NIGERIA PREVENTION AND ORGANIZATIONAL SYSTEMS – AIDS CARE AND TREATMENT PROJECT

A Stronger Health System Saving Lives in Nigeria

Pro-ACT Final Report

2009-2016

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Acronyms

ACT	AIDS Care and Treatment Project
AFN	Axios Foundation Nigeria
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral
CaTSS	Care and Treatment for Sustained Support
CCT	Comprehensive Care and Treatment
CDC	Centers for Disease Control and Prevention
CME	Continuing Medical Education
COP	Country Operational Plan
CRRIRF	Compiled Report, Requisition, Issue, Receipt Form
CSO	Civil Society Organization
DATIM	Data for Accountability, Transparency, and Impact (PEPFAR data collection system)
DBS	Dried Blood Spot
DHIS	District Health Information System
DOTS	Directly Observed Therapy Short Course (for TB)
EID	Early Infant Diagnosis (for HIV-Infection)
EMR	Electronic Medical Record
FLHE	Family Life and HIV Education
FMoH	Federal Ministry of Health
FP	Family Planning
GDP	Gross Domestic Product
GON	Government of Nigeria
HCW	Health Care Worker
HIV	Human Immunodeficiency Virus

HMIS	Health Management Information System
HTC	HIV Testing and Counseling
HTS	HIV Testing and Services
IP	Implementing Partner
IPC	Infection Prevention and Control
IPT	Isoniazid Preventive Therapy
LACA	Local Action Committee on AIDS
LGA	Local Government Area
LMHC	Logistics Management of Health Commodities
LMS	Leadership, Management and Sustainability Program
LTFU	Lost/loss to follow-up
M&E	Monitoring and Evaluation
MARP	Most At Risk Population
MER	Monitoring, Evaluation, and Reporting
MoE	Ministry of Education
MoH	Ministry of Health
MSH	Management Sciences for Health
NACA	National Agency for Control of AIDS
NHOCAT	National Harmonized Organizational Capacity Assessment Tool
NiPOST	Nigerian Postal Service
NASCP	National AIDS and STIs Control Program
OVC	Orphans and Vulnerable Children
PCR	Polymerase Chain Reaction
PEP	Peer Education Plus
PEPFAR	US President's Emergency Plan for AIDS Relief
PHC	Primary Health Care
PHCs	Primary Health Centers
PHDP	Positive Health, Dignity, and Prevention

PITC	Provider Initiated Testing and Counseling
PLHIV	People Living with HIV
PMC	Program Management Committee
PMM	Patient Monitoring & Management
PMTCT	Prevention of Mother-to-Child Transmission (of HIV)
Pro-ACT	Prevention and Organizational Systems - AIDS Care and Treatment Project
QI	Quality Improvement
QMS	Quality Management System
RTK	Rapid Test Kit (for HIV)
SACA	State Agency for Control of AIDS
SAM	Severe Acute Malnutrition
SASCP	State Ministry of Health (SMoH) AIDS/Sexually Transmitted Disease Control Program
SCMS	Supply Chain Management System
SIMS	Site Improvement through Monitoring Systems Tool
SMoH	State Ministry of Health
SOP	Standard Operating Procedure
SPEEiD	Strengthening the Process and Effectiveness of Early Infant Diagnosis
STI	Sexually Transmitted Infection
TB	Tuberculosis
TCM	Townhall Cluster Mentoring
TOT	Training of Trainers
TWG	Technical Working Group
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USG	United States Government
VSLA	Village Savings and Loan Association
WHO	World Health Organization

1. EXECUTIVE SUMMARY

The Prevention and Organizational Systems – AIDS Care and Treatment Project (PRO-ACT), a part of the President's Emergency Plan for AIDS Relief (PEPFAR), was implemented in Nigeria from July 16, 2009 through November 14, 2016. Pro-ACT followed on an initial more limited two year project, the LMS AIDS Care and Treatment (LMS ACT) that provided treatment for AIDS patients in six of Nigeria's states, all in the northern half of the country. Pro-ACT, while following on ACT and operating initially in the same six states (Kogi, Kwara, Adamawa, Taraba, Kebbi and Niger) had two fundamentally additional aspects – a focus on community prevention, and organizational systems strengthening. Its objectives were to maintain the 17 Comprehensive Care and Treatment (CCTs) developed under LMS ACT, expand access, and strengthen systems.

Nigeria is a lower middle income federation of 36 states and a Federal Capital Territory with a complex health system including facilities operated by all three tiers of government (Federal, State, and Local). It has high infant mortality at 69 deaths per 1000 live births, and high maternal mortality at 576 maternal deaths per 100,000 live births. Seventy-one percent of health expenses are out-of-pocket. The public health system, the components of which were the principle vehicle through which Pro-ACT acted, had severe structural challenges including inadequately staffed and poorly motivated personnel subject to frequent job rotation, poor infrastructure, erratic or non-existent public utilities, and a bureaucratic process for the release of funds for expenditure (even already approved funds). To these system constraints must be added societal norms that resulted in stigma and discrimination for HIV-positive patients, and the economic and authority subjugation of women to men. The HIV/AIDS program was coordinated at the State level by the State AIDS Control Agency (SACA) and the State Ministry of Health AIDS and Sexual Disease Control Program (SASCP), Pro-ACT's main state level partners.

The PEPFAR implementation landscape that Pro-ACT worked within in Nigeria was complex with two major United States Government (USG) agencies providing AIDS care and treatment, the Centers of Disease Control and Prevention (CDC) and the United States Agency for International Development[1] (USAID), each of which had a different set of rules for its Implementing Partners (IPs). USAID alone had 30 IPs and several of these, in addition to the CDC partners, operated simultaneously and largely without any formal coordination in the same states at the same time. Pro-ACT was also just beginning as PEPFAR was transitioning from an emergency response to PEPFAR 2 that emphasized country ownership and sustainability. To further complicate the situation for Pro-ACT, it was one of the last IPs to set up and most of the concentrated populations already had CCT centers supported by other IPs, so Pro-ACT had to make greater efforts to find enough patients to meet its PEPFAR imposed targets. This context changed dramatically in 2013 with "rationalization", whereby the USG interagency team (USAID, CDC and DoD) agreed upon a single care and treatment IP for each state. As a result, three of Pro-ACT's six states (including the two with the highest prevalence of HIV) were ceded, and two additional low prevalence states were added leaving it with five geographically contiguous but largely low prevalence

[1] A third agency, the Department of Defense, also administered PEPFAR funds to a more limited degree and with less overlap.

states in the northwestern region of the country. The final major shift came in 2014 with PEPFAR 3 that sought to achieve epidemic control by focusing resources on "populations at greatest risk", few of which were in the Pro-ACT states. This essentially brought an end the two aspects that distinguished Pro-ACT from LMS ACT – prevention and systems strengthening.

Pro-ACT embraced the following technical areas described in this report: clinical care and treatment, community prevention and care, health systems strengthening, laboratory support, supply chain management, and monitoring and evaluation.

Clinical Care and Treatment

The clinical component included the diagnosis, care, and treatment of adult and pediatric HIV and AIDS patients, diagnosis and treatment of tuberculosis/HIV co-infection, and the systems to monitor and continuously improve the care and treatment provided. A key and complex activity under care and treatment was the maintenance and establishment of CCTs. Pro-ACT established 13 additional CCTs to the 17 it inherited from LMS ACT, and then took on an additional 14 sites post rationalization for a total of 41 CCTs in five states (Niger, Kwara, Kebbi, Sokoto, and Zamfara).

Of note as well were the efforts to integrate HIV clinics into the general medical clinics, thereby reducing the visibility of the HIV-positive patients and associated stigma and discrimination. In addition to the CCTs, Pro-ACT had as many as 191 stand-alone Prevention of Mother-to-Child Transmission (PMTCT) sites each of which had a CCT to which it referred. Over the project life over 72,000 HIV positive persons were enrolled in care; however many of these, by the end of the project, were receiving services from facilities and states the project had transitioned out of. Through the development and introduction of an effective set of inter-related interventions and tools known as STRIDE (Strengthening Retention through Improved Documentation and Evidence), Pro-ACT had achieved a retention rate of 70%. Almost 700,000 pregnant women knew their HIV status and 9,000 of these were started on antiretroviral therapy (ART), preventing an estimated 3,000 new pediatric cases.

In addition to these achievements, Pro-ACT developed a unique approach to speeding up early infant diagnosis by using the express mail service of the Nigerian Postal Service (NiPOST) for express delivery of Dried Blood Spot (DBS) samples from suspected children to and from one of the three labs available to the project for the Polymerase Chain Reaction (PCR) lab test needed for diagnosis. This approach, known as Strengthening the Process and Effectiveness of Early Infant Diagnosis (SPEEiD), was presented by the Nigerian government to the African Union as a best practice in pediatric AIDS care and treatment. A total of 188,607 children were tested and 3,042 were on treatment at the project's conclusion.

Pro-ACT also pioneered some significant improvements in the diagnosis and treatment of HIV/TB co-infection. Among these was the Isoniazid Preventive Therapy (IPT) Burden Reduction Program which identified and eliminated major barriers to IPT through prepackaging dosages with antiretrovirals (ARVs), and eliminating physician prescribing barriers. During the life of the project, 81,608 persons living with HIV (PLHIV) were screened for TB, 25,920 presumptive TB cases were screened for HIV, 3,081 co-infected cases were managed in Pro-ACT supported centers, and 17,318 PLHIV accessed IPT.

On-going monitoring of all the dimensions of care was a central occupation of the project, and coalesced at the end of the project in the establishment of Quality Care Teams in all 41 CCTs. These teams drew upon the results of two instruments, NigeriaQual and Site Improvement through Monitoring Systems Tool (SIMS), as well as providers' own experience in identifying and addressing quality of care issues in a systematic and on-going fashion.

Community Prevention and Care & Support

The community component comprised community-centered prevention activities, community HIV testing and counseling, community care and support structures for HIV-positive patients and their families, services for orphans and vulnerable children (OVC), and gender sensitization activities. This was supported through small grants to 32 different civil society organizations chosen for their capacity, and presence in and knowledge about their communities. The prevention program was aimed at both in-school and out-of-school youth, most at risk populations (female sex workers, men who have sex with men, injection drug users, long distance transport workers, and uniformed service personnel), and women's groups. Pro-ACT reached 271,477 in-school youth with comprehensive family and sexual life education through the government sanctioned Family Life Health Education program, and reached an additional 56,437 out-of-school youth with trained peer educators. Over 1,000 condom distribution sites were established, supported, and monitored in places like hair salons, bars, motor parks, and brothels where evidence indicated higher rates of casual sexual contacts. Community HIV Testing and Counselling (HTC) services enabled one and a quarter million people to know their HIV status.

Pro-ACT also assisted in the formation of 49 HIV support groups, at least one associated with each of its 41 CCTs. These groups provided an important venue for PLHIV to discuss and learn about adherence, prevention, and counseling services; and were the basis for the implementation of 27 Savings and Loan Associations to provide economic support to the groups and individuals. The package of services provided to support groups through civil society organizations (CSOs) was known as Positive Health, Dignity and Prevention and reached 56,437 PLHIV while another 41,004 were reached through facility-based programs.

OVC services were both community and facility-based and reached 74,319 children with a minimal package of services embracing food and nutritional support, shelter and care, protection, health care, psychosocial support, education and vocational training, and household economic strengthening. Each household had its individual care plan and was visited regularly. By June 2016, Pro-ACT had graduated 616 households and 2,568 children out of the program by observing that all elements of the individual care plans for each child and each household had been completed. The gender discrimination that is part of the underlying context was addressed initially largely through economic empowerment activities, but at the end coalesced in a more structured program aimed at gender discrimination and gender-based violence that was centered on facilitated small group discussions of at least ten hours. This program reached 3,682 participants who identified response pathways in the community for gender-based violence.

Health Systems Strengthening

Health systems strengthening was another of the new aspects of Pro-ACT. One of the characteristic

ways that health systems strengthening ran throughout every aspect of the Pro-ACT project was in its dedication, focus, perseverance, insistence, and success in working with and through national, state, local, and facility counterparts. Underlying this was the recognition that systems can only be strengthened and made sustainable if the local agencies ultimately responsible for them are fully invested in making them work. Leadership development, advocacy, joint supervision visits, stakeholder meetings, strategic and operational planning, organizational development, and the establishment of centers for continuing medical education in each state were elements of the health systems strengthening efforts. Impacts of systems strengthening are generally more difficult to precisely identify and measure since they are largely "upstream", but these efforts resulted in the following achievements:

- 100% increase in facility-based deliveries in Kwara;
- Establishment of three state-financed CCTs in that state;
- Allocation of almost 925 million Naira (approximately $2.9 million) in new funds in budgets of the five states for HIV/AIDS and actual release of 95 million Naira (approximately $300,000);
- Establishment of State Management Teams and State Technical Working Groups in each of the five states to give sustainability and continuity to facility support;
- formalization of Centers for Health Professional Continuing Education in all five states to assure that the on-going training capacity is institutionalized; and
- General strengthening of the SASCP and SACA, particularly in coordination and strategic and operational planning.

Laboratory Support

Laboratory support was multifaceted and included initial assessment and upgrades of equipment and infrastructure, purchase of maintenance contracts and reagents, on-going training in multiple laboratory elements that reached 1,900 persons, the establishment and monitoring of quality control systems, and the development and implementation of a sample logging and transport system for facilities where lab services were not available. Pro-ACT facilitated the development of State Laboratory Quality Management Task Teams as platforms for sustainability and to drive the quality improvement process. Another key aspect was laboratory integration. With PEPFAR 2 and the emphasis on sustainability, there was an enabling environment for integrating PEPFAR labs into the general population lab services. Pro-ACT supported both physical and managerial integration of labs. By the end of the project, 62% of labs had physical integration, 82% had management integration, and 90% of labs achieved 100% concordance in quality control for serologic-based testing, CD4, hematology, and clinical chemistry. With the elimination of support for chemistry and hematological testing in 2014, Pro-ACT worked with hospitals to develop laboratory revolving funds to be able to continue to support providing free services to HIV-positive patients.

Supply Chain Management

Axios Foundation Nigeria (AFN) was the Pro-ACT partner responsible for supply chain management until 2015. Its major efforts were in commodity management, logistics management information systems, and capacity building. Initially, AFN did procurement of all commodities, including ARVs. Gradually, over

the life of the project, USAID transitioned first procurement, then storage, and finally distribution to its global supply chain project. Axios continued with procurement of non-pharmaceutical products. Axios assisted in the development of the first State Logistics Working Group in Niger state to oversee the commodity management process, and to assure availability of health commodities. This subsequently became a feature of State Ministries of Health throughout the country. AFN also developed, with the Logistics Technical Working Group (TWG), a model warehouse in Niger state and introduced a software program for real-time inventory management that was installed in health facilities throughout the state. Axios also worked at the facility level to assure model pharmacy operations, and assisted in the integration of PEPFAR pharmacies into general pharmaceutical operations at the facility level.

Monitoring and Evaluation

The Monitoring and Evaluation effort had three main clients: Pro-ACT itself for its own internal continuous quality management operations, USAID for PEPFAR reporting purposes, and the Ministries of Health at the facility, state and federal levels for their program monitoring and evaluation. USAID requirements included producing 29 quarterly, 15 semiannual reports and seven annual reports that reported on PEPFAR indicators, and entering them first into District Health Information System (DHIS), and then into DATIM with PEPFAR 3. The Ministry of Health focus was on improving the quality of medical records, and analyzing and using that data for quality assessment and program management decision purposes. In the latter half of the project, efforts included the introduction of electronic health record systems in 19 of its 41 CCT facilities. Achievements included moving from 0% to 80% of supported facilities recording data in the national recording platform, integration of HIV medical records contributing to an increase in patient attendance from 41% to 71%, the installation of Monitoring and Evaluation (M&E) TWGs in all five supported states to give continuity to its efforts, and training 834 medical records staff in health facilities as well as local and state level staff in data documentation and reporting.

Pro-ACT has contributed to the learning accumulated by USAID, PEPFAR, and the Government of Nigeria (GON) in stemming the HIV epidemic. This report includes suggestions to PEPFAR on reducing the frequency of strategic changes and allowing realistic timeframes for their implementation; and suggestions for IPs on the importance of developing true partnerships, using champions for managing change, managing rapid scale-up, involving legislators for fund mobilization, and working with CSOs. The report also shares recommendations flowing from these lessons.

2. INTRODUCTION

This End of Project Report for the Prevention and Organizational Systems - AIDS Care and Treatment (Pro-ACT) Project summarizes the activities and accomplishments of this USAID project, part of the President's Emergency Plan for AIDS Relief (PEPFAR) in Nigeria implemented between July 16, 2009 and November 14, 2016. The contents are drawn from its 29 Quarterly Reports, Technical Briefs, success stories, and interviews with key project leaders.

This is a narrative report that highlights selected quantitative data. For more information on the project's quantitative accomplishments, please see the quarterly Performance Monitoring Plan (PMP) summary in Annex 4.

Several themes will be apparent throughout the document. One is the Pro-ACT project team's ability to respond to minor and major shifts in the Project context with agility, creativity, and innovation. The rationalization and strategic shift modifications discussed below required rapid realignment and redeployment (in the case of rationalization) of Management Sciences for Health (MSH) resources, and rapid planning and innovation. The project demonstrated its "can do" attitude and ability with multiple smaller changes such as the shift in indicators with PEPFAR 3, the hyper scale-up of PMTCT sites, and the reduction in PEPFAR lab support. Drawing from its roots in management and leadership, Pro-ACT saw these challenges as opportunities and, as will be evident in this report, had creative, innovative, and effective responses leading to increased country ownership and sustainability.

Another evident theme will be the on-going use of project data to monitor, assess, and adjust project implementation with a focus on targets, and an unremitting commitment to true partnership with local authorities to ensure ownership and sustainability.

A third theme is the Project's honest and earnest engagement with local partners and implementing approaches that build capacity and ownership. These partners included Federal and State health officials, facility partners, and civil society organizations.

Country context

Nigeria is the most populous country in Africa comprising close to 17% of the entire population of the continent with an estimated 186 million inhabitants. It is a federation with 36 states and the Federal Capital Territory. It is ethnically, linguistically and religiously diverse. It has more than 250 ethnic groups, with English as its official language but with over 500 languages spoken, of which Hausa, Yoruba and Ibo are the most common. The population is 50% Muslim, 40% Christian and 10% with indigenous beliefs.

Although it has the largest economy in Africa, over 62% of the population lives in extreme poverty. A few demographic facts help put the HIV/AIDS challenge and response into context. According to the 2014 Demographic and Health Survey, life expectancy is 53 years, the infant mortality rate is 69 per 1,000 live births, and the maternal mortality ratio is estimated to be 576 per 100,000 live births. The contraceptive prevalence rate is 15%, and 63% of deliveries are home births. Twenty-eight percent of all

women have experienced physical violence at some point after age 15. Health expenditures are 3.7% of GDP while public health expenditures are less than 1% compared to a sub-Saharan Africa average of 2.3%. Seventy-one percent of all health expenditures are out-of-pocket, double the Sub-Saharan Africa rate.[2]

Nigeria has a complex health care system with both federal and state run tertiary and secondary hospitals and local government operated primary health care centers. All three tiers of government (Federal, State, and Local) share responsibility for providing health services and delivering programs in Nigeria. The Federal Government is largely responsible for providing policy guidance, planning, and technical assistance; coordinating state-level implementation of the National Health Policy; and establishing health management information systems. In addition, the Federal government is responsible for disease surveillance, drug regulation, vaccine management, and training health professionals. The Federal Government is also responsible for the management of teaching, psychiatric, and orthopedic hospitals; and runs some medical centers. The responsibility for management of state health facilities and programs is shared by the State Ministries of Health, State Hospital Management Boards, and the Local Government Areas (LGAs). The states operate the secondary health facilities (general hospitals) and in some cases tertiary hospitals, as well as some primary health care facilities. The training of nurses, midwives, health technicians; and the provision of technical assistance to local government health programs and facilities; are also the responsibility of the state authorities. The 774 local governments oversee the operations of most primary health care facilities within their geographic areas. This includes the provision of basic health services, community health hygiene, and sanitation.

