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THE LEADERSHIP, MANAGEMENT AND SUSTAINABILITY AIDS CARE AND TREATMENT PROJECT (LMS-ACT)

Final Report

October 2009





LMS | *Leadership, Management
and Sustainability Program*

The Leadership, Management and Sustainability AIDS Care and Treatment Project (LMS-ACT)

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ACRONYMS

AHF	AIDS Healthcare Foundation
ART	Anti-retroviral Therapy
ARVs	Anti-retroviral drugs
CAS	Comprehensive AIDS Prevention, Care and Treatment Services
CBO	Community-based organization
CC&T	Comprehensive Care and Treatment
COP	Country Operational Plan
CSO	Civil Society Organization
DBS	Dried Blood Spot
DOTS	Directly Observed Treatment Short-course
EID	Early Infant Diagnosis
FBO	Faith-Based Organization
GHAIN	Global HIV/AIDS Initiative Nigeria
GIPA	Greater Involvement of People Living with HIV/AIDS
HAART	Highly active anti-retroviral therapy
HBC	Home-based care
HCT	HIV Counseling and Testing
HMIS	Health Management Information System
IP	Implementing Partner
ITN	Insecticide Treated Nets
LGA	Local Government Area
LMS-ACT	Leadership, Management, and Sustainability AIDS Care & Treatment project
LMS	Leadership, Management, and Sustainability Program of MSH
MARPS	Most-at-Risk Populations
M&E	Monitoring and Evaluation
MIS	Management Information System
MOH	Ministry of Health
MSH	Management Sciences for Health
NASCP	National AIDS and STI Control Program (of the Ministry of Health)
NEPWHAN	Network of People Living with HIV/AIDS in Nigeria
NGO	Non-Governmental Organization
OGAC	Office of the US Government AIDS Coordinator
OI	Opportunistic Infection
OVC	Orphans and Vulnerable Children
PEPFAR	US President's Emergency Plan for AIDS Relief
PITC	Provider-Initiated Testing and Counseling
PLWHA	People Living With HIV/AIDS
PMTCT	Prevention of Mother-to-Child Transmission of HIV
PwP	Prevention with Positives
SACA	State Agency for Control of AIDS
SCMS	Supply Chain Management Systems
SMOH	State Ministry of Health
SOPs	Standard Operating Procedures
TWG	Technical working group
USAID	United States Agency for International Development
USG	United States Government

EXECUTIVE SUMMARY

Nigeria ranks second in the world in terms of total HIV burden, and addressing the AIDS epidemic continues to be one of the major public health challenges the country faces. The AIDS Care and Treatment Project (ACT), launched in 2007 through the Leadership, Management and Sustainability (LMS) Program of Management Sciences for Health (MSH), was a two-year program that aimed to increase access to and availability of quality comprehensive AIDS care and treatment services in Nigeria.



Over two years, LMS-ACT improved the existing health care infrastructure across six Nigerian states, establishing comprehensive service sites, training health care providers, advocating for health initiatives, and contributing to the development of sustainable HIV/AIDS and TB care systems. LMS-ACT created strong, strategic partnerships with Nigeria's government at all levels, for improved coordination and scale up of best practice activities related to HIV/AIDS.

LMS-ACT was directly involved in bringing about positive changes on three levels: improving the quality of life for people living with HIV/AIDS by providing increased access to services; increasing the knowledge and skills available to the health care personnel treating them; and strengthening the health care systems tasked with the overwhelming responsibility of managing HIV/AIDS as a public health issue. Ultimately, LMS-ACT:

- **Scaled up HIV counseling and testing**, providing services to more than 160,000 individuals, through the establishment of 21 comprehensive care and treatment sites and 36 sites focusing on the prevention of mother-to-child transmission (PMTCT).
- **Increased access to life-saving antiretroviral medicines**, enabling a total 3,594 adults, pregnant women and children to begin new therapeutic programs.
- **Provided basic palliative care** to more than 18,767 individuals.
- **Upgraded and expanded laboratory services**, allowing 258,220 tests to be performed over two years.
- **Trained more than 1,500 health and community workers** across all issues relating to HIV/AIDS including counseling and testing services; providing HIV palliative care; treatment for HIV/TB co-infection; and laboratory services.

- **Institutionalized an improved M&E records system** that ensures HIV positive clients are enrolled into care and not lost to follow-up.
- **Strengthened the capacity of government** health systems personnel with increased leadership, management and technical skills thus contributing to the sustainability of quality comprehensive AIDS care and treatment services.

This report looks at the activities and achievements of LMS-ACT from the program's inception in 2007 to its conclusion in 2009. It also examines these achievements in the context of PEPFAR objectives. In its first year, LMS-ACT met many of its PEPFAR targets despite providing only five months of service delivery. In the second year, LMS-ACT significantly increased all of its service delivery achievements, again surpassing most of its targets. In both years, however, the challenge of working in areas with relatively low HIV/AIDS prevalence rates continued to be an issue and resulted in under achievement of treatment targets.

The three key technical approaches employed by LMS-ACT included the greater involvement of people living with HIV/AIDS (GIPA), a family-centered approach to care and treatment, and the creation of support groups and other community support system. This report looks at those approaches as well as the strategies and tactics used to mitigate the challenges faced over the life of the project.

LMS-ACT established a strong foundation for continuing efforts toward increased utilization of quality comprehensive AIDS care and treatment services in Nigeria. Among the lessons learned over the course of the two-year program:

- Government consensus, momentum, and ownership are important to HIV/AIDS control efforts.
- Encouraging a multi-disciplinary approach yields stronger results.
- Fostering leadership and management impacts service delivery.
- Incorporating HIV/AIDS funding into federal and state plans and budgets will be essential for long term sustainability.
- Providing ongoing coaching, mentoring, and support is the key to sustained success.
- Providing refresher training is imperative.
- Building M&E capacity is necessary for improving services at all levels.
- Including people living with HIV/AIDS an essential component of a successful HIV/AIDS prevention, testing and treatment program.
- Community leadership can impact the utilization of services.

These lessons will be built upon in a five-year, follow-on Associate Award to LMS-ACT, entitled Prevention and Organizational Systems – AIDS Care and Treatment Project (LMS Pro-ACT).

I. OVERVIEW OF THE PROJECT

The Challenge

Nigeria is sub-Saharan Africa's most populous country, with an estimated 130–140 million inhabitants¹. Most people (52 percent) live in rural areas, although a substantial portion (27 percent) lives in cities with populations greater than 100,000. In 2007, an estimated 70 percent of Nigerians were living on less than U.S. \$1 per day. Malnutrition is common, with 43 percent stunting in 2003, and the under five mortality rate is 197/1000 live births².



Among the most daunting of Nigeria's public health issues is HIV/AIDS. Although Nigeria's HIV prevalence is lower than that of the adjacent southern Africa region, averaging 4.6 percent³, an estimated four million people were living with HIV/AIDS in 2007, placing the country second only to South Africa in terms of global infection burden. In addition, one million or more children under age 17 were thought to have lost a parent to AIDS.⁴

There are marked regional differences in HIV prevalence: from 2.5 percent in the North West, it increases to 9.3 percent in the South East, and 12 percent in the Cross River region.⁵ While the Federal Ministry of Health's National AIDS and STI Control Programme called for delivering comprehensive AIDS prevention, care, and treatment services to 25 percent of the population by 2008, by 2007, the majority of people living with HIV were still in need of AIDS services.

The mode of HIV transmission in Nigeria is predominantly sexual, but there is also a significant level of transmission from HIV-infected mothers to their infants, and from unsafe blood transfusions. Deep-rooted cultural values and practices are underlying factors in the spread of HIV: Nigeria is pronatalist with a 2.5% population growth rate⁶, and there is marked gender inequality. It is often the norm for men to have sexual partners outside of marriage. Child marriage is common and cross-generational sex—defined as sex between a woman under age 20 with a man more than 10 years her senior, with whom she is not married or living within a stable relationship—is

¹ World Health Organization, 2007.

² Ibid.

³ From sentinel surveillance data, 2008; actual prevalence rate might be slightly lower.

⁴ WHO, 2006

⁵ From sentinel surveillance data, 2003; actual prevalence rate might be slightly lower.

⁶ Population Reference Bureau, 2007

particularly prevalent among sexually active unmarried young women in the 15–17 age group. Women, because of their inferior status, are unable to negotiate condom use to protect themselves from unwanted pregnancy, HIV, and other sexually transmitted infections. While prostitution is illegal in Nigeria, it is estimated that there are more than one million female prostitutes in the country and they are particularly vulnerable: their HIV prevalence is as high as 75 percent⁷. Other cultural practices that may put people at risk of HIV include female genital cutting (experienced by an overall 60 percent of Nigerian women) and ritual scarification in females and males.

Background and Objectives: AIDS Care and Treatment (ACT)

Today, with the support of USAID, Nigeria is making strides in its quest to provide AIDS prevention, care and treatment services for its citizens. Through the Leadership, Management and Sustainability (LMS) Program of Management Sciences for Health (MSH), two projects have focused on building capacity in Nigeria's health sector, both funded under the United States President's Emergency Plan for AIDS Relief (PEPFAR). The Capacity Building (CB) Project was launched in August 2006 to improve the quality and use of priority health care services by providing support to nascent Nigerian nongovernmental (NGO) and civil society (CSO) organizations. The AIDS Care and Treatment Project (ACT) was launched in October 2007, as an associate award to LMS. The goal of ACT was to develop leadership and management skills at all levels of Nigerian health care organizations and programs, in both the public and nongovernmental sectors, to effectively address change and improve health outcomes in the area of HIV/AIDS.



ACT set the following objectives:

- *Increase utilization of quality comprehensive AIDS care and treatment services in Nigeria*
- *Rapidly scale up the availability of quality comprehensive AIDS care and treatment services*
- *Increase accessibility to quality comprehensive AIDS care and treatment services*



Strategic interventions included:

- *Establishing strategic partnerships with Federal and the decentralized State Governments and other partners for improved coordination and scale up of best practices.*
- *Building a private-public partnership with government in support of the National AIDS and STI Control Program Implementation Plan.*
- *Developing leadership and management capacity of health workers involved in HIV/AIDS/TB programs.*
- *Using influential community leaders, people living with HIV/AIDS, and clients as community mobilizers.*



⁷ Onoja, AJ et al 2004. HIV-1 seroprevalence and incidence among commercial sex workers in three major Nigerian cities.

Between October 2007 and July 2009, ACT worked in six Nigerian states to rapidly scale up availability and accessibility to quality comprehensive AIDS prevention, care and treatment services, including HIV Counseling and Testing (HCT), Anti-retroviral Therapy (ART), Prevention of Mother-to-Child Transmission of HIV (PMTCT), Basic Palliative Care, TB-HIV and OVC (Orphans and Vulnerable Children) programs. The project also built health workers' capacities in technical HIV/AIDS and TB prevention and control, and providing comprehensive AIDS and TB services.

Program management

The LMS-ACT project operated in six states of Nigeria: Kogi, Kwara, Niger, Kebbi and Adamawa. The main office, including the operations staff, was based in Abuja (see Figure 1, below).

Figure 1. LMS/ACT Organizational Chart

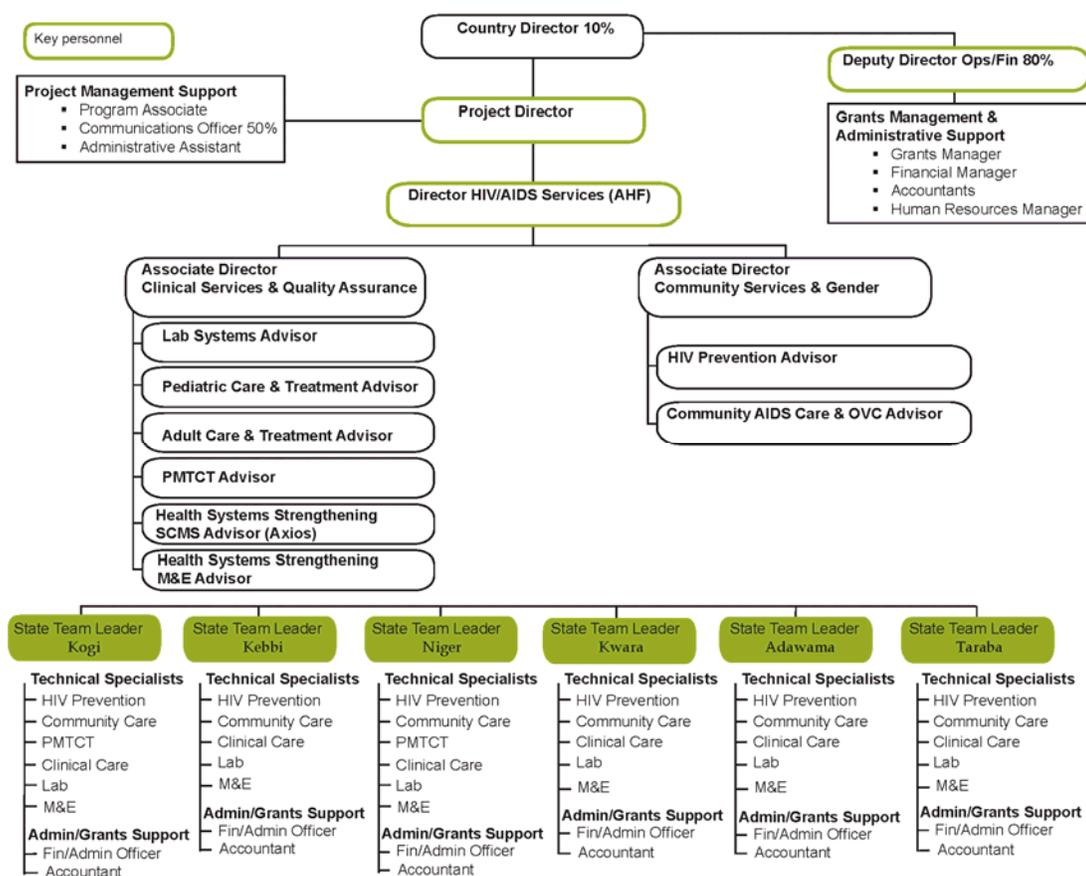
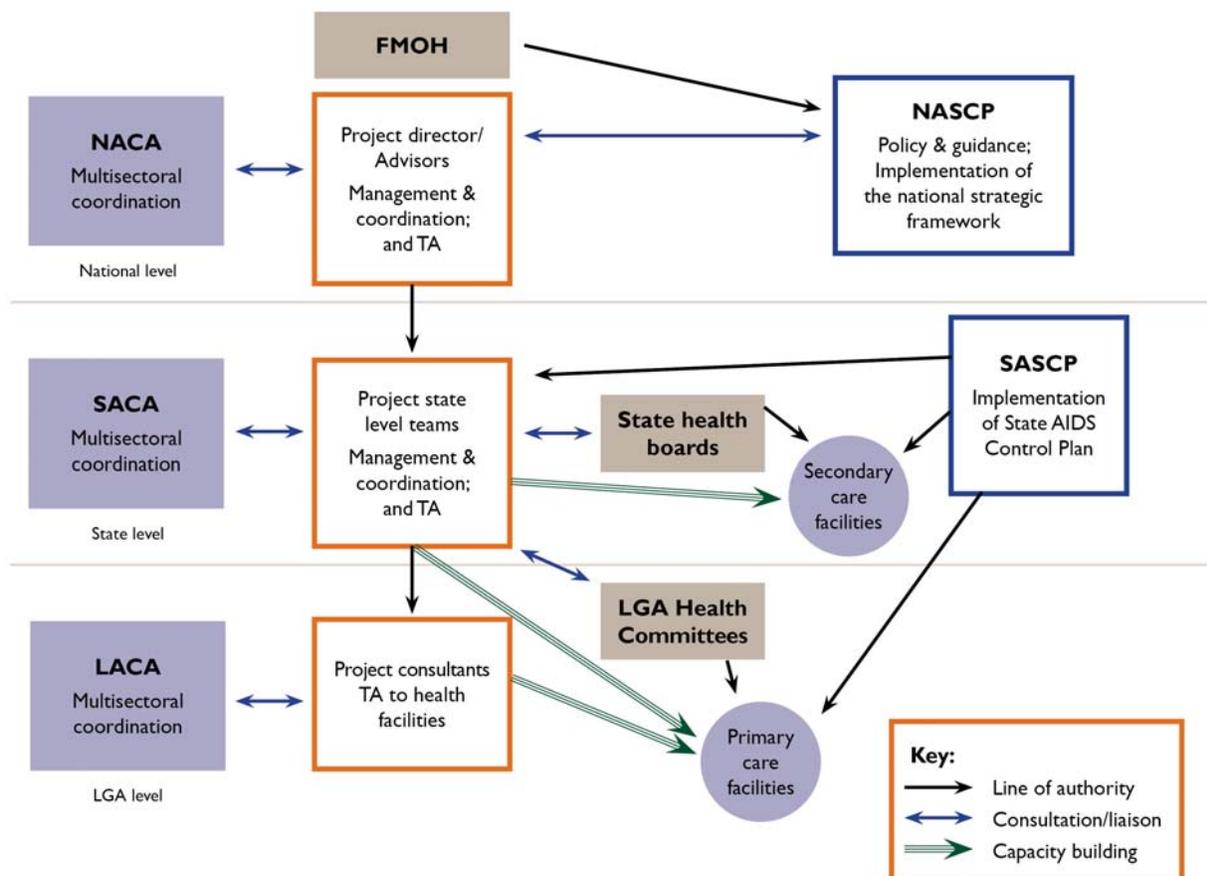


Figure 2: Illustration of the collaborative and consultative relationship with the Government of Nigeria at national, state and LGA levels, for building capacity for delivery of quality AIDS services



Partnerships

Partnership is a cornerstone of the MSH approach. The LMS-ACT project worked in partnership with many governmental organizations at the federal and state levels, as well as with international and local NGOs. Their expertise and experience contributed greatly to the success of this project. There were two different types of partners in the LMS-ACT project, collaborating partners and implementing partners.

Collaborating partners included the Global HIV/AIDS Initiative in Nigeria (GHAIN), Clinton Foundation, and Society for Family Health (SFH).

Implementing partners included the state governments of Kogi, Niger, Kwara, Kebbi, Adamawa and Taraba, as well as the AIDS Health care Foundation (AHF) and AXIOS. both subcontractors.

AHF is a global organization that provides medicine and advocacy for People Living with HIV/AIDS PLWHA in 22 countries. Founded in 1987, AHF's areas of expertise include direct HIV/AIDS clinical care, prevention and testing, and advocacy. For the LMS-ACT project, AHF offered clinical support, mentorship, and assistance with clinical trainings.

