers.
- **Address TB and TB/HIV related stigmatization, including by**
  - Training and educating health workers on stigma-related issues;
  - Integrating TB and HIV/AIDS services into primary health care services where appropriate, yet ensuring that quality of services is preserved.

## **Nongovernmental and community organizations should:**

- **Establish—especially through existing HIV/AIDS organizations—community-based partnerships with government** to implement patient-centered TB services, including community-based DOTS.
- **Conduct treatment-literacy campaigns to educate HIV/AIDS workers and organizations about the threat of TB among people living with HIV.**
- **Sensitize and mobilize reporters, editors, and owners of print, electronic and broadcast media about the impact of TB on society, including by**
  - Organizing training workshops with a focus on basic knowledge about TB, information about NTBLCP policy, budgets, and spending, and on the government’s success or failure in upholding international health commitments;
  - Highlighting the economic and social toll of the TB epidemic in addition to the personal health risks;
  - Promoting greater and ongoing dialogue with policymakers.

## **International and bilateral donors should:**

- **Ensure that their activities and programs support the government strategy and reinforce NTBLCP capacity;**
- **Support the NTBLCP in recruiting and retaining skilled workers** instead of recruiting competent government workers for their own agencies;
- **Sponsor in-country operational research** to better inform NTBLCP policy;
- **Provide direct support to civil society organizations—particularly advocacy organizations and networks of people living with AIDS—to promote greater community engagement in TB control activities.**

# Appendix

## Public Health Watch/ JAAIDS Roundtable Meeting participants

*January 25, 2006, Abuja*

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# Notes

1. National Tuberculosis and Leprosy Control Programme (NTBLCP), *2005 National Tuberculosis Programme Progress Update*, (Abuja: NTBLCP), 2005, p. 19.
2. National Tuberculosis and Leprosy Control Programme (NTBLCP), *2005 National Tuberculosis Programme Progress Update*, (Abuja: NTBLCP), 2005,
3. WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing* (Geneva: WHO, 2006), p. 107.
4. As of 2003, according to the National Population Commission, Nigeria's population was 126.2 million. National Population Commission, available at [www.population.gov.ng/factsandfigures.htm](http://www.population.gov.ng/factsandfigures.htm) (accessed on May 23, 2006).
5. Nigeria is the sixth largest oil producer in the world. The export of crude oil currently accounts for more than 80 percent of the total national revenue. Available at [www.cid.harvard.edu/cidtrade/gov/nigeriagov.html](http://www.cid.harvard.edu/cidtrade/gov/nigeriagov.html) (accessed on May 23, 2006).
6. The Human Development Index in 2000 ranked Nigeria at 151 out of 174 countries and among the poorest 20 countries in the world. Available at [http://hdr.undp.org/statistics/data/cty/cty\\_f\\_NGA.html](http://hdr.undp.org/statistics/data/cty/cty_f_NGA.html) (accessed May 23, 2006).
7. DFID, *Country Health Briefing Paper*, 2000, available at [www.dfidhealthrc.org/shared/publications/Country\\_health/Nigeria.pdf](http://www.dfidhealthrc.org/shared/publications/Country_health/Nigeria.pdf) (accessed May 23, 2006).
8. A. Colgan, "Hazardous to Health: The World Bank and IMF in Africa," *Africa Policy E-Journal*, 2002, available at [www.africaaction.org/docso2/sapo2o4b.htm](http://www.africaaction.org/docso2/sapo2o4b.htm) (accessed April 20, 2006).
9. "Paris Club in Nigeria Debt Deal," *BBC News*, Oct. 20, 2005, available at <http://news.bbc.co.uk/1/hi/business/4359286.stm> (accessed May 23, 2006).
10. Ministry of Finance, Federal Government of Nigeria. An overview of the 2006 budget is available at [www.fmf.gov.ng/news.php?id=66](http://www.fmf.gov.ng/news.php?id=66) (accessed April 24, 2006).
11. Budget Office of the Federation: [www.budgetoffice.gov.ng](http://www.budgetoffice.gov.ng)—This figures have also been independently confirmed by JAAIDS which is carrying out a monitoring study on health allocations in the 2006 budget
12. Ministry of Finance, Federal Government of Nigeria. An overview of the 2006 budget is available at [www.fmf.gov.ng/news.php?id=66](http://www.fmf.gov.ng/news.php?id=66).
13. Department of Public Information, United Nations, "Country in Focus: Nigeria: Deterioration in Education and Health Services," *Africa Recovery*, June 1999, 13 (1): 12. Available at [www.un.org/ecosocdev/geninfo/afrec/vol13no1/health.htm](http://www.un.org/ecosocdev/geninfo/afrec/vol13no1/health.htm) (accessed May 23, 2006).
14. Ministry of Finance, Federal Government of Nigeria. An overview of the 2006 budget is available at [www.fmf.gov.ng/news.php?id=66](http://www.fmf.gov.ng/news.php?id=66) (accessed April 24, 2006).
15. *Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Infections*, April 24–27 2001, paragraph 26, available at [www.aegis.com/news/usis/2001/US010409.html](http://www.aegis.com/news/usis/2001/US010409.html) (accessed May 23, 2006).
16. World Bank Development Report, 1999/2000
17. United Nations Children's Fund (UNICEF) and DFID Health Systems Resource Centre, 2000.
18. Federal Office of Statistics and UNICEF, 2000.
19. UN Population Fund, 2002.
20. National HIV/AIDS & Reproductive Health Survey (NARHS), 2003.
21. Available at [www.stoptb.org/countries/](http://www.stoptb.org/countries/) (accessed on April 24, 2006).
22. "Nigeria records 300,000 TB cases yearly—Health Minister," *This Day*, March 25, 2005.
23. National Tuberculosis and Leprosy Control Programme (NTBLCP), *2005 National Tuberculosis Programme Progress Update*, (Abuja: NTBLCP), 2005, p. 19.
24. National Tuberculosis and Leprosy Control Programme (NTBLCP), *2005 National Tuberculosis Programme Progress Update*, (Abuja: NTBLCP), 2005,

25. WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing* (Geneva: WHO, 2006), p. 107.
26. WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing* (Geneva: WHO, 2006), p. 107.
27. WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing* (Geneva: WHO, 2006), p. 107.
28. Quote by Emeka Asadu MD, TB/HIV focal point, NASCAP in article, "Nigeria ranks 4th in the Spread of TB," *This Day*, Sept. 1, 2005.
29. Nasir Sani Gwarzo, former coordinator of the NTBLCP, "Nigerian Experience of TB/HIV collaborative activities," presentation at the Fourth Global TB/HIV Working Group Meeting, Addis Ababa, Ethiopia, September 2004,
30. WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing* (Geneva: WHO, 2006), p. 107.
31. Nasir Sani Gwarzo, former coordinator of the NTBLCP, "Nigerian Experience of TB/HIV collaborative activities," presentation at the Fourth Global TB/HIV Working Group Meeting, Addis Ababa, Ethiopia, September 2004.
32. NTBLCP, *2005 National Tuberculosis Programme Progress Update*, (Abuja: NTBLCP), 2005, p. 19
33. Interview with Ayodele Awe, national professional officer for TB, WHO, Internews Media roundtable meeting, Abuja, March 21, 2005.
34. Available at [www.aegis.com/news/usis/2001/US010409.html](http://www.aegis.com/news/usis/2001/US010409.html) (accessed May 23, 2006).
35. JAAIDS, *Civil Society Press Release: Civil Society Organizations Applaud African Leaders on Abuja Commitments*, May 5, 2006.
36. Stop TB Partnership press release: "Obasanjo, Brown and Gates call on world leaders to fund new plan to stop tuberculosis," Jan. 27, 2006.
37. NTBLCP, *2004 National TB Programme Update; Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*, p. 16.
38. Interview with Nwakonobi, Imo STBLCO, Owerri, April 11, 2005.
39. Interview with Ayodele Awe, national professional officer for TB, WHO, Internews Media roundtable meeting, Abuja, March 21, 2005.
40. Interview with Abdullateef Adegbite, secretary general, Nigerian Supreme Council for Islamic Affairs, Abuja, Jan. 24, 2006
41. Interview with Sola Ogundipe, senior editor and health correspondent, *Vanguard Newspapers*, March 9, 2005.
42. *Technical Review Panel Remarks on Round 4 \_Nigeria TB Proposal*, pp. 404–409, May 8, 2004.
43. JAAIDS, "TB/HIV, Confronting a Dual Epidemic: Report of Journalists Against AIDS (JAAIDS)," March 16, 2005.
44. For example, the following newspapers reported these varying levels of TB prevalence in Africa and Nigeria: *Daily Times*, "TB may claim 0.5 million Africans this year," July 23, 2001, *Punch Newspapers*, "TB kills 60,000 in Africa," May 26, 2002; *Daily Times*, "100,00 cases of TB occur yearly," May 21, 2003, and *This Day*, "Nigeria Records 300,000 TB Cases Yearly," March 25, 2005.
45. JAAIDS with support from STOP Partnership, organized a two-day training for the media on coverage of TB in December 2005.
46. Interview with Austin Oghide, health promotion and information officer, WHO, March 9, 2005, Abuja, and comments by several participants of JAAIDS / Public Health Watch roundtable meeting, Abuja, January 25, 2006. Note: On Jan. 25, 2006, JAAIDS hosted a roundtable meeting to invite discussion and debate on TB and TB control policy in Nigeria. Participants included government and parliamentary officials, medical professionals, representatives of international organizations, media representatives, and representatives of nongovernmental organizations.
47. Interview with Austin Oghide, health promotion and information officer, WHO, Abuja, Feb. 14, 2005.
48. Comment by government official, JAAIDS/Public Health Watch roundtable meeting, Abuja, January 25, 2006.