Nigeria has a lower HIV prevalence (3.1%) than many other countries in Africa, but its enormous population results in its having the second largest number of people living with HIV in the world after South Africa. Nigeria has one third of new pediatric HIV infections globally, principally due to mother to child transmission, and ranks fourth in the world among high burden tuberculosis countries. Based on the national prevalence, the Government of Nigeria (GON) estimated that 2.95 million people in Nigeria were living with HIV/AIDS in 2008 just prior to the beginning of the Pro-ACT project. Of these, 833,000 were estimated to require antiretroviral (ARV) drugs but less than one-third were on treatment. In 2007, United Nations Children's Fund (UNICEF) reported an HIV infection rate of 4.4% among Nigerian women attending antenatal clinics. Yet less than 1% of pregnant women had access to HIV counseling and testing. As the Project ended, the Joint United Nations Programme on HIV/AIDS (UNAIDS) estimated that there were some 3.5 million people living with AIDS and some 747,000 were receiving antiretroviral treatment (ART).

The formation of the National Agency for the Control of AIDS, and the launch of the Nigeria HIV/AIDS Emergency Action Plan in 2001, marked the commencement of a Multi-Sectoral Response. From 2005 to 2009 the National Strategic Framework for Action guided the response, and from 2009 the response was guided by the National Strategic Health Development Plan 2009-2015 that prioritized the following eight

[2] http://apps.who.int/nha/database

areas: 1) leadership and governance for health, 2) health service delivery, 3) human resources for health, 4) health financing, 5) health information systems, 6) community ownership and participation, 7) partnership for health development, and 8) research for health. To coordinate this plan, the HIV/AIDS, TB, and Malaria Task Force was formed and chaired by the Honorable Minister of Health. In addition to and as an integral part of this national response, the United States Government continued to play a critical role through PEPFAR in supporting various projects such as Pro-ACT.

The US President's Emergency Plan for AIDS Relief (PEPFAR) was authorized by Congress in the 2003 fiscal year to assist countries to respond to the HIV/AIDS epidemic. As its name implies, the program began as an emergency program, and as such, the emphasis was on reaching as many people with lifesaving antiretroviral (ARV) drugs as quickly as possible to stem the epidemic. The US government chose two principal agencies for administering the relief, the United States Agency for International Development (USAID), and the Centers for Disease Control and Prevention (CDC). At the inception of Pro-ACT, PEPFAR 2 had just been released and indicated a transition from an emergency program to a program focused on country ownership and sustainability. In 2013 PEPFAR 3 was released that again shifted the focus, this time to "investing resources strategically and geographically to reach populations at greatest risk with evidence-based programs".

The PEPFAR context at the beginning of the Project was such that several PEPFAR Implementing Partners (IPs) were implementing similar programs under funding from both CDC and USAID in almost all the Nigerian states. USAID alone had 30 IPs. The same city might have had two or three different implementing partners having set up Comprehensive Care and Treatment (CCT) sites in different hospitals. Each one would have its own approaches, tools, and logistics support and would be relating to the same state counterparts.

Project scope

Pro-ACT was granted to MSH as a five-year Associate Award of the Leadership, Management and Sustainability (LMS) Project operated by MSH and financed by USAID at a total estimated cost of $60 million beginning July 16, 2009 and ending July 15, 2014. Pro-ACT was a continuation of a much shorter and earlier (2007–2009) project, a buy-in by the USAID/Nigeria Mission to LMS called AIDS Care and Treatment (LMS ACT) that was based on three central approaches: government ownership, partnerships, and support for the National AIDS and STIs Control Program (NASCP) Implementation Plan. Two partners participated in the LMS ACT project, Axios International and AIDS Healthcare Foundation. That project provided comprehensive HIV/AIDS services at 17 sites in six states: Kogi, Niger, Adamawa, Taraba, Kebbi, and Kwara. Pro-ACT began with and built on the base that had been established under LMS ACT, maintaining the same 17 sites and most of the technical experts that had been on the former project and introduced two new elements – community HIV prevention activities and (the "Pr" of Pro-ACT) and organizational systems strengthening (the "o" of Pro-ACT) . Axios continued as the logistics partner.

During the life of the Project, Pro-ACT underwent three distinct program description modifications. The first (Mod 06) in 2011 provided an additional $800,000 to strengthen the national laboratory capacity. Mod 11 in 2013 formalized what PEPFAR referred to as the "rationalization" process, whereby the

previously scattered assignment of health facilities in a given state to various different implementing partners was consolidated so that there would be only one PEPFAR partner providing AIDS care and treatment in a single state. Mod 17 in 2015 formalized the "strategic shift" that had occurred about a year earlier, and shifted from demand creation to passive enrollment in what PEPFAR 3.0 referred to as maintenance states, that included 28 of the 36 states, including all five states where Pro-ACT was working post-rationalization.

The rationalization process was inevitably disruptive. As a result of leaving half of its states, including the two states among its six with the highest prevalence of HIV, relationships forged over many years with state and facility personnel were abruptly terminated, and new relationships that had been built over an equal number or more years with other IPs had to be forged with facilities in the three states where it continued which had been with a different USAID or CDC IP and with both facility and state personnel in the two new states. The modus operandi of each of the IPs was different, and the CDC-funded IPs operated within a different set of parameters than those of USAID IPs. Thus, the cash infusions that some of the hospitals had received and had come to expect for hospital operations and salary supplements provided to some personnel were no longer available to those hospitals now with Pro-ACT support, much to their initial dissatisfaction. Much of the equipment received from one of the Implementing Partners was inoperable. Data that had been shared about the number of persons in treatment could not be validated. Moving from two high prevalence states to two low prevalence ones created challenges for meeting previously set targets and, in general, distanced Pro-ACT and MSH from the epicenter of the epidemic, giving it less room and funds to bring its scale-up effectiveness to bear on the epidemic. In April 2014, MSH shared with USAID its lessons learned from the rationalization process in a document titled, "MSH Pro-ACT's Pre- and Post-Experience with Rationalization in Nigeria."

Despite these challenges, the rationalization process offered an opportunity for Pro-ACT to demonstrate its versatility and leadership, as it was proactive in developing and executing a transition plan that was careful, methodical, detailed, and participatory. This greatly eased the process.

Project objectives and strategies

The original Pro-ACT Associate Award had three objectives:

1. Maintaining the availability of quality comprehensive services;
2. Increasing accessibility to services; and
3. Strengthening systems.

Seven activities were described to achieve these objectives:

- Supporting comprehensive care and treatment sites in six states;
- Increasing the capacity of local governments to decentralize HIV/AIDS services to primary health care facilities;
- Using fixed-cost small grants to develop the capacity of civil society organizations to deliver community-based services, linked with health facilities;
- Developing the capacity of state, local and health-facility teams to lead and manage HIV/AIDS programs;

- Establishing systems for quality assurance of health and HIV/AIDS services;
- Expanding prevention programs for targeted populations; and
- Strengthening the capacity of state and local governments to carry out strategic and operational planning and budgeting, and to advocate for resources to sustain their programs.

The principal strategies identified and utilized, referred to in the proposal as methodologies, were the following:

- Conducting participatory, hands-on training designed to both improve immediate performance and set the stage for long-term shifts in thinking and behaviour;
- Following up training with coaching, mentoring, and supportive supervision to reinforce new skills and practices;
- Strengthening management systems (human resources, planning/budgeting, management information, quality assurance, referrals, and commodity management) that will contribute substantively to all health services;
- Engaging stakeholders throughout the Project, from the earliest planning phase to the final evaluation and dissemination;
- Using M&E as a tool for making informed decisions at every level, tracking progress towards objectives, and improving performance;
- Motivating managers and health workers to institutionalize management and leadership approaches and use them for day-to-day work after training and coaching have ended; and
- Training health managers and health workers as trainers, coaches and mentors who share their new knowledge, skills, and practices with their colleagues and contribute to improved performance of their work teams.

With the August 2013 project modification, a single objective was agreed upon:

> To build the capacity of public, private, and community sectors for sustainable HIV, AIDS, and TB prevention, control, care, and treatment integration with the health systems**.**

Three intermediate results (IRs) supported this objective:

1. Strengthened CSO, community structures for sustained HIV/AIDS and TB services
2. Sustained access to quality integrated HIV/AIDS and TB services and products
3. Strengthened public and private sector enabling environments for ownership and sustainability

In that August 2013 modification the same strategies were reaffirmed and two new ones added:

- Documenting and disseminating best practices
- Encouraging and promoting innovations and constantly reviewing interventions to continuously improve program performance.

Known Constraints

Certain constraints were known as a result of the two years implementing LMS ACT. Some of these were structural. Among them were human resource limitations, onerous public sector bureaucracy making the release of funds difficult and erratic public utility services, especially electricity.

Public sector health care workers – upon whom the Project would have to depend if country ownership and sustainability were to be truly honored – had inadequate capacity, were generally poorly paid and unmotivated, frequently rotated between facilities, and were inclined to strikes. All of these circumstances were encountered during the implementation of the Project.

Mobilizing internal funds for the HIV response was a second structural constraint. Since the HIV/AIDS program had been generously funded by PEPFAR and the Global Fund for AIDS, Tuberculosis and Malaria, neither the Federal government nor state governments had had to worry about funding these services. The country ownership sought in PEPFAR 2, however, required a different paradigm. Lack of financial commitment by the Nigerian government reflected a lack of ownership that had to be developed and expressed in budgets. However, budgeting funds required political commitment and even budgeted funds were only released through a seemingly opaque, arcane bureaucratic process.

Electricity was very inconsistent with frequent and prolonged daily power outages. This particularly would impact on delicate laboratory equipment and drug storage facilities where temperature control was required.

Another pervasive and significant constraint was gender imbalances. This was particularly notable in the five northwestern states where Pro-ACT worked exclusively in its final years. Women, especially poor and less educated women, were very dependent upon their husbands both for permission to access health care and for the means to do so. Conversely, men were much more reluctant to access health care.

The stigma and discrimination that surround HIV throughout Nigeria was another constraint to reaching people living with HIV (PLHIV), and keeping them in the care and treatment programs. Pro-ACT and other implementing partners dedicated considerable time and attention to monitoring retention and loss to follow-up rates, deploying various tactics to understand the reasons for abandoning care and treatment, and returning deserters to care. Much of this loss to follow-up is motivated by stigma and discrimination.

Another constraint that became more severe over the course of implementation was security. This was particularly true in the two northeastern states where Pro-ACT worked, Adamawa and Taraba. During a number of months prior to transitioning out of these states, Pro-ACT was not able to visit and support sites in that state because of the security threats.

The dispersed populations with which the Project worked required greater efforts to meet targets. MSH was among the last if not the last treatment IP to enter Nigeria. Quite naturally, the first IPs began to offer services in the most concentrated population centers and the largest hospitals throughout the country. By the time LMS ACT and then Pro-ACT began, the large federal and state tertiary hospitals

already had CCTs established by other IPs, so Pro-ACT was obligated to identify and establish sites in less concentrated populations making the achievement of its targets more challenging. This ceased to be the case in 2013 after rationalization.

Dependencies

Pro-ACT had two principle dependencies: 1) the United States Government (USG) through PEPFAR and USAID upon which it depended for funds, annual targets, and overall policy guidance; and 2) the Nigerian health ministries upon whom it depended equally for policy guidance and, ultimately, for project implementation.

3. KEY ACTIVITIES AND ACCOMPLISHMENTS

The following section will address the key activities and accomplishments of the Clinical, Community, Health Systems Strengthening, Laboratory, Supply Chain Management System, and Monitoring and Evaluation components of the Project.

Clinical

This section of the report will focus on clinical as opposed to community activities. It will specifically address Adult Antiretroviral Treatment (ART), Pediatric Antiretroviral Treatment including PMTCT, Tuberculosis and HIV (TB/HIV), and the Continuous Quality Improvement efforts of the Project.

The July 2009 Pro-ACT Technical Proposal put forth seven overarching project activities. They included the following three that were implemented through the activities described in this section:

- Support a minimum of 21 comprehensive care and treatment sites in 6 states to deliver comprehensive HIV/AIDS/TB services (IR 14.2);
- Increase the capacity of 14 local governments to decentralize HIV/AIDS service delivery to at least two selected primary health care (PHC) facilities in each LGA; and
- Establish systems for quality assurance of health and AIDS services in each of states.

With rationalization in 2013, a Revised Program Description was prepared with four overarching activities, the following three of which are wholly or partly discussed in this section:

- Provide support to enhance capacity of sub-national levels of government towards improving the coverage and quality of integrated comprehensive HIV/AIDS services within assigned states, with four sub activities:
    - Increase state and LGA capacity to coordinate and manage donor activities in a sustainable way
    - Increase state government responsiveness and ownership of health programs
    - Improve capacity of states to develop plans, budget, implement activities, monitor and evaluate health programs
    - Improve health systems
- Manage HIV programs in facilities transitioned by other USG IPs
- Scale up services towards achieving saturation of available eligible health facilities to improve access

The following describes efforts to respond to these project mandates. The Health Systems Strengthening section will complement the discussion on state and LGA capacity building, state government responsiveness and ownership, budgeting, and systems improvement.

Adult ART

The heart of the Adult ART program was a health facility, usually a secondary or tertiary federal or state hospital called a comprehensive care and treatment (CCT) facility. Each facility invariably had an HIV

clinic with medical and nursing personnel specially trained in managing patients with HIV and AIDS, a laboratory capable of doing CD4[3] counts and the various chemistry and hematology tests required to properly make clinical decisions about the care of a patient with HIV, and a pharmacy that stocked and dispensed antiretroviral drugs to treat the disease, and drugs to treat tuberculosis and the opportunistic infections most associated with AIDS. Pro-ACT provided support to 17 CCTs in 17 LGAs of the six initial states inherited from the LMS ACT project. The focus of the Pro-ACT clinical team activities in adult ART was increasing the number of ART sites (CCTs), assuring quality and building the capacity of CCTs, enrolling new patients into care and treatment, monitoring patients for adverse drug reactions and treatment failures, and retaining patients in treatment.

CCT

The following table shows the evolution of CCT site establishment or maintenance over the life of the Project:

Table 1. Number of ART sites established/maintained to deliver quality CCT services

States	Inception	2009/10	2010/11	2011/12	2012/13	2013-16
Total	17	23	25	29	30	41

The opening of a new site was an intense process. Site opening was driven by the PEPFAR 2 Scaling-Up directive that required identifying new HIV-positive persons and enrolling them in care and treatment, as expressed in the annual Country Operational Plan (COP) targets prepared by the country PEPFAR team. Pro-ACT worked with SACA and SASCP authorities in each state to identify significantly large population groups with limited access to existing CCTs. Once new potential sites were identified, Pro-ACT began a preparation process that included advocacy to hospital authorities to obtain their support, selection and training of medical and nursing personnel in HIV and AIDS patient management, training of and support to medical records, lab and pharmacy departments (discussed below in the Monitoring and Evaluation, Laboratory, and Supply Chain Management System sections of this report), provision of job aids, creation or strengthening of patient care and hospital management teams, infrastructure upgrades for clinic/lab/pharmacy/medical records as needed, and occasionally patient flow reorganization and on-going monitoring, mentoring, and on-the-job training.

Human resource capacity building was a central effort. Training sessions were participatory, and where available used National HIV Training curricula and included HIV technical areas in both adult and pediatric Antiretroviral Therapy (ART), TB/HIV co-management, treatment failure and the use of second line antiretrovirals (ARVs), Prevention of Mother-to-Child Transmission (PMTCT), treatment of common opportunistic infections, pharmacovigilance and reporting side effects, ART monitoring and client follow-

[3] CD4 or T-helper cells are immune system cells attacked by HIV and their measurement constitutes one of the most important measures of disease progress. As disease progresses the CD4 count diminishes.

up (with emphasis on retention in care and loss to follow-up), sexually transmitted infections (STIs) management, and adherence counseling.

Table 2. Number of people trained in Care and Treatment over the life of the Project

Year	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	Total
Total	156	785	2,521	1,271	737	2,776	1,003	85	9,334

Less than a year after the initiation of Pro-ACT, the team recognized the benefits of integrating HIV care into the existing hospital care structures. The model at most Implementing Partners' CCTs including those transitioned from LMS ACT was to have specific and separate HIV clinics, separate labs, and separate medical records. This was very convenient for the IPs in terms of record keeping, quality control, and M&E, but it had some serious downsides for patients and for long-term sustainability. Pro-ACT recognized early on that this was not sustainable, and in response to the mandate of PEPFAR 2 for sustainability, began integration. In its second quarterly report dated December 2009, Pro-ACT stated, "The project has continued to work with facility management teams in supported sites to facilitate the integration of the parallel HIV care clinic within existing medical outpatient clinics." Its fourth quarterly report dated June 30 2010 stated:

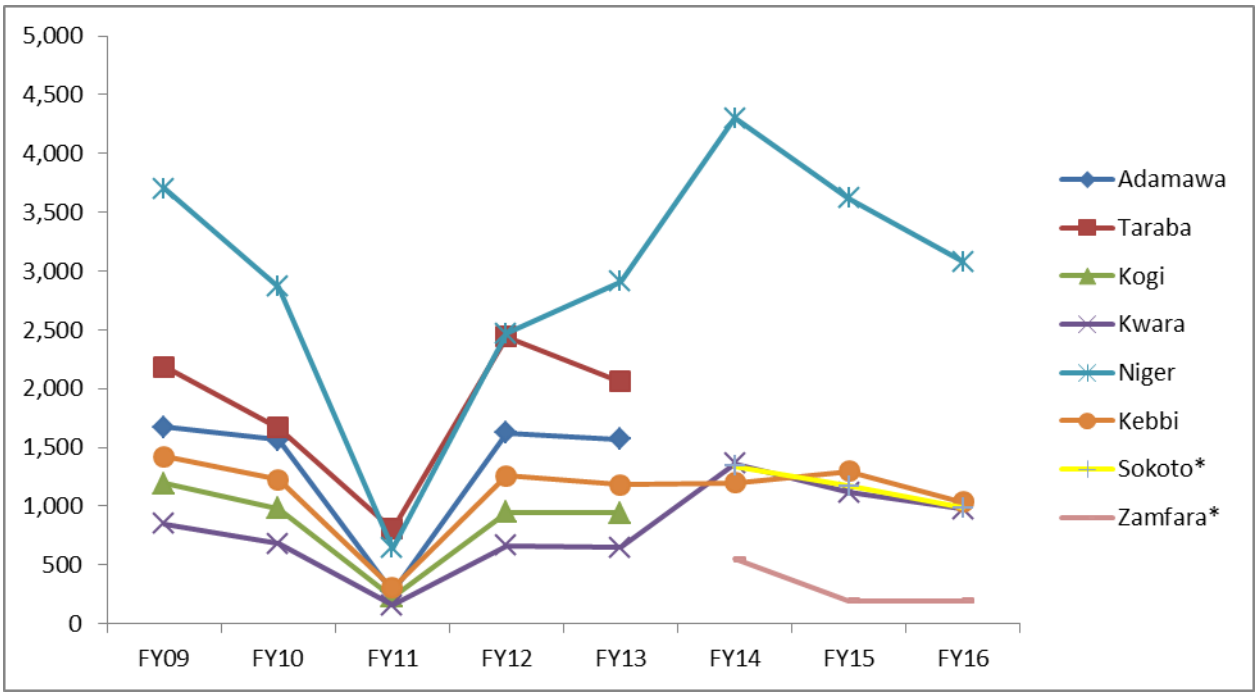
> *"With the renewed drive towards ownership and sustainability the Project began a process of integrating the provision of HIV care and treatment services into the outpatient clinics in all the supported sites. … With the harmonization of the medical records system and the adoption of nonspecific clinic days, HIV clients are now accessing care and treatment services daily with other patients at the same location. This has resulted in an increase in the availability of service providers, a reduction in client load and waiting time. In addition, access to CD4 evaluation has also improved with testing being conducted daily instead of once or twice a week."*

Patient Enrollment and Treatment

The figure below shows the evolution of HIV positive patients enrolled into care during the life of the Project.

Figure 1. HIV+ patients enrolled into care during the life of the Project

FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	Total
12,796	**10,560**	**3,813**	**10,901**	**11,094**	**8,748**	**7,405**	**6,273**	**71,950**



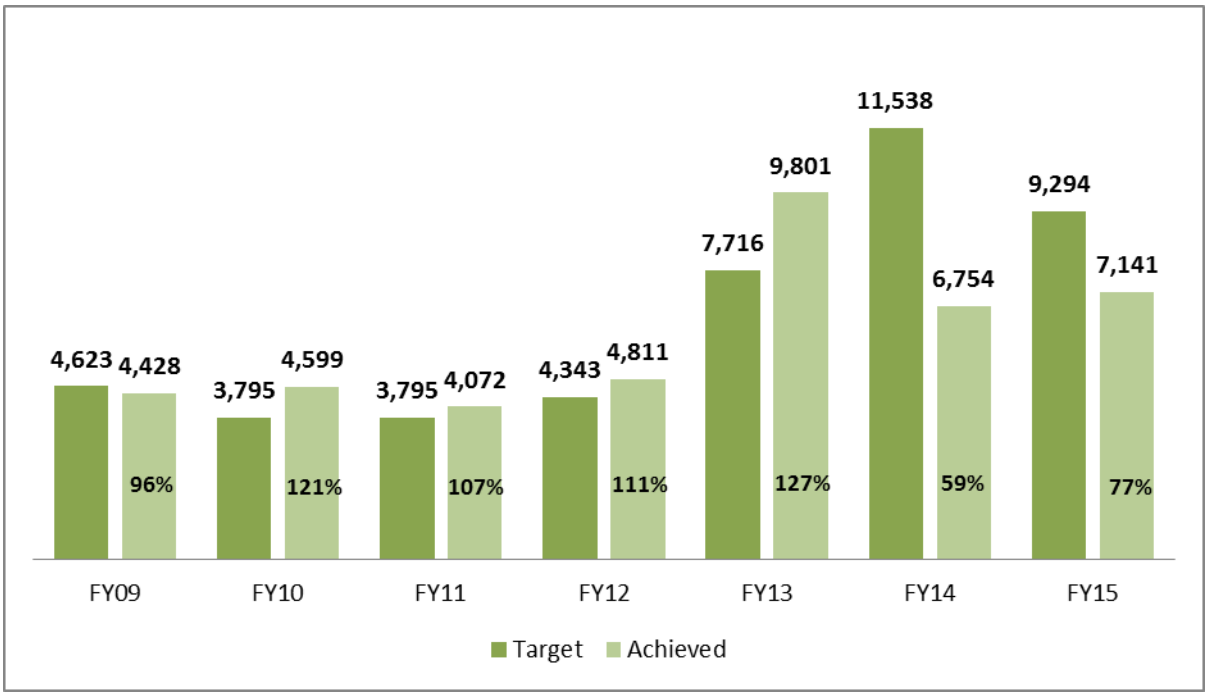
As part of its continuous quality review process, Pro-ACT clinical specialists in all states regularly did chart reviews and on-site mentoring of the facility HIV staff. Charts were reviewed to ensure that CD4 counts were done, treatment was initiated when indicated, there were no signs of treatment failure or adverse drug reactions, and that patients had not been lost to follow-up. Mentoring was carried out by sitting with the clinical staff as they saw patients and then providing feedback in a collegial dialogue with the providers. Pro-ACT developed the mentorship logbook, a clinical systems strengthening and accountability tool. The logbook provided a systematic approach to reviewing the quality of service provision while identifying gaps to be filled. It was completed by a mentor and allowed for documentation of achievements during mentoring of clinical staff and laid out follow up plans. Mentees and hospital management signed it after every visit as a way of documenting and archiving technical support for future reference. The log books facilitated systems strengthening activities including keeping track of mentoring sessions with services providers and following up on the identified gaps during repeat visits. The logbooks are further discussed below in the Quality Improvement section.

The clinical team also led the process of guiding drug regimen changes in response to evolving PEPFAR and World Health Organization (WHO) guidance. At the beginning of the Project there were goals for moving patients on Stavudine-based regimens to Tenofovir-based regimens. In mid-2014, new guidelines moved the CD4 cutoff for starting treatment from a count of 200 cells/mm3 to 350, and by project end to 500. All PLHIV co-infected with TB, all HIV-infected children below five years of age, and all HIV infected pregnant and breastfeeding women (Option B) were also initiated on antiretrovirals (ARVs). In addition, the clinical team worked at helping facilities and patients switch to fixed-dose

regimens. This enhanced compliance by reducing the number of pills that had to be taken. Each regimen change required and was an opportunity for retraining and reinforcing good practices.

The following chart shows the number of patients enrolled in treatment compared to targets. The impact of moving from the high prevalence states of Taraba and Kogi to low prevalence states of Zamfara and Sokoto without a significant adjustment to targets is reflected in the lower achievement of goals post-rationalization.

Figure 2. Number of adults and children with advanced HIV infection newly enrolled on ART



Adherence and Retention and the STRIDE Model

Maintenance of patients in care and treatment once they are diagnosed with HIV was identified as a major challenge for IPs in Nigeria. A survey carried out early in the Project identified a number of barriers to retention including: distance and poverty, making travel to the clinic prohibitively expensive; denial and fear of stigma and discrimination resulting in PLHIV providing incorrect addresses and telephone numbers to escape detection; faith in non-medical cures; and unsupportive spouse for women who culturally depend upon their husband's sanction and economic support to travel to a clinic. Pro-ACT used Adherence Counsellors and a series of retention tools and activities referred to as the STRIDE model (discussed below) to address this problem. By the end of the Project, overall retention – defined as the percentage of persons still in care and treatment after 12 months – increased from 55% to 70% on average, and some facilities had over 90% retention rates.

Adherence counsellors

Upon testing positive, a PLHIV in a Pro-ACT CCT site was enrolled in the HIV clinic. The process included adherence counselling. An adherent patient was defined as one who came once every six months for a CD4 count prior to being initiated on ART and, subsequent to that, came monthly for medicine refills and follow-up and took medication as indicated. Adherence counsellors were health care workers and HIV positive volunteers who received a small stipend and used behavior change communication (BCC) tools and skills to impress upon the patient the importance of adhering to the medical advice. The adherence universe also extended to support group members and, later in the Project, to a family member who agreed to help remind the patient to take his or her medications.

Strengthening Retention through Improved Documentation and Evidence (STRIDE)

Over the years, Pro-ACT developed and deployed several tools and approaches to address the retention challenge. The project team found that when used together they acted synergistically and complemented each other. As part of its end-of-project documentation, Pro-ACT developed a Technical Brief on the STRIDE model. The STRIDE model includes the retention calendar, a simple innovative tool that tracks ART clients over a period of 12 months; Peer2Peer patient education; a Retention Champion who continually reviews the application and impact of the STRIDE tools; appointment cards; Patient Appointment Diary; Tracer Cards; and Defaulter Tracking Teams. This constellation of tools allowed defaulters to be quickly identified. Tracer Teams, composed of HIV positive volunteers who received a small monthly stipend and were often resident in the community, then contacted defaulters either by phone or in person to encourage their return to treatment. There are three common reasons for defaulting that skewed retention results: 1) deaths, 2) self-transfer to a different treatment site, and 3) repeat positives.

Data Triangulation

Patient records were usually paper based and captured manually since the Electronic Medical Records (EMRs) were generally not available across the Pro-ACT focus states. Poor documentation led to many missed appointments resulting in patients being classified as loss to follow-up (LTFU), generating increased workload and cost for tracking patients. MSH developed an innovative M&E tool to triangulate PLHIVs' data between the pharmacy and ART register in order to identify patients who did, indeed, receive their ARVs but did not attend clinic and who, therefore, were not lost to follow-up. Following the implementation of data triangulation, retention[4] increased significantly from 50% to 70% and facilities provided better adherence counselling, particularly the pharmacists, to ensure that patients did not skip clinic visits. The increase in visit rate from 48% to 75% resulted in fewer missed-appointments and reduced workload for tracking. Also, clients tracked back (clients with whom contact was made) increased from 20% to 51% resulting in reduction in LTFU.

[4] Retention is defined as the percentage of persons commencing ART who are still in treatment after 12 months.

Decentralization

A central part of the Pro-ACT follow-on project, Care and Treatment for Sustained Support (CaTSS), is differentiated care. The purpose of differentiated care is to find ways to make HIV/AIDS care, especially ART, more accessible to patients based on their specific access challenges. One of the main ways of doing this is through decentralization of ART services to PHCs. Beginning in 2010, Pro-ACT presaged differentiated care by piloting decentralized ART services from hospitals to PHCs.

In association with NASCP, Pro-ACT piloted the process of decentralization of ART services in Taraba state. The State Specialist Hospital Jalingo was designated by the SACA for decentralization as part of the Project's effort to disperse patients at high volume sites. A rapid assessment of 10 PHCs was conducted jointly with the SMoH and LGA authorities with a view of selecting six pilot sites. Unfortunately, a prolonged strike by primary health care workers delayed the decentralization process, but by the end of 2011, a total of 23 clients had been decentralized to three PHCs. In all PHCs, ART drug refills and adherence counseling services were provided, and patients were required to visit the State Specialist Hospital Jalingo once every six months for comprehensive clinical and laboratory evaluations. A significant challenge encountered in this process was the hesitation of many patients receiving care in SSH Jalingo to consent to be down referred for fear of stigma in their communities. Patient education and sensitization efforts were intensified to encourage more patients to accept referrals. Upon rationalization, Taraba was no longer a Pro-ACT supported state, and follow-up to this promising approach was discontinued.

Policy, Procedure, and Guideline Development

The Project participated in innumerable Technical Working Groups (TWGs), stakeholder meetings, and document reviews to share its learning and make inputs into the development of HIV policies, procedures and guidelines at the federal, state, and facility level. These included Laboratory, Logisitics, M&E, and HIV TWGs; National Agency for Control of AIDS (NACA), SACA, Ministry of Health (MoH), SMoH, and IP stakeholder meetings; Laboratory and Logistics Standard Operating Procedures (SOPs); organizational assessment instruments; and National HIV/AIDS conferences to name a few. Many will be referenced in this report.

Transitioning and Sustainability

Creating sustainable systems operated and owned by GON authorities at the national level, and particularly at state and facility levels, had been a Pro-ACT objective since the beginning of the Project. The drive toward investing local resources to create a sustainable program always had to be balanced against the time and resources required for meeting the PEPFAR targets assigned yearly in the COP. As Pro-ACT was coming to a close and in light of significantly reduced financing in the follow-on project, the process of transitioning became more urgent and focused. The State Management Team and the State Technical Working Group are two of the entities that Pro-ACT helped form for sustainability. The State Management team is composed, among others, of the State Governor, the Director General of the State Agency for the Control of AIDS (SACA), and the Permanent Secretary in the Ministry of Health or their designees. Its principal aim is to provide leadership and funding for HIV/AIDS programs.

The TWG, more operational in focus, is composed of the Heads of Departments of Laboratory, Pharmacy, Supply, Pediatrics, and HIV at the state and facility level as well as representatives from the SACA. The TWG members are intimately involved in the Continuing Medical Education (CME) activities carried out to build provider capacity and participate in the Joint Supervisory Visits, one of the principal transitioning activities. The visit by state authorities and eminent experts to a facility has a great impact on the staff, particularly given that its members have both formal and technical authority. The TWG proposes the members, usually two or three, that will go on each visit. At the end of the Project, Pro-ACT was still providing logistical support and per diem for these visits.

Achievements

- Increased from 17 to 41 CCTs
- Over 72,000 clients enrolled in care
- Established State Management Teams and TWGs in all five states
- Transitioned 100% of patients off of Stavudine (D4T) based regimens
- Improved client flow and linkages, strengthened active referral system through use of escorts where feasible, and integrated HIV services in over 75% of project CCTs that reduced stigma and subsequent high loss to follow-up
- Overall client retention improved from 55% to over 70% on average with some facilities having over 90% client retention. Engagement of volunteers, mainly PLHIV, who provided Provider Initiated Testing and Counseling (PITC) and escort services, adherence counseling, and physical follow-up in the communities helped in improving client retention.
- Achieved overall data improvement due to the data triangulation (abstract accepted for presentation at the 2016 Health System Research HSR conference in Canada) and onsite continuous follow on with mentoring.
- Quality collaboration with the stakeholders and hospital managers helped in retaining over 30% of Pro-ACT CCT Health Care Workers (HCWs) that ordinarily would have been rotated.

Pediatric HIV

UNAIDS in 2015 estimated that 260,000 children under the age of 14 were living with HIV in Nigeria.[5] This represents about 10% of all pediatric HIV infections in the world.[6] Mother-to-child transmission of HIV remains the greatest contributor of new HIV infections in children, with Nigeria carrying the highest burden of new pediatric infections globally.

Pro-ACT's program for addressing this particular challenge included primary prevention of HIV infection among women of childbearing age, preventing unintended pregnancies among women living with HIV (see Prevention in the Community Section below), PMTCT, early infant diagnosis (EID) and, where necessary, antiretroviral treatment.

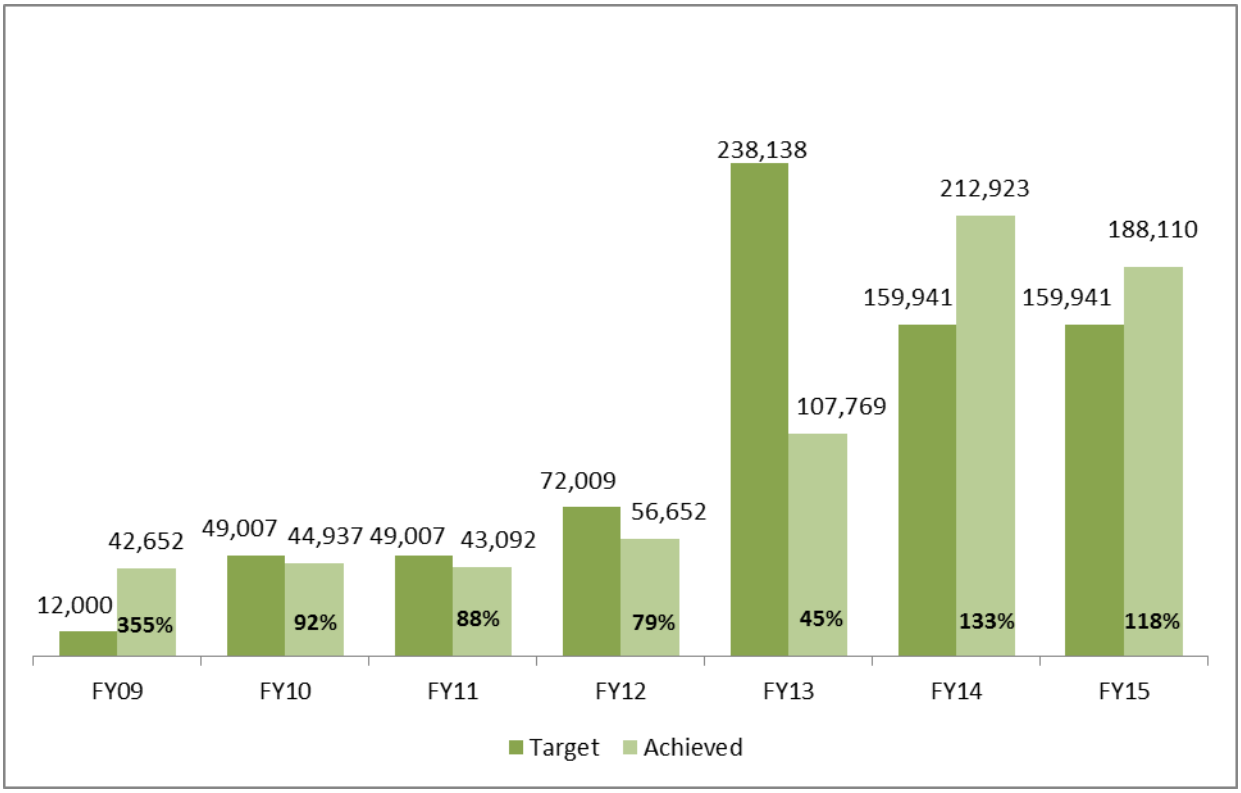
[5] http://www.unaids.org/en/regionscountries/countries/nigeria
[6] According to Avert there were 2.6 million children living with HIV around the world at the end of 2015. http://www.avert.org/professionals/hiv-social-issues/key-affected-populations/children

PMTCT/MNCH

In the absence of any intervention, transmission rates of an HIV-positive pregnant woman to her child range from 15% to 45%.[7] Transmission can occur during pregnancy, delivery, or breastfeeding.

A major effort of Pro-ACT was to increase the availability of quality PMTCT services. In 2009 Pro-ACT was asked by USAID to be the "Lead IP" in addressing the mother-to-child challenge in Niger state. As part of this effort, advocacy for increased government participation was conducted that resulted in a joint mapping of sites and development partners providing PMTCT services in the 25 LGAs in the state. MSH supported the state PMTCT TWG to develop a priority plan of action and strengthened the institutional capacity of the state AIDS control agency. By the second quarter of the Project, PMTCT services had been scaled up from 5 to 15 of the 25 LGAs. Based on the lessons learned in that process, Pro-ACT continued to expand access to PMTCT services for pregnant women. The following chart illustrates the number of pregnant women who received HTC by fiscal year.

Figure 3. Number of pregnant women with known HIV status



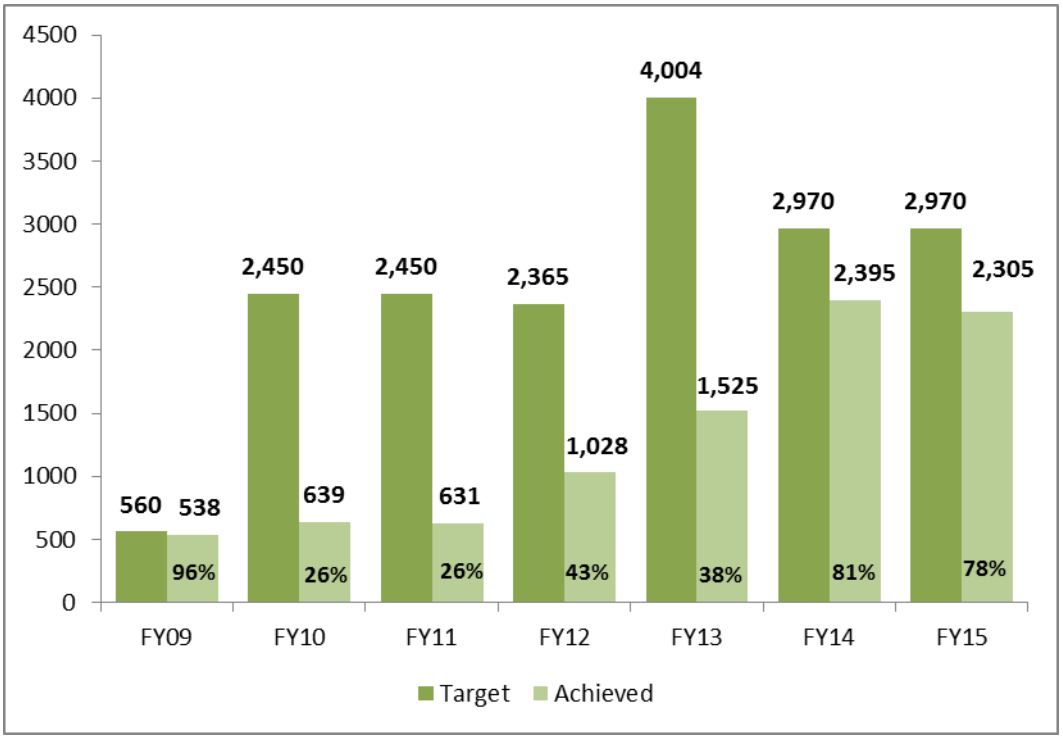
In 2012, USAID launched its PMTCT acceleration effort, the State Specific Hyper-Implementation Plan (SHIP). Pro-ACT focused on Kogi and Taraba states and developed an innovative and effective approach that greatly expanded PMTCT sites (discussed in greater detail below under the Lessons Learned

[7] http://www.who.int/hiv/topics/mtct/en/

section). In 2015, once again in response to USAID guidance, PMTCT sites that were identifying fewer than four new HIV-positive mothers per year were transitioned to GON support in order to invest PEPFAR funds in higher yielding sites, in keeping with the PEPFAR 3 efficiency action agenda. This exemplifies the frequent PEPFAR strategic shifts (i.e. going from emphasis on rapid increase in sites in 2012 to rapid downsizing in 2015) mentioned in the Introduction.

PMTCT sites included all CCTs and also sites that only did PMTCT. Standalone PMTCT sites were always associated with some CCT site. They were often PHCs or smaller hospitals that were more accessible to patients. To be a PMTCT site, a health care facility had to have trained staff, ARVs on site, the ability to do DBS testing for infant diagnosis, and basic laboratory capacity. The PMTCT sites did PITC in the antenatal care (ANC) clinics. PMTCT sites initiated ARVS to identified HIV positive pregnant women on site. Where CD4 could not be done on site, these women had blood samples logged to CCT sites for CD4 testing. Some PMTCT facilities were provided with Point of Care (PoC) CD4 machines. HIV-positive pregnant women were treated using Option B whereby they were put on ARVs through the termination of breastfeeding, and then treatment was discontinued unless their CD4 counts merited continuation of treatment based on the guidelines in effect at the time. The PMTCT sites were stocked with ARVs so that HIV-positive pregnant women would have more ready access to them. The following table illustrates the number of HIV- positive pregnant women who received ARVs.

Figure 4. Number of HIV positive pregnant women who received ART for PMTCT



With the USAID strategic shift in 2014, Pro-ACT was asked to identify and eliminate PMTCT sites that were low yield. As a result, some 60+ sites were transitioned to government support. Many of these

continued to receive Rapid Test Kits (RTKs) from the state government and were still providing services at the end of the Project.

One of the challenges was retaining mothers living with HIV in care. To assist with this, Pro-ACT developed the Mobile Health Interventions through Mentor Mothers (MiMMS) approach (discussed further at the end of this section).

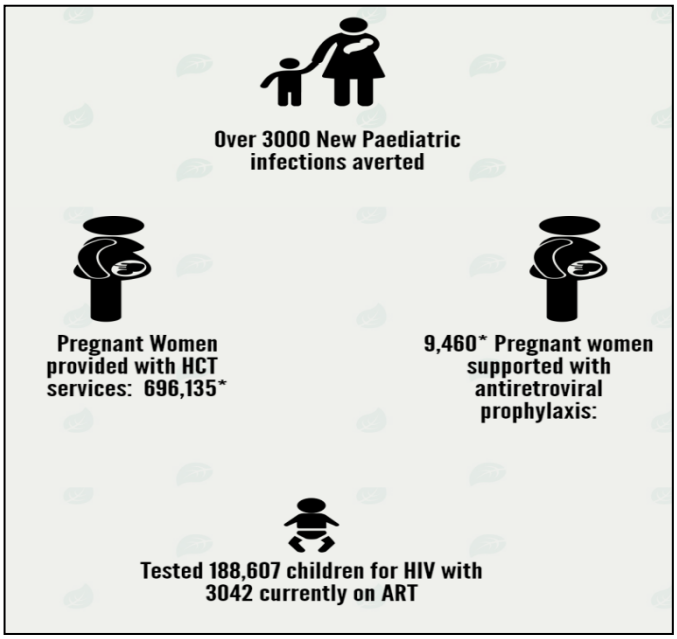
Another important aspect of retaining mothers in care was the integration of services for HIV-positive pregnant women and HIV positive women of reproductive age into normal MNCH services. This meant the elimination of special days and special clinics for HIV positive women. One of the problems with the special clinics and clinic days, as mentioned previously, was that it became very obvious which clinics served HIV positive patients. Stigma and discrimination were still common in Nigeria during the Pro-ACT project; so many women would avoid these clinics to avoid the subsequent stigma and discrimination. The integration of services made their disease less visible and led to greater compliance. The Pro-ACT project championed family planning (FP)/MCH/PMTCT integration in supported health facilities in the target states, and successfully conducted a baseline assessment in select health facilities in 2009 to better understand the programmatic linkages. Findings from this assessment informed a review of existing PMTCT program strategies, an emphasis on integrated approach to delivery of PMTCT/FP/safe motherhood interventions, during training workshops, and partnership linkages with the Planned Parenthood Federation of Nigeria (PPFN) for the continued supply of FP commodities to Pro-ACT supported sites. At project conclusion, services were integrated in all 41 CCTs.

Children born in facilities where PMTCT was offered were treated with Nevirapine from birth to six weeks of age as a preventive strategy, and in line with national and PEPFAR guidelines.

Early Infant Diagnosis

Guidelines call for children born of HIV positive mothers to be tested at six weeks of age for HIV. This requires special laboratory equipment available only in three laboratories in Nigeria by the end of the Pro-ACT project. This was done through a DBS, where blood is blotted and dried on a filter paper that is then sent to the referral lab. One of the challenges encountered by Pro-ACT was the logistics of transferring these biological samples from often remote sites to the laboratories and then getting responses. The loss of samples and the length of turnaround time meant that many children were simply lost to follow-up or had greatly delayed initiation of treatment. Pro-ACT conceived of a system using the express delivery system of the Nigerian Postal Service (NiPOST) to speed up this process. This system, known as SPEEiD (Strengthening the Process and Effectiveness of Early Infant Diagnosis) was presented in 2015 by the Federal MoH to the African Union as a Best Practice in the PMTCT response. Batched DBS samples were usually packaged at the service delivery point and sent on a designated day to a particular hub in the SPEEiD network. The details of all samples received were recorded at the hub before NiPOST transported samples to the designated PCR laboratory for analysis. Upon completion of the sample analysis at the PCR laboratory, NiPOST transported the results back to the hub and then the service delivery point facilities. Turnaround time was reduced from 3-months to 3-4 weeks and cost reduced. (Please see Pro-ACT Technical Brief Improving Dried Blood Spot (DBS) Transport Logistics for Early Infant

Diagnosis (EID) of HIV: The SPEEiD Model for additional information. A complete list of Pro-ACT Technical Briefs is included in Annex 1.)



Pediatric ART

Guidelines current at the end of the Project called for all HIV positive children to be treated with ARVs. Prior to 2014, national guidelines called for ARVs only in children under the age of five years. Every time there was a guideline change, Pro-ACT would arrange training for all indicated HCWs to familiarize them with the new guidelines. One of the challenges in treating children was that many births were still home births attended by midwives or family members. These children were identified only when the mothers would bring them into the clinic after delivery. Pediatric cases were also identified in children of mothers who had not been identified as HIV positive but whose child presented with symptoms such as severe acute malnutrition or failure to thrive. In those cases, the mother would be tested and, if positive, the child would have the DBS sent to the laboratory. With 30% prevalence of severe acute malnutrition (SAM) among HIV positive infants, the Project collaborated with the Clinton foundation in 2009 to integrate PITC into Outpatient Therapeutic Food Program, resulting in improved HIV test uptake in supported facilities. The continued support for the Nutrition program was provided through referrals and collaboration with state/facility nutrition programs. However, in 2015 following a directive from USAID, the Project commenced direct nutritional support for children living with HIV/AIDS in supported sites. As of June 2016, 93% of identified HIV positive children with SAM were placed on Ready to Use Therapeutic Food.

Achievements

- Provided PMTCT services reaching over 9,000 women with antiretroviral medications, averting over 3,000 new pediatric infections in Nigeria.
- 188,607 children tested for HIV.
- Contributed to an increase in National PMTCT coverage from 11% in 2011 to 31% 2015, and a 25% reduction in all new pediatric infections in Nigeria.
- Scaled-up from 26 PMTCT sites in 2009 to 291 health facilities by 2013 (at EOP sites had been scaled down at USAID request to 128).
- PMTCT services integrated into MNCH/FP services in all 41 CCT sites.

TB/HIV

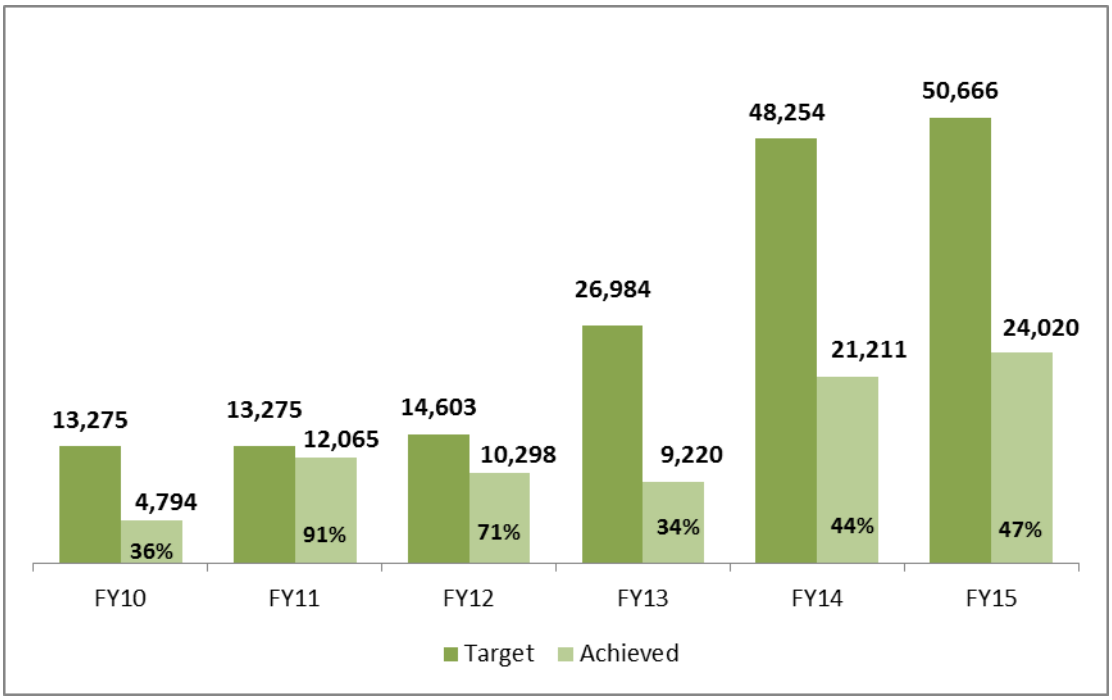
Tuberculosis/HIV co-morbidity is common in Nigeria. Twenty-two percent of TB patients have HIV[8] and between 25% and 65% of HIV patients have TB.[9] The Pro-ACT TB/HIV component was designed around the WHO "Three Is": Intensified Case Finding, Isoniazid Preventive Therapy (IPT), and Infection Prevention and Control. Given the importance of co-infection, one of the Project inputs was to ensure that all CCTs had a co-located Directly Observed Therapy Short Course (DOTS) clinic; and that these clinics were as physically close as possible and programmatically linked through coordination, cross training, and information sharing.

Intensified Case Finding

The focus at the inception of the Project was on finding TB cases among HIV positive patients. Case detection had been a challenge of the TB program since before the beginning of the Project. HIV patients are at particular risk of TB infection. Part of enrollment of new patients was the enhancement of TB case-finding using the WHO clinical TB symptomatology questions as a TB screening checklist. The checklist oriented clinicians to ask about TB symptoms such as cough, weight loss, or night sweats. However, an evaluation of all Pro-ACT sites in 2010 showed that less than 50% of patients were being screened. Pro-ACT worked with facilities to train nurses, records clerks, and adherence counselors to triage using the screening checklist at every point of contact, and as a result the percentage of patients screened increased significantly.[10] TB and HIV clinic staff members were trained at different times on TB/HIV co-infection and management. By the last quarter of FY2011, Pro-ACT reported screening of 90% of HIV patients across its sites.[11] The following chart shows the increasing effectiveness of the screening approach.

[8] USAID, SHARP IDIQ, Attachment A SOW.
[9] Prevalence of Tuberculosis in HIV/AIDS Patients in Lafia, Central Nigeria., International Journal of Microbiology and Applied Science, Volume 3 Number 6 (2014) pp. 831-838
[10] March 2010 Quarterly Report, p. 26
[11] September 30, 2011 Quarterly Report, p. 26

Figure 6. Number of HIV positive patients screened for TB in an HIV care and treatment setting



The targets for TB screening in FY 14 and FY 15 were based on an assumed number of PLHIVs in care of over 50,000 following the rationalization process – a number that was based on reports of the IPs previously supporting the facilities that MSH inherited. However as the project continued to deploy improved strategies for TB screening and also improved on the data records in the inherited facilities, a reevaluation of the number of patients who were active in care and were accessing both clinical and community services put the figure to just over 30,000 patients. With this more accurate figure the project TB screen rate in FY 14 and FY 15 was 87% and 90% respectively.

Pro-ACT also began training DOTS personnel in HIV testing and counseling so that HIV patients were being sought in the TB program and TB patients were being sought in the HIV program.

At the beginning of the Project, screening led to the collection of sputum samples from TB suspects after their registration at the DOTS clinics, that were then passed to the laboratory where staining for the identification of acid-fast bacilli was carried out. Generally, three specimens were required. There were serious on-going challenges with this from non-functional microscopes to inadequate laboratory facilities. Beginning in 2014, the GON began to make the GeneXpert machines available in the five Pro-ACT focus states.

The GeneXpert is a device promoted by WHO that facilitates the rapid diagnosis of TB from a single sputum sample, and identifies Rifampicin-resistant TB. At the close of the Project, 13 GeneXpert machines had been distributed among the five states. The project has strengthened TB diagnostic capacity of partner health facilities through the creation of a web-network system for TB sample

transport among supported facilities utilizing a hub and spoke approach. This ensures timely and seamless access to TB diagnosis among PLHIV and the general population. This approach maps routes of sample transport, covered distance, identification and retaining of contacts of focal facility sample courier person, use of log books for sample transport, and safe transport of infectious material.

Isoniazid Preventive Therapy

In 2012, in response to new guidance from the National Tuberculosis and Leprosy Control Program, Pro-ACT piloted isoniazid preventive therapy for HIV positive patients in Taraba State Specialist Hospital Jalingo. Subsequently, the IPT approach was scaled-up in all facilities. The main limiting factors to rapid scale-up were the absence of the drug in the various CCT sites, and lack of capacity and knowledge on the use of IPT among HCWs including fear of resistance to Isoniazid (INH). To address these challenges, the Project developed and promoted the IPT TB Burden Reduction Program as a technical package. This package of interventions emphasizes the use of a process evaluation for setting up of IPT intervention, rapid exclusion of TB among PLHIV, identification of eligible PLHIV for IPT and commencement of IPT, training of health care workers on IPT intervention, synchronizing of IPT prescription with ART and Pre-ART care packages, periodic training of health care workers on IPT utilization, gaps analysis, and annual outcome evaluation of both end users and intervention packages. This approach has continued to ensure that PLHIV have uninterrupted supplies and access to IPT.

Infection Prevention and Control

The Pro-ACT project deployed a systems strengthening approach to implement Infection Prevention and Control (IPC). The key strategy was the integration of IPC activities into the facility level quality improvement team. This approach ensured an on-going evaluation of implementation at the facility level. Activities conducted to reduce hospital nosocomial infections using TB as the reference point included: annual rapid facility infection risk assessment, development of infection prevention and control intervention policies and infection control plans that reference risk assessment reports, and mid-term evaluation of proposed facility-specific infection prevention and control activities. Facility infection prevention interventions ensure administrative controls are in place and personnel take infection control protective measures, such as providing information and education in waiting rooms and other places of congregation on coughing etiquette, separating of coughers, use of cough triage officers, promotion of cross ventilation, and emphasis on reduction of wait times in service delivery points with focus on crowded settings. Additionally, the Project engages respective local government TB supervisors to lead the process of risk assessment as a more sustainable approach to annual rapid facility infection risk assessment.

Achievements

- 81,608 People Living with HIV and AID received TB screening services for the early diagnosis and treatment of TB
- 25,920 presumptive TB cases in USG PEPFAR supported DOTS treatment facilities including 14,602 registered TB cases received HIV Testing and Services (HTS)
- 3,801 co-epidemic cases of TB/HIV infections were managed in Pro-ACT supported DOTS treatment and HIV care settings

- 17,318 (47% of current in care and treatment) PLHIV accessed Isoniazid Preventive Therapy (IPT) with over 78% completion rate on 6 months course of IPT
- 2,946 estimated TB cases averted among PLHIV with estimated National cost saving for anti-TB Treatment procurement of 5892000 dollars at the rate of 2000 dollars per TB treatment
- 376 TB/HIV champions trained across the five project states
- 876 TB cases including over 40 Rifampicin resistant TB cases were identified and managed through the courier of 4,652 TB specimen to and from GeneXpert laboratories
- Operationally, the training and integration of respective project state TB program managers into the HIV/AIDS care treatment technical working group and the TB LGA supervisors into the partner health facility HIV care setting has reduced vertical programing, including improving program ownership.

Quality Improvement

MSH specified quality improvement in its original Pro-ACT project proposal as one of seven "macro" activities: "Establish systems for quality assurance of health and AIDS services in each of the states." The quality assurance approaches used during the Project were of two general types. One type was focused and directed at particular quality issues such as retention, reporting of adverse drug reactions, and even the on-going chart reviews and mentoring. These were continual activities quarter after quarter during the life of Pro-ACT. A second approach coalesced after rationalization, was more broad and systematic, and had various elements that are discussed below.

Focused Quality Assurance Activities

The following are some examples of the type of focused Quality Improvement (QI) activities that took place during the life of the Project:

- Pre- and post-test counselling sessions were observed and feedback provided to counsellors. Service providers were trained and encouraged to use job aids as a tool to ensure quality in the service delivery (March 2010 Quarterly Report).
- PITC, Orphans and Vulnerable Children (OVC), Home Based Care, tracking registers and volunteer duty sheets were reviewed and audited by the specialists to ensure that data was captured consistently and correctly during mentorship and supervisory visits (March 2010 Quarterly Report).
- Pro-ACT assessed the effect of integration on quality of services and client retention in five supported sites in Adamawa State. A before and after design was employed and routinely collected monthly data was analyzed in two different times. Time 1 covered the period between July 2009 to February 2010 and Time 2 covered from February to September 2010 (September 2010 Quarterly Report).
- In pursuance of quality of HIV/AIDS service delivery the clinical team conducted a review of all job aids then at use in Pro-ACT supported facilities. Based on feedback from some facilities on the use and relevance of available job aids, a survey of service providers was conducted to evaluate the relevance, user friendliness, and effectiveness of available job aids and guidelines, and their impact on service delivery. The structured questionnaire was administered to over 70 service providers across all Pro-ACT supported states to identify gaps that would be addressed during the ongoing review of tools (March 2011 Quarterly Report).
- At the end of the June 2011 quarter, 60% of Pro-ACT supported facilities had been reviewed and 38 clear cut cases of treatment failure were identified. The clinical, community and supply chain

management teams worked in tandem to ensure that these patients were adequately prepared and followed up for regimen switch to second line therapy and subsequent adherence counselling (June 2011 Quarterly Report).

- A desk review revealed low client enrolment across some facilities in the program. As a result of this, a site audit was conducted that revealed some gaps. Post-test counselling was found to be an important contributory factor. Some other factors were staff attitude, non-use of proper referral forms, poor referral networks, and use of electronic medical recording systems that did not factor in HIV client flow. Interventions to address these gaps were implemented during the reporting period using the patient care meetings, and mentoring and supervisory visits as avenues. Activities included running through referral protocols, instituting the use of referral forms for all intra-facility referrals, use of escorts where feasible, and meetings with management about staff attitude and ownership of the program. During the reporting period these activities were carried out in 14 MSH Pro-ACT supported facilities in five states (March 2013 Quarterly Report).

Data collected in these focused efforts were used for service improvements, as exemplified by these excerpts from selected quarterly reports:

- Multidisciplinary quality improvement teams at site level agreed on specific improvements for use of TB symptom checklist for increased TB case finding and identified specific service points where the checklist could be administered. Mentoring sessions were held to train junior cadre staff (task shifting) on how to effectively complete the checklist and this has subsequently been monitored closely (December 2010 Quarterly Report).
- A consistent increase has been observed in percentage of clients getting baseline CD4.due to the following interventions. Escort services were instituted in collaboration with facility team to ensure that newly diagnosed patients were accompanied to the records unit for enrolment and to the lab for CD4 sample collection. Other strategies instituted included the use of CD4 calendars and appointment registers to track patients CD4 due dates, task shifting such that nurses are able to fill CD4 laboratory request forms (December 2010 Quarterly Report).
- Based on the findings of the audit Pro-ACT conducted an adherence counselling training in Abuja from the 13th- 18th of June 2011 to train 70 medical and allied health professionals. The training was facilitated by a team of MSH staff, University Institute of Human Virology Nigeria-AIDS Relief of Maryland School of Medicine, (UMSOM) and 3 external facilitators as part of an ongoing initiative to enhance collaboration with other USG IPs (June 2011 Quarterly Report).

NigeriaQual, SIMS, and a more structured Quality Improvement approach

After rationalization, Pro-ACT used two principal quality assessment tools, NigeriaQual and SIMS (Site Improvement through Monitoring System). NigeriaQual is a federal tool designed for site self-assessment. The overall goal of the NigeriaQual program is to improve the quality of care for all patients enrolled at HIV/AIDS care and treatment facilities using a tripod of quality improvement infrastructure, performance measurement, and continuous quality improvement activities, which is focused on system issues and engaging all those involved in processes to improve the underlying system of care. NigeriaQual performance measures are **reported biannually** and are used to identify gaps and provide a basis for the initiation and implementation of QI projects.

Pro-ACT participated in the pilot using the tool in Niger state in 2013. The tool has 6 dimensions, three of which were used by Pro-ACT: Adult ART, Pediatric ART, and PMTCT. The three dimensions not used were Program Management, Financing, and Logistics. The tool was applied every six months by the facility Quality Improvement Team with Pro-ACT support and used to track improvements and identify areas that required additional attention. The results of each application were received about 1-2 months following the close of the mid-year and end-of-year semesters, and were reviewed by the facility Quality Improvement Team.

The Quality Improvement Teams evolved from Patient Care Teams, a characteristic feature of most Nigerian hospitals. In most Pro-ACT CCT facilities, the Patient Care Team became the Quality Improvement Team. The Chief Medical Director (CMD) was the ostensible head of the team, but a focal person, usually the individual with the most interest, was identified as the focal person. Quality Improvement Teams had been used and supported by Pro-ACT since its inception. However, with rationalization and the assumption by Pro-ACT of CCTs that had been managed by other IPs, the Quality Improvement Teams received greater and more systematic attention. These teams were multi-disciplinary involving all cadres of care providers. Team members raised quality issues that they identified with or without Pro-ACT assistance, and if the team decided that the issues raised warranted action, they developed a plan to address the quality issue. The QI Team focal person ensured follow-up of the implementation plan and reported back on progress at the monthly meetings. The results of the NigeriaQual assessment were discussed by the QI Team. Each QI Team had a retention sub-committee that focused specifically on retention and provided close follow-up.

SIMS, the other evaluation instrument used by Pro-ACT after rationalization, is a 138 page site assessment tool developed by PEPFAR and used for site monitoring. The SIMS tool emphasizes 3 core themes: Transparency, Accountability and Quality and has 23 areas of car (i.e., dimensions) that it assesses. Since SIMS has objective standards for almost every aspect of HIV care and treatment, relevant parts of it were used by Pro-ACT specialists when they visited facilities and by the Joint Supervisory visits when they occurred. Facilities had copies of the SIMS standards that are explicit and tend to be day-to-day operational features that lend themselves to rapid improvement.

An additional feature of the quality improvement process in the final years of the Pro-ACT project was the mentoring logbooks. Each facility had a mentoring logbook kept in a central location. Each time a Pro-ACT specialist visited a site and interacted with staff he or she would record performance improvements agreed upon by staff. A copy was kept by the facility and by the Pro-ACT specialist. Upon the subsequent visit by that or any of the other specialists, the logbook was reviewed, follow-up was carried out and recorded, and any new performance improvement goals were added. This process further systematized and strengthened the quality improvement process.

Achievements

- The project through training and retraining of health care workers utilized the New York State department of health HIVQual manual to set-up quality improvement systems at the state and at health facility levels across all the 5 states. This has led to the implementation and tracking of quality Improvement projects in all the 41 supported facilities – with each facility implementing at least 3

projects in a year. An abstract on this achievement was presented and accepted for oral presentation in the 2015 AIDS conference in South Africa.

- The project systematically scaled-up the National HIV Quality Management program (NigeriaQual) beyond Niger state (16 health facilities) to the other 4 states to cover an additional 25 partner health facilities not funded by the Federal Ministry of health. This has ensured that the 41 supported health facilities are all part of the national quality management system.
- Prior to the National Quality Management System, early access to ART - one of the global measures of treatment success - was below 60% national average with some state averages being as low as 22%. However with the systematic scale up of the National HIV Quality Management System across the supported facilities, early access to ART has improved to 96% (national average) with lowest state average standing at 87.5%. This has put ProACT state among states with high ART coverage with ultimate reduction in mortality from delayed access to ART.
- QIT at the Maryam Abacha Woman & Children Hospital, Sokoto State implemented a QI project on clinical screening for TB in the adult PLHIV population that led to an improvement in baseline screening from 15% to 70%. Improved clinical screening for TB in HIV positive patients led to early detection of TB, early initiation on TB treatment, and subsequent reductions in mortality among co-infected patients.
- At General Hospital (GH) Omuaran Kwara State, improvements in adherence assessment led to improved retention rates among patients enrolled in the HIV program as a result of the implementation of their QI project.
- Quality Improvement Teams established in all facilities.

4. COMMUNITY

This section of report discusses activities and achievement in the specific areas of Prevention, HIV Testing Services, Orphans and Vulnerable Children, and Care and Support. Additionally, the Grants Program that provided grants in all of the above areas and Gender are discussed.

Prevention

The "Pr" of the Pro-ACT name change from the former ACT project was prevention.[12] The Pro-ACT project began at a time when HIV infection appeared to be at epidemic levels. Prevention was a key strategy for trying to stem it.

The original project technical proposal had as a key activity to "Expand prevention programs to promote low-risk behaviors among in-school and out-of-school youths and Most at Risk Populations (MARPs)." The prevention activities were carried out through several modalities until mid-2014 when USAID indicated that PEPFAR funding of all prevention activities should cease in all the 29 sustained response states which included all five of the Pro-ACT states.

The prevention intervention had two major population focuses: Youth and most at risk populations (MARPs). MARPs included female sex workers, men who have sex with men, people who inject drugs, uniformed service personnel and road transport workers. Pro-ACT carried out an initial baseline assessment in Kogi and Taraba states, and conducted abridged data collection in the other four states.

In-school Youth

The youth program was focused on both in-school and out-of-school youth and was implemented initially by the Pro-ACT Prevention Specialists in the six states and subsequently by CSOs contracted by the Project. The program used the "Family Life and HIV Education" (FLHE) curriculum, a Ministry of Education (MoE) approved curriculum for teaching about family life, sexuality, and HIV and AIDS offered at junior and senior secondary school levels.

The FLHE is a planned process of education that fosters the acquisition of factual information; formation of positive attitudes, beliefs, and values; and skills development for coping with the biological, psychological, socio-cultural, and spiritual aspects of human living. The curriculum provides a framework for the acquisition of knowledge of self and family living from childhood to adulthood. The content and teaching methods are learner-centered and use participatory teaching and learning techniques. It also reflects a comprehensive approach to HIV prevention education from primary to tertiary levels of education.

Pro-ACT supported States' MoEs to implement the FLHE program that combines teacher-led activities delivered as part of classroom teaching with peer-led clubs in select schools across the Project sites. The

[12] Much of the section on prevention is drawn or copied directly from Pro-ACT "Prevention Unit End-of-Project Report (2010-2014)"

curricula and non-curricular based activities of the FLHE program provided in-school youths with the opportunity to acquire new information, express their own thoughts, and acquire the essential life building skills needed to make healthy decisions about their sexual health and behavior.

To ensure a competent critical mass in the MoE that would effectively coordinate and implement the FLHE program at various levels of implementation, Pro-ACT conducted Training of Trainers (TOTs) for representatives from the HIV Unit of the different States' Ministry of Education as well as teachers from select schools, with priority given to those that taught FLHE related subjects such as integrated science, social studies, and physical education. The program included modules on Adolescent Sexual and Reproductive Health, Anatomy and Physiology of Male and Female Reproductive Organs, Essential Life Building Skills, Sexually Transmitted Infections (STIs), HIV & AIDS, the Minimum Prevention Package for Abstinence (AB) Strategies, and the Data Collection Tool.

To ensure effective implementation of the non-curriculum components of the FLHE program that would promote abstinence and low risk behavior among in-school youths, the TOT was usually followed by a step-down training for selected student Peer Educators (PEs).

The Ministry of Education FLHE coordinator took the lead in the planning and execution of the training by initiating and leading discussions with the school authorities and parents to get support for the school based prevention program, as this would enhance the ownership and sustainability of the program. This was followed by the selection of the PEs by their peers and also getting parents' consent for their ward's participation in the activity.

The trained FLHE teachers took charge of the step-down training with support from the FLHE Coordinator, Grantee CSOs staff, and MSH Prevention Specialist to ensure that correct information was passed to the PEs, that the mode of delivery of the technical sessions was youth friendly, and that quality was maintained.

As part of the FLHE program sustainability model, Pro-ACT supported the formation and strengthening of health clubs in the schools. These clubs, under the direct supervision of the FLHE teachers, continued to coordinate the implementation of activities such as peer education, drama, songs, and small group discussions under the non-curriculum components of the FLHE program. To sustain this enabling environment after MSH transitioned out of the program, the FLHE Program Management Committee (PMC) was formed and inaugurated in the model schools. The membership of the PMC was drawn from the MoE, school authorities, Parents Teachers Association (PTA), Local Action Committee on AIDS (LACA), FLHE teachers, and health club executives. The committee has the responsibility of ensuring continuous implementation and sustainability of the program in the model schools by interfacing between all the relevant stakeholders in the program.

Most At Risk Populations/Key Populations

For Most at Risk Populations (MARPs), Pro-ACT drew upon the Peer Education Plus (PEP) model, a theory-driven, evidence-informed HIV prevention model for use among key target populations developed by the UK-financed "Promoting Sexual and Reproductive Health and HIV/AIDS Programme",

and adopted by the Nigerian government for HIV/AIDS prevention activities. PEP is a comprehensive HIV prevention intervention that ensured active involvement of the Key Populations in the Project activities (leadership, advocacy, design, implementation, M&E) that promoted the adoption of low risk behaviors among members of the target population.

At the beginning of implementation, interventions targeted a wide range of persons all considered at risk of HIV and categorized as Most at Risk Populations (MARPs) as mentioned above. However, following the national strategic shift, prevention efforts focused on three target populations - commercial sex workers, people who inject drugs and men who have sex with men, referred to as the Key Populations.

Given that most of the MSH states were low prevalence states with community-religious sentiments, reaching key populations with HIV prevention interventions was quite challenging. Also, the Project closed out immediately after the capacity of the grantee CSOs and PEs were strengthened, and before the intensive phase of the intervention, leaving very little time to document successes. However, before the final close out, most of the Pro-ACT supported Sexual Transmission Prevention (STP) activities were transitioned to the state government, community structures, and other donor supported programs.

Out-of-School Youths and Women's groups

Highly vulnerable groups such as out-of-school youths, as well as various women groups (priority on those of reproductive age) within the general population were also reached with the Pro-ACT supported HIV prevention intervention, in line with the nationally recommended Minimum Prevention Package of Intervention (MPPI) principally through Peer Education. The peer educators were trained during one week on Behavior Change Communication messages, promotion and distribution of condoms, and HTC. Key messages included promotion of safer sexual behavior through abstinence, mutual faithfulness among uninfected partners, getting tested for HIV, and risk reduction through partner reduction and consistent and correct condom use with every sexual partner. The trained PEs, in turn, were expected to have a group of 10-15 peers with whom they would interact 2-3 times per month with appropriate HIV prevention messages in accordance with the minimum standards in order to facilitate positive behavior change. At the end of each month, Pro-ACT prevention specialists would meet with the peer leaders to discuss their activities during the month, understand and help respond to challenges, and do refresher training.

Increasing Access to HIV Prevention Commodities through Condom Programming

Condom promotion (consistent and correct condom use) was another key component of Pro-ACT's prevention strategy. The objective was to increase demand for condoms and lubricants among the key populations and vulnerable groups at risk of HIV infection while the Project ensured condom availability and easy accessibility by integrating condom distribution services in non-traditional outlets such as beauty salons, brothels, bars, motor parks, and offices across the intervention sites.

The outlets were stocked with both male and female condoms, lubricants, penile and pelvic models, IEC materials, and data collection tools. The outlets were consistently trained on how to demonstrate correct use of condoms and lubricants, and provided with safer sex products. The 'mystery client'

approach was used to monitor and enhance provision of quality services to the clients by the outlet managers.

Achievements

- 514 teachers were trained to coordinate and implement the FLHE in their various schools and 1525 PEs amongst the key populations and vulnerable groups to implement the BCC intervention using the Peer Education Plus, a peer-led approach reaching 56,437 out-of-school youth.
- 1,018 condom distribution outlets were established in strategic locations across the intervention sites for easy accessibility by the target populations.
- 271,477 in-school youth reached with individual and/or small group level HIV prevention interventions primarily focused on abstinence and/or being faithful, and based on evidence and/or meet the minimum standards required.
- 201,451 individuals reached through community outreach that promotes HIV/AIDS prevention through other behaviour change beyond abstinence and/or being faithful.
- 145,351 MARPs reached with individual and/or small group level interventions that are based on evidence and/or meet minimum standards.

HIV Testing and Counseling

A major goal of the Pro-ACT Project was to increase identification and enrollment of HIV positive individuals. This was in response to the PEPFAR mandate at the time of project initiation which was a focus on scaling-up.

HIV Testing and Services (HTS)[13] was the entry point for all HIV treatment and care services, where patients were counselled and tested. HTS had two major expressions in Pro-ACT: 1) facility based that was initially implemented through "Provider Initiated Testing and Counseling" (PITC); and 2) community based through targeted community outreach programs.

PITC was aimed at utilizing all of the different patient contact points in the facility to promote and offer HTS. These points included General Outpatient Departments, wards, ANC, clinics, labor ward, pharmacy and laboratory. Providers were trained to give short promotional presentations and then offer immediate testing and counseling. In some cases because of health care worker shortages, volunteers were trained and provided the HTS services even in facilities.

Community based HTS from 2009–2013 was carried out principally through community outreach efforts. The communities for outreach were determined in consultation with CCT facility personnel and generally were the most populous surrounding neighborhoods, towns, or villages. Outreach began with a Pro-ACT team member, usually the Community Care Specialist, carrying out an advocacy meeting with Local Government Area (LGA) officials and traditional leaders. Local leaders would then assist by announcing the upcoming health outreach to the community through appropriate channels.

[13] This was the final appellation for what was initially called HIV Testing and Counseling (HTC).

Outreach was often an intense one to two week activity that was promoted as health outreach, and as such might have some maternal and child health components, but it was principally designed to carry out HTS. The Pro-ACT state Community Care Specialist and other Community Care Team members and one or members of the Pro-ACT state M&E team would participate, as well as volunteers who would often be PLHIV, preferably indigenous to the community where the outreach was taking place. A health booth was set up on market days and outreach to motor parks and brothels and even house-to-house visits would take place on other days. Any person who tested positive would be registered and referred to the health facility and a team member would follow-up with the person either by phone or house visit. Challenges included incorrect phone number and/or incorrect addresses. Either of these could lead to someone being lost to follow-up even prior to his or her enrollment in the program.

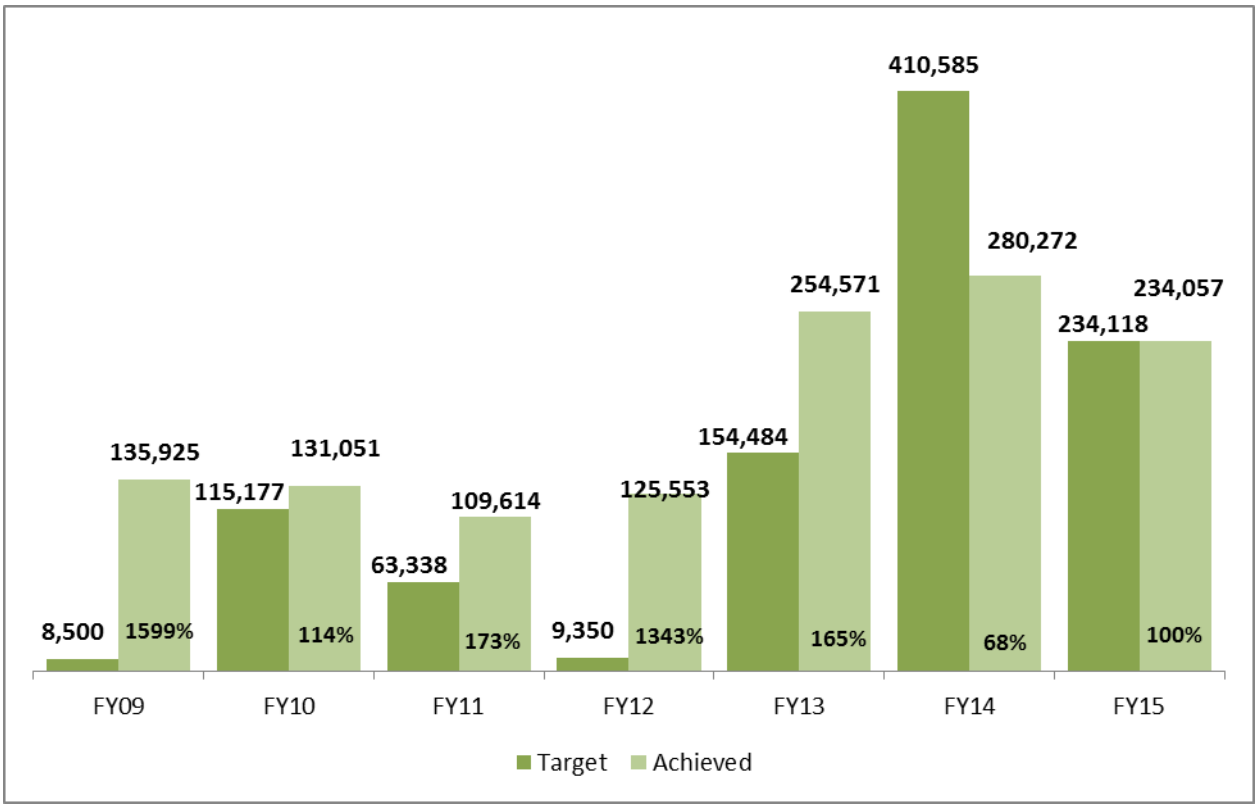
In addition to the outreach, monthly referral network meetings were held between the CCT sites and the PMTCT and other HTS sites associated with each CCT, referred to as the hub and spoke model. Pro-ACT facilitated these meetings by subsidizing the cost of transportation for personnel from the "spokes" and providing a meal during the meeting. In these meetings, the participants would identify persons who had been referred but had not been enrolled (i.e. did not present to the facility after having tested positive), and others who were considered lost to follow-up such as patients who did not come for their monthly medication refill and those who did not come for scheduled CD4 recounts. Adherence challenges, adherence counseling, and other areas of support to PLHIV are discussed below in the section on Care and Support.

This outreach approach was modified beginning with the rationalization process late in 2013, and instead of being done by the Pro-ACT team directly, was built into the CSO grants for Care and Support, Prevention, or OVC. (See the section below on CSO grants for a more detailed description.) Each of them was trained in HTS and given targets to achieve in addition to their previously negotiated program targets. This modification was carried out in response to indications from USAID that scale-up was no longer being seen as a priority. In mid-2014 the PEPFAR strategic shift was formalized, the five Pro-ACT states were identified as "Sustained Response" states where the stated PEPFAR objective is those already enrolled on HIV/AIDS care and treatment will be maintained on treatment, while testing was based on clinical symptomatology and requested USAID guidance to the Project indicated that PITC and community outreach should be discontinued and a passive enrollment process allowed to develop, with HTS services only being offered to those who requested them or those who presented with symptoms that would make the testing medically indicated.

Achievements

The following figure indicates the achievements of the HTS efforts by Pro-ACT from its inception:

Figure 7. Number of individuals who received testing and counseling services for HIV and received their test results (HCT sites only)



Care & Support

The term care and support refers to those psycho-social actions designed to assist the HIV positive person to live a normal, healthy, dignified life, to keep him or her linked to the health care system, to ensure that he or she does not transmit the infection to others, and to assist those who are taking antiretroviral drugs to adhere to the drug schedule.

Throughout the life of the Pro-ACT project, support to PLHIV Support Groups and Adherence Counseling were the chief strategies for accomplishing this. Toward the end of the project, the approach became more structured and was known as Positive Health, Dignity, and Prevention (PHDP). These strategies were implemented through grants to Civil Society Organizations (CSOs) and delivered at both the facility and community level.

Support Groups

During the life of the Project, most CCT sites had one or more support group associated with them. Until shortly before project end, Pro-ACT provided a transportation stipend to each PLHIV who attended the support group meeting as well as providing for lunch. Support groups generally met on Saturdays at the health facility or nearby. During support group meetings a health care worker would give a talk on a particular subject. The principal aim of the support group at this point was to maintain the link between the PLHIV and the health facility.

With the aim of being more effective in preventing transmission and promoting adherence and being more sustainable, Pro-ACT made several adjustments to its program in 2014. Pro-ACT contracted with and trained five CSOs, one per state, to provide PHDP services to the PLHIV through the support groups.

One change was in the nature of the meetings. During the last two years, the CSO grant recipients would take the opportunity during the support group meetings to set up a private counseling area and would provide risk reduction counseling, offer condoms and lubricants, do sexually transmitted disease education and screening, do partner testing and counseling, and do family planning counseling and adherence counseling. The CSOs increasingly identified and trained support group members as counselors so that the group itself would have the capacity to continue the counseling after the Pro-ACT support stopped. In addition to the counseling during the support group meetings, the CSOs also attempted to visit non-attending PLHIV members to provide the same counseling services at the community level. Meanwhile, facility staff trained in PHDP would provide these same services to PLHIV during their clinic visits.

When transportation and lunch support was discontinued, Pro-ACT experienced a drop off in support group attendance. In discussions with USAID, it was agreed that some small stipend could continue to be provided for the very low attendance groups. Furthermore, though at project end Pro-ACT continued to provide a small stipend of N500 ($1.59) for transportation for those support groups with particularly low attendance, it has formed Village Savings and Loan Associations (VSLAs) in 27 of the groups and encouraged support group members that still were receiving a stipend to deposit some of it in the VSLA. The hope was that as the funds in the VSLA increased, the members would use loans from the VSLA to start or strengthen their own commercial activities, thereby improving their financial welfare, linking them more tightly to the support group and providing them with the resources to pay for their own transportation. At the end of the Project there were 49 support groups active in the 41 CCT sites.

In many cases and as part of the efforts to make support groups sustainable, Pro-ACT assisted the groups in developing their constitution and becoming registered with the government as a Civil Society Organization. This facilitates the support group access to funds and support beyond those provided by PEPFAR.

Adherence Counseling

The purpose of adherence counseling was not just adherence to the dosage regimen, but more broadly, retention of the PLHIV in the program. Among the various adherence challenges were forgetting to take medications, not wanting others to know their HIV status because of the fear of the stigma and discrimination they might face, a false hope in non-medical or spiritual remedies that would cure their illness, and the hostility of some health care worker towards HIV positive patients. Since two thirds of Pro-ACT HIV clients are women, there is the further obstacle on the part of many women of being unable to access services without their husband's approval.

For most of the Project, adherence counseling was done by trained health care workers or volunteers at the health facility. These adherence counselors would meet with each patient at each visit from enrollment on to discuss and help them deal with adherence and retention challenges. One type of

incentive provided to clients in the early years was a basic care kit that, among other things, contained a long-lasting insecticide treated net for protection against malaria, and a water filter as protection against diarrheal disease.

From 2014 onward, one of the additional tasks assigned to the CSOs was to visit PLHIV who did not attend support group meetings in their homes to carry out the same counseling given by the CSO during the support group meeting and to encourage their participation.

An on-going effort during the life of the Project has been tracking patients who missed appointments. Each CCT has one or more volunteers who receive a small stipend, usually themselves PLHIV, whose job is to try to track down, communicate with, and encourage persons who have defaulted on appointments to return to services. Retention and loss to follow up are two of the indicators that Pro-ACT and other PEPFAR partners follow. In some cases the reasons persons don't return is that they have died, moved, or enrolled for treatment in a different facility. In other cases, they cannot be identified because telephone numbers and addresses were either given or recorded inaccurately. Retention is discussed further in following sections of this report, and achievements are included in the Clinical section of this report.

Achievements

- 49 Support Groups formed and functioning
- 3 Support groups were funded by World Bank Fadama project (support group in Michika Adamawa State given 450,000 Naira grant)
- A total of 27 Savings and Loans Associations were formed by the support groups
- A total of 18 PLHIV, comprising of 7 males and 11 females benefitted from VSLA loans
- A total of 97,441 PLHIV were reached with Facility Based PHDP services
- A total of 56,437 PLHIV were reached with Community Based PHDP services

Orphans and Vulnerable Children

Between 2009 and 2013, OVC were being identified and served with the minimum package of services both in the facility through support groups, and in the community through people living with HIV and AIDS and community members. There are six basic service needs that PEPFAR identifies for the welfare of orphans and vulnerable children, plus income generation. These are known as 6+1. The six services or core program areas are food and nutritional support, shelter and care, protection, health care psychosocial support, education and vocational training, and household economic strengthening. The minimum package of services is three of these six services plus the income generating activities. The concept of the minimum package subsequently transitioned to a definition of services provided based on needs of the OVC and their caregivers.

Facility-based OVC services

The facility-based operation was coordinated by the Pro-ACT Community Care Specialist based in the state Pro-ACT office. Caregivers were asked to come in with their eligible children who were then assessed and provided health care services and school supplies, and had their births registrations confirmed. Kids' Clubs were developed in the facility to allow HIV positive children to interact

comfortably and without discrimination with other children. These services were provided in every facility where Pro-ACT had a Comprehensive Care and Treatment program. Pro-ACT identified and trained volunteers from the community who assisted with this process and who carried out complementary assessments in the home if needed. The volunteers were trained on how to identify and mobilize community resources to respond to needs that were identified.

Community-based OVC services

The other modality was community-based through CSOs. During the life of the Project, Pro-ACT contracted with 18 CSOs to provide OVC services. The community-based program depends on volunteers who live in the same community as the OVC and who, once identified are trained and supervised by the CSO. Each volunteer receives a small stipend and is responsible for servicing four or five households. Services were provided using the case management approach, and care plans were developed for each child and their caregivers that detailed the services and support that will be provided. Volunteers visited children based on need, some were visited once a month, others once a week, and others every day until the need of the child or caregiver was met. During the home visits they provided nutritional and health education and identified malnourished children and linked them to facilities. This was one way of identifying new pediatric HIV cases. These volunteers also worked to mobilize community resources like food banks and the waiver of certain school fees for destitute children. One of the modalities for providing income generation assistance has been through Village Savings and Loan Associations (VSLAs).

In addition to the above, Pro-ACT trained the CSOs in life skills, parenting skills, and financial literacy so that they were able to do step down training to the OVC and their caretakers. Life skills include assertiveness, communication, knowledge about HIV, and refusing unwanted sexual overtures. Parenting skills deal with abuse, parenting styles, impact of parenting on behavior, and rewards and punishment. Financial literacy, often imparted by microfinance organization personnel, is about how to calculate household expenses, and how to budget and microenterprise.

Volunteers and the CSOs also assisted in the development of Community Quality Improvement Teams. These are extensions of the UNICEF promoted Child Protection Committees. One of the aspirations is that after then end of the Project, the Community Quality Improvement Teams would serve the role of monitoring the well-being of the OVC, and mobilizing resources for their support.

OVC Graduation

In the final year of the Project, Pro-ACT and other Implementing Partners were given the target of "graduating" 30% of the OVCs they were supporting. MSH began to develop a definition of and criteria for graduation. USAID subsequently contracted with an outside firm to assist with developing a definition and criteria for use by all of its IPs and Pro-ACT, having begun the process on its own, was able to contribute to that process. Graduation was finally agreed to be the point when all the intentions that the case manager (volunteer) had for the household had been implemented and the household no longer needed the case manager.

The graduation criteria were as follows:

1. Caretaker is able to acquire an additional income generating asset
2. Caretaker must be an active member of a VSLA
3. Caretaker must be able to identify his or her children's needs and how to provide for those needs using services and service providers in the community

Pro-ACT worked at three levels to facilitate the graduation process – household, community, and government. At the household level, Pro-ACT provided infrastructure or services that improved the quality of life of the caretaker with the aim of making them more resilient. At the community level was the Community Quality Improvement Team that worked to improve the quality of support from the community to the household, and provided a platform for on-going support as needed. The focus at the LGA and State level was to strengthen governmental capacity for program coordination among agencies with an eye toward increases in key budget line item support.

Achievements

- 55,977 children served between October 2009 and September 2013 through direct service provision using facility based volunteers and PLHIV in project communities
- 18,342 children served through 11 CSOs partners between January 2014 to September 2016
- 616 households and 2,568 children graduated out of the OVC program
- 5 OVC Desk Officers and 18 CSOs staff trained on Comprehensive OVC service provision in November 2015
- 18 Local Government Quality Improvement Teams formed to oversee the activities of Community Quality Improvement Teams
- 28 Community Quality Improvement Teams were established
- 45 Village Savings and Loan Associations formed across the 5 project states

Gender

Gender mainstreaming was one of the four core concepts in the original Pro-ACT technical proposal. Gender issues were addressed in various ways during the life of the Pro-ACT project. At a very basic level and in response to USAID guidance, Pro-ACT tracked indicators by gender. Thus, it knew at the end of the Project, for instance, that two-thirds of those on treatment were women. Gender policies of the CSOs that the Project contracted was one of the criteria used by Pro-ACT in rating and qualifying them as potential grantees. Early reports showed efforts for specific economic empowerment actives focused on women in support groups.[14] Gender issues were also central to the FLHE and PEP efforts described above under the Prevention section. There was a deliberate effort on the part of Pro-ACT to ensure that the condom distribution program included sites that would be easily accessible to women. Hairdressing salons, brothels, and other female-managed outlets were used and the managers trained as peer educators.

Gender Norms and Gender Based Violence Interventions started in 2015 across Niger, Kwara, Sokoto, Kebbi, and Zamfara states as a deliberate strategy to mainstream gender into the comprehensive HIV

[14] September 30, 2010 Pro-ACT Quarterly Report, p.14 and December 31, 2010 Quarterly Report, p. 15.

and AIDS in accordance with PEPFAR requirements. The interventions were aimed at two core components – gender norms and gender-based violence. At project close, 3,682 individuals had taken part in small group (10-20 persons) discussions with at least 10 total hours of discussion time where gender issues and their relationship to HIV were discussed. Topics included early childhood marriage, polygamy, education of the girl child, gender-based violence, and access to health care among others. These sessions were participatory guided discussions, not lectures.

The Gender-based violence intervention attempted to set up pathways in each community to report sexual violence, physical violence, and emotional violence. The idea is to sensitize the community to gender-based violence, and to determine the pathways, i.e. the formal authority (health clinic, police, NGOs, call lines, etc.) who can respond to the violence open to those who are victims of violence or those assisting victims

Achievements

- A total of 3682 people were reached with Gender Norms intervention
- A total of 20 people were reached with post Gender Based Violence Interventions

CSO Grants

A key activity described in the Pro-ACT Technical Proposal presented to USAID in July 2009 was: "Through fixed-cost small grants, develop the capacity of 24 grassroots civil society organizations in six states to deliver community-based HIV/AIDS/TB services linked with health facilities." Pro-ACT utilized the fixed obligation grants mechanism in the implementation of its community services program. A total of 32 civil society organizations received grants from 2010 to 2016. The technical and organizational capacities of the CSOs were strengthened through trainings in all the technical areas, resource mobilization, proposal development, and policy development. The project utilized MSH's Leadership Development Program (LDP) to further strengthen each CSO's organizational capacity.

A very structured and transparent process was developed and utilized for grant awarding, monitoring, and payment; and capacity-building for the grantees was inherent in the process. The process included the following steps:

- Call for expression of interest and request for application from interested CSOs working in the thematic area and communities of intervention
- Development of scope of work, implementation plan and budget
- Start-up workshop and implementation
- Assessment of organizational and technical capacity of the grantee CSOs using the National Harmonized Organizational Capacity Assessment Tool (NHOCAT)
- Technical assistance and capacity building for the grantee CSOs through trainings, continuous follow-up visits, on-site mentoring and coaching of the CSOs and all the community structures working under the grant program

The following table illustrates the distribution of grants by thematic area, amount, and targets.

Table 8. Grant distribution by thematic area

	Number of grants	States	Beneficiary target	Amount
Prevention	17	7	86,900	$327,250
Care and Support	12	5	37,017	$200,137
Orphans and Vulnerable Children	18	7	42,375	$663,557

Achievements

- 32 CSOs had improved organizational structure and capacity to ensure quality community-based HIV services in Pro-ACT supported communities.
- The project provided a total 49 fixed grant and technical assistance to 32 CSOs across the Project states.
- CSOs provided a range of services to the following beneficiaries:
    - 33,644 vulnerable children
    - 271,499 in-school youth
    - 201,451 general population
    - 145,351 most at risk population
    - 56,437 PLHIV
- Proposal development training for CSOs under the Pro-ACT project led to the generation of 938,456,960 Naira (approximately $3 million) from the World Bank, donor agencies, and other Implementing Partners to implement a range of projects. Most of the CSOs that were funded by a donor/IP moved from single stream funding to multiple stream funding CSOs.
- The organizational and technical capacities of 32 grantee CSOs were built through trainings based on the capacity gaps identified through the assessments of these organizations using the NHOCAT.

5. HEALTH SYSTEMS STRENGTHENING

Health systems strengthening (HSS) was at the heart of the Pro-ACT project. While "Pr" of Pro-ACT represented the prevention aspect that differentiated Pro-ACT from the predecessor LMS-ACT project, the "o" of Pro-ACT referred to organizational systems. Pro-ACT, like its predecessor project, was rooted in the Leadership, Management and Sustainability Project, a global project managed by Management Sciences for Health with a focus on developing leaders and sustainable systems.

One of the characteristic ways that health systems strengthening ran throughout every aspect of the Pro-ACT project was in its dedication, focus, perseverance, insistence, and success in working with and through national, state, local, and facility counterparts. Underlying this was the recognition that systems can only be strengthened and made sustainable if the local agencies ultimately responsible for them are fully invested in making them work. A number of health systems strengthening activities were mentioned in previous sections, including the development and strengthening of Quality Improvement Teams and Hospital Management Teams at the facility level, TWGs and State Management Teams at the state level, and CSOs at the community level. What follows is a discussion of more focused and specific HSS activities.

The major structured approaches to system strengthening were through the Leadership Development Program (LPD) and the next generation LDP+, through organizational development training and support, policy level advocacy, joint supervision, stakeholders' meetings, strategic and operational planning, and the creation of the Centers for Health Professional Continuing Education (CPHCE) Program. Each of these are summarized in the following discussion.

The following table tries to represent the breadth of the HSS activities by classifying them by activity type and by activity beneficiary. This table admittedly simplifies the reality of this underlying project activity.

Table 9. HSS activities by activity type and by activity beneficiary

Activity/Agency	NACA	NASCAP	SACA	SMoH/ SASCAP	LGA/ LACA	Facilities	CSOs/ SGs	Other state stakeholders
Advocacy			x	x	x	x		x
LDP			x	x		x	x	x
Joint supervision			x	x				x
Stakeholder meetings	x	x	x	x	x	x		
Strategic planning	x		x	x			x	
Operational planning			x	x		x	x	x
Organization development			x			x	x	
CME				x		x		x

Leadership Development Program

More than 90 people from Kogi, Niger, Kwara, and Sokoto states participated in the LDP and LDP+ programs held in 2010, in Kwara in 2013, and in Sokoto near the Project's end in 2016. The LDPs developed the leadership capacities of key personnel including Permanent Secretaries, Director Generals, Directors and unit heads from SACAs, the SMoH and secondary facilities Specialist Hospitals, and service providers.

The program aimed at generating a long-term commitment to strategic and measurable transformation of health systems and providing the skills necessary to achieve this goal. Several management and leadership practices as well as challenges were reviewed during the LDP training. Each team decided to address one specific challenge/issue using the Challenge Model developed by MSH. The teams were mentored during the six month period and the results included:

- Kogi State Government commitment to and resourcing/opening three additional CCT sites
- Niger SACA Board mobilized N1.5 million ($4,754) to train MCH Directors across 25 LGAs
- Kwara increased PMTCT uptake with the following results:

Table 3. Leadership Development Program indicator baselines and final PMTCT results in Kwara

Indicator	Baseline (6 months)	Final Result (12 months)	Remarks
1.Total number of new ANC clients	4,650	13,627	
2.Total number of pregnant women counseled, tested and received result for HIV	4,410	13,627	100% of all pregnant women attending ANC were counselled, tested and know their status
3. Total number of pregnant women who tested positive	68	117	
4. Total number of HIV positive pregnant women started on ARV prophylaxis triple regimen	53	117	100% of pregnant women who tested positive received ARV prophylaxis triple regimen
5.Total number of deliveries at facility booked and un-booked	2,401	5,363	
6. Total number of partners of HIV positive pregnant women counselled, tested and received result	**23**	**69**	59% of partners of HIV positive pregnant women were counseled, tested and know their status.

Advocacy

A constant effort throughout the life of the Project was advocacy for HIV/AIDS support with key decision makers, particularly at the state level. Advocacy efforts were directed at Governors and First Ladies,

State legislators, State Commissioners of Health, State National Youth Corps Directors, officials from state Ministries of Finance, Planning commissions, and Internal revenue among others. Much of the advocacy was directed at financial and human resource mobilization. Preparation for advocacy visits included the preparation of advocacy briefs, development of memos, and development of operational plans and resource mobilization strategy plans that would lay out key messages, evidence-based data, and specific requests informed by the evidence.

Some of the results of the advocacy early in the Project included the following:

- Adamawa SACA Agency published in the Gazette (the final step of legislation), provided accommodation, and funded (2011)
- Approval and release of N3 million ($9,509) for the procurement of HIV test kits by Kwara state government to support HIV treatment care and support programs in the state (2011)
- Posting of at least one medical laboratory scientist, pharmacist, and doctor to Pro-ACT CCT sites in Kogi State (2012)

With the transitioning of low-yielding PMTCT sites to state governments with the PEPFAR strategic shift and the fall in oil prices, Pro-ACT responded by strengthening and broadening its advocacy efforts.

A particularly notable instance of advocacy occurred after the PEPFAR strategic shift in Nigeria that included ceasing support for services like hematology and clinical chemistry lab investigations, and drugs for treatment of opportunistic infections. In the non-priority states, PEFAR discontinued support for HIV prevention activities, targeting key populations and demand creation activities. Implementing Partners were required to transition support for these activities to state governments who now had to fund these activities on their own. To ensure the continued delivery of HIV/AIDS services in the five states, Pro-ACT, working closely together with USAID, organized a one day stakeholder's round table meeting at its offices in Abuja with different government and non-government actors from the State Ministries of Health, Budget and Economic Planning, State House of Assembly, and State Agency for Control of AIDS. Each of the state teams was composed of high level state government officials led by the Commissioners of Health. In addition to the state participants, representatives from USAID, MSH Leadership, NASCP, and NACA also attended. During the meeting, stakeholders were provided with data on the number of HIV patients (adults and pediatrics) in their states, numbers on antiretroviral therapy (ART) and in basic care, and the cost of treatment/care and laboratory services per month and per annum. State teams discussed their specific state needs and came up with the amount of resources required to meet these needs. They carried these back to their respective states for more discussion and to start on the process of having them incorporated into the states' 2015 budgets that were under discussion at the time.

Following the meeting, there were numerous high level engagements with state stakeholders that resulted in the creation of state-led transition committees and sub committees, an advocacy subcommittee, and a memo articulation subcommittee. Alongside supporting the states to lead and manage the HIV/AIDS response, HIV services financing, a key element of state ownership, is being addressed through advocacy efforts. A focus of these advocacy efforts has been recommendations to create state counterpart funding to cover transitioned PEPFAR support in the 2015 state budgets, and to release unspent HIV/AIDS funds from the 2014 budget to help cover the period between October 2014

and when the 2015 budget becomes operative. The following table demonstrates some of the impact of these advocacy efforts in budgetary allocations but in which the constraint mentioned earlier in the report about the release of budgeted funds is also apparent.

Table 4. Financial impact of advocacy efforts by state

State	HIV allocation in 2015 state budget (To meet management of HIV care and services)	Actual released	% expenditure over projected needs
Zamfara	250,000,000.00	12,900,000.00	5.16
Sokoto	120,000,000.00		-
Kebbi	83,000,000.00	10,000,000.00	12.05
Niger	115,000,000.00	19,000,000.00	16.52
Kwara	356,425,938.92	23,000,000.00	6.45
GON (Contribution to MSH PROACT States)		31,000,000.00	
Total	924,425,938.92	95,900,000.00	10.37

Joint Supervision Visits

The involvement of state level authorities in joint supervision visits was a Pro-ACT practice from the very beginning of the Project. In its third quarterly report, Pro-ACT informed USAID:

> MSH facilitated several joint mentoring and supervisory visits to the sites in conjunction with technical leads at SMOH and SACA. These visits, in addition to improving supportive supervision for improved service delivery, are also promoting state ownership of programme at most MSH supported facilities. It will also serve as a motivation to staff at facilities. Joint Supervisory visits to the facilities held this quarter in Adamawa and Kebbi States.

A standardized supervisory checklist was used to guide the visits. These visits served to:

- Identify longstanding challenges affecting the delivery of quality health services in the sites, and to design strategies to address these gaps;
- Improve the relationship between the State government's coordinating and management units for hospitals and make all parties more responsive to on-site challenges with respect to hospital financing, staffing, equipping and strategic use of clinical service data; and
- Promote greater host-government ownership, effective coordination, sustainability planning alongside service integration into existing health facility-based operations

Feedback sessions were held with Commissioners of Health and/or Permanent Secretaries after each round of visits. Following rationalization and once HIV Technical Working Groups were formed, the responsibility for organizing, staffing and, gradually financing these visits fell to the Technical Working Groups.

Stakeholder Meetings

Prior to rationalization, in all of the six Pro-ACT states there were multiple PEPFAR, Global Fund, civil society and other implementing partners all working to address one or another aspect of the HIV epidemic. This created enormous coordination challenges. Pro-ACT approached this particular challenge by trying to assist the state agencies charged with coordination, SACAs and, to a lesser extent, SMoHs and State Ministries of Women's Affairs and Social Development (SMWASD) in their coordination function. A principal means of doing so was by hosting, assisting with preparation and conduction and/or financing stakeholders' meetings.

Of particular note was the Project's effort to extend and support the coordination process at the Local Government Area level through supporting LACAs in convening and conducting local stakeholders' meetings. Pro-ACT designated three pilot LGA's in three different states to strengthen the local response from community to the Local Government administration. Following rationalization, the initiative was extended to the new states. The LACA Stakeholders Forum (LSF), as it was called, was a platform designed to facilitate coordination, networking, and linkages among service providers, service beneficiaries, and the larger community under the chairmanship of the Chairman of the LGA. A key objective of LACA Stakeholders Forum was to facilitate positive community influence on the delivery of HIV/AIDS services that are appropriate, well-coordinated, equitable, and accessible to all who need them.

This expression of Pro-ACT's commitment to participation extended to almost all of the areas where it worked where strategic and operational decisions were discussed with those affected by and involved in those decisions. These included SMT, TWGs, implementing partners' forum, quality improvement teams, hospital management teams, tertiary facility counterparts, CSO grantees, and policy makers.

Strategic and Operational Planning

The national response to HIV/AIDS is guided by the national strategic response plan prepared under the aegis of NACA every five years. That plan consolidates state strategic plans. Annually, states are mandated to create a costed state operational plan to implement their strategic plans. Pro-ACT assisted its partner states in this process and supported NACA more broadly as well.

In 2010, Pro-ACT worked especially with Kebbi and Taraba in developing and validating their state strategic plans for 2010-2015. Subsequently, Pro-ACT worked in its six original states to assist SACAs with developing their annual operational plans and assisting with monitoring.

NACA recognized Pro-ACT's management capacity and expertise in working effectively with state governments, and in 2010, NACA sought a partnership with MSH and together with UN agencies, organized a week-long training on results based operational planning and management for partners

from the Northwest and Northcentral zones. Another very practical and important area of support was assisting SACA partners in developing work plans that were acceptable to the World Bank for accessing funds from its HIV/AIDS Development Project II (HAFII) project. Following rationalization and in pursuit of greater country ownership, Pro-ACT responded to the Kwara SMoH request to assist in the preparation of a two-year annual, costed, operational plan (2013-2014) from the State Strategic Health Development Plan (2010-2015). This plan covered the eight strategic priority areas of the National Strategic Health Development Plan 2009-2015.

Organizational Development

Pro-ACT assisted a number of partners in organizational development. It participated fully with NACA in the development of the NHOCAT. This was an attempt to develop a standardized approach to organizational development that would be used by all Implementing Partners. MSH's Management Organizational Systems Tool (MOST) was one of the key source documents used to design NHOCAT.

Subsequently, Pro-ACT used the instrument to assess the institutional capacity of CSOs that provided expressions of interest in the various rounds of Pro-ACT grant funding for the Care and Support, OVC, and Prevention activities described earlier in this report. All pre-qualified CSOs were invited to a proposal writing training. Those CSOs that finally received grants were mentored and trained to develop their capacity. The following table records some of the results of the various capacity building activities directed at the 32 CSOs that were awarded grants.

Table 5. Capacity building activity sample results

Domain	Before Pro-ACT intervention	After Pro-ACT intervention
Organizational System and policies	• Most of the organizational policy documents were not available • Policies are developed as donor requirements but not implemented by CSOs	• Policies were developed, reviewed/updated and implemented
Governance structure	• Weak governance structure across the CSOs • Non-functional governing board • No board manual in place across the CSOs • Out dated constitution	• Strengthened governance structure. Regular governance meeting as stipulated in the constitution • Board manual developed and in use • The constitution guiding the operation of the CSOs were reviewed
Resource Base/Number of funders	• Most of the CSOs engaged have only one stream of funding	• All the CSOs have more than one funding stream and have mobilized over N938,456,960 (approximately $3 million) within the period of

		engagement

Pro-ACT also used NHOCAT to assess the capacity of institutions in its new states of Sokoto and Zamfara after rationalization. Institutions and organizations assessed included SMOH; SACA; the Ministries of Education, Youth and Sports, and Women Affairs; CSO networks; and MSH grantee organizations. The assessment results showed aggregate state scores of 42.4% for Sokoto and 36.2% for Zamfara state. A percentage score of 40% or less indicates the state has little capacity to manage the HIV/AIDS epidemic, while a score between 40% and 75% shows that a state has some capacity to manage the state HIV/AIDS epidemic. The capacity areas where most assessed organizations scored very low and that Pro-ACT determined would require more investment were: coordination, planning, resource mobilization, reporting, and M&E. The responses to these challenges have largely been mentioned in other parts of this report and include:

- Coordination – the establishment of State Management Boards and Technical Working Groups and regular stakeholders meetings/health partners fora and clustering of facilities leading to improved coordination
- Planning – technical assistance in the preparation of annual costed operational plans for all five states each year
- Resource mobilization – meetings with high level officials and engagement of legislators resulting in increased budgetary allocation for HIV/AIDS programs as reported above
- Reporting/M&E – training at the facility level, application of SIMS and NigeriaQual tools and TWG data review and usage attaining 100% reporting rate

After the change of government in 2015, a zero-based budgeting approach was adopted and Pro-ACT supported a 3-day residential training on the OneHealth tool for health planners in the 5 Pro-ACT supported states. The tool is software designed to aid strategic health planning, particularly in low- and middle-income countries.

Center for Health Professional Continuing Education Program

In recognition of the fact that staff turnover requires a constant investment in training and that this was not going to change in the near term, Pro-ACT developed a strategy for sustainable, on-going capacity development. Pro-ACT provided small seed grants initially to one and subsequently to the other four SMoHs to establish the Centers for Health Professional Continuing Education. The Centers are housed under the Medical Services and Training Department of the State Ministry of Health (SMoH) and were supported to attain the status of CME providers with the various professional health councils once they satisfied the criteria and were endorsed by the various state professional health associations.

A governing board comprised of representatives from the different professional health associations provides overall coordination of the centers. Pro-ACT trained master facilitators from various cadres of health workers with expertise in TB, HIV/AIDS, malaria, and project management. These master trainers

became the multi-disciplinary faculty responsible for managing the trainings of the centers, including developing training curricula and training schedules for continuous in-service training, retraining, and collaborative learning among the different cadres of health workers in HIV/AIDS, TB, malaria, and project management, as well as contributing to pre-service training curricula for health workers on the management of HIV/AIDS.

Subsequently, the Centers were endorsed in all five Pro-ACT states by the professional health associations as CME providers. Since inception:

- 3 out of the 6 professional health councils (Medical & Dental council of Nigeria, Medical Laboratory Science Council of Nigeria, and Environmental Health Officers Registration Council of Nigeria) have authorized the Center to offer Continuing Professional Development credits for trainings conducted.
- A governing board comprised of representatives from the different professional health associations was set up to provide overall coordination of the centers.
- The Centers have trained 80 master facilitators on facilitation skills and adult learning.
- 5 training curricula, one for each of the 5 Centers, have been developed, including modules on TB, HIV/AIDS, malaria, project management, and leadership. During the grant implementation period, the Centers supported the state governments to train 433 health care workers (59 medical doctors, 83 nurses and midwives, 78 medical laboratory scientists, and 213 other allied health professionals) to provide HIV and AIDS and other health services.
- All Centers developed training management information systems for tracking and reporting improved service delivery using the national Standard Operating Procedures.

Following the close out of the grants:

- An additional 40 medical doctors were trained by the Center in Niger state with funding from the DFID-National Malaria Control Program.
- All states included on-going funding into their annual budgets for continued operation of the Centers.

6. LABORATORY SUPPORT

Pro-ACT assumed operations of 17 CCT sites that had been created under the emergency approach of LMS ACT that included procurement and installation of various automated laboratory equipment platforms as dictated by PEPFAR, renovation of laboratories, reagent procurement, and trainings and coaching programs with regular supportive supervision to jump-start service delivery to people living with HIV. This emergency plan approach resulted in the creation of vertical laboratory systems.

The PEPFAR 2 guidance, with its emphasis on country ownership and sustainability, informed the need for laboratory integration of HIV services into routine laboratory services.

To achieve this, Pro-ACT identified two levels of integration: structural and management. Structural integration signified the physical integration, i.e., the movement of PEPFAR supported equipment platforms from the designated "PEPFAR Laboratory" to the relevant departments or unit in the main laboratory where feasible. Management integration signified the harmonization of laboratory operations such as common reagent and commodity management systems as well as the utilization of existing human resources for all aspects of services and for all clients.

In 2014, the laboratory witnessed another PEPFAR policy change with the transition of hematology and chemistry HIV laboratory services to host state government. Operationally, this meant that PEPFAR funds could no longer be used for the maintenance of chemistry and hematology machines or for the purchase of reagents. Pro-ACT had, of course, already transitioned out of Adamawa, Kogi, and Taraba States and into the two new states of Sokoto and Zamfara, and had a network of 39 laboratories[15] defined in accordance with PEPFAR guidance as shown in the table below.

Table 6. Laboratory network in accordance with PEPFAR guidance

S/N	States	Labs Per State	Tertiary	Secondary	Primary/Private
1	Kebbi	6	1	5	0
2	Kwara	8	1	7	1
3	Niger	16	1	14	1
4	Sokoto	5	2	2	1
5	Zamfara	4	2	2	0

As a result of PEPFAR's withdrawal of support for hematology and clinical chemistry services, Pro-ACT initiated and strengthened Laboratory Revolving Fund programs across all supported facilities. Project support towards appropriate costing for laboratory services informed additional funding by relevant State Government to laboratories in Niger and Kebbi State. The project had leveraged some $33,000 of

[15] There were 41 CCT sites but two labs in Sokoto did not fulfill all of the formal criteria to be recognized as PEPFAR CCT labs as defined by the PEPFAR Laboratory Technical Working Group.

commodities from the Federal Ministry of Health (FMoH) in the last quarter of 2015 and these donations ensured that PLHIV accessed services at no cost while revenue from serving general populations were ploughed back into the systems for sustained service delivery through the revolving funds.

Pro-ACT's support to and investments in laboratory systems was key to achieving scale-up of key laboratory-related activities: HIV rapid testing, ARV monitoring through the provision of hematology, clinical chemistry, CD4 testing, blood safety, HIV Rapid Test Quality Improvement Initiative, institutionalization of laboratory quality management systems, TB detection using GeneXpert, and scale up of EID services and increased viral load assays for monitoring treatment success in line with the third 90-90-90 goal of achieving viral suppression.

Pro-ACT's strategy was to strengthen laboratory management systems and capacity in transitioned sites to ensure quality integrated laboratory service delivery and to drive the evolution of laboratory quality management systems across all supported states. Systems strengthening began with a lab assessment. The assessment tool, a national tool developed by WHO-AFRO and other laboratory coalition partners, and adapted and customized for Nigeria by the Medical Laboratory Science Council of Nigeria, was used subsequently as a monitoring tool. Gradually the assessment tool migrated to SIMS as that tool became available.

Capacity-building for service delivery were informed by the assessment results. Monitoring of quality was done through proficiency testing, whereby facility based laboratory scientists received test panels from the testing entity and had to report their results that were then compared to the standard. The individual labs and the Pro-ACT laboratory specialists had access to these results and would use them to diagnose and help correct problems. Another area of support was lab infrastructure to make certain it had the minimum necessary conditions, with ventilation and ambient temperature for example. Equipment was purchased for hematology, clinical chemistry, and CD4 count services, and put into a preventive maintenance program at the time of purchase. Contracts included repair and replacement clauses as well as periodicity of planned preventive maintenance.

To ensure the continuance of the quality control program, Pro-ACT facilitated the creation and strengthening of a Laboratory Quality Management Task Team in each state to provide a platform with the capacity and motivation to do the quality control work done by Pro-ACT. The SMoH Director and Deputy Director of Laboratory, and their counterparts in the State Hospital Management Boards, representatives of hospital laboratory scientists, especially those identified as committed to lab safety and quality, other partners and the private sector all participate in the Task Team. Pro-ACT provided the technical support to these Task teams to plan, budget, develop work plans, and implement laboratory activities in the State.

Another key aspect of capacity building was training of laboratory personnel. Several trainings were carried out at the time of site initiation to jump-start service delivery and training was continued over the life of the Project to ensure continuous improvement. This was complemented by on-site mentoring by the state laboratory specialist, particularly in review of the results of proficiency testing and implementation of good laboratory practices.

Where laboratory services were needed but were not available, Pro-ACT developed a sample logging hub and spoke operation. Samples would be taken in the spoke site, logged, sent to the hub, and results returned. This was used particularly for CD4 testing. A variation on this was used for viral load testing as well (described previously in Clinical section). CD4 was available at all sites where viral load testing was not available and ten Point of Care CD4 machines were made available to high volume PMTCT sites.

The laboratory support had been amplified, as mentioned above in the section on Project Scope, through the addition of extra funds to establish a National Laboratory Task Team, pilot the integration of PEPFAR labs into the mainstream hospital lab, develop population based national lab tests reference ranges, and build capacity of public and private lab entities. The project undertook the various consultations and stakeholder meetings that resulted in the development of agreed upon terms of reference and membership for the National Laboratory Task Team that was forwarded for Ministerial approval to ensure its place within the National Medical Laboratory Strategic Plan. The tense political situation of the country at the time of the approval of the terms of reference and membership in September 2013 delayed the Ministerial Resolution approval, and that is where things stood when Mod 17 eliminated the lab activities. The population based reference ranges were seen as a follow-on to the formation of the National Laboratory Task Team and the delays in its formation and formalization, led to delays in developing the reference ranges. A concept paper was developed and is available to the Task Team members. For the fourth activity, building the capacity of public and private Laboratories, Pro-ACT trained 78 Medical Laboratory Scientist on leadership, proposal development and grants management at National and state levels in five Pro-ACT supported states, and for the Guild of Private Medical Laboratory Directors (GMLD). The objective of the training was to increase the leadership capacity of the associations to become innovative and creative facilitators of change within the health system.

Achievements

- Upgraded the PCR platform from the Cobas manual Ampliclor to the Cobas AmpliPrep/Cobas TaqMan (CAP/CTM-48) automated platform in accordance with USG guidance to optimize viral load testing services and improve operational efficiency.
- 62% (24 of 39) of laboratories achieved structural (Physical) integration and 82% (32 of 39) achieved management integration, leading to greater efficiency and client satisfaction.
- Government of Kogi State, through technical support from MSH, funded the procurement of 3 sets of laboratory automation platforms for General Hospitals in Oyedega, Iyara, and Koton Karfe of Kogi state to improve access to HIV/AIDS and TB services in 3 additional Laboratories in hard to reach communities.
- Establishment of State Laboratory Quality Management Task Teams in the five states as platforms to drive the laboratory improvement program.
- Enhanced Laboratory Revolving Fund Programs for Sustainability.
- Quality Management Systems performance showed improved performance in Proficiency Testing programs with facilities achieving 100% concordance in 90% of Pro-ACT supported sites for serologic-based testing and for CD4, haematology, and clinical chemistry. All 39 Laboratories were registered with an external proficiency testing scheme, e.g., One World Accuracy.
- Trained 1900 lab professionals in themes such as good laboratory practices, automation, blood safety, inspection safety, information systems and a number of other very specific themes.

- 25 health facilities were assessed using the WHO-AFRO and National Laboratory Audit Checklists and received continuous support to build up the Quality Management System, and 97 staff were trained as Quality Management System (QMS) champions who train and implement QMS directly in their various facilities.

7. SUPPLY CHAIN MANAGEMENT SYSTEM

Supply chain management systems are a key component of any health services delivery project. For supply chain assistance, MSH partnered on the Pro-ACT project with Axios Foundation Nigeria (AFN). The key mandate of AFN as the supply chain management partner on the Project was to ensure reliable availability of diagnostics and treatment monitoring reagents and other consumables, ARVs, and drugs for prevention and treatment of opportunistic infections at designated health facilities in the focus states. Specifically, AFN was responsible for quantification, procurement, warehousing, and distribution of commodities from warehouse to final destination and capacity building for health care personnel both in facilities and at the state central medical stores. AFN was also responsible for coaching and mentoring of relevant health facility staff (pharmacists, laboratory, and nurses at service delivery points) on inventory management as well as setting up systems and tools for forecasting, inventory management, and reporting.

Commodity Management

Procurement

Over the life of the Project, the procurement process changed. Initially, Axios procured directly. Quantities and products, particularly pharmaceuticals and some laboratory reagents, were harmonized in the State Logistics Technical Working Group, but Axios was the procuring agent. Pro-ACT through Axios provided technical assistance to the LTWGs on harmonization of data to inform the procurement plan. Procurement orders were based on the following assumptions and estimates: 1) national ARV treatment guidelines; 2) actual number of clients in Pro-ACT sites on ARVs at the time of procurement; and 3) number of new clients to be enrolled in the year based on targets. The greatest uncertainty in this process was around estimated targets that were based on assumptions that were not always borne out. About one year after Pro-ACT began, PEPFAR moved to pooled procurement of ARVs and some other drugs. Under pooled procurement, purchasing was given to the USAID Supply Chain Management System (SCMS) project while drugs were received, warehoused, and distributed by the IPs. In the final years of the Project, the entire ARV procurement and delivery to the facility process (referred to as “Last Mile Delivery”) was turned over to the USAID worldwide procurement project in a gradual fashion over about a nine-month period in 2013. Axios, however, continued to be responsible for the procurement of non-pharmaceutical commodities.

In addition to direct procurement, Pro-ACT also facilitated the receipt and distribution of RTKs, ARVs, and drugs for opportunistic infections from various national and state agencies including NACA, SACA, NASCP, and SMoH[16]; received commodities from the Clinton Health Access Initiative, especially for pediatrics ART; and received from other IPs when needed or as circumstances dictated.

[16] September 30, 2010 QR, pg. 30

Warehousing and Storage

Axios received drugs at its own central warehouse in Abuja initially. It used the Niger SMoH warehouse as a staging ground for distribution to the six initial target states. In 2010, simultaneous with the development of the state logistics TWG in Niger state, Pro-ACT began working with state authorities on what would become a "model" warehouse endorsed by the National Council on Health and replicated throughout the country. This included some remodeling, generators to power the air conditioners, installation and training on M-Supply (an electronic inventory management system), and extensive training of the state logistics staff. The state government provided computer and internet capability to allow the electronic system to become "real time" throughout the state, and the National Primary Health Care Agency provided an ample cold room. Within a year, Pro-ACT noted, "The warehouse in Niger State was able to manage the distribution of drugs to all the 25 MSH CCT sites across six states without personnel support from the Central Program Depot, Abuja".[17] Central to this was also the development of SOPs for the warehouse. These SOPs served as the base for what has now become national warehouse SOPs. AXIOS Foundation Nigeria, from when it was a sub-logistics partner through the end of the Project, managed/supported both PEPFAR and government warehouses in Nigeria. The model Pharmaceutical Warehouse was formally presented to the Niger State Government at a ceremony that included top government functionaries, the USAID Deputy Mission Director and other staff, and staff of the Central Medical Stores.

Storage and Dispensing at the Facility Level

Part of the preparation for the opening of any CCT site was an assessment of the space available at the pharmacy for adequate and secure storage of PEPFAR pharmaceuticals. This was done at the 13 sites opened in the six states during the pre-rationalization period. This often involved upgrades such as shelving, pallets, air conditioners, refrigerators, and/or remodeling. In 2011, Pro-ACT introduced the model pharmacy concept and chose General Hospital Bida in Niger state as the first one to develop. The concept of modern pharmacy was used to provide compounding sections for adult and pediatric tablet formulations that needed to be made into solutions or suspension, computerization of the pharmacy, creation of three areas where both auditory and visual privacy was secured, and segregation and documentation of supplies such as needles and syringes.

Three other specific facility level interventions are worth noting. One was the process of integrating the HIV/AIDS pharmaceutical operations into the general pharmacy. This paralleled similar integration efforts regarding laboratory, medical records, and clinical services. Most CCTs, as has been noted earlier, were set up under "emergency" conditions to rapidly scale-up identification and treatment of HIV positive persons. As such, a vertical operation was established in sites where almost every HIV operational aspect was parallel to the general hospital operations. PEPFAR 2 called for government ownership and sustainability, so Pro-ACT began dismantling the parallel structure and integrating services. This was especially important to patients in reducing stigma and discrimination. A second

[17] March 31, 2011 Quarterly Report, p. 20

intervention was the piloting of decentralizing services from a CCT to PHCs (see section 3, sub-section Clinical). In preparation for decentralization, site assessment, development of an implementation strategy document for the process and review of existing inventory tools for adaptability were carried out. A framework for the implementation of decentralization of ART services incorporating the accurate quantification of needs at the Hub while taking into account the movement of predetermined quantities of commodities to the spokes sites (PHCs) was developed and implemented at three PHCs in Taraba. The third intervention was the support provided to the rapid scale-up of PMTCT services in the "hyper scale-up" of PMTCT services in the last quarter of FY2012. RTKs had to be made available to some private facilities and mobile teams and to the newly rapidly activated PMTCT sites in a very short time.

Of great importance at the facility level, and an area that required on-going support from Pro-ACT logistics specialists, was the implementation of First to Expire First Out inventory system. This was important for reducing waste due to expired products. Logistics specialists also assisted in validating the information in the monthly GON logistics reporting forms, physically cross-checking inventory balances, RTK usage, and collaboration and information cross-checking with labs and clinics. Another area of on-going support was for the identification and reporting of adverse drug reactions.

Waste Management

An on-going effort was the identification and reverse logistics management of expired drugs. Reverse logistics refers to the documentation and physical movement of supplies from the facility back up the supply chain to the point of disposal. The massive size of the PEPFAR effort, the necessity of purchasing based on forecasts related to IP targets, and occasional shifts in treatment guidelines where one regimen would be replaced by another, made expiration a significant challenge. Pro-ACT aggressively monitored and where possible redistributed drugs to avoid expiry. The project worked with other PEPFAR partners in the development of SOPs on Health Care Waste Management that were adopted by the GON. One of the challenges after rationalization was waste management from some inherited sites. At one time 400 cartons of wasted commodities had to be destroyed from facilities that Pro-ACT "inherited" from other IPs that had not had any waste management activities from their inception, as CCTs often covered a period of more than 10 years.

Logistics Management Information System

The Logistics Management Information System (LMIS) is the piece that holds the entire logistic process together. It has a number of tools based at the facility level that include prescriptions, register cards (daily worksheets), inventory control cards, delivery notes, return/transfer notes, and the requisition booklet. At the facility level this is all recorded monthly in the Combined Report, Requisition, Issue, Receipt Form (CRRIRF). Pro-ACT supported facilities in the use of these forms, at times printed or facilitated supply of them, and provided on-site mentoring and technical assistance in their application. The CRRIRF was prepared in an Excel worksheet that was sent to the state logistics management officers. Pro-ACT began the process of electronic reporting in Niger state and this practice was instituted across all supported facilities. Internet modems were provided and electronic copies of state monthly reporting forms were developed using essential logistics data elements from the M-supply software that had been installed at the warehouse. State capacity was built on the use of the Monthly LMIS tools, and

electronic copies were shared with facilities for reporting the state's own public health commodities. Linking these facilities to the internet permitted staff to have access to up to date SCMS and current trend information.

As the PEPFAR procurement process became further unified under the USAID SCMS project (later transitioned to Global Health Supply Chain-Procurement and Supply Management (GHSC-PSM), PEPFAR established state level Logistics Management Coordination Units to coordinate the flow of PEPFAR procured pharmaceuticals. A key Pro-ACT accomplishment was the agreement that these units would be managed by, report to, and be sub-committees of the state Logistics TWG, thus avoiding duplication of effort and promoting GoN ownership and responsibility.

Capacity Building

State Logistics Technical Working Groups

At the heart of Pro-ACT's efforts in supply chain management was capacity building. One of its most significant achievements, also mentioned above, was the establishment of the first state level Logistics Technical Working Group. This state body, with terms of reference developed with Pro-ACT support, was piloted in Niger state and was composed of various SMoH offices (Department of Planning Research and Statistics (DPRS), Pharmacy, Laboratory, SASCP, Nursing, SACA, the National Agency for Food and Drug Administration and Control, and IPs) and was initially formed to address some of the logistics difficulties arising from multiple IPs having multiple distribution channels. The TWG, with Pro-ACT support, began to effectively assume and exert state control of logistics. It was intimately involved in the development of the Model Warehouse, and undertook the management and decision making of the LMIS. The Niger Commissioner of Health presented this concept to the National Council on Health, the nation's supreme health policy advisory body, where it was approved. Pro-ACT subsequently assisted in the formation of Logistics TWGs in all of its states and the process has been widely replicated. The TWGs meet quarterly and have a Secretariat that coordinates activities between meetings.

Good Pharmacy Practice

Pro-ACT trained the State Directors of Pharmaceutical services, project SCMS specialists, and one staff from each state selected by the SMoH as a trainer in Good Pharmacy Practices so that pharmacists would be able to provide quality pharmaceutical care services, including adverse drug reaction monitoring in the continuum of care. Subsequent trainings were done throughout the states. Extensive training was also carried out in laboratory commodity management, and logistics management of health commodities (LMHC) from the SMoH and HMB down to facility level using a standard FMoH curriculum and SOPs.

Model Pharmacy Concept

On-going site level technical assistance, mentoring, and quality assurance also contributed to the building of capacity in logistics management.

Achievements

- States Logistics Technical Working Groups (LTWGs) Establishment and institutionalized and with capacity to manage supply chain.
- LTWG Public and private health Sector Partnership leading to increased awareness and willingness of private sector to support to HIV/AIDs activities
- Development of Model Warehouse in Minna meeting best international standards
- M-Supply Electronic Inventory Management System: Model Pharmacy Concept
- Built the capacity of Pharmacy and Laboratory personnel on LMHC and Pharmaceutical Care and Good Pharmacy Practice and Leadership
- Renovation and installation of racks in State Central Medical Warehouses and transition to State government
- Institutionalization and improved of Healthcare Waste Management

8. MONITORING AND EVALUATION

The Monitoring and Evaluation (M&E) function of the Pro-ACT project had three main objectives: 1) to provide reliable and timely data to USAID especially with regard to annual targets and PEPFAR indicators; 2) to provide reliable and timely data for internal Pro-ACT project use, both for management and in support of the specialists; and 3) to build the capacity of the medical records function in the Ministries of Health and their facilities that were supported during the life of the Project.

USAID Reporting

The M&E unit prepared the quarterly indicator reports that were included in each of the USAID quarterly reports and the PEPFAR Semiannual Progress Reports. One of the major M&E challenges in this regard was the significant shift in PEPFAR indicators that occurred in 2013. PEPFAR shifted from the PEPAR Indicator Guide, a copious guide with detailed definition of each indicator with guidelines on how to calculate and interpret them, to the PEPFAR Monitoring, Evaluation, and Reporting (MER) guide. The change was more than just in name, as the definition of and means for calculating indicators changed. One of the most disruptive of these changes for Pro-ACT was age disaggregation. Previously, PEPFAR required age to be disaggregated as 1-14 years of age, and 15 years and above. With the MER, disaggregation was required for 1-4, 5-9, 10-14, 15-19, 20-24, and 25 and above. Another example was the definition of "enrolled in care" where the definition went from being enrolled in the HIV register to having a CD4. As a result of the change from the PEPFAR Indicator Guide to the MER, Pro-ACT had to change its data collection forms and retrain all facility staff.

There are very few indicators that remained consistent since the beginning of the Project, making it more difficult to show trends in performance and results over time. The data for each of these indicators were recorded electronically in different platforms (DHIS and DATIM). At the time of the transition from DHIS to DATIM, IPs were required to enter data on both platforms monthly. This became an impossible task and subsequently, reporting was limited to DATIM on a quarterly basis. Another change was that in DATIM both direct services support and technical assistance were recorded, however services provided by transitioned facilities and functions were no longer reported.

MOH Medical Records Function

The project witnessed a tremendous evolution in the HIV M&E system, from a totally unstructured beginning, to an embrace of the "One National M&E" principal[18] where all facilities are providing quality data that is collated by nationally standardized reporting platforms at the state and national level. Pro-ACT addressed major data quality gaps through capacity building in a total of 128 supported facilities at project conclusion (41 CCTs and 87 PMTCT sites).

[18] This refers to the Global Fund concept of the "Three Ones" (One HIV Plan, One M&E Framework, and One Coordinating Body).

The M&E strategy focused on 3 core areas: 1) partnership, people, and planning; 2) data collection and verification; and 3) data use for decision-making. The first of these represents the commitment to partnering with the government from the very beginning. Technical assistance and mentoring visits, for instance, were done with state counterparts. The second refers to the process of recording and assuring the accuracy of data. The third focuses on the use of data by providers, facilities, state level teams and working groups, and by the Project internally.

The program interventions where these three core areas were expressed were Patient Monitoring & Management (PMM), Quality Management (QM), Program Monitoring & Evaluation (PME), and Research. PMM referred to the routine collection, compilation, and analysis of data on a group of patients over time and across service delivery points (i.e., patient tracking and patient management, and the relationship between providers on a clinical team and the individual patient over time). Some of the tools of PMM were the ART care card, personal history form, initial clinical evaluation form, and laboratory order and result form. Quality Management referred to the global program of norms, standards, and procedures to ensure that services, products, and final results were correct, consistent, pertinent, and timely and included tools such as standard operating procedures (SOPs), assessment forms, process flowcharts, and checklists. PME embraced tracking of priority information/data on the program, measuring progress of the program, and assessing of outcome and impact of the Project to determine its effectiveness. This was done by measuring the defined program indicators.

The M&E team continued to support activities that fostered ownership and sustainability through collaboration with stakeholders in the state. This was accomplished through the training of facility staff and the development and strengthening of the data system. Each facility, for instance, did data verification where someone different than the person who recorded the data verified it through register review. This was often the Head of the M&E Department. Data use was centered in the Quality Improvement Teams (see above). In their monthly meetings, the QIT used the data generated to identify areas where quality improvement could be made or to monitor progress.

The three particular points of intervention were when data was recorded by providers (patient monitoring and management), when it was aggregated and reported (quality management), and when it was used for program management and research (data use). Pro-ACT also supported the generation of data demand and use across the state governments for informed decision making through data analysis with counterparts and the production of state bulletins or factsheets.

Entrance into a new or a transitioned facility invariably began with a site assessment. The team developed a facility attribute database that permitted the team to see the strengths and needs of a facility. Included were aspects such as training, existence and number of computers, number of data clerks, medical records infrastructure, existence of a server, job descriptions, and presence of and knowledge about M&E indicators.

As with other project areas, integration of HIV patient records into the general medical record system was part of institutionalization and contributed to the reduction of stigma and discrimination by making it less obvious who was attending the facility for HIV and who was there for any other health reason.

The Data Quality Assurance (DQA) conducted by M&E team at least twice per every fiscal year helped to improve the quality of service delivery and to strengthen systems both at the facility and community levels. The project conducted internal (quarterly by MSH staff) and external (bi-annually by a team including USG staff) DQAs which focused on 4 key dimensions of data quality, which included: Data Availability, Data Consistency, Data Validity and Systems Assessment. Owing to the DQAs, the quality of data generated from the project supported facilities has been consistently high and the feedback from DQA exercises helped to improve Pro-ACT's HMIS tools. The DQA exercises covered at least 30% of the CCTs, 5% of PMTCT sites and 5% of CSO sites annually. Results from the DQA exercises were always promptly shared with facility QI teams for follow up actions to address any identified gaps.

To address some of the challenges of the rigorous reporting requirements of PEPAR, especially the Retention Audit Documentation Tool that is used to track all patients on ART and that was usually maintained on a cumbersome Excel datasheet, Pro-ACT over about a one-year period assisted in the installation of an electronic medical records system in 19 of the 41 CCT sites. The system is open source and although it currently only includes HIV patients, it is expandable according to the facility's capacities, desires, and needs. In ten of the 19 sites, the entire backlog of HIV patients was entered and as the Project ended, consultants were in the process of entering the data backlog in other facilities.

Another notable effort was building the capacity of LACA M&E officers. LACA officers played a critical role in gathering and uploading the national M&E data. Pro-ACT advocated with SACA to ensure that LACAs had computers and modems for uploading data. The Pro-ACT states of Zamfara and Kebbi were the only states in the country to have 100% reporting on the National DHIS or the electronic Nigeria National (HIV/AIDS) Response Information Management Systems (eNNRIMS) platform.

As part of efforts to improve the M&E system in project states, Pro-ACT decided to move from a paper-based system to an improved electronic medical record system. As a result, the Project developed a plan to implement electronic medical record in some supported health facilities. In 2015, an electronic medical record system using OpenMRS was piloted in 3 health facilities in Kwara, Niger, and Sokoto. This was scaled up to 16 health facilities in 2016. As the Project ended, there were a total of 19 EMR supported sites in Zamfara (1), Sokoto (2), Kebbi (3), Kwara (3), and Niger (10). The EMR implementation started with stakeholders' engagement at all levels to ensure that the users accepted it. These engagements yielded positive results through the widespread acceptability of the EMR platform by all stakeholders. To ensure the full implementation of the EMR, training and re-training was conducted for users and relevant stakeholders. Before commencement of the EMR activity and "real-time EMR", we ensured the implementation work plan was followed by having all Local Area Networks set up and certified, inverters installed, and procured laptops deployed.

Finally, as with other areas of support, the M&E staff worked with state counterparts to leave with the states the capacity to do the training, mentoring, and data quality auditing on their own that had been previously done by Pro-ACT. By the end of the Project, Kebbi, Kwara, and Zamfara states were leading data quality assessments on their own.

Achievements

- As a result of Pro-ACT support to the government, the average reporting rate into the national reporting platform increased from 0% in 2009 to 30% in 2013 and 80% in 2015 in MSH project states. The involvement of the states through the Ministry of health and SACA in all M&E activities also enhanced the quality of data documentation and reporting.
- Integration of the HIV clinic with the existing out patient record unit resulted in an increase in patient attendance from an average of 41% to about 75%. The integration of the medical records also resulted in increased client retention from 40% to 71%. Most HIV positive who previously were stigmatized by the vertical medical record system showed more willingness to attend clinic on their appointment days.
- 834 medical records staff in the health facilities, local and state levels trained on data documentation and reporting. The major human resource gap of low capacity of M&E skills was addressed through continuous training and re-training. Medical record staff were trained on data documentation and reporting, data use and electronic medical record systems. As a result of these trainings, there was a noted improvement in the quality of data generated from all project supported states.
- From the beginning of the Project, Pro-ACT M&E team supported the inauguration of M&E technical working groups (TWGs) each in the Project states and strengthened them through participation in planning and conducting meetings, technical assistance, joint site visits, training, human resources, and financial support.
- The M&E team collaborated with the states' SACA in the procurement of Health Management Information System (HMIS) tools that were out of stock. This collaboration resulted in states like Kwara and Zamfara releasing funds for the printing of HMIS tools.
- With continued advocacy and partnership, the five MSH supported states through their SACA have fully taken over the responsibilities of monthly data review. Three SACAs, in conjunction with their ministry of health (MoH), fully coordinated and sponsored the monthly M&E forum, providing both technical and financial support to M&E personnel for data collation, validation and continuous contribution in the state quarterly bulletin. Pro-ACT supported Kwara, Kebbi, and Zamfara to improve the content of their bi-annual fact sheet to enhance information sharing and data use for decision making. With the existence of data-driven quality improvement teams, data was being used for planning and decision making in all 41 health facilities that were providing comprehensive HIV/AIDS services.

9. SUSTAINING AND EXPANDING PROJECT IMPACT

To a certain extent, sustainability of Pro-ACT's impact is facilitated by the fact that its efforts are continuing with the CaTSS project that follows immediately on the heels of Pro-ACT.

Many of the structural constraints mentioned in the earlier section on Project Scope and Assumptions still existed at project conclusion, particularly the public sector human resources for health and the funding challenges. The latter were made more acute by Nigeria's 2015-2016 economic recession, largely a result of lower than expected prices for oil, its chief export.

The transition experienced with the low volume PMTCT sites and with chemistry and hematology services were an indication of both risks and opportunities of transitioning to GON support. In terms of PMTCT sites, 68 of 198 sites were transitioned to the government. Six months after the transitioning, it was found that state governments were still providing rapid test kits and staff were doