

VCT EVENTS: COUNTRY CASE STUDIES

MALAWI, ETHIOPIA, & BRAZIL
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ABBREVIATIONS

| | |
|---------------|---|
| AIDS | Acquired Immune Deficiency Syndrome |
| ART | Antiretroviral Therapy |
| CDC | Centers for Disease Control and Prevention |
| CMSA | Municipal Coordination for Sexually Transmitted Diseases/AIDS, Brazil |
| CT | Counseling and Testing |
| CTA | Curitiba Testing and Counseling Center, Brazil |
| DBS | Dried Blood Spot |
| DTF | District Task Force |
| FHAPCO | Federal HIV/AIDS Prevention and Control Office, Ethiopia |
| HSA | Health Surveillance Assistant |
| HSC | Health Secretariat of Curitiba, Brazil |
| HIV | Human Immunodeficiency Virus |
| IPC | Interpersonal Communication |
| MAC-E | Millennium AIDS Campaign for Ethiopia |
| MOH | Ministry of Health |
| NAC | National AIDS Commission |
| NAP | National AIDS Program |
| NGO | Non-governmental Organization |
| NTF | National Task Force |
| OGAC | Office of the U.S. Global AIDS Coordinator (PEPFAR Headquarters) |
| PEPFAR | U.S. President's Emergency Plan for AIDS Relief |
| PLHIV | People Living with HIV |
| PSP | Private Sector Program |
| RHB | Regional Health Bureau, Ethiopia |
| STD | Sexually Transmitted Disease |
| STI | Sexually Transmitted Infection |
| UN | United Nations |
| UNAIDS | Joint United Nations Programme on HIV/AIDS |
| USAID | United States Agency for International Development |
| USG | United States Government |
| VCT | Voluntary Counseling and Testing |
| WHO | World Health Organization |

EXECUTIVE SUMMARY

In December 2006, the United Nations General Assembly proposed the hosting of International Voluntary Counseling and Testing (VCT) Days as an effective way of increasing access to, and awareness of, VCT services. The main premise of this proposal was to “scale up nationally driven, sustainable, and comprehensive responses to achieving broad multi-sectoral coverage for prevention, treatment, care and support.”

This document profiles the experiences of three countries – Malawi, Ethiopia, and Brazil – in planning, implementing, and evaluating their VCT events. Taken together, the experiences of Malawi, Ethiopia, and Brazil highlight some of the key issues common to VCT event planning, implementation, and evaluation, including: 1) obtaining support from high-profile leaders; 2) involving key stakeholders in the planning and implementation of the VCT event; and 3) addressing the challenges in supply chain management, human resource capacity, and quality assurance of the VCT process.

While Malawi, Ethiopia, and Brazil successfully generated high demand for testing by organizing mass media and community outreach campaigns that involved a variety of stakeholders, each country also faced challenges in planning, implementing, and evaluating their VCT events. First, the demand for services was sometimes underestimated, which required key VCT event planners to scramble to find and redistribute test kits and supplies during the busy testing sessions. Second, individuals at higher risk of HIV exposure and those who were most in need of care and treatment services were not necessarily accessing VCT services during the events. Third, while media outlets were frequently used to promote VCT events, sometimes there were not enough posters and directional signs to promote and guide individuals to VCT testing sites. Fourth, in some areas, there was weak coordination between VCT event planners at the national and local levels. Finally, because a high volume of people accessed VCT during the events, it became difficult to maintain quality assurance measures developed for routine operations. For instance, many counselors provided VCT services to significantly more clients per day than permitted by normal quality assurance standards and worked longer hours than had been anticipated.

Based on the lessons these three countries learned, the authors recommend that countries that are already conducting, or are in the process of planning for, VCT events consider the following:

- Countries just beginning to plan their VCT event can learn from the experiences of countries, like Malawi, Ethiopia, and Brazil, which have already implemented these high-profile events. Some of the key elements to implementing successful VCT events include: 1) generating high levels of national and regional leadership, and commitment; 2) using communications strategies to generate demand for testing; 3) developing a supply chain management plan; and 4) introducing quality assurance mechanisms.
- In order to meet the demand and adequately distribute commodities during a VCT event, countries should make sure they are properly equipped by taking the following steps: 1) selecting an appropriate testing algorithm and then quantifying all commodities – including test kits, consumables such as gloves, waste disposal containers, condoms, and informational materials like posters and directional signs – needed for a VCT event based on historical estimates and reliable forecasting formulas; 2) forecasting commodities to include a cushion above initial estimates and taking into consideration increased demand for VCT after the official event has ended; 3) designing logistical plans that include systems to reallocate/redistribute test

kits and other supplies based on demand, perhaps after the first or second day of the event; and 4) developing a transport management plan that enables the VCT staff to provide outreach services and allows task force members to re-supply commodities as needed during the event.

- VCT events often focus on the general population and include all individuals, regardless of age, gender, and occupation. Countries should determine whether they want to organize a campaign focused on the general population or a specific target group(s), for example, couples, sexually active young people, pregnant women, and persons who are at higher risk of HIV exposure and are the most in need of prevention interventions, and HIV care and treatment services.
- Countries should design special strategies to target these specific groups and ensure the distribution of print materials, including posters and directional signs, at VCT sites and surrounding areas.
- In order to ensure successful coordination between the various stakeholders organizing the VCT event, countries should assign specific roles and responsibilities for the VCT event to appropriate groups, including subcommittees in the areas of advocacy, procurement, distribution, service provision, technical support, quality assurance, and financing.
- Countries should disseminate VCT operational guidelines to all VCT event sites, including health facilities, traditional and stand-alone VCT sites, mobile services, and home-based testing sites, prior to the event in order to remind or update all providers on proper protocols and procedures for VCT provision.
- Countries should plan VCT events in the context of available care, treatment, support, and other prevention services for HIV, and whenever possible should include efforts to reduce stigma and discrimination against learning one's status and people living with HIV. Careful planning for making and tracking referrals is needed.

Finally, this series of three case studies have also informed the development of a VCT Event Toolkit, which includes a step-by-step approach to planning, implementing, and evaluating VCT events. Together, these two documents will assist countries in carrying out VCT events that are well planned and contribute to meeting national HIV prevention, treatment, and care targets.

I. INTRODUCTION

In December 2006, the United Nations (UN) General Assembly proposed the hosting of International Voluntary Counseling and Testing (VCT) Days as an effective way of increasing access to, and awareness of, VCT services. The main premise of this proposal was to “scale up nationally driven, sustainable, and comprehensive responses to achieving broad multi-sectoral coverage for prevention, treatment, care and support” (UN General Assembly, 2006).

In response to the UN proposition, several countries are already conducting, or are in the process of planning for, high profile national VCT events, which may last a day, a week, or longer. Because many of these countries are implementing VCT events for the first time, the President’s Emergency Plan for AIDS Relief (PEPFAR) in collaboration with the World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) is developing tools which policymakers can draw upon to design and implement successful VCT events.