49. Interviews with Austin Oghide, health promotion and information officer, WHO, Abuja, Feb. 14, 2005, and Sola Ogundipe, Health Editor, *Vanguard Newspapers*, Abuja, March 9, 2005.
50. Interview with Danjuma Adamu, coordinator, the Council of Positive People (COPOP), Kano, Feb. 9, 2005.
51. Comments by Rosemary Adu, clinician, Nigeria Institute of Medical Research (NIMR) and Yinka Jegede-Ekpe, executive director, Nigerian Community of Women Living with HIV (NCW+), JAAIDS media roundtable meeting, Lagos, March 16, 2005.
52. This GLRA study conducted in 2002 was mentioned in an interview with Ayodele Awe, national professional officer for TB, WHO, Abuja, March 21, 2005.
53. Interview with C.O. Nwakonobi, Imo STBLCO, Owerri, Imo State, April 11, 2005.
54. Interview with C.O. Nwakonobi, Imo STBLCO, Owerri, Imo State, April 11, 2005.
55. Interviews with Pat Matemilola, national coordinator, NEPWHAN, Abuja, Feb. 7, 2005; Doris Uko, Heal the Land Initiative Support Group, Akwa, Ibom State, Feb. 7, 2005;; and John Ibekwe, Coordinator of the Save the World Support Group, Anambra State, Feb. 7, 2005.
56. At the time of this interview, NEPWHAN had over 110 support groups; but during an interview with the NEPWHAN coordinator in May 2006. Pat Matemilola, national coordinator, NEPWHAN, reported that the number of NEPWHAN support groups had grown to over 200.
57. Interview with Pat Matemilola, national coordinator, NEPWHAN, Abuja, Feb. 7, 2005. In contrast, in an interview, John Ibekwe (Feb. 7, 2005, Abuja), coordinator, Save the World Organization (SAWOR), noted that many of the people living with HIV/AIDS in Anambra State and in other surrounding South Eastern states could easily locate the DOTS centers.
58. AIDS Alliance in Nigeria (AAN), “Abstract I-B3 Nigeria- Abstracts for Marketplace Presentations,” 4th Global TBHIV Working Group Meeting of the STOP TB Partnership, Addis Ababa, Ethiopia, September 20–21, 2004.
59. AIDS Alliance in Nigeria (AAN), “Abstract I-B3 Nigeria—Abstracts for Marketplace Presentations,” 4th Global TBHIV Working Group Meeting of the STOP TB Partnership, Addis Ababa, Ethiopia, Sept. 20–21, 2004.
60. Interview with Mohammed Mahmoud, Kano STBLCO, Kano, Feb. 10, 2005.
61. Comment by Folashade Momoh, FCT TB programme manager, Workshop on Upscaling Media Response to TB in Nigeria organized by JAAIDS with support from the STOP TB Partnership Secretariat, Abuja, December 9, 2005.
62. Interview with C.O. Nwakonobi, Imo STBLCO, Imo State, April 11, 2005.
63. Interview with Ayodele Awe, national professional officer for TB, WHO, Abuja, March 21, 2005.
64. Interview with NASCAP official (requested anonymity), Abuja, Feb. 8, 2005.
65. Interview with C.O. Nwakonobi, Imo STBLCO, Imo State, April 11, 2005 and Interview with Getrude Ekeogu, Imo STBLCO, Owerri Municipal Council, Owerri, Imo State, April 13, 2005.
66. Interview with Getrude Ekeogu, Imo STBLCO, Owerri Municipal Council LGA, Owerri, Imo State, April 13, 2005.
67. Interview with Oyewole Lawal, Oyo STLBCO, Ibadan, Oyo State, Feb. 9, 2005.
68. Comment by Yinka Jegede-Ekpe, executive director, Nigerian Community of Women Living with HIV (NCW+), JAAIDS media roundtable meeting, Lagos, March 16, 2005.
69. Interview with Gbola Agboluaje, chief environmental health officer/ TB programme officer, Iwo Road TB clinic, Ibadan, Oyo State, Feb. 9, 2005.
70. Interview with Gbola Agboluaje, chief environmental health officer/ TB programme officer, Iwo Road TB clinic, Ibadan, Oyo State Feb. 9, 2005.
71. Two people living with HIV/AIDS—Assumpta Reginald (in an interview, Abuja, Feb. 9, 2005) and Abigail Obeten, coordinator of Fountain of Life Church HIV/AIDS Programme (at the Public Health

Watch Nigeria Advisory Group meeting in January 2005)—Abigail noted that she was placed in isolation ward at government health facility when she had TB.