Axios International specializes in strategic advice and technical assistance to improve health care in low- and middle-income countries. Axios, which had already been working with other implementing partners when ACT began, handled procurement and logistics for the majority of HIV/AIDS drugs and medical equipment for the project.

Summary of Activities

The main focus of LMS-ACT was to provide treatment and care services to HIV infected populations in six project target states: Kogi, Niger, Adamawa, Taraba, Kebbi, and Kwara. In two years, the project opened 21 comprehensive care and treatment sites, 36 sites providing PMTCT services, and 33 primary feeder sites. To support the operations of these facilities, LMS-ACT also opened 17 laboratories staffed with trained technicians who provide quality lab services that meet national and international standards.

A significant part of LMS-ACT activities was devoted to HIV transmission prevention, with PMTCT services and HIV counseling and testing services offered in all comprehensive treatment and care sites the project opened. During the course of the intervention, it was decided to switch from voluntary counseling and testing (VCT) to provider initiated counseling and testing (PITC) which was considered more effective in identifying HIV infected individuals in low prevalence areas.

In addition to technical trainings, LMS-ACT organized leadership and management trainings for doctors and health officials from federal and state governments and governmental facilities in effort to build their program management capacities and encourage their ownership of various programs conducted in those states. The project staff also worked with health officials and workers to advocate for more robust actions in the fight against the disease.

Another important component of ACT was the creation of community support groups and linkages to facilitate care and support activities, and to establish a network that helps PLWHA to cope with the disease.

In concert, these activities worked to rapidly scale up availability of and increase access to quality comprehensive AIDS prevention, care and treatment services, as detailed in the next section of this report, "Program Achievements."

II. PROGRAM ACHIEVEMENTS

The LMS-ACT project had a great impact, scaling up the availability and accessibility of HIV/AIDS and TB prevention, counseling, testing and treatment services in six Nigerian states. In less than two years, LMS-ACT improved the existing health care infrastructure, established comprehensive service sites, trained health care providers, advocated for health initiatives, and contributed to development of sustainable HIV/AIDS and TB care systems. Most importantly, more than 160,000 people were reached and educated about HIV/AIDS prevention.



HIV Counseling and Testing (HCT)

Working from 21 comprehensive care and treatment sites (CC&T) and 36 PMTCT sites, and supported by 17 laboratories, LMS-ACT facilitated counseling and testing for 161,269 clients, of whom 10,541 (6.5%) were identified as HIV positive. By the end of the project, there were 34 service outlets providing counseling and testing in accordance with national and international standards, with 293 individuals trained to provide counseling and testing services.

Throughout the life of the project, trainings on HIV counseling and testing (HCT) were conducted for health and community workers in supported sites and local government areas (LGAs) to further the goal of increasing the availability of quality HCT services, early detection of new infections, and enrollment into care and treatment programs. The trainees were deployed to provide HCT services at all points of care, including general out-patient departments, in-patient wards, laboratories, family planning units, DOTS clinics, ANC units, and dental and eye clinics.

To scale up TB-HIV collaborative services under the projects, LMS trained TB focal persons and volunteers selected from PLA groups, supported facilities, and local DOTS units. Today, these newly trained individuals are providing counseling and testing services at TB units in their facilities, ensuring that all TB suspects are screened for HIV, and all HIV positive clients are screened for TB.

In order to increase HCT uptake among pediatrics, PITC points at pediatric outpatient units and wards have been activated and made functional. Facility teams were sensitized about the unique issues and challenges of pediatric HIV care, and PITC volunteers were deployed to support PITC at pediatric points of entry.

Advocacy to proprietors of private health clinics in the catchment of project supported sites was carried out with encouragement from community leaders and gate keepers. This innovative approach (Public Private Partnership – PPP) succeeded in carrying out PITC in well patronized private clinics within the targeted communities.

Adult and Pediatric Treatment

To increase access to life-saving ARVs, LMS-ACT facilitated the establishment of 21 ART service sites within state hospitals and clinics, and trained 267 health care workers to deliver ART services according to national and international standards. The training included sessions on how to administer ART services to eligible clients in accordance with the national guidelines, diagnosis and treatment of common HIV-related illnesses, and leadership and management of HIV care and treatment programs. The opening of new service sites combined with the comprehensive training has enabled 3,594 patients to begin new ART programs over the past two years. These included 3,438 adults (among them 136 pregnant women) and 156 children.

To improve clinical skills in pediatric HIV diagnosis and enlist more pediatric patients in the program, LMS-ACT organized specialized trainings during which participants learned the major elements of pediatric HIV/AIDS care and treatment, the need for ongoing monitoring of HIV-exposed and infected children, clinical/developmental monitoring guidelines, and laboratory monitoring guidelines. Pediatric national guidelines, SOPs and job aids were provided to facility teams to ensure delivery of quality services. LMS-ACT also provided support for the National Rapid Assessment of the Early Infant Diagnosis Program (EID). The aim was to assess the effectiveness of the current EID program to inform the scale-up and expansion of the EID program into another 300 facilities across the nation. The EID program included dried blood spot (DBS) testing, which can expand diagnostic services in resource-poor settings due to the samples' longer life span and reduced need for refrigeration. DBS is also less invasive than other testing methods. To support staff, ART specialists and advisors visited clinicians during clinical consultations to mentor and provide hands on supportive supervision.

Adult HIV diagnosis and management trainings focused on the major elements of adult HIV/AIDS care and treatment, the importance of adherence counseling, and the importance of instituting program management teams and multidisciplinary teams to provide program coordination. LMS-ACT also conducted advanced ART training courses to further build the capacity of clinicians who have been providing care and treatment services in its supported sites. Training sessions covered management of patients with other co-morbidities (TB-HIV), ART switch therapy, indications for second line therapy, management of common opportunistic infections and adverse drug reactions.

Establishing an integrated service delivery model was one step toward achieving LMS-ACT objectives. To ensure a continuum of clinical care, where possible, clinic space was re-negotiated with facility management to create an integrated service delivery model. Under this model, patients can access *all* health services (family planning, ANC, lab testing, HIV care and treatment, TB DOTS, dental, and eye care) within very close proximity and sometimes under one roof. Patient flow from point of entry into care to various service delivery points was defined and signage posted

to achieve smooth patient flow between various service delivery points. To better serve the communities, clinic days have been coordinated with local market days. This innovative approach makes it more convenient for patients to access transportation and decreases loss to follow up. Multidisciplinary Care Coordination Teams (Project Management and Patient Care Teams) were also initiated at all comprehensive sites as a strategy to provide patient centered care. Representation in teams was drawn from all service delivery points including the in-patient wards.

To ensure the quality of HIV/AIDS care and treatment services at all LMS-ACT supported sites, the project conducted clinical quality audit exercises led by a team of advisors and specialists. Using a Clinical Quality Assessment Tool (CQAT) and checklist, standards of care were assessed in several areas: HIV counseling and testing services; PMTCT services; HIV clinical care and treatment; and client flow and linkages between the ART and PMTCT program. More than 200 patient charts were reviewed to assess compliance with clinical and ART laboratory monitoring schedule, monitoring of adverse drug reaction (ADR), and the functionality of patient appointment systems. In most LMS-ACT sites, fairly good performance was observed in the enrollment of newly diagnosed HIV positive patients from the various points of HIV Counseling and Testing in the facilities. Among those on ART, fairly good rates of adherence were observed and a good proportion of patients, meeting the eligibility requirements for ART, are receiving it.

OVC, Including Basic Palliative Care

As part of CAS (Comprehensive AIDS Services) palliative care, services provided to OVCs and community support groups are integral parts of LMS-ACT project activities. By July 2009, the project had opened 30 service outlets providing HIV-related palliative care (including TB-HIV). In those outlets, 211 personnel were trained to provide HIV palliative care. As a result of the opening of service sites and the comprehensive training, 18,767 individuals were provided with HIV-related palliative care (including TB-HIV); 10,444 individuals were provided with HIV-related palliative care (excluding TB-HIV); and 6,365 HIV-positive individuals who were not on ART were provided with palliative care.

Activities aimed at improving palliative care services included the development of referral systems (list of all the referral centers in the states), formation and support to community networks and linkages as well as support groups, procurement of prevention items, and support to national palliative care activities. Community networks of providers, with support from community based organizations (CBOs), were identified to facilitate linkages between the communities and facilities. Support groups were established to provide psychosocial, social and medical services to members. Insecticide treated nets (ITNs), water guards, condoms, and other items were procured and distributed to registered PLWHAs.

A substantial part of activities were directed to strengthen support to OVCs in the project area. OVCs were reached with services ranging from psychosocial support, health care, preventive medical care, legal protection (facilitation of birth registration with the National Population Commission), and the provision of basic educational materials. In local communities, food supplements were donated by individuals, traditional leaders and politicians to OVCs and PLAs attending the support group meetings, as the result of consistent advocacy at all levels. LMS-ACT

also developed a referral system linking OVCs and their families to family centered care and support services at LMS-ACT sites. Community-based volunteers provided OVC monitoring care and support services, home visits, adherence, and tracking services.

Laboratory Services

During the reported period LMS, ACT established 17 laboratories with capacity to perform CD4 tests and/or lymphocyte tests and 53 laboratories with capacity to perform HIV tests. A total of 215 individuals working in those laboratories were trained in the following:

- Automation Systems Training Workshop
- Good Laboratory Practice (GLP) and HIV/STI Serology Training Workshop
- TB/AFB Microscopy Training Workshop
- Site Based Orientation on the New National Algorithm for HIV Testing
- PEPFAR supported Laboratory management training
- Basic equipment maintenance training
- Laboratory quality systems training
- DBS for Early Infant Diagnosis Training

As a result of the opening of new service sites and the comprehensive training, over the course of two years a total of 258,220 tests were performed including 137,225 tests focusing on HIV testing, TB diagnostics, syphilis testing and HIV disease monitoring; 112,223 HIV screening tests; and 8,772 CD4 tests were performed in those laboratories.

To ensure the provision of high quality services, LMS-ACT developed and implemented an external quality assurance policy/framework. In all LMS supported sites, HIV rapid testing was carried out using the Government of Nigeria approved testing algorithm. Quality control strategies were also developed and implemented for rapid HIV testing at various Points of Service Testing (POST) sites, Mobile HIV Counseling and Testing programs, and for baseline investigations. Prior to commencement of services, infrastructural renovation and upgrading were undertaken to reposition the laboratories. Laboratory automation systems were provided to ensure the delivery of quality services to patients enrolled in the program. Air conditioning units have been provided to some of the laboratories to maintain optimal temperatures required for the proper functioning of the automation systems.

Another key intervention was the development of a robust and efficient Inventory Control System. LMS' laboratory unit conducted the first test kit validation exercise to provide technical assistance to the state health facilities and have adapted various Commodities Logistic Management Information System (CLMIS) tools for the program. A monthly LMIS tool developed by Supply Chain Management Systems (SCMS) was adopted for use to provide update reporting on monthly test kit utilization. Paper-based LMIS tools have also been deployed to capture utilization data.

TB-HIV Collaborative Activities

As TB-HIV co-infection is responsible for substantial part of morbidity among HIV infected people, LMS-ACT focused on improving clinical management of TB-HIV. By July 2009, there were 22 service outlets providing HIV-related palliative care (including HIV-TB) and 29 service outlets providing treatment for TB to HIV-infected individuals (diagnosed or presumed). The project trained 74 individuals to provide treatment for TB to HIV-infected individuals (diagnosed or presumed). As a result of these activities, 1,137 registered TB patients received HCT and received their results, 2,922 individuals received HCT and received their results in a TB setting, and 668 HIV-infected clients attending HIV care/treatment services received treatment for TB.

LMS-ACT trained health care workers including doctors, nurses, CHWs and LGA TB supervisors in TB-HIV collaborative activities to strengthen their management of TB-HIV co-infections. The training was designed to provide both TB-HIV and introductory counseling and testing sessions. Areas covered include PITC, TB infection control in the health facility, TB diagnosis and management, management of TB-HIV co-infection, and recording and reporting for TB-HIV.

Realizing that Directly Observed Therapy Short Course (DOTS) services needed to be co-located within facilities providing ART services for effective TB-HIV collaboration, LMS-ACT worked closely with state TB program managers to strengthen or initiate DOTS services where they did not exist. In sites with preexisting DOTS services, LMS-ACT worked to ensure compliance with national TB guidelines and to establish linkages with the HIV Care and Treatment program.

In an effort to reduce the burden of TB among HIV positive clients, TB screening was done routinely for all identified HIV positive clients using symptom checklist and all suspected TB clients were subsequently referred to the microscopy centers for further testing for TB. To sensitize local communities on TB-HIV, a community enlightenment campaign was carried out in communities. During this exercise, people were educated on TB and HIV and screened for symptoms of TB.

Prevention of Mother-to-Child Transmission of HIV

Prevention of Mother-to-Child Transmission of HIV (PMTCT) is one of the crucial elements of the LMS-ACT project. LMS-ACT opened 36 service outlets providing the minimum package of PMTCT services according to national and international standards across all six project target states, and 404 health workers were trained to provide PMTCT services according to national and international standards. As a result of the opening of these service sites and the comprehensive training, 42,356 pregnant women received counseling and testing for HIV, with 41,597 of them receiving their test results. Of the 1,153 pregnant women who tested HIV positive, 458 received ARV prophylaxis. Along with capacity building activities, LMS-ACT also worked to establish and maintain the following services:

- Antenatal care services
- Maternity services
- Infant follow up

- Infant feeding counseling training for HIV+ mothers
- Improvement of PMTCT client retention/adherence to PMTCT services
- Mapping private health care facilities and assessment of primary health care clinics (PHCs)
- Introduction of new methods for drug preservation (keeping Nevirapine at ambient temperatures)

Throughout the life of the project, training workshops for health care providers were organized to build capacity of PMTCT Counseling and Testing, to better identify HIV infected mothers and reduce their infants' risk of infection. During these workshops, participants learned basic information about HIV/AIDS and the importance of HIV Counseling and testing in PMTCT; the risk factors for Mother to Child Transmission (MTCT); basic care and support for HIV positive mothers during and after delivery; and pharmacy services related to PMTCT.

To strengthen state systems—a key element in building sustainable programs and services—LMS-ACT organized workshops to equip state supervisors with HIV/AIDS technical knowledge and skills and improve their leadership and management capabilities. PMTCT services and infant feeding counseling were particularly emphasized, since most State Ministry of Health (SMOH) officials were lacking technical knowledge in these areas. Other topics included basic facts about HIV, AIDS and TB; provider-initiated testing and counseling (PITC); rapid HIV testing; ethics in counseling; reduction of stigma and discrimination; ART treatment and prophylaxis; and the HMIS system used for state reporting. To further build local government capacity, LMS-ACT worked with state officials to initiate the State PMTCT Task team; this group was created to ensure proper coordination, and provide technical leadership and direction for PMTCT activities in the state.

LMS-ACT increased the uptake of PMTCT interventions by HIV positive pregnant women in antenatal care (ANC) by offering PITC opt-out HCT services and access to CD4 testing, linking these services with care and treatment in line with the national guidelines. PITC has been established in the labor and postnatal wards. Midwives/Nurses in labor wards have been trained to provide PITC services to women who come in labor. All babies exposed to HIV were registered and received follow up care. Appointments were given for immunization days to coincide with postnatal clinic visits. This helped to reduce loss to follow up. All mothers were encouraged to exclusively breastfeed their infants. Mother-infant support groups have been established in most of the sites.

Monitoring & Evaluation

In the first few months that LMS-ACT began conducting HCT services, Care and Treatment services were not yet fully functional. Many HIV positive clients were referred to CC&T sites operated by other implementing partners (IPs). The project could not locate these original clients because the M&E and tracking system was not fully developed then their addresses were not available. The project has also observed that clients referred even within the same health unit for various services may become lost to follow up.

Since late August 2008, to minimize this loss, LMS-ACT institutionalized an improved M&E records system that ensures HIV positive clients are enrolled into care clinic and an appointment book kept for regular follow-up.

LMS-ACT partnered with SMOH M&E units to strengthen health information management systems to build the capacities of SMOH officials and facility teams at all project sites to collect, analyze, and use data. LMS-ACT team members made joint monthly supervisory visits to these sites; they also created a quarterly forum for M&E knowledge exchange and improvements.

State facility staff received capacity building training on Quality Monitoring and Evaluation in HIV/AIDS Programming. Workshops were conducted for data clerks and M&E specialists to ensure that they understood the LMS-ACT project, the concepts and basic application of M&E, and their respective roles and responsibilities.

Routine monitoring, supportive supervision and mentoring of facility staff across all the thematic units was done to ensure the proper use of HMIS Tools and for data quality. A data audit exercise was conducted in all LMS-ACT supported sites. The purpose of the audit exercise was to review and assess the design of the project's data management and reporting system in order to determine if the system is able to produce good quality reports.

In other to strengthen the use of accurate and reliable data, the M&E team focused on improving the quality of data documented in the health facilities. The process involved separating Adults' information from Children's information into appropriate registers and correcting previously made mistakes such separating pregnant on prophylaxis from the ART registers. Codes have been assigned to each patient to enable us identify entry point into the HIV care program.

LMS-ACT participated in the meeting aimed at updating the national HIV program database. The main objective of the meeting was to update some key indicators on the national database that NASCP would report globally. This meeting provided LMS-ACT the opportunity to present their data to the government and other IPs and also ensure that the achievements from inception till date was recorded in the national database developed and sponsored by UNICEF.

Logistics Management

Axios Foundation has the mandate of coordinating the supply chain management system of the LMS-ACT project. This includes the quantification, procurement, warehousing and distribution of all drugs and laboratory commodities, and the capacity building of staff to ensure proper documentation, utilization, and uninterrupted stockage.

The LMS-ACT project worked with Axios Foundation and the State Ministries of Health in each of the six project states to develop a Logistics Management and Information System (LMIS) to establish and maintain a reliable supply chain management system for HIV/AIDS diagnostics, ARVs, and drugs for TB and other opportunistic infections. LMS-ACT and Axios also worked with

the MSH Supply Chain Management System (SCMS) Project in supporting the National AIDS and STI Control Program (NASCP) to improve commodity management and build the capacity in procurement and logistics of state health boards.

Support for federal and state governments systems

Although LMS-ACT was primarily focused on service delivery, it also emphasized building leadership and management of personnel in government and health facilities to ensure program effectiveness and sustainability. The project included capacity building of government health systems personnel, improving health workers' HIV/AIDS/TB technical skills for service delivery, improving the quality of HIV/AIDS/TB care, and sustainability.