As a way of putting into practice the UN General Assembly’s proposal, three countries, Malawi, Ethiopia, and Brazil, are highlighted in the case studies covered in this document because of their unique approaches to implementing VCT events. In particular,

- Malawi held its second annual national VCT event, HIV Testing and Counseling Week, in 2007, for which it fully mobilized the public sector and engaged stakeholders from the national to the grassroots level;
- Ethiopia is currently implementing its second nationwide VCT event, the Millennium AIDS Campaign, for which it has developed innovative partnerships with the private sector to serve as an additional entry point for accessing VCT and related support services;
- Brazil successfully implemented its second citywide VCT event in 2006, the Campaign for Rapid Testing, in Curitiba, which is the largest city in the Southern Region of Brazil.

This series of three case studies outlines the collective experiences of Malawi, Ethiopia, and Brazil in planning, implementing, and evaluating their VCT events and the lessons these countries learned throughout this process. This report may be useful for policymakers; program planners; donor representatives; technical working groups; non-governmental, faith-based, and community organizations; and others who may be responsible for planning VCT events in their own countries.

II. MALAWI'S IMPLEMENTATION OF ITS VCT EVENT

2.1 COUNTRY BACKGROUND

Malawi has a population of approximately 12.8 million, 83 percent of whom live in rural areas (WHO, 2006). Nearly 14 percent of the adult population in Malawi is living with HIV (940,000 individuals). The high rate of HIV infection has remained fairly constant during the past decade, resulting in an estimated 85,000 AIDS-related deaths per year (Government of Malawi, 2006).



Banner from Malawi's VCT event.

Although 50 percent of the general population in Malawi is sexually active, only about 15 percent of these individuals have received an HIV test (Government of Malawi, 2006). In light of these figures, the Ministry of Health (MOH), in collaboration with the National AIDS Commission (NAC), District Assemblies, development partners, non-governmental organizations (NGOs), and the private sector, organized national VCT events in both 2006 and 2007.

During the VCT event in 2006, the Government of Malawi hoped to test 50,000 individuals. By the end of the week, the country exceeded its target almost twofold, testing 96,849 people throughout the country (Government of Malawi, 2006).

This case study focuses on the planning and implementation of Malawi's 2007 VCT event.

2.2 PLANNING, IMPLEMENTING, AND EVALUATING MALAWI'S VCT EVENT

2.2.1 PLANNING

National and District Task Forces

A National Task Force (NTF), led by the MOH HIV/AIDS Unit and NAC and composed of key VCT stakeholders, was formed six months before the launch of the VCT event to plan and coordinate the event at the national level. NTF members were divided into four planning subcommittees: publicity and communications, resource mobilization, service provision, and district mobilization. The key decisions that the NTF made during the planning of the VCT event included:

- Creating mobilization campaigns that target individuals living in rural areas and encourage access to VCT services;
- Streamlining quality assurance procedures in light of the high volume of tests anticipated during the event;

- Using the standard counseling and testing (CT) register developed by the MOH as the only tool for recording VCT event service data; and
- Encouraging group pre-test education.

Most NTF members were assigned a district to oversee during the event. Similar to the national level, each district had a district task force (DTF), led by the district health office and district HIV/AIDS coordinator that were responsible for planning the VCT event at the local level. DTF members were divided into the same four subcommittees as the NTF, with responsibilities that included:

- Putting together a local budget for the event;
- Creating a plan to deploy counselors to testing sites; and
- Identifying stakeholders to participate in the VCT event.

Target Setting and Commodities Planning

The NTF determined the target number of people to test during the VCT event by multiplying the number of certified counselors listed in the MOH database in Malawi (1,670) by 13 (the maximum number of clients that counselors are permitted, for quality control purposes, to test each day) and then by 6 (the number of days in the event). This calculation yielded a total of 130,260 clients to test. Recognizing that some counselors might not be available to participate in the event, the target number of clients to test during the VCT event was rounded down to 130,000. Test kits and commodities were procured based on this testing target.

Launching the VCT Event

The Honorable Marjorie Ngaunje, Minister of Health, officially launched the VCT event at a ceremony held in the rural community of Balaka in the Balaka district on July 16, 2007. Representatives from the Government of Malawi, the MOH, NAC, PEPFAR-supported implementing partners, NGOs, and community-based organizations, as well as individuals participated in the launch. Activities included speeches by stakeholders, performances by local dancers, and drama and poetry that included key HIV education messages to reduce the stigma and discrimination associated with getting tested and testing positive for HIV. To demonstrate her commitment to the VCT Event, Minister Ngaunje was tested publicly at one of the outreach sites at this launch.



Local dancer performs at the national launch of Malawi's VCT event.

Publicity and Communications

Two approaches – mass media and interpersonal communication (IPC) – were used to promote the VCT event in Malawi. Intensive publicity and communications campaigns began one week before the

event, starting with a press briefing involving planners, implementers, and NTF members at the MOH headquarters. The campaign mobilized demand for VCT services by engaging stakeholders, traditional authorities, and health surveillance assistants (HSAs) to do outreach in their communities. Event implementers also used television and print media, drama, radio broadcasts, flyers, banners, and other forms of communication to encourage people to get tested during the VCT event.

Additionally, the DTFs designed and produced their own local radio announcements, which not only promoted VCT services but also told listeners the locations of event outreach sites. The success of this approach is demonstrated by the fact that VCT event clients overwhelmingly reported that they learned about services through radio announcements.

2.2.2 IMPLEMENTING

VCT Service Provision Strategy

VCT services were provided in 367 fixed sites and approximately 1,000 temporary (mobile or outreach) sites throughout the country. Fixed or static sites included health centers, hospitals, and stand-alone centers where VCT services are permanently offered; outreach and mobile sites included rural health posts, schools, churches, and workplaces. A total of 2,177 counselors provided VCT services during the one-week event.



Young people line up to access VCT services at an outreach test site in Malawi.

Many trained VCT counselors were temporarily relocated from fixed sites to outreach sites during the event to ensure that each testing site had at least two counselors providing services during the event. If there were not enough working counselors in the district, retired counselors were recruited to provide VCT. To meet high demand for testing, counselors conducted group pre-test counseling, which allowed groups of individuals of the same gender and age composition to simultaneously receive basic HIV and risk-reduction information. Pre-test counseling was followed by one-on-one testing, using the parallel testing algorithm, and post-test counseling.

Procurement of Test Kits and Other Commodities

The NAC procured test kits for the VCT event with resources from the Global Fund to Fight AIDS, Tuberculosis and Malaria. The procurement of test kits was based on Malawi's requirements for parallel testing, which uses equal quantities of two types of screening tests, Determine and Unigold, and only 10 percent of the screening test quantity for Bioline, the tie-breaker test. Two months before the event, the test kit supply pipeline was filled with 600,000 screening tests (300,000 of each type of screening test) and 30,000 tie-breaker tests. These materials were delivered to all static sites two weeks before the launch of the VCT event; these sites were responsible for delivering test kits and commodities to mobile sites during the event. Although test kits were delivered to testing sites prior to the launch, condoms and gloves were sometimes distributed during the course of the VCT event. If sites ran low on test kits or other commodities, the district VCT event coordinator worked with his/her designated supervisor to re-supply the site in need, either with additional supplies or by redistributing supplies from facilities with less demand.