72. Interview with Assumpta Reginald, person living with HIV/AIDS, Abuja, Feb. 9, 2005.
73. Comment by Rosemary Adu, researcher, Nigerian Institute of Medical Research, JAAIDS media roundtable meeting, Lagos, March 16, 2005.
74. Interview with Festus Soyinka, Ogun STBLCO, Abeokuta, Ogun State, Feb. 16, 2005.
75. Interview with C.O. Nwakonobi, Imo STBLCO, Imo State, April 11, 2005.
76. Comment by Momoh, FCT TB Programme Manager, media briefing organized by Internews, Abuja, March 21, 2005.
77. Interview with Oyewole Lawal, Oyo STBLCO, Ibadan, Oyo State, Feb. 9, 2005.
78. Interview with TB patient, Broad Street Chest Clinic, Lagos, Feb. 10, 2005.
79. Interview with C.O. Nwakonobi, Imo STBLCO, Imo State, April 11, 2005.
80. NTBLCP, *Workers' Manual Fourth Edition*, Feb. 2004.
81. *Report of the 2004 Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*, p. 7.
82. Interview with Ayodele Awe, national professional officer for TB, WHO, Abuja, March 21, 2005.
83. Interview with Oyewole Lawal, STBLCO, Ibadan, Feb. 9, 2005.
84. Interview with Ayodele Awe, national professional officer for TB, WHO, Abuja, March 21, 2005.
85. Interview with Mohammed Mahmoud, Kano STBLCO, Kano, Feb. 10, 2005. The State TB Control Programme commenced in February 2003 with a pilot project in 5 LGAs.
86. For example, a one-minute advertisement on national television during the network news program in 2004 cost approximately N270,000 (\$2,077). Interview with Ayodele Awe, national professional officer for TB, WHO Abuja, March 21, 2005.
87. Interview with C.O. Nwakonobi, Imo STBLCO, Owerri, April 11, 2005.
88. Approximately 23.4 percent of the five-year \$68 million grant, or \$15.9 million, will be devoted to ACSM activities. *Nigeria Round V Full Proposal*, p. 54. Available at [www.theglobalfund.org](http://www.theglobalfund.org) (accessed April 26, 2006).
89. Interviews with four clients at DOTS center in Broad Street chest clinic, Lagos, Feb. 10, 2005, and with health worker from the Iwo Road Clinic, Oyo State, Feb. 9, 2005.
90. Informal conversations with several people on street in vicinity of Iwo Road Clinic, Oyo State, Feb. 9, 2005.
91. Interview with Ummah Support Group Staff, Abuja, Jan. 24, 2006.
92. NTBLCP, *Workers' Manual Fourth Edition*, Feb. 2004, p. 22.
93. The NTBLCP was established in 1989, but it was not formally launched until 1991. Comments by Nigerian experts, JAAIDS/Public Health Watch roundtable meeting, Jan. 25, 2006.
94. National TB and Leprosy Control Programme: 2006-2010 Strategic Plan for TB Control: pp. 16–32.
95. Interview with O. Chukwukezie, acting NTBLCP manager of the Central Unit, Abuja, March 8, 2005.
96. Site visits to clinics, Iwo Road and Egbeda, Oyo State, Feb. 9, 2005.
97. Interview with chief matron (requested anonymity), Chest Clinic General Hospital, Lagos, Feb. 10, 2005.
98. Interview with Festus Soyinka, Ogun STBLCO, Abeokuta, Ogun State, Feb. 16, 2005.
99. *Report of the 2004 Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*
100. By the end of 2005, it was estimated that 2,015 DOTS treatment centers and 548 TB diagnostic centers existed across the country. *Report of the 2005 Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*, p. 11.

101. According to the NTBLCP, the case detection rate was 16 percent in 2002 and 23 percent in 2004, which is equivalent to a 44 percent increase. NTBLCP, 2006–2010 *Strategic Plan for TB Control in Nigeria*, p. 15
102. WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing* (Geneva: WHO, 2005), p. 110.
103. This client lives in Suleja and receives treatment in Maitama. Interview with Osita Amaneze, chief medical officer, Asokoro General Hospital, Feb. 9, 2005.
104. Interview with Margaret Williams, Lagos STBLCO, Lagos, Feb. 9, 2005.
105. Interview with Margaret Williams, Lagos STBLCO, Lagos, Feb. 9, 2005.
106. Interview with Osita Amaneze, chief medical officer, Asokoro General Hospital, Abuja, Feb. 9, 2005.
107. *Nigeria Round V Full Proposal*, p. 54. Available at [www.theglobalfund.org](http://www.theglobalfund.org) (accessed April 26, 2006).
108. Comment by Rosemary Adu, clinician, National Reference Laboratory, Nigerian Institute of Medical Research (NIMR), JAAIDS media roundtable meeting, Lagos, March 19, 2005.
109. The NTBLCP programme officer representing Mansur Kabir, the national coordinator of the NTBLCP, made the announcement. Chioma Obinna, “FG Institutes DOTS in HIV Treatment Centers,” *The Vanguard*, July 11, 2006. Available at [www.vanguardngr.com/articles/2002/features/health/gh211072006.html](http://www.vanguardngr.com/articles/2002/features/health/gh211072006.html) (accessed Aug. 24, 2006).
110. FMOH, *Draft Strategic Plan for TB/HIV Collaborative Activities in Nigeria (2006-2008)*, pp. 3–8.
111. Those states include Akwa Ibom, Ebonyi, Kaduna, Oyo and Benue. TB/HIV pilot activities in these states are already underway.
112. Presentation by Amos Omoniyi, focal point, NTBLCP, at TB/HIV Consensus Building Meeting, Abuja, March 15, 2005.
113. Interview with Niyi Ogundiran, national professional officer for HIV, WHO, Feb. 14, 2005.
114. At a meeting in January 2005, STBLCOs discussed opportunities to integrate VCT services into DOTS centers and to expand other aspects of HIV/AIDS care within DOTS. Interview with Gani Alabi, south west zonal coordinator, WHO, Lagos, Feb. 8, 2005.
115. Interview with Gani Alabi, south west zonal coordinator, WHO, Lagos, Feb. 8, 2005.
116. Interview with Ikani Anibe, medical laboratory scientist, HIV Rapid Assay Laboratory, Asokoro General Hospital, Feb. 9, 2005.
117. Comments by representatives from Nigerian HIV/AIDS support groups and HIV/AIDS NGOs, JAAIDS/ Public Health Watch roundtable meeting, Abuja, Jan. 25, 2006.
118. Interview with Isiramen Olajide, microbiologist, Zankli Medical Center, Abuja, Jan. 26, 2006.
119. L. Lawson, et al., “Comparison of scanty AFB smears against culture in an area with high HIV prevalence,” *International Journal of TB Lung Disease*, 2005 9(7): 933–935.
120. Dan Onwujekwe, senior research fellow, Nigerian Institute of Medical Research (NIMR) in Lagos, as quoted in *Access Alert*, a JAAIDS publication, March/April 2005 edition.
121. Interview with Festus Soyinka, Ogun STBLCO, Feb. 16, 2005.
122. Federal Government of Nigeria, *National Policy on HIV/AIDS*, 2003, p. 30.
123. Interview with Pat Matemilola, coordinator, NEPWHAN, Feb. 7, 2005.
124. Integrated Regional Information Networks (IRIN), “Nigeria: 250,000 on ARVs by mid-2006,” March 1, 2005. Available at [www.globalhealth.org/news/article/5696](http://www.globalhealth.org/news/article/5696) (accessed April 26, 2006) and Estelle Shirbon, “Nigeria to double free AIDS treatment centers,” *Reuters*, Jan. 6, 2006. Available at <http://today.reuters.com/news/newsArticleSearch.aspx?storyID=176273+06-Jan-2006+RTRS&srch=nigeria> (accessed on Jan. 7, 2006).
125. *Plan to Scale Up Antiretroviral Treatment for HIV or AIDS in Nigeria (2005–2009)*, Section 4.5.5, p. 19.
126. Interview with Niyi Ogundiran, national professional officer for HIV, WHO, Feb. 14, 2005.

127. Approximately 10 percent of the five-year \$68 million grant, or \$6.8 million, will be devoted to TB/HIV activities. *Nigeria Round V Full Proposal*; available at [www.theglobalfund.org](http://www.theglobalfund.org) (accessed April 26, 2006).
128. As of July 2005, implementation of the PEPFAR/GHAIN program had commenced in Anambra, Kano, Edo, FCT, Lagos, and Cross Rivers states. The program will also operate in Adamawa, Nassarawa, Niger, Rivers, and Bauchi states.
129. Interview with Ayodele Awe, national professional officer for TB, WHO, Abuja, March 21, 2005.
130. Comment by Ayodele Awe, national professional officer for TB, WHO, media briefing organized by Internews, Abuja, March 21, 2005; interview with John Osho, medical adviser, Damien Foundation, Oyo State, Feb. 8, 2005; interview with Mohammed Mahmoud, Kano STBLCO director, Kano, Feb. 10, 2005.
131. Comment by Ayodele Awe, national professional officer for TB, WHO, media briefing organized by Internews, Abuja, March 21, 2005 and interview with Mohammed Mahmoud, Kano STBLCO Director, Kano, Feb. 10, 2005.
132. WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing* (Geneva: WHO, 2006), p. 107.
133. Dan Onwujekwe, senior research fellow, Nigerian Institute of Medical Research (NIMR) in Lagos, as quoted in *Access Alert*, a JAAIDS publication, March/April 2005 edition.
134. Interview with C.O. Nwakonobi, Imo STBLCO, Owerri, Imo State, April 11, 2005.
135. Interview with Mohammed Mahmoud, Kano STBLCO, Kano, Feb. 10, 2005.
136. Interview with Daniel Olusoji, community physician, Ogun State University Teaching Hospital (OSUTH), Ogun State, Feb. 16, 2005; Comments by Nigerian experts at JAAIDS/Public Health Watch roundtable meeting, Abuja, Jan. 25, 2006; Interview with Amos Omoniyi, TB/HIV focal point NTBLCP, Abuja, March 30, 2006.
137. Interview with Amos Omoniyi, TB/HIV focal point,, NTBLCP Abuja, March 30, 2006.
138. Interview with Daniel Olusoji, community physician, Ogun State University Teaching Hospital (OSUTH), Ogun State, Feb. 16, 2005.
139. Interview with Gani Alabi, MD, south west zonal coordinator for TB, WHO, Lagos, Feb. 8, 2005.
140. Interview with Amos Omoniyi, TB/HIV focal point, NTBLCP-Abuja, March 30, 2006.
141. Comment by Ayodele Awe, national professional officer for TB, WHO, media briefing organized by Internews, Abuja, March 21, 2005.
142. Interview with Margaret Williams, Lagos State TB programme coordinator (STBLCO) Lagos, Feb. 9, 2005.
143. Interviews with Mohammed Mahmoud, Kano STBLCO, Kano, Feb. 10, 2005; Oyewole Lawal, MD, Oyo STBLCO, Ibadan, Oyo State, Feb. 9, 2005.
144. Interviews with: Ayodele Awe, national professional officer for TB, WHO, Abuja, March 21, 2005; John Osho, medical adviser, Damien Foundation, Feb. 8, 2005, Oyo State; Mohammed Mahmoud, Kano STBLCO, Kano, Feb. 10, 2005 and *Report of the 2004 Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*, p. 21.
145. Interview with John Osho, medical adviser, Damien Foundation, Oyo State, Feb. 8, 2005.
146. Interview with Ayodele Awe, national professional officer for TB, WHO, Internews media roundtable meeting, Abuja, March 21, 2005 and interview with John Osho, medical adviser, Damien Foundation, Oyo State, Feb. 8, 2005.
147. Interview with John Osho, medical adviser, Damien Foundation, Feb. 8, 2005, Oyo State.
148. Interview with C.O. Nwakonobi, Owerri, Imo STBLCO, Imo State, April 11, 2005.
149. *Report of the 2004 Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*, p. 21.
150. Interview with Gani Alabi, south west zonal coordinator, WHO, Lagos, Feb. 8, 2005.
151. Interview with Gani Alabi, south west zonal coordinator, WHO, Lagos, Feb. 8, 2005.

152. Interview with Margaret Williams, Lagos State TB programme coordinator, Lagos, Feb. 9, 2005. Williams noted that limited TB/HIV coinfection data is available in Lagos State. The Lagos Island General Hospital, with support from Médecins Sans Frontières (MSF), is collecting data on TB/HIV coinfection. MSF also runs a free ARV clinic which is housed within the General Hospital. Interview with Mary Ashie, adherence counselor, MSF, Lagos, Feb. 14, 2005.
153. Site visits to Zankli Hospital, Asokoro General Hospital, and Gwagwalada Specialist Hospital, Abuja, Feb./March 2005.
154. Part 2: Annexes Review, Report to the NTBLCP on an evaluation of the German Bank for reconstruction and development and the GLRA support project, June 2004, pp. 16–18.
155. The study was conducted in collaboration with Living Hope Care Ilesha (LIHOC) and the Network on Ethics, Law and HIV/AIDS (NELA). Presentation by John Osho, medical adviser, Damien Foundation, at the TB/HIV Panel Discussion, 14th International Conference on AIDS and STIs in Africa (ICASA), Abuja, December 2005.
156. FMOH/NASCAP: National HIV Seroprevalence Survey Reports—2003 “Graph Depicting Trend of HIV Among PTB [pulmonary TB], ANC [antenatal clinic] and STD [sexually transmitted disease] Attendees 1991–2000.”
157. FMOH/NASCAP, National HIV Seroprevalence Survey Reports -2003 “Graph Depicting Trend of HIV Among PTB, ANC and STD Attendees 1991–2000.”
158. WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing* (Geneva: WHO, 2003).
159. Interview with Nwakonobi, Imo STBLCO, Owerri Municipal Council, Owerri, Imo State, April 13, 2005.
160. Admission and Discharge Register-Chest Unit (TB Ward), Federal Medical Centre, Owerri, Imo State.
161. Interview with Niyi Ogundiran, professional officer for HIV/AIDS, WHO, Abuja, Feb. 14, 2005.
162. Interview with Niyi Ogundiran, professional officer for HIV/AIDS, WHO, Abuja, Feb. 14, 2005.
163. Interview with Niyi Ogundiran, professional officer for HIV/AIDS, WHO, Abuja, Feb. 14, 2005.
164. NTBLCP, *2006-2010 Strategic Plan*, p. 26.
165. E.B. Basse et al, *Public Health*, 2005, 119: 405–408 and F.N. Nwachokor and J.O. Thomas, “Tuberculosis in Ibadan, Nigeria—a 30 year review,” *The Central African Journal of Medicine*, 2000, 46 (11): 287–292.
166. Interview with chief matron (preferred anonymity), Chest Clinic of the General Hospital, Broad Street, Lagos, Feb. 10, 2005.
167. Interview with chief matron (preferred anonymity), Chest Clinic of the General Hospital, Broad Street, Lagos, Feb. 10, 2005, and Danjuma Adamu, coordinator, Council of Positive People (COPOP), Kano, Feb. 9, 2005.
168. NTBLCP, Comprehensive List of Health Facilities Providing DOTS Nationwide by LGAs, January 2005.
169. Comment by Folashade Momoh, FCT TB programme manager, TB Reporting Media Workshop organized by JAAIDS with support from STOP TB Partnership, Abuja, Dec. 9, 2005.
170. Interview with C.O. Nwakonobi, Imo STBLCO, Imo State, April 11, 2005.
171. V. Ahiuma-Young, “Tuberculosis Outbreak Hits Lagos Prisons—56 in Intensive Care,” *Vanguard*, Jan. 27, 2003 and Umeha Chioma, “Shocking Report: Prison, Breeding Ground for HIV/AIDS,” *Daily Champion*, Aug. 1, 2004.
172. Interview with C.O. Nwakonobi, Imo STBLCO, Imo State, April 11, 2005 and NTBLCP, *Comprehensive List of Health Facilities Providing DOTS Nationwide by LGA*, Jan. 2005.
173. Interview with prison official at TB/HIV Consensus Building meeting, Abuja, March 15, 2005.
174. Constitution of the Federal Republic of Nigeria, 1999. Available at <http://nigeriaworld.com/focus/constitution/chapter1.html> (accessed Aug. 24, 2006).
175. Regional Office for Africa, WHO, *Country Cooperation Strategy: Federal Republic of Nigeria (2002–2007)*, available at [www.who.int/countries/en/cooperation\\_strategy\\_nga\\_en.pdf](http://www.who.int/countries/en/cooperation_strategy_nga_en.pdf) (accessed May 23, 2006).

176. NTBLCP, *Workers' Manual Fourth Edition*, Feb. 2004, and interview with Mohammed Mahmoud, Kano STBLCO, Kano, Feb. 10, 2005.
177. NTBLCP, *Workers' Manual Fourth Edition*, Feb. 2004.
178. Interview with Festus Soyinka, Ogun STBLCO, Abeokuta, Ogun State, Feb. 16, 2005 and interview with John Osho, medical adviser, Damien Foundation, Oyo State, Feb. 8, 2005.
179. Interview with Festus Soyinka, Ogun STBLCO, Abeokuta, Ogun State, Feb. 16, 2005.
180. Interview with Olatunji Osho, principal medical lab scientist, Ogun State University Teaching Hospital (OSUTH), Ogun, Feb. 15, 2005.
181. See Stillwell et al., "Managing brain drain and brain waste of health workers in Nigeria," *Bulletin of the World Health Organization*, 2004, available at [www.who.int/bulletin/bulletin\\_board/82/stilwell1/en/](http://www.who.int/bulletin/bulletin_board/82/stilwell1/en/) (accessed May 4, 2006) and Federation for American Immigration Reform, "Brain Drain: Federation for American Immigration Reform," available at [www.fairus.org/site/PageServer?pagename=iic\\_immigrationissuecenterse514](http://www.fairus.org/site/PageServer?pagename=iic_immigrationissuecenterse514) (accessed May 6, 2006).
182. Interview with Gani Alabi, national TB professional officer for the south west zone, WHO, Lagos State, Feb. 8, 2005.
183. Interview with Olusegun Obasanya, former principal of the National TB and Leprosy Training School in Zaria, Abuja, March 16 2005 and NTBLCP, 2006–2010 *Strategic Plan—Major achievements*, p. 23.
184. Interview with C.O Nwakonobi, Imo STBLCO, Imo State, April 11, 2005 and Interview with Gani Alabi, Lagos State, Feb. 8, 2005.
185. Interview with Mohammed Mahmoud, Kano STBLCO, Kano, Feb. 10, 2005.
186. Interview with C.O Nwakonobi, Imo STBLCO, Imo State, April 11, 2005.
187. Interview with lab scientist (requested anonymity), Ogun State, Feb. 15, 2005.
188. WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing* (Geneva: WHO, 2006), p. 109.
189. WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing* (Geneva: WHO, 2006), p. 109.
190. Interview with Amos Omoniyi, TB/HIV focal point, NTBLCP, March 30 2006.
191. Report on an evaluation of the German Bank for Reconstruction and Development and the GLRA Support project to the NTBLCP June 2004, pp. 26–28.
192. Interview with John Osho, medical adviser, Damien Foundation, Oyo State, Feb. 8, 2005.
193. Interview with Oyewole Lawal, Oyo STBLCO, Ibadan, Oyo State, Feb. 9, 2005.
194. Comment by donor from International Federation of Anti-Leprosy Associations (ILEP), JAAIDS/Public Health Watch roundtable meeting, Abuja, Jan. 25, 2006.
195. Interview with John Osho, medical adviser, Damien Foundation, Oyo State, Feb. 8, 2005.
196. Interview with health care provider, Ogun State, Feb. 16, 2005.
197. Comments by Nigerian experts, JAAIDS/Public Health Watch roundtable meeting, Abuja, Jan. 25, 2006.
198. Interview with John Osho, medical adviser, Damien Foundation, Oyo State, Feb. 8, 2005.
199. Interview with John Osho, medical adviser Damien Foundation, Oyo State, Feb. 8, 2005 and O. Chukwuekezie, medical officer, NTBLCP, presentation to the Joint TB Monitoring Mission, March 8, 2005, *2004 National TB Programme Update; Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*,
200. FMOH/NTBLCP, 2006–2010 *Strategic Plan for TB control* p. 24.
201. WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing* (Geneva: WHO, 2006), p. 108.
202. WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing* (Geneva: WHO, 2006), p. 108
203. FMOH/NTBLCP, 2006–2010 *Strategic Plan for TB control*, p. 25.
204. Executive director, the National Primary Health Care Development Agency (NPHCDA) in editorial, *The Guardian*, May 30, 2005.

205. FMOH/World Bank, *Nigeria: Health, Nutrition and Population Country Status Report*, pp. 30–38.
206. Interview with C.O. Nwakonobi, STBLCO, Owerri, Imo State, April 11 2005.
207. WHO, *Global Tuberculosis Control Surveillance, Planning, Financing* (Geneva: WHO, 2006), p. 108.
208. By the end of 2005, microscopy centers existed in 592 out of the 774 LGAs. O. Chukwuekezie, MD, medical officer, NTBLCP, *2005 National TB Programme Progress Update; Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*, p. 20.
209. *Report of the 2005 Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*. The PEPFAR-supported Action/HIV project planned to provide laboratory support for the TB services in six states that have been designated for the TB/HIV pilot project.
210. Primary health care facilities of Saango, Agege and General Hospital in Isolo and Lagos, March 4, 2005; site visits to the Iwo Road Clinic in Oyo State, the Asokoro General Hospital (a public facility) in Abuja, the Gwagwalada Specialist Hospital in Abuja, and clinics in Imo State; and interview with Mahmoud Mohammed, Kano STBLCO director, Kano, Feb. 10, 2005.
211. WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing* (Geneva: WHO, 2004), p. 94.
212. This finding was confirmed in an interview with Isiramen Olajide, a microbiologist at the Zankli Medical Center, in Abuja on Jan. 26, 2006. In fact, Olajide said the Zankli Medical Center is the only facility in the country that is equipped to conduct TB cultures.
213. This finding was confirmed in an interview with J. O. Lawson, consultant pediatrician, Zankli Medical Center, Abuja, Jan. 26, 2006.
214. *Report of the 2003 Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*, p. 8.
215. Samson Kefas, national professional officer for TB, WHO, and M. Kabir, national coordinator, NTBLCP, “The Nigerian DOTS Expansion Experience and the Challenges of meeting the Global targets for TB Control,” Poster Presentation at the 36th Union World Conference, Oct. 18–22, 2005.
216. Samson Kefas, national professional officer for TB, WHO and M. Kabir, national coordinator, NTBLCP, “The Nigerian DOTS Expansion Experience and the Challenges of meeting the Global targets for TB Control,” Poster Presentation at the 36th Union World Conference, Oct. 18–22, 2005; and, NTBLCP, *2005 National Tuberculosis Programme Update*, p. 20.
217. NTBLCP, *2004 National TB Programme Update; Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*,
218. NTBLCP, *2004 National TB Programme Update; Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*,
219. Comments by Daniel Kibuga, WHO-Afro, member, Joint International DOTS and TB/HIV Monitoring Mission, during site visits to DOTS facilities in Abuja, March 2005.
220. *Report of the 2004 Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*.
221. Presentation by Ayodele Awe, national professional officer for TB, WHO, media roundtable meeting organized by Internews, Abuja, March 21, 2005.
222. Interviews with Olatunji Osho, principal medical laboratory scientist, Ogun State University Teaching Hospital (OSUTH), Ogun, Feb. 15, 2005; Mahmoud Mohammed, Kano STBLCO, Kano, Feb. 10, 2005; Festus Soyinka, Ogun STBLCO, Abeokuta, Ogun State, Feb. 16, 2005; Oyewole Lawal, Oyo STBLCO, Ibadan, Oyo State, Feb. 9, 2005
223. *Report of the 2004 Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*, p. 2
224. L. Lawson, et al., “Comparison of scanty AFB smears against culture in an area with high HIV prevalence,” *International Journal of Tuberculosis and Lung Disease*, 2005 9(7): 933–935.
225. Interview with Isiramen Olajide, microbiologist, Zankli Medical Center, Abuja, Jan. 26, 2006.
226. *Report of the 2004 Joint International DOTS and TB/HIV Monitoring Mission to Nigeria* p. 21.
227. *Report of the 2004 Joint International DOTS and TB/HIV Monitoring Mission to Nigeria* p. 21. This point was also corroborated by those who attended the JAAIDS/Public Health Watch advisory group meeting in January 2005.

228. Interview with Getrude Ekeogu, Imo STBLCO, Owerri Municipal Council, Owerri, Imo State, April 13, 2005.
229. Interview with Nwokeji, medical officer in charge, TB Ward, Federal Medical Centre, Owerri, Imo State, April 20, 2005.
230. Comment by Olumide Odusanya, consultant, Department of Community Health and Primary Care, Lagos State University College of Medicine, Public Health Watch Advisory Group meeting, Lagos, Jan. 26 2005.
231. NTBLCP: *Report of the 2004 Joint International DOTS and TB/HIV Monitoring Mission to Nigeria*
- 232.. Interview with Daniel Olusoji, community physician, Ogun State University Teaching Hospital (OSUTH), Ogun State, Feb. 16, 2005
233. Comments by private providers at JAAIDS/Public Health Watch roundtable meeting, Abuja, Jan. 25, 2006.
234. Interview with Suraju Abdulkareem, Gombe STBLCO, Abuja, March 30, 2006.
235. *Report of the 2004 Joint International DOTS and TB/HIV Monitoring Mission to Nigeria* p. 21.
236. Interview with Professor Femi Soyinka, coordinator, Network on Ethics, Law and HIV/AIDS, Ibadan. Feb. 8, 2005.
237. Interview with Pat Matemilola, CCM member who represents the Network of People Living with HIV, Abuja, Feb 7, 2005.
238. Comments by Nigerian experts, JAAIDS/Public Health Watch roundtable meeting, Jan. 25, 2006.
239. Interview with Ummah Support Group Staff, Abuja, Jan. 24, 2006.
240. Interview with Ibiyemi Fakande, coordinator, Living Hope Care, Ilesa, May 1, 2006.
241. PowerPoint Presentation, "Strategies for Collaborative TB/HIV activities among civil societies in Africa," at the African Union Pre-Summit Consultation on TB/HIV in Africa convened by JAAIDS, Abuja, May 1, 2006.







**WE RECOGNIZE THAT: THE GLOBAL tuberculosis emergency . . . cannot be defeated by the health sector acting alone; CONFRONTING tuberculosis requires collaboration across government sectors & action across society.**

**—Amsterdam Declaration to Stop TB**

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Public Health Watch promotes informed civil society engagement in policymaking on tuberculosis and HIV/AIDS. The project's monitoring reports offer a civil society perspective on the extent to which government policies comply with international commitments such as the Amsterdam Declaration to Stop TB and the Declaration of Commitment on HIV/AIDS—and on the extent to which those policies have been implemented.

TB monitoring reports include assessments of policies in Bangladesh, Brazil, Nigeria, Tanzania, and Thailand.



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