"...the fight against HIV/AIDS is not a fight for NGO's alone but one that requires greater Government Involvement with Government taking the lead role..."

Honorable Commissioner for Health,
Adamawa State

"...Much has been done but much more needs to be done because HIV/AIDS has littered our streets with OVC and filled our communities with widows and widowers..."

Director General SACA, Niger State

In addition to working with the health care workers who were providing the services, a large part of LMS-ACT success came as a result of working with government and health care leaders at all levels including national, state, local, and community. LMS-ACT offered the Leadership Development Program (LDP), a structured participatory program that provided health teams with the opportunity to learn and apply leadership and management practices to specific organizational challenges they were confronting.

Experience under LMS-ACT has shown the importance of garnering the ongoing support of the State Ministries of Health (SMOH), LGA officials, facility management, and health providers to strengthen health systems for a sustainable HIV/AIDS program in Nigeria. They must take the lead in creating a shared vision, agreeing on program goals and objectives, and clarifying the roles and responsibilities of all players.

In the early months of 2009, a two-day stakeholder forum was held to increase ownership of stakeholders and ensure continued sustainability of results, attended by policy makers from SMoH, the State Agency for Control of AIDS, health management boards, and service delivery providers such as hospitals management teams from across the six program states.

"...MSH has keyed appropriately into the State Strategic Plan with community entry systems that guarantee no loss to follow-up and easy patient tracking. MSH represents a shift in the new thinking of intervention programs and its approach should be replicated (e.g. the willingness to match words with effective action). For without a holistic care, the focus of intervention is lost..."

Dr. Duwe, Permanent Secretary/Executive
Chairman SACA, Taraba State

III. ANALYSIS OF TARGETS AND ACHIEVEMENTS

The LMS-ACT project, which commenced in October 2007, placed its first four patients on anti-retroviral therapy in March 2008 after five months on the ground. The project team was pleased to have successfully met many of its first year PEPFAR targets despite having only five months of service delivery. In the second year of the project, LMS-ACT managed to significantly increase all of its service delivery achievements, surpassing the original counseling, testing and training targets. In both years, however, the challenge of working in areas with relatively low HIV/AIDS prevalence rates continued to be an issue and resulted in under achievement of treatment targets, particularly in the areas of ARV, and OVC.



Overview of achievements v. PEPFAR targets

Please see Annex 1 for the table of targets and achievements.

Service Outlets:

- In both Country Operation Plan (COP) 07 (October 2007 to June 2008) and COP 08 (July 2008 to July 2009), LMS-ACT met all of its PEPFAR targets in the areas of service outlet sites.
- The project opened 22 HCT sites in COP 07 (target: 7, 314% achievement) and had a total of 34 by the end of COP 08 (target: 30, 113% achievement).
- In COP 07, the project opened 10 sites providing ARV services, and had a total of 17 sites by the end of COP 08 (COP 07 target: 7, 143%, COP 08 target: 124%). For service outlets providing palliative care the project achieved 143% of its COP 07 target and 176% of its COP 08 target by opening 10 sites in PY1 and a total of 30 sites by PY2 (targets: 10 and 17, respectively).
- LMS-ACT met 100% of its laboratory site targets by opening 7 laboratories in PY1, and a total of 17 by PY2. The project achieved 171% of its COP 07 target and 212% of its COP 08 target by opening 12 PMTCT service outlets in PY1 and 36 in PY2 (targets: 7 and 17).
- Twenty six organizations were provided with technical assistance in strategic information PY1 (target: 7, 371%) and 31 in PY2 (target: 31, 182%).

Counseling and Testing:

- In PY1, ACT counseled and tested 44,154 people for HIV/AIDS (target: 30,000, 147%) and 144,383 people in PY2 (target: 46,667, 245%).
- Two hundred ten registered TB patients were counseled and tested for HIV in PY1 (target: 200, 105%) and 927 in PY2 (target: 829, 112%).
- In PY1, 11,337 and in PY2 30,260 pregnant women were counseled and tested for HIV/AIDS in a PMTCT setting (targets: 9,000, 126% and 8,800, 344%). In PY1, 43,486 tests were performed in a laboratory setting for HIV, TB, and syphilis diagnosis, and HIV disease monitoring (target: 42,000, 104%).
- In PY2, however, although the project met its target for counseling and testing, more tests were performed off site and therefore the project only met 74% of its target by performing 93,739 laboratory tests out of its target of 127,270.

Training:

- LMS-ACT trained 138 health care professionals in HCT in PY1 and 155 in PY2 achieving 125% of its COP 07 and COP 08 targets (110 and 124).
- Sixty-seven health workers were trained to deliver ART services in PY1, achieving 168% of the target of 40. In PY2 185% of the target of 124 was met by training 230 health workers.
- LMS-ACT trained 67 health care professionals to provide HIV palliative care (excluding TB) in PY1 and 144 in PY2, achieving the targets by 112% and 360%, respectively (60, 40). Ninety individuals were trained in the provision of laboratory-related activities in PY1 and 125 in PY2 (targets: 45, 200% and 90, 139%).
- The OVC program was not implemented as planned; this is discussed further below. LMS-ACT did not conduct any OVC trainings in PY1 (target: 110) and trained 24 in PY2 (target: 200, 12%).
- LMS-ACT met 100% of its target in PY1 by training 40 health care professionals in TB-HIV co-infection, in PY2 34 were trained, meeting 68% of the target of 50.
- There were 133 individuals trained the provision of PMTCT services in PY1 (target: 110, 121%) and 271 in PY2 (target: 220, 123%). Forty six individuals were trained in strategic information, including M&E in PY1 and 90 in PY2 (targets: 30, 153% and 80, 113%).

ARV and TB Services:

- LMS-ACT newly initiated 329 patients on ARV therapy in PY1 (target: 2,850, 12%), of whom 13 were children (target: 285, 5%) and 3,265 in PY2 (target: 7,150, 46%) of whom 143 were children (target: 715, 20%).
- There were 98 HIV-infected clients that received TB treatment in PY1 (target: 200, 49%) and 570 in PY2 (target: 750, 76%).

Palliative Care and OVC Services:

- In PY1, 264 patients were provided with HIV-related palliative care (excluding TB-HIV) (target: 9,000, 3%) and 10,180 in PY2 (target: 9,000, 113%).
- In PY2, 5,395 HIV+ individuals not on ART were provided with palliative care (excluding TB-HIV) (target: 22,200, 24%, no target for PY1).
- In PY1, 103 OVC were provided with primary direct or supplemental direct services (target: 2764, 4%) and 2,745 in PY2 (target: 6,400, 43%).

Issues related to treatment targets

Inadequate capture of HIV Positive persons

LMS-ACT had to locate the 938,794 HIV positive persons in the six states. NASCP reports Kogi and Niger States as having HIV/AIDS prevalence rates of 5.1% and 6.2% respectively. However, before embarking on PITC, LMS-ACT conducted a wide community HCT that only gave a prevalence of about 1.8% in the general population and about 2% among the Most At Risk Populations (MARPs.) The USG strategy and the number of RTKs allocated to LMS-ACT does not support wide testing. To address this problem the project began an initiative to strengthen the “hub-spokes” linkages for further saturation of every LGA in all six states which will help to identify and enroll more HIV positive patients in low HIV prevalence areas. The introduction of PITC at all hospital units and recruitment of PLWHA volunteers to assist in service delivery also proved a successful approach that captured many HIV positive clients.

LMS-ACT committed to building the capacity of government clinics and health care providers rather than providing services directly. The entire capacity building process required at least three months before the sites could be activated. Readiness of sites to deliver services required several trainings in the program areas of HCT, PMTCT, TB-HIV, adult ART, Pediatric ART, basic palliative care/opportunistic infection (OI) management, Lab, SCMS and M&E.

Many health facilities have been in a state of disrepair for a long time. Potential patients had already established a low opinion of the health services which takes time to undo. This in turn affected the morale of the health care workers, many of whom were not motivated to improve their performance. With the investments in human resource capacity development to train and motivate staff, as well as improvements in infrastructure, supply chain management, regular supervision and advocacy to government and traditional leaders, the clients’ confidence in the health system and patronage of health facilities greatly increased over time. Good quality services and the family-centered approach introduced in the support group meetings attract more clients to consume the services.

Low PMTCT prophylaxis

Even after the introduction of PITC, HIV prevalence rates among pregnant women continued to be low. Also, several HIV positive pregnant mothers do not get enrolled into PMTCT because of inadequate health worker capacity, staff attitudes and poor M&E and referral system. Storage of ARVs for PMTCT prophylaxis at the pharmacy instead of at the ANC or labor wards impacts availability at the time of need.

The project took the following steps to address the problem:

- The introduction of PITC which stimulated marked improvement in case identification and enrollment.
- The project encouraged hospital management to relocate ARVs for PMTCT to easily accessible points.
- The M&E system was strengthened to capture mothers as early as 28 weeks of gestation.
- PMTCT mother peer support system was put in place to ensure all pregnant mothers coming to the facilities receive PITC and enroll in the program with a mentor for support.

Low enrollment of pediatric clients

Towards the end of the project LMS-ACT determined that a new pediatric strategy needed to be put in place. It became apparent that it was not sufficient to just train the health workers in pediatric care and treatment. They needed to undergo a mental shift and recognize that children have their own unique needs and cannot be treated as though they are simply small adults. The project rolled out a new pediatric strategy that had the following elements:

- Creation of a full-time, dedicated Pediatric Care and Treatment Advisor position to take care of the entire continuum of care for HIV-infected children
- All 21 CC&T sites and their feeder sites are received mentoring to offer full/or partial pediatric care and treatment services
- The PLWHA support groups offered family-centered HIV/AIDS care including PITC for all children
- Strengthened PITC at all points of contact with children (from PMTCT, labor ward, immunization, young children clinics (YCC), in-patients, OPD etc)
- Strengthened capacity for capture of pediatric M&E data
- Designated pediatric care champions at each health facility
- Worked towards formation of “pediatric interest groups” both TWG and organizational groups that promote the “child-centered” mind-set (for example we need the right laboratory reagents, clinical equipment, drugs OIs and ARVs etc.)

Inadequate OVC services provided

Minimal OVC services were provided although they fell short of the “at least 3 required for reporting ‘direct OVC’ services,” so these were reported as “supplemental”. OVC services were planned to commence in the second half of COP07. LMS-ACT decided that the most appropriate mechanism for delivery of community HIV services including OVC care was to have a network of funded and trained community-based organizations (CBOs) engaged through fixed-cost small grants. At this point there was less than a year left of the project, so it was determined that the grants program would be implemented during the follow-on project. Although no funds were allocated for OVC in COP08, the project worked towards the OGAC targets through integration with other thematic areas, notably the basic palliative care, lab, and ART; while also leveraging resources from traditional leaders, politicians, corporate companies like MT, and other partners like Clinton Foundation. Several activities to support OVC services delivery included:

- Strengthening the OVC M&E system within the overall project M&E system making sure to have OVC client services forms at the health facility and in the communities and training data clerks.
- Building capacity of OVC volunteers and deployment at health facility and at community service-delivery points (SDP)
- Defining a minimum package of 3 OVC services that the project can support with available resources

Historical review of ART programs indicates that they require about 2–3 years to become well established on the ground before they begin to flourish. LMS-ACT concurrently built services with systems and focused much on transferring capacity to government, health units and communities. LMS-ACT modeled an HIV/AIDS control effort led by government, communities and individuals working together for sustainable health improvements and overall national development. Most targets were met by the end of the project but those dependent on the number of HIV positives require more time to attain, and will be continued under the five-year follow-on.

IV. KEY TECHNICAL APPROACHES AND PROGRAM CHALLENGES

LMS-ACT used an array of technical approaches and community support systems to enhance the program's effectiveness, including the meaningful involvement of PLWHA; a family-centered approach; and the creation of support groups.

- **Greater Involvement of People Living with HIV/AIDS (GIPA)** was a major strategy in the delivery of HIV/AIDS services under the LMS-ACT project, chosen because it is an evidence-based strategy that impacts positively on project outcomes. LMS-ACT trained PLWHA to support PITC offerings in local facilities, with volunteers identified and chosen from PLWHA support groups. At least one person living with HIV formed part of each MHCT and/or PITC support team which carried out advocacy, community mobilization, counseling and testing in the community. People who tested positive were then able to identify with team members who were themselves living with HIV/AIDS. Team members discussed issues of stigma, discrimination, denial, myths and beliefs about HIV and AIDS with community members during pre-test group counseling and individual post-test sessions. As a result of the involvement of PLWHA in HCT service delivery, the project has observed a steady increase in the enrollment to care of persons who test positive, as well as a reduction in the workload of facility staff.
- **The family-centered approach** was another key tactic in achieving LMS-ACT success. The family is considered the basic unit of care. Index clients were counseled to bring their family members including children for HCT and further management. Health providers offered individualized care for PLWHA and their family members to relieve physical and emotional suffering. Services provided included health promotion through support for safe water, prevention of malaria with ITNs and nutrition counseling. Staff provided facility-based basic nursing care that included the management of opportunistic infections (OIs) and referral for further care, lab services to monitor the health status of PLWHAs and timely initiation of ART. In addition, health staff counseled clients on prevention of spread within the family, as well as growth monitoring for OVCs.
- **Peer Support Groups (PSGs) form another integral part** of the LMS-ACT care and support efforts. PSGs grew steadily in membership registration and began holding monthly meetings, during which attendees were educated on the importance of family-centered care, positive living, the importance of drug adherence, nutrition, and safe water. The LMS-ACT team worked with PSG leaders to initiate the process of registering the groups with the local government council and the State Network of People Living with HIV/AIDS in Nigeria (NEWPHAN). This strategy was aimed at transiting the PSGs to CBOs so that they could access small grants to support income generating activities (IGAs) for members. Some members volunteered their services in various project activities such as adherence counseling, default tracking and HCT.

Program Challenges and their Mitigation Strategies

The biggest challenge LMS-ACT faced was in identifying OVC, adult, and pediatric HIV positive patients. Once a patient was identified, enrolling and keeping the patient in care presented additional difficulties. LMS-ACT implemented a number of strategies to address these issues:

- **Multiple Community HIV Services Outreach:** Mobile HIV Counseling and Testing (MHCT) is one outreach strategy that brings testing to remote communities beyond the supported clinic catchment areas. This strategy increased access to HCT and helped to identify HIV positive individuals to be enrolled into care, mobilize communities around HIV/AIDS, and create demand for facility based care and treatment services. Multiple outreach activities were preceded by advocacy to community leaders, gate keepers and members to create demand for HCT services. These activities were also used as opportunities to identify and provide OVCs with the minimum national package of services. During the Multiple Community HIV Services Outreach activity that took place during four weeks in May 2009, more than 17,000 people were counseled and tested for HIV/AIDS; 729 OVC were identified and provided with the minimum national package of services; and 118 PLWHA on ART who had defaulted were tracked back into care and treatment.
- **Provider Initiated Testing and Counseling (PITC) services:** To ensure that the needs of people living with HIV/AIDS are met at both facility and community level, LMS promoted and supported Provider Initiated Testing and Counseling (PITC). Previously, HCT was the main counseling approach, but barriers such as stigma, discrimination, socio-cultural practices and beliefs, fear of disclosure, and lack of community support resulted in a slow uptake of HCT services. In addition, low staff motivation, multiple clinical tasks, and a dearth of human resources also negatively impacted HCT services. The PITC approach addressed these issues by challenging health workers to overcome their own attitudes and play an active role with all clients who present at the health facility. There was a marked increase in the number of HIV positive clients identified and enrolled into care since LMS-ACT initiated PITC.
- **Strengthened adherence support systems and retention strategies:** Recognizing the importance of patient compliance to drug adherence and doctors' visits, volunteers were also trained as community and facility ART adherence counselors, to actively track defaulters back into care and treatment. LMS-ACT introduced the use of appointment diaries and tracking logs, and facility teams and PLWHAs were trained to provide quality adherence counseling services, learning ways to improve adherence through the use of pill boxes, patient education materials, and treatment supporters. Participants designed adherence support models that would work best in their facilities. Job aids and HIV resources were provided in all the adherence units after the training.
- **Community Escort Service and Default Tracking Initiated:** During the initial stage of the project, LMS noted a significant loss of clients between the diagnoses of HIV to enrollment into care, as a result of inadequate referral systems. We therefore adopted a strategy of using escort services to help new clients navigate the referral system. Community members drawn mainly from different community support groups were trained as escorts and default tracking service providers.

V. LESSONS LEARNED

The achievements and challenges of the current LMS-ACT have yielded several important lessons. These lessons will be carried into the follow-on project, Pro-ACT.



- **Government consensus, momentum, and ownership are important to HIV/AIDS control efforts.** The LMS-ACT experience in Nigeria has shown the importance of garnering the ongoing support at of the State Ministries of Health, LGA officials, facility management, and health providers to strengthen health systems for a sustainable HIV/AIDS program. They must take the lead in creating a shared vision, agreeing on program goals and objectives, and clarifying the roles and responsibilities of all players. Government should also provide for early inclusion of relevant private organizations in discussions pertaining to health and HIV/AIDS, including NGOs, CBOs, FBOs, private for-profit hospitals, and corporate organizations such as those participating in the Nigeria Business Coalition on AIDS (NAIBUCA).
- **Encouraging a multi-disciplinary approach yields stronger results.** We have seen that high-quality HIV/AIDS services depend on staff from all disciplines and at all levels working together, from physicians to community health extension workers. Open communication across professional barriers leads to a better understanding of each cadre's contributions and a shared responsibility for implementation. Team members in all disciplines should be able to monitor their progress together and use the resulting information for program improvement.
- **Fostering leadership and management impacts service delivery.** Leadership and management training modules nested in thematic technical training programs, followed by application of good leadership and management practices during mentoring periods, resulted in increased motivation and creativity among health providers. Improvements in HIV/AIDS systems and services, with strengthened management and leadership capacity, can have a profound effect on other critical health areas, improving the functionality of health providers and their teams across the health spectrum.
- **Incorporating HIV/AIDS funding into federal and state plans and budgets is the only way to ensure goals are achieved.** By and large, state governments have not included HIV/AIDS in their long- and short-term planning, and even those states that have HIV/AIDS components in their strategic plans have not provided the funds needed to

implement the plans. Resources often exist, but the lack of coherent plans and budgets means that they are not made available to achieve program priorities.

- **Providing ongoing coaching, mentoring, and support is the key to sustained success.** Training alone is not enough to change attitudes and practices among health workers. To provide needed encouragement and reinforcement, the trainers themselves and/or others (LMS-ACT team members, state supervisors, and consultants from MSH headquarters) have continued to spend time in facilities coaching and mentoring, to ensure that those who have been trained are applying their new skills. The combination of training and post-training support has enabled some trainees to become mentors in their own right, guiding their work teams in the provision of high-quality services. Sustainable change in attitudes and practices requires a long-term investment; coaching and mentoring should take place periodically through the length of the project, with visits scheduled to assess progress, offer support, and provide refresher training as needed.
- **Providing refresher training is imperative.** Basic thematic technical trainings serve to introduce health workers to their new responsibilities, but the LMS-ACT program team has observed that gaps in knowledge, attitudes, and skills among trained health workers persist. They are often uncertain about when to switch patients from one regimen to another, how to follow-up and provide ongoing support for HIV-exposed infants, and how to advocate for resources not readily available at the health units. In addition, newer issues can emerge in HIV/AIDS that were not considered in the initial trainings, such as family and couples counseling, therapy for severely malnourished children, management of clients receiving ART, team dynamics, and community organization. Training of trainers workshops should enable national and state trainers to provide refresher training that encompasses these items and – even more important – strengthens health workers' adaptive capacity, so they can face the new HIV/AIDS challenges that are sure to emerge in the future.
- **Building M&E capacity is necessary for improving services at all levels.** We have found that lower-level planners are rarely able to use data to set realistic targets for HIV/AIDS services and seek the funds needed to meet the targets. At the facility level, many hospitals and health centers fail to accurately document the HIV/AIDS services they provide, despite the existence of the national Health Management Information System (HMIS), with forms and registers designed to provide accurate and timely data. A functional M&E system is necessary for bringing the right information to the SMOH for planning and budgeting and—equally or more important—using the data to manage their resources better and improve services.
- **People living with HIV/AIDS are a strong source of peer support.** With appropriate training and ongoing support, people living with HIV/AIDS can be highly effective champions and agents of change for prevention and care within their communities. Under LMS-ACT, PLWHA who demonstrate a good understanding of HIV issues were trained in HIV counseling and testing, and OVC care and treatment. They then worked closely with facility teams to provide psychosocial support to their peers, coordinate facility-based

support group meetings, and track patients who have defaulted. Facility teams acknowledged that working with PLWHA has changed their own negative attitudes and helped to reduce stigma and discrimination at facilities and in communities. There is an increased acceptance of PLWHA as individuals who can make a positive contribution to their communities and better support their peers.

- **Community leadership can impact the utilization of services.** Influential community members are important “gatekeepers” for their communities, and enlisting these gatekeepers, including Faith Based Organizations (FBOs) is essential to increasing access to and use of services. Local leaders can provide information about HIV/AIDS and TB, introduce strategies to reduce stigma, increase community understanding of HIV/AIDS care, promote DOTS, create awareness of available services, and increase service uptake.

VI. CONCLUSIONS

Nigeria has a moderately low HIV prevalence rate, but a large HIV/AIDS burden due to its sizeable population. Building management and leadership capacity of health care managers and practitioners is a critical step to increasing the availability of and access to quality comprehensive AIDS care and treatment programs in Nigeria. Strengthening management and leadership capacity does lead to improvements in service delivery, and when quality comprehensive care and treatment programs are more available and accessible, people living with HIV/AIDS will increase their use of these services.



Continuing to involve people living with AIDS in service delivery is a key toward advancing the battle against this epidemic, as is a family-based approach to care since like PLWHA, family members often face daily challenges linked to the illness. Enlarging the circle of caregivers to the community, through influential community leaders and gatekeepers, as well as NGOs, CBOs and FBOs is imperative to scale up the resources necessary for providing quality comprehensive care and treatment. Challenges do, of course, remain.

Next Steps

A five-year, \$60 million follow-on Associate Award to LMS-ACT, entitled **Prevention and Organizational Systems – AIDS Care and Treatment Project (LMS Pro-ACT)**, was signed by USAID and MSH on July 16th, 2009. The new project builds on the foundation established by the LMS-ACT Project (2007 – 2009), whereby MSH assisted the Government of Nigeria, at both the federal and state levels, to take leadership for the country's HIV/AIDS response.

ANNEX I: PROGRESS TOWARD PEPFAR INDICATORS AND TARGETS

LMS-ACT Progress toward PEPFAR Indicators and Targets COP 07 - October 2007 to June 2008, COP 08 - July 2008 to July 2009								
	Indicator Title	LMS PEPFAR '07 Target	Achievement COP 07	Percent of COP 07 Target	LMS PEPFAR '08 Target	Achievement COP 08	Percent of COP 08 Target	Achievement Life of Project
1. COUNSELING AND TESTING								
1.1	Service outlets providing counseling and testing according to national and international standards	7	22	314%	30	34	113%	34
1.2	Individuals who received counseling and testing for HIV and received their test results (including TB)		44,667			116,602		161,269
1.3	HIV+ among individuals counseled and tested and received their test results		2,199			8,342		10,541
1.4	Individuals trained in counseling and testing according to national and international standards	110	138	125%	124	155	125%	293
1.5	Individuals who received counseling and testing for HIV and received their test results (excluding TB)	30,000	44,154	147%	46,667	114,383	245%	158,537
2. HIV/AIDS Treatment/ARV Services								
2.1	Service outlets providing antiretroviral therapy	7	10	143%	17	21	124%	21
2.2	Individuals newly initiating ART during the reporting period							
2.2.1	Children (0-14)	285	13	5%	715	143	20%	156
2.2.2	Adults (15+)	2,565	316	12%	6,435	3,122	49%	3,438
2.2.3	Pregnant females (all ages subset of 2.2.2)		3			133		136
	Total	2,850	329	12%	7,150	3,265	46%	3,594
2.3	Individuals who ever received ART by the end of the reporting period							
2.3.1	Children (0-14)		13			143		156

**LMS-ACT Progress toward PEPFAR Indicators and Targets
COP 07 - October 2007 to June 2008, COP 08 - July 2008 to July 2009**

	Indicator Title	LMS PEPFAR '07 Target	Achievement COP 07	Percent of COP 07 Target	LMS PEPFAR '08 Target	Achievement COP 08	Percent of COP 08 Target	Achievement Life of Project
2.3.2	Adults (15+)		316			3,372		3,688
2.3.3	Pregnant females (all ages subset of 2.2.2)		3			79		82
	Total	2,850	329	12%	10,000	3,515	35%	3,844
2.4	# of individuals receiving ART by the end of the reporting period							
2.4.1	Children (0-14)		13			126		139
2.4.2	Adults (15+)		314			2,887		3,201
2.4.3	Pregnant females (all ages subset of 2.2.2)		3			145		148
	Total	2,565	327	13%	9,000	3,013	33%	3,340
2.5	Health workers trained to deliver ART services according to national and/or international standards	40	67	168%	124	230	185%	297
3. Palliative Care Services								
3.1	Service outlets providing HIV-related palliative care (including TB-HIV)	7	10	143%	17	30	176%	30
3.2	Individuals provided with HIV-related palliative care (including TB-HIV)		2,937			15,830		18,767
3.3	HIV+ individuals not on ART provided with palliative care (including TB-HIV)		653			5,712		6,365
3.4	Individuals provided with HIV-related palliative care (excluding TB-HIV)	9,000	264	3%	9,000	10,180	113%	10,444
3.6	HIV+ individuals not on ART provided with palliative care (excluding TB-HIV)		576		22,200	5,395	24%	5,971
3.7	Individuals trained to provide HIV palliative care (excluding TB-HIV)	60	67	112%	40	144	360%	211

**LMS-ACT Progress toward PEPFAR Indicators and Targets
COP 07 - October 2007 to June 2008, COP 08 - July 2008 to July 2009**

	Indicator Title	LMS PEPFAR '07 Target	Achievement COP 07	Percent of COP 07 Target	LMS PEPFAR '08 Target	Achievement COP 08	Percent of COP 08 Target	Achievement Life of Project
4. Laboratory Services								
4.1	Laboratories with capacity to perform CD4 tests and/or lymphocyte tests	7	7	100%	17	17	100%	17
4.2	Laboratories with capacity to perform HIV tests	7	7	100%	17	53	312%	53
4.3	Tests performed during the reporting period (HIV testing, TB diagnostics, syphilis testing and HIV disease monitoring)	42,000	43,486	104%	127,270	93,739	74%	137,225
4.4	HIV screening tests performed during the reporting period		41,519			70,704		112,223
4.5	CD4 tests performed during the reporting period		854			7,918		8,772
4.6	Individuals trained in the provision of laboratory-related activities	45	90		90	125	139%	215
5. Orphans and Vulnerable Children/Child BC&S								
5.1	Providers/caregivers trained in caring for OVC	110	-	0%	200	24	12%	24
5.2a	Primary Direct		-			1,667		1,667
5.2b	Supplemental Direct		103			1,078		1,181
	Total Primary & Supplemental	2,764	103	4%	6,400	2,745	43%	2,848
5.2	HIV+ children (0-17yrs) provided with clinical care services (including those on ART)		52			1,374		1,426
5.3	# of OVC receiving food and nutritional supplementation through OVC programs					1,594		1,594
6. TB-HIV								
6.1	Service outlets providing HIV-related palliative care (including TB-HIV)		8		17	22	129%	22

**LMS-ACT Progress toward PEPFAR Indicators and Targets
COP 07 - October 2007 to June 2008, COP 08 - July 2008 to July 2009**

	Indicator Title	LMS PEPFAR '07 Target	Achievement COP 07	Percent of COP 07 Target	LMS PEPFAR '08 Target	Achievement COP 08	Percent of COP 08 Target	Achievement Life of Project
6.2	Service outlets providing treatment for tuberculosis (TB) to HIV-infected individuals (diagnosed or presumed)	7	8	114%	17	21	124%	29
6.3	Individuals trained to provide treatment for TB to HIV infected individuals (diagnosed or presumed).	40	40	100%	50	34	68%	74
6.4	HIV-infected clients attending HIV care/treatment services that are receiving treatment for TB	200	98	49%	750	570	76%	668
6.5	Individuals who received counseling and testing for HIV and received their test results in a TB setting		522			2,400		2,922
6.6	Registered TB patients who received counseling and testing for HIV and received their test results	200	210	105%	829	927	112%	1,137
6.7	HIV+ registered TB patients		77			276		353
7. PMTCT								
7.1	Service outlets providing the minimum package of PMTCT services according to national and international standards	7	12	171%	17	36	212%	36
7.2	Health workers trained in the provision of PMTCT services according to national and international standards	110	133	121%	220	271	123%	404
7.3	Pregnant women who received counseling and testing for HIV		11,432			30,924		42,356
7.4	Pregnant women who received counseling and testing for HIV and received their test results	9,000	11,337	126%	8,800	30,260	344%	41,597
7.5	Pregnant women who tested positive		404			749		1,153
7.6	Pregnant women who received ARV prophylaxis	225	59	26%	410	399	97%	458
7.7	Exposed babies		54			319		373

**LMS-ACT Progress toward PEPFAR Indicators and Targets
COP 07 - October 2007 to June 2008, COP 08 - July 2008 to July 2009**

	Indicator Title	LMS PEPFAR '07 Target	Achievement COP 07	Percent of COP 07 Target	LMS PEPFAR '08 Target	Achievement COP 08	Percent of COP 08 Target	Achievement Life of Project
8. Strategic Information								
8.1	Local organizations provided with technical assistance for strategic information activities	7	26	371%	17	31	182%	31
8.2	Individuals trained in strategic information (includes M&E, surveillance and/or HMIS)	30	46	153%	80	90	113%	136

ANNEX II: SUCCESS STORIES

1. Aina and Temitope: A New Day, a New Hope

2. Mustafa—Sharing His Story to Encourage Others to Know Their HIV Status

AINA AND TEMITOPE: A NEW DAY, A NEW HOPE



February 2009

Abuja, Nigeria.

Kogi State, Nigeria - There is no denying that HIV is a terrible illness with far-reaching implications capable of destroying the fabric of human lives in communities across Nigeria. Almost more devastating than the considerable physical pain suffered by the patient, is the emotional anguish caused by the stigma and the financial stress associated with the disease and its treatment. The story of Aina Babalola provides a real-time example of this all-too-common scenario.

In 2002, 19-year old Aina, with the consent of her extended family, moved in with her fiancé, Segun, pending the celebration of their marriage. The couple moved from their rural hometown in Kogi state to Lagos in 2006 with the hopes of a better future. All was going according to plan as the couple made gradual progress towards achieving their dreams; Segun got a job teaching at a private school in Lagos while Aina continued her work as a trained hairdresser in the Ikeja area of Lagos. A short time later, Aina discovered she was pregnant.

Tragedy struck in January 2008 when then four-month pregnant Aina got sick with chronic diarrhea. As her condition worsened, Aina sought treatment at several hospitals, depleting the couple's meager financial resources though finding no cure. Still sick after three months, Aina returned home with Segun to their village in Kogi state.

Aina sought treatment at General Hospital Kabba—a PEPFAR funded and MSH-supported Comprehensive Care and Treatment Site. Her case came to the attention of Dr. Temitope Ewegbemi, whose repeated efforts to help Aina recover went far beyond the call of duty. It was Dr. Ewegbemi who



Aina and baby Temitope with one of the nurses at GH Kabba.

introduced MSH staff to Aina during one of their periodic supervisory visits in the hopes that more attention and support would be given to her case.

After staying with Aina for three weeks, Segun had to return to Lagos as the little money he had brought with him to Kogi was gone. Upon his return, he discovered that he had lost his job at the private school as a result of his absence. Back in Kogi, family members were increasingly less able to care for and support Aina in her treatment.

At this point, the 7-month pregnant Aina was bed-ridden and incontinent. She tested positive for HIV and seemed doubtful she would survive. She had to be cleaned up after every episode as she was physically unable to clean herself up. The effort that it entailed to care for Aina began to put a strain on the already stretched staff of the General Hospital Kabba who, apart from providing first-rate medical services to their patient, also gave Aina money and contributed to her financial stability.

Aina was placed on Highly Active Anti-Retroviral Therapy (HAART) drugs, provided free of charge to the hospital by PEPFAR through MSH. As a result of the efficacy of the drugs and the quality of care she received, Aina was able to deliver her baby girl on the 28th of May 2008, two months after she was admitted to the hospital. Sadly, two days after birth of Aina's Daughter, Dr. Temitope Ewegbemi passed away after a brief illness. His death was shattering for the young mother, as the man who had been her benefactor was no more. Aina named her newborn Temitope after the departed doctor in honor of his kind work and dedication.

Segun was only able to make a brief visit to see his wife and new child, leaving them 1,500 Naira (less than \$13 US) towards their upkeep. Life after the birth of Baby Temitope and their discharge from the hospital was hard on Aina. With no money, she had to live with her mother-in-law in a one-room apartment, a situation that became impossible for both women. Aina was soon asked to leave.

Alone and caring for a newborn child, Aina contacted the MSH staff in Kogi State who quickly mobilized community support and found her housing. With her health improved and a stable place to live, Aina resumed her hair dressing business. She now runs her business out of her home and with the money she makes is able to take care of herself and little Temitope.

As a result of MSH's advocacy, the Kogi State Commissioner of Health, Dr. Fred Achem, has promised to link Aina with the state Social Welfare Committee as well as with a local government project which may be able to provide her with more support. Although their lives are still far from perfect, Aina and Temitope have been given a new sense of hope and the chance of a healthy future as a family. They have benefited from the generosity of a group of strangers—the kind doctor who went beyond what was expected of him, nurses who not only provided quality care as professionals but support as peers, and MSH staff who mobilized a community support network.



Temitope looking ahead to a brighter future!

Aina has begun talking to her clients about the threat of HIV/AIDS, though she has not yet disclosed her status for fear of a negative reaction. In the months to come, Aina is now in a position to reach out to many other persons in the community and offer preventive counseling and referral services. Although the degree of care and special attention Aina received is beyond typical, she is only one of the tens of thousands of people that have benefited, either through education, or direct care, from the AIDS Care & Treatment Project of MSH.



Leadership Management and Sustainability Program

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MUSTAFA – SHARING HIS STORY TO ENCOURAGE OTHERS TO KNOW THEIR HIV STATUS



When Callista Ike, Community Care Specialist for the MSH Project, Leadership Management and Sustainability AIDS Care and Treatment (LMS-ACT), first met Mustafa*, a 36 year old man who came to the hospital to support his HIV-positive sister, she never imagined that just two months later he would be helping to triple counseling and testing rates at his regional hospital.

Mustafa's sister had tested positive for HIV through PITC (Provider Initiated Testing and Counseling) at a government owned, and MSH supported hospital in Taraba state, Nigeria. It was while Mustafa was accompanying his sister that, as part of the PITC program initiated by MSH, he received HIV/AIDS pre-test information in the waiting room. Mustafa gave his consent to be tested, and learned that, like his sister, he too was HIV positive.

Callista Ike met Mustafa during a routine site support visit to the hospital, when he pulled her aside and asked to speak with her privately. She feared he was going to tell her that he was abandoning his sister, but as it turned out he was just looking for someone to confide in. Ms. Ike realized he was in need of some additional counseling after learning of his HIV positive status.

The support he received encouraged Mustafa to begin mentoring his friends and neighbors in his community to go to the hospital for HIV testing. Ms. Ike noticed that most of the people he referred tested positive. When she asked him about this, he responded "Ma, you see, anyone of my friends or neighbors who complains of similar health problems as I used to experience, I will quickly encourage to go for HIV screening."

Mustafa's dedication to helping others and concern that others could be carrying the disease without even knowing it as he had, inspired him to work at the hospital as a volunteer. The LMS-ACT team formally trained him as one of their PITC support volunteers and introduced him to the HIV Coordinator of the hospital. As staffing needs in the hospital are a constant challenge, Mustafa's help was happily accepted.



The results of Mustafa's commitment are astonishing: During the first month that Mustafa volunteered at the hospital, the 408 people counseled and tested surpassed the combined total of 351 people during the previous three months.

As a result of Mustafa's enthusiasm and success, he plays an increasing role in promoting counseling and testing alongside MSH and hospital staff, serving as a role model and mentor for his fellow HIV positive peers. He now travels to PITC points of service in other MSH-supported hospitals to work with the facility staff, where the response to his work has been equally encouraging. Mustafa even participated in the MSH HIV Counseling and Testing training usually reserved for health care professionals, and in December, 2008, he played a vital role in the World AIDS Day counseling and testing outreach that MSH conducted, by assisting in mobilizing and sensitizing the community in their local language.

Today Mustafa, as one of MSH's 59 PITC support volunteers in Nigeria, has already changed the lives of hundreds of HIV positive people by urging them to learn their status, and by encouraging them to seek and adhere to treatment as he and his sister have.

*Name changed to protect identity



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