2.2.3 EVALUATING

Quality Assurance of VCT

Members of the NTF were assigned specific districts to supervise during the VCT event. NTF members worked closely with DTF members in their designated districts to observe and support a cohort of testing sites within a specific geographic zone. These supervisory teams were responsible for ensuring that:

- Counselors used the standard data collection tool developed by the MOH to record the number of people tested at the site and additional client data, including demographic information, test results, and referral status;
- All testing sites had necessary supplies and, if needed, locating additional supplies and arranging for transport to deliver them to sites in need; and
- Counselors followed proper VCT protocols and did not experience any difficulties during the event (e.g., the per diem for lodging and food was available if counselors were posted to an outreach testing site).

Only counselors trained in rapid testing provided VCT services during the event. Additionally, testing protocols were distributed to all sites for counselors to refer to as needed. Counselors were required to conduct a quality control test of one known positive and one known negative blood serum sample every day before sites opened for testing. The counselors conducted this quality control test to make sure tests were being administered correctly and working properly under site conditions (e.g., weather, proper storage of tests). Counselors were trained to record the results of the quality control test in the



A counselor enters data gathered at a test site.

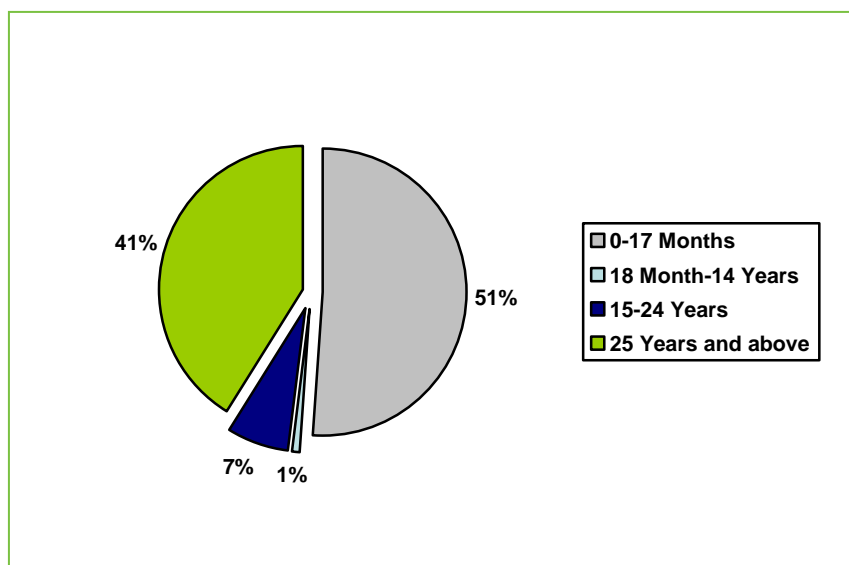
standard CT register, which was reviewed by the district supervisor during the site visit. Malawi's normal procedures for quality assurance of testing includes the re-testing of a sub-sample of blood specimens collected using dried blood spots (DBS) in a central laboratory. The re-testing process has found a very high rate of concordance between rapid test results in the field and in the lab. In anticipation of the large numbers of people accessing services during the event, the collection of DBS and the re-testing of samples were not included in the quality assurance measures; these were the only national quality assurance measure excluded during the VCT event.

2.3 ACHIEVEMENTS OF THE VCT EVENT

A total of 186,631 people were tested during Malawi's VCT event in 2007, which is more than 56,000 people above their initial target of 130,000. Fifty-three percent (99,198) of the individuals tested were female and 47 percent (87,433) were male. Approximately 6.1 percent of males, 9.7 percent of non-pregnant females, and 11.3 percent of pregnant females who accessed VCT tested positive for HIV. In total, 8.4 percent of all individuals accessing services during the event tested positive for HIV.

Figure 1 shows that half (51 percent) of the individuals who accessed services during the VCT event were over 25 years of age. Individuals between 15 and 24 years of age represented 41 percent of the people who accessed services during the event. Only one percent of individuals who were tested for HIV during the campaign were between 0 and 17 months old. These infants were tested for HIV exposure, and if exposed, were referred to a hospital for further testing and assessment.

FIGURE 1. PERCENTAGE OF INDIVIDUALS ACCESSING VCT SERVICES DURING MALAWI'S VCT EVENT, BY AGE GROUP (N=186,631)



Source: MOH Malawi, 2007

As indicated in Table 1, more than 75 percent of the people who accessed VCT services during the VCT event were learning their HIV status for the first time. The Southern region had both the highest new testing rate of 78.7 percent as well as the highest HIV positive rate of 11.3 percent.

TABLE 1. NEW TESTING RATE AMONG CLIENTS ACCESSING SERVICES DURING THE VCT EVENT IN 2007

| | New Testers | New Testing Rate (%) | Total Tested | HIV Positive Rate Among Total Tested (%) |
|---------|-------------|----------------------|--------------|--|
| North | 25,115 | 70.4 | 35,658 | 5.8 |
| Central | 45,990 | 73.1 | 62,910 | 5.8 |
| South | 69,290 | 78.7 | 88,063 | 11.3 |
| Malawi | 140,395 | 75.2 | 186,631 | 8.4 |

Source: MOH Malawi, 2007

As the statistics above indicate, Malawi was able to exceed its target of 130,000 people and test nearly 190,000 individuals in one week. Factors that contributed to the success of Malawi's campaign include:

- Strong Communications Strategy

Malawi's intensive use of mass media and IPC, particularly radio broadcasts, to promote the VCT event one week prior to its launch was effective in motivating individuals living in both urban and rural areas to

access VCT services. Malawi also mobilized demand for VCT services by engaging stakeholders, traditional authorities, and HSAs to do outreach and mobilization in communities.

● Leadership and Commitment

The Minister of Health exemplified the importance of knowing one's HIV status by getting tested at the launch of the event. The Minister's strong commitment to VCT, combined with the dedication and enthusiasm of the NTF, DTFs, NGOs, churches, schools, counselors, clinicians, and village chiefs made Malawi's VCT event a model of success.

● Established Implementation Structure

The NTF began planning the VCT event in January 2007, six months prior to its launch. The planning process involved monthly and/or weekly NTF and DTF meetings; the mobilization of counselors, financial resources, and supplies; the development of a strong communications and publicity campaign; and a well organized strategy to deploy counselors and commodities at sites throughout the week. Many of the tools that Malawi used during the planning and implementation of the VCT event were adapted for use in the VCT Event Toolkit.

Section V discusses challenges that Malawi faces to make future VCT events even more successful and recommends ways to meet those challenges.

III. ETHIOPIA'S IMPLEMENTATION OF PHASE I OF ITS MILLENNIUM AIDS CAMPAIGN

3.1 COUNTRY BACKGROUND

In 2007, close to 1 million Ethiopians were estimated to be living with HIV. About 2.1 percent of the adult population is living with HIV and approximately 72,000 people die annually from AIDS-related illnesses (Federal HIV/AIDS Prevention and Control Office [FHAPCO], 2007a).

Ethiopia has faced difficulties in scaling up HIV prevention, care, support, and treatment services because of a variety of factors, including inadequate human resources, limited program and coordination capacity, poor communication, and fragmented implementation of its national HIV strategy (FHAPCO, 2007b; Pathfinder International, 2006). As a result, in 2007, approximately 82,000 of the 260,000 HIV positive Ethiopians who needed treatment received antiretroviral therapy (ART) (FHAPCO, 2007a).

In an effort to scale up access to VCT and ART services, Ethiopia launched Phase I of its three-phase VCT campaign, the Millennium AIDS Campaign for Ethiopia (MAC-E), on November 25, 2006.¹ This campaign was launched within the context of its *Roadmap for Universal Access by 2010*, which calls for Ethiopia to increase access to HIV-related services with speed, volume, and quality (FHAPCO, 2007b). Phase I of the campaign ran from November 2006 to January 2007 and focused on meeting the following objectives: promoting increased ART uptake through intensified social mobilization efforts, increasing capacity of CT at entry points, and ensuring the availability and adequate capacity of ART (FHAPCO, 2007c). Phase II of the campaign ran from February 2007 to August 2007 and Phase III will continue until September 2008.

This case study focuses on the planning and implementation of Phase I of the MAC-E.

3.2 PLANNING, IMPLEMENTING, AND EVALUATING PHASE I OF THE MAC-E

3.2.1 PLANNING

National Task Force

A NTF led by the Federal MOH and made up of 12 other members from regional/referral hospitals, NGOs, and other stakeholder groups, was established to oversee the overall coordination of the MAC-E at the national level. Some of the key responsibilities of the NTF included:

- Developing a sub-committee within the NTF for daily monitoring and support of the MAC-E campaign; and

¹ Because Ethiopia uses the Julian calendar, which is 7 years and 8 months behind the Georgian calendar, the celebration of the new millennium and the launch of the MAC-E occurred in 2007, not in 2000.

- Planning and defining the targets to be met during the campaign at both the national and regional levels, and then disaggregating this information by zone, ward, district, and catchment area, and at the community level.

The primary responsibility of the MAC-E chairperson was to establish a link between the NTF and the national HIV training and technical support network (MOH Ethiopia, 2005). The NTF also had a MAC-E chairperson from the regional health bureau (RHB) who was responsible for guiding the MAC-E campaign at the regional level.

Target Setting, Commodities Planning and Procurement

To determine how many test kits and supplies would be needed for the campaign, the MOH reviewed the historical trends of testing needs by region.

The MOH also worked with the UN, bilateral donors, and NGOs to procure and distribute condoms at testing sites throughout the event.



A driver passes out flyers to encourage people to access HCT services during the MAC-E.

Launching the Campaign

With strong political leadership from the Prime Minister of Ethiopia and the MOH, Ethiopia launched the MAC-E in November 2006. Because the Prime Minister deemed the campaign a national priority, the implementation of the VCT event was supported by a wide range of stakeholders, including members of the federal government, various ministries (e.g., Education, Agriculture, and Health), and PEPFAR-supported organizations.

Publicity and Communications

Mass media and IPC methods were used to promote the MAC-E shortly before the launch of Phase I. Publicity was done in Amharic and other local languages through television and radio broadcasts, dramas, flyers, bulletin boards, and during public meetings. Messages aimed to:

- Encourage people to learn their HIV status;
- Inform the public that ART services were free of charge for individuals who tested positive for HIV; and
- Describe the outcomes and benefits of ART treatment.

Ethiopia also mobilized demand for VCT services by engaging stakeholders, including PLHIV and community health workers, to do outreach at the local level. For instance, PLHIV shared the benefit of learning one's HIV status with communities and discussed the positive outcomes of ART treatment in the mass media. Additionally, the 11 RHBs in the nine states and the two administrative regions organized awareness campaigns in various local settings, including schools, market places, and farm associations. NGOs also played a role by providing technical and financial support to the publicity campaign.

3.2.2 IMPLEMENTING

VCT Service Provision Strategy

Ethiopia's MAC-E bridged the public and the private sectors to provide VCT services at 926 sites, approximately 550 of which were public health facilities. Trained counselors provided counseling services and lab technicians conducted HIV tests in static and mobile sites throughout the traditional workday and during extended hours. Health officers, nurses, laboratory technicians, lab assistants, and lay community counselors from secondary- and tertiary-level hospitals, public and private clinics, health centers, and other primary health care facilities also provided VCT services in their own facilities and in mobile sites.

3.2.3 EVALUATING

Quality Assurance of VCT

Only fully certified counselors and lab technicians provided VCT during the MAC-E campaign. To make sure counselors and lab technicians were not overworked during the event, staff was limited to providing services to a maximum of 12-15 clients per day and additional staff were deployed to facilities as needed. Moreover, all staff were expected to follow national quality assurance guidelines during the event. Testing in both the public and private sectors met national standards for the accuracy of rapid HIV testing during the event.



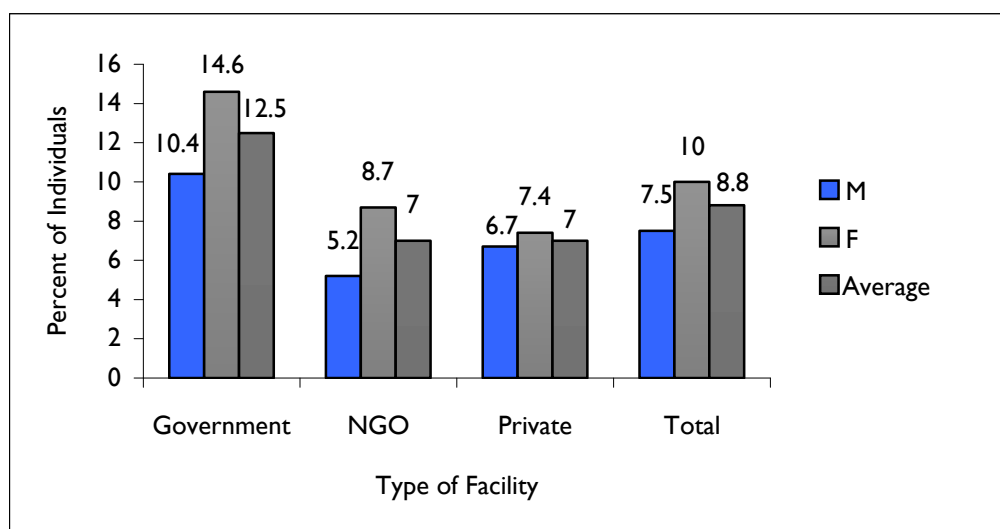
A private clinic staff member documents test results from patients tested at the clinic.

3.3 ACHIEVEMENTS OF PHASE I OF THE MAC-E

A total of 705,619 people were tested during Phase I of the MAC-E compared with the target figure of 320,000 (FHAPCO, 2007b). This means that VCT uptake exceeded both the annual uptake of the preceding year and pre-set target figures for Phase I by 220 percent. More than 5 percent (37,943) of all individuals who accessed VCT in Ethiopia during Phase I tested positive for HIV (FHAPCO, 2007b).

As highlighted in Figure 2, the proportion of females in the capital, Addis Ababa, testing positive for HIV (10 percent) exceeded the proportion of males who tested positive (7.5 percent). Additionally, a higher proportion of individuals tested positive in government facilities (12.5 percent) than in any other type of facility (7 percent in NGO and private facilities). This may be due to people's belief that government facilities provide quality services and that they are easier to access than other testing sites.

FIGURE 2. PERCENTAGE OF INDIVIDUALS IN ADDIS ABABA WHO TESTED HIV POSITIVE IN JANUARY 2007 DURING PHASE I OF THE MAC-E, BY FACILITY TYPE (N=3,196)



Source: Addis Ababa City Administration Health Bureau, 2007

Table 2 shows the number of people receiving VCT and the percentage of people who tested positive for HIV by region during Phase I of the MAC-E. Oromiya region, Ethiopia's largest state in terms of both geography and population, provided VCT services to more people (24 percent of the total tested) than any other region. The highest proportion of people who tested positive for HIV (14.3 percent) was from Gambella region, the western tip of Ethiopia, bordering Sudan.

TABLE 2. NUMBER OF PEOPLE TESTED AND PERCENTAGE OF PEOPLE WHO TESTED POSITIVE BY REGION DURING PHASE I OF THE MAC-E CAMPAIGN (705,619)

| Region | Number of People Tested | Percentage Tested Positive for HIV (%) |
|---|-------------------------|--|
| Tigray | 105,490 | 3.3 |
| Afar | 10,946 | 4.7 |
| Amhara | 123,920 | 11.4 |
| Oromiya | 171,400 | 4 |
| Somali | 11,690 | 1.6 |
| Benshangul-Gumuz | 11,190 | 3.2 |
| Southern Nations, Nationalities and Peoples | 149,423 | 1.9 |
| Gambella | 2,058 | 14.3 |
| Harari | 7,321 | 5.3 |
| Dire Dawa | 27,916 | 4.2 |
| Addis Ababa | 77,433 | 9.9 |
| Uniformed Forces (Army) | 6,832 | NA |
| Total | 705,619 | 5.4 |

Source: FHAPCO, 2007b

Ethiopia was able to surpass its target and test more than 705,000 people in only two months. Potential explanations for the success of Ethiopia's VCT event are:

■ Strong Communications Strategy

The NTF used both mass media and IPC to promote the MAC-E. This included widespread radio and TV broadcasts, advertisements on flyers, and postings of banners and signs promoting VCT services on the outside of clinics and along roads. Additionally, Ethiopia engaged stakeholders, including PLHIV and community health workers, to sensitize communities to access VCT and, if needed, ART treatment.

■ Leadership and Commitment

The campaign was named a national priority by the Prime Minister and MOH, other ministries were involved in the program, and stakeholders from the global, national, and local levels were engaged in the MAC-E. For instance, the private sector, which usually charges a fee for the provision of VCT services, offered free testing during Phase I of the campaign. Additionally, local and regional implementers had a strong sense of ownership of the MAC-E, full-time counselors were strongly committed to meeting the higher demand for testing by working overtime, and religious leaders played a role in sensitizing communities during the event (FHAPCO, 2007c).

■ Increasing Access to the General Population

Ethiopia targeted areas for testing that do not normally have access to VCT services by organizing mobile VCT units, and doing outreach and sensitizing rural communities on the benefits of VCT. Extensive and targeted social mobilization was integral to motivating people to test during the campaign (FHAPCO, 2007c).

Section V discusses challenges that Ethiopia faces to make future VCT events even more successful and recommends ways to meet those challenges.

IV. CURITIBA, BRAZIL'S IMPLEMENTATION OF A RAPID TESTING CAMPAIGN

4.1 CITY BACKGROUND

With an estimated population of 1.8 million, Curitiba, the capital of Parana state, is the largest city in the Southern Region of Brazil. Of Brazil's five regions, the Southern Region has the highest HIV prevalence rate, with an estimated 23.8 of every 100,000 people infected (MOH Brazil, 2006). In 2005, it was estimated that Parana had the twelfth highest AIDS incidence rate of all states in the country (15.3 per 100,000 people).

In 1993, the Curitiba Testing and Counseling Center (CTA) began offering VCT services. In response to increased interest among the general population to test for HIV, the Health Secretariat of Curitiba (HSC) launched the Campaign for Early HIV/AIDS Detection in 2001.



A testing session during the Campaign for Rapid Testing in Curitiba

The HSC organized a second campaign, named the Campaign for Rapid Testing, for April 4-May 5, 2006. The HSC was well qualified to conduct this campaign as a result of: 1) their experience holding a similar event in 2001; 2) the fact that Curitiba is a strategic location, since the Curitiba Municipal Laboratory was the first site to establish an algorithm for rapid tests to be used for diagnosis between 2002-2005; and 3) all 109 primary care clinics in Curitiba have extensive experience providing VCT services (Municipal Prefecture of Curitiba, 2002).

This case study reports on Curitiba's 2006 Campaign for Rapid Testing.

4.2 PLANNING, IMPLEMENTING, AND EVALUATING CURITIBA'S CAMPAIGN FOR RAPID TESTING

4.2.1 PLANNING

Coordinating the Campaign

The Municipal Coordination for Sexually Transmitted Disease (STD)/AIDS (CMSA) led the Curitiba Campaign for Rapid Testing. CMSA met with the Municipal Health Council, the Municipal Commission on STD/AIDS, and the Municipal Program on STD/AIDS one month before the launch of the campaign. The Municipal Program on STD/AIDS, which is part of the Municipal Commission on STD/AIDS, was integral to planning the campaign because it is composed of 23 NGOs, many of which serve and/or include members from populations at higher risk of HIV exposure (men who have sex with men, injecting drug users, and commercial sex workers).

CMSA decided that the three primary goals of the campaign would be:

- Encouraging all individuals over the age of 14 living in the metropolitan region of Curitiba to be tested for HIV;
- Increasing early access to HIV testing; and
- Educating the general population about the HIV epidemic.

Target Setting and Commodities Planning

The CMSA determined the number of persons to test, and therefore the number of test kits and other commodities to procure for the Campaign for Rapid Testing, by making the assumption that roughly 50 percent more people would access VCT on campaign day than accessed these services during an average month in Curitiba. This estimation yielded a total of 5,000 people to test on campaign day and 4,000 people to test during the rest of the campaign month. Based on these estimates, it was calculated that each testing site would need between five and eight testing stations on campaign day.

Launching the Campaign

With financial support from the federal and municipal governments, CMSA launched the Campaign for Rapid Testing in April 2006. The campaign had two phases: a single day in which rapid testing was available at all participating primary care clinics, and a month in which rapid testing would continue at the CTA and conventional testing would be offered at all 109 clinics. All testing, counseling, and treatment services were offered free of charge to all individuals accessing VCT during both phases of the campaign.

Publicity and Communications

Both mass media and IPC strategies were used to publicize the Campaign for Rapid Testing in Curitiba. A private marketing firm was hired to produce a video to be used in group pre-test counseling and to develop print materials and audiovisuals. Additionally, a major pop music figure recorded a video and audio spot for the campaign in an effort to reduce the stigma and discrimination associated with getting tested and testing positive for HIV. The video spot was distributed to seven television stations and aired 82 times during the week prior to campaign day. The audio spot was distributed to nine radio stations and aired a total of 937 times during the week prior to campaign day and over the first week of the campaign. Additionally, community health workers posted 2,000 posters on buses and commuter vans, as well as in local businesses, and distributed 100,000 flyers to the 109 clinics and surrounding neighborhoods 10 days prior to the launch of the event. A color ad promoting the campaign also was published in the four largest newspapers in the region one day before the event.



A poster promoting the Campaign for Rapid Testing in Curitiba

4.2.2 IMPLEMENTING

VCT Service Provision Strategy

Each of the nine medical districts that make up the Curitiba Municipality selected three clinics to provide VCT services during the campaign. Site selection was based on estimated demand for VCT and staff experience. An average of one receptionist, two pre-test counselors, five testing staff, three post-test counselors, and one general staff member were on duty at each of the participating testing sites. If there was not enough staff at a particular site, the unit chief deployed staff from sites with less testing volume to VCT sites in need. A total of 234 counselors and 196 testing staff provided VCT during the campaign using the following approach:

- Group pre-test counseling;
- Rapid testing using a parallel testing algorithm; and
- Individual post-test counseling.

For all persons who tested positive during the event, medical consultations were scheduled for a maximum of one week after receipt of test results.

Procurement of Test Kits and Other Commodities

The MOH procured 10,000 of each screening tests and 2,500 tie-breaker tests in order to test 9,000 people in one month using a parallel testing algorithm. Additionally, 20,000 male and 3,000 female condoms were procured for distribution at participating testing sites during the event.

4.2.3 EVALUATING

Quality Assurance of VCT

Unit and district chiefs in Curitiba were responsible for supervising the provision of VCT on campaign day. These officials were also responsible for visiting each testing site and completing an evaluation form to submit to CMSA about each site's performance during the event.

All counselors and testing staff participating in the Campaign for Rapid Testing were previously trained in the provision of VCT and received refresher training prior to the launch of the event. The four-hour counselor training emphasized the need to give referrals to all individuals who tested positive for HIV, schedule a follow-up test within 30 days for those with inconclusive results, and reinforce the importance of consistent condom use during sexual intercourse. The four-hour testing staff training focused on rapid testing protocol, interpreting test results, internal quality control measures, reporting procedures, and proper waste disposal.

To make sure rapid test results were accurate, one testing staff person at each site was responsible for administering a tie-breaker test for individuals with inconclusive results; this staff person also re-tested people who tested positive for HIV.

4.3 ACHIEVEMENTS OF THE CAMPAIGN FOR RAPID TESTING

During Curitiba's Campaign for Rapid Testing, a total of 12,659 people accessed VCT in one month, which was 3,659 more than the 9,000 they had hoped to reach. More specifically, 9,009 people accessed VCT during the one-day event and 3,650 people were tested during the following month. This total represents a 380 percent increase from the monthly average for testing in Curitiba over the previous three years (2003-2005) (CMSA, 2007).

Table 3 shows the number of people tested and the percentage of individuals testing positive for HIV during the campaign by gender. Approximately 1.25 percent of all individuals tested during the campaign tested positive for HIV; 1.8 percent of males tested positive and less than 1 percent of females (0.8 percent) (CMSA, 2007). It is important to note that of those individuals who tested positive during the campaign, between 35 and 40 percent of them had previously tested positive for HIV. Eighty percent of people who tested positive for HIV came to their first referral for further consultation and treatment, if needed.

TABLE 3. NUMBER OF PEOPLE TESTED IN CURITIBA DURING THE CAMPAIGN FOR RAPID TESTING IN APRIL 2006 AND PERCENTAGE OF INDIVIDUALS WHO TESTED POSITIVE BY GENDER

| Gender | Number of Individuals Tested | Percentage of Individuals Testing Positive for HIV (%) |
|--------------|------------------------------|--|
| Male | 4,051 | 1.8 |
| Female | 8,608 | 0.8 |
| Total | 12,659 | 1.25 |

Source: Municipal Coordination of STD/AIDS, Curitiba

The Campaign for Rapid Testing also led to a sustained increase in the number of people accessing VCT services after the campaign had ended. Figure 3 shows that between May 2006 and June 2007, testing rates increased an average of 12 percent in comparison to the previous three years of testing in Curitiba.

The city of Curitiba, Brazil was able to exceed its target and test more than 12,500 individuals in one month. Factors that contributed to the success of Curitiba's campaign include:

- Established Expertise

The HSC, the Municipal Laboratory, and the staff of the primary care units in Curitiba were established experts in the fields of research, training, and decentralization of VCT, referral, and treatment services. This high level of expertise was critical to gaining financial support from the federal government and successfully planning and implementing the Campaign for Rapid Testing.

- Strong Communications Strategy

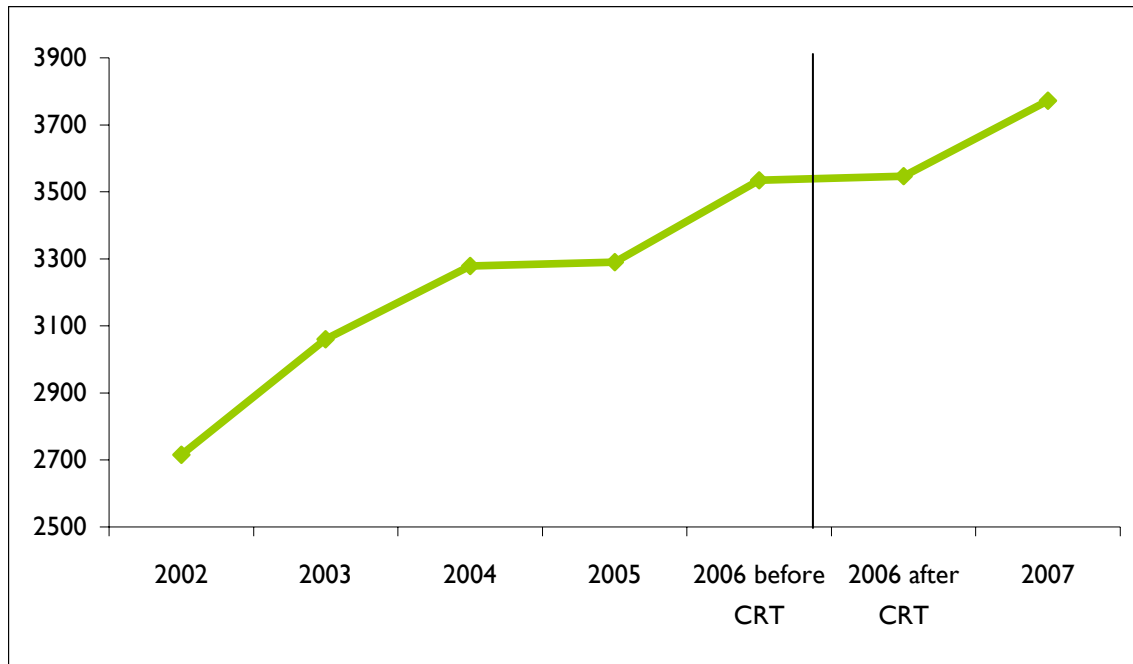
Curitiba used both mass media and IPC strategies to promote the Campaign for Rapid Testing, including



The Secretary of Health/Vice Mayor of Curitiba gets tested in a clinic on campaign day.

radio and television broadcasts, posters, and print media. A pop music figure was featured in spots that aired more than 1,000 times on television and radio, and in print materials. Four of the largest newspapers in the city printed color ads about the campaign. Community health workers hung posters and distributed flyers about the campaign at strategic locations throughout the city.

FIGURE 3: AVERAGE NUMBER OF HIV TESTS PER MONTH IN CURITIBA



Source: Municipal Coordination of STD/AIDS, Curitiba

Leadership and Commitment

The CMSA made the Campaign for Rapid Testing a priority and worked closely with the Municipal Health Council, the Municipal Commission on STD/AIDS, the Municipal Program on STD/AIDS, and local NGOs dedicated to working with people at higher risk of HIV exposure, to make the event a success. Community health workers were committed to publicizing the campaign at various locations throughout Curitiba, and unit chiefs and counseling and testing staff stayed after hours to meet the demand for testing during the high-profile event.

Section V discusses challenges that Brazil faces to make future VCT events even more successful and recommends ways to meet those challenges.

V. CHALLENGES AND RECOMMENDATIONS

5.1 CHALLENGES ENCOUNTERED DURING THE VCT EVENTS

This section provides insight into the challenges common to VCT event planning, implementation, and evaluation in Malawi, Ethiopia, and, Brazil.

Challenge 1: Forecasting and Re-supplying of Test Kits and Commodities

The number of test kits and commodities to procure and distribute for the VCT events was estimated well in advance. However, the demand for services was sometimes significantly underestimated, causing the key VCT event planners to scramble to find and redistribute test kits and supplies during the busy testing sessions. Demand for testing during and after VCT events can also cause later stock-outs for general VCT services.

Challenge 2: Ensuring Access to Populations at Risk for HIV

One of the key strengths of the VCT events was that countries generated broad interest in VCT and many people in the general population learned their HIV status. However, people at higher risk of HIV exposure and those who were most in need of care and treatment services were not necessarily accessing VCT services during the events.

Challenge 3: Increasing Publicity

While media outlets were frequently used to promote VCT events, there were not always enough posters and directional signs to promote and guide individuals to VCT event testing sites. This was a significant problem for temporary outreach sites in rural areas and large hospitals and health centers with many departments.

Challenge 4: Improving Coordination between VCT Event Planners and Implementers

In some areas, there was weak coordination between VCT event planners at the national and local levels. Additionally, there was considerable regional variation in the quality of supervision and the capacity to disburse budgets, coordinate meetings, re-distribute test kits and commodities as needed, and secure support from stakeholders in the area.

Challenge 5: Maintaining Quality Assurance Strategies for VCT

During VCT events when a high volume of people access services, it can be difficult to maintain quality assurance measures developed for routine operations. For instance, because of their commitment to the VCT events, many counselors provided VCT services to significantly more clients per day than permitted by normal quality assurance standards and worked longer hours than had been anticipated. Because they had to respond to a high client volume, counselors also conducted post-test counseling sessions that were briefer than usual practice.

Challenge 6: Accessing Post-Test Counseling and Services

Because all three countries experienced a high demand for testing during the VCT events, it became difficult to provide referrals to all individuals who were in need of care and treatment services. Additionally, even though countries planned the CT process in advance, there was not as much advanced planning dedicated to the referral process specifically.

5.2 RECOMMENDATIONS

This section provides recommendations based on the lessons learned from the implementation of VCT events in Malawi, Ethiopia, and Brazil.

Learning from Past Experiences: Countries just beginning to plan their VCT event can learn from the experiences of countries that have already implemented these high-profile events. Some of the key elements of successful VCT event implementation include:

- Generating high levels of national and regional leadership, and commitment;
- Using communications strategies to generate demand for testing;
- Developing a supply chain management plan; and
- Introducing quality assurance mechanisms.

Forecasting and Re-distributing Test Kits and Commodities: To meet the demand and adequately distribute commodities during a VCT event, countries should make sure they are properly equipped by taking the following steps:

- Selecting an appropriate testing algorithm and then quantifying all commodities – including test kits, consumables such as a gloves, waste disposal containers, condoms, and informational materials like posters and directional signs – needed for a VCT event based on historical estimates and reliable forecasting formulas;
- Forecasting commodities to include a cushion above initial estimates and taking into consideration increased demand for VCT after the official event has ended;
- Designing logistical plans that include systems to reallocate/redistribute test kits and other supplies based on demand, perhaps after the first or second day of the event; and
- Developing a transport management plan that enables the VCT staff to provide outreach services and allows task force members to re-supply commodities as needed during the event.

Establishing Campaign Targets: VCT events often target the general population, that is, all individuals regardless of age, gender, and occupation. Countries must determine whether they want to organize a campaign focused on the general population or a specific target group. This can be accomplished by:

- Creating a campaign that mirrors the goals in the country's national plans to respond to HIV and reflects the overall needs of the country; and

- Defining a specific target group(s) such as couples, sexually active young people, pregnant women, and persons who are at higher risk of HIV exposure and most in need of prevention interventions and HIV care and treatment services.

Designing a Focused Publicity and Community Mobilization Campaign: All three countries excelled at reaching the general population with mass media and community outreach campaigns that involved a variety of stakeholders to create demand for testing. These successful campaigns might have been improved by:

- Designing special strategies to target specific groups that may be harder to reach, including sexually active young people and persons who are at higher risk of HIV exposure; and
- Ensuring the distribution of print materials, including posters and directional signs, at VCT sites and surrounding areas.

Ensuring Coordination Between VCT Event Planners and Implementers: To ensure successful coordination between the various stakeholders organizing the VCT event, the following measures should be taken:

- Assigning specific roles and responsibilities for the VCT event to appropriate groups, including subcommittees in the areas of advocacy, procurement, distribution, service provision, technical support, quality assurance, and financing;
- Establishing district, state, or regional committees to plan the VCT event at the local level, and ensuring they have regular communication with national stakeholders; and
- Planning well in advance so that planners and implementers at all levels can meet on a regular basis about how to best implement the VCT event.

Ensuring Quality Assurance: The following measures should be taken to maintain quality assurance at all testing sites during the event:

- Disseminating VCT operational guidelines to all VCT event sites, including health facilities, traditional and stand alone VCT sites, mobile services, and home-based testing sites, prior to the event in order to remind or update all providers on proper protocols and procedures for VCT provision;
- Evaluating the capacity of existing quality assurance mechanisms to cope with the increased numbers of people tested during the event;
- Determining additional management, on-site supervision, technical and programmatic needs during the event; and
- Adopting modified quality assurance procedures as needed during the VCT event in response to higher demand for testing and the use of temporary outreach sites.

Linking Individuals to Care and Treatment: One of the key goals of VCT events is to improve access to care and treatment services. Countries should take the following measures in order to make progress to meeting this goal:

- Planning the referral process in advance, which may include an assessment of post-test care and support services and referral networks;
- Creating a clear referral process, which includes referral tracking forms and an HIV screening protocol that makes children and pregnant women a priority;
- Developing follow-up procedures and a post-test tracking system to monitor individuals who were provided referrals to care and treatment services during the VCT event.

ANNEX A: RATIONALE FOR CASE STUDIES SELECTION AND METHODOLOGY

RATIONALE FOR COUNTRY SELECTION OF CASE STUDIES

Malawi, Ethiopia, and Curitiba, Brazil were selected for these case studies because they met the following criteria:

- Experience with planning and implementing national or regional VCT events;
- Willingness and ability of the country to share their experiences; and
- Feasibility of getting the information and data within a specified timeframe.

METHODOLOGY

Three interrelated approaches were used to gather information on the implementation of VCT events in Malawi, Ethiopia, and Curitiba, Brazil:

- Conducting a review of published and unpublished reports on the countries' experiences with HIV, VCT service provision, and the VCT event planning process;
- Collecting quantitative data from facilities providing VCT services during the event, particularly related to the number and demographic information of people tested; and
- Gathering qualitative and field data about the VCT event planning and implementation process through interviews with key informants, including government officials, counselors, community health workers, clinicians, community members, and people accessing VCT services.

ANNEX B: BIBLIOGRAPHY

- Addis Ababa City Administration Health Bureau. 2007. Statistics from MAC-E Campaign. Addis Ababa, Ethiopia.
- Brazilian Institute of Geography and Statistics website. <http://www.ibge.gov.br/cidadesat/default.php>. Accessed 7/30/07.
- Centers for Disease Control and Prevention (CDC). 2007. The Emergency Plan in Ethiopia. Atlanta, USA: CDC. <http://www.cdc.gov/nchstp/od/gap/countries/ethiopia.htm>.
- Centers for Disease Control and Prevention (CDC). 2007. What the Results Mean. Atlanta, USA: CDC. <http://www.cdc.gov/hiv/topics/testing/resources/qa/results.htm>.
- Family Health International. 2007. Issues in HIV Diagnostics for Voluntary Counseling and Testing: A Factsheet. Research Triangle Park, North Carolina. <http://www.fhi.org/en/HIVAIDS/pub/fact/vctissues.htm>.
- Federal HIV/AIDS Prevention and Control Office (FHAPCO). 2007a. Single Point HIV Prevalence Estimate. Adama, Ethiopia. 1-45. June.
- Federal HIV/AIDS Prevention and Control Office (FHAPCO). 2007b. Millennium AIDS Campaign Ethiopia. 1-14. September.
- Federal HIV/AIDS Prevention and Control Office (FHAPCO). 2007c. Phase I Review and Phase 2 Planning Document: Complementary Document to Guideline of Nationwide Coordination and Management of the Millennium AIDS Campaign-Ethiopia dated December 2006. 1-4. February.
- Government of Malawi. August 2006. National HIV Testing and Counseling Week: July 17th-22nd 2006, A Technical Report. Lilongwe, Malawi.
- Ministry of Health, Brazil. 2006. Epidemiological Bulletin Aids/STD, January to June 2006. Brasilia.
- Ministry of Health, Ethiopia. 2007. Road Map 2007-2008/10: Accelerated Access to HIV/AIDS Prevention, Care and Treatment in Ethiopia, Version 6, 1-91.
- Ministry of Health, Ethiopia. 2005. Guidelines for Implementation of Antiretroviral Therapy in Ethiopia. Addis Ababa, Ethiopia. January.
- Ministry of Health, Malawi. 2007. Press Statement By the Hon Minister of Health, Mrs. Ngaunje MP, on the Results of the National HIV Testing and Counseling Week Campaign for 2007. Lilongwe, Malawi.

Municipal Coordination for STD/AIDS of Curitiba (CMSA). Numbers tested for HIV/Aids, 2001-present. Excel files.

Municipal Prefecture of Curitiba, Municipal Health Secretariat. 2006. Final Narrative Report: Rapid Testing for HIV/Aids in Curitiba, CFA 199/06.

Municipal Prefecture of Curitiba, Municipal Health Secretariat. 2002. Detection of HIV Infection in Curitiba.

Pathfinder International. 2006. Responding to HIV/AIDS: Ethiopia Factsheet. Addis Ababa, Ethiopia.

Private Sector Program (PSP) Ethiopia. 2007. Briefing to Abt Headquarters. Addis Ababa, Ethiopia: USAID. June.

The Sunday Times. Jul 15 2007. Announcement: National HIV Testing and Counseling Week, 16th to 21st July 2007. Lilongwe, Malawi.

United National General Assembly. May 31-Jun 2 2006. 2006. High-Level Meeting on AIDS: Uniting the world against AIDS. New York, USA: United Nations.
<http://www.un.org/ga/aidsmeeting2006/declaration.htm#back1>.

United States Department of State. 2006. Country Profile: Ethiopia. Washington, DC, USA.
<http://www.state.gov/s/gac/rl/profiles/2006/66360.htm#footnote>.

World Health Organization (WHO). 2006. Country Health System Fact Sheet 2006: Malawi.
www.afro.who.int/home/countries/fact_sheets/malawi.pdf.

World Health Organization (WHO). May 30 2007. WHO and UNAIDS issue new guidance on HIV testing and counseling in health facilities. London, England: WHO.
<http://www.who.int/mediacentre/news/releases/2007/pr24/en/index.html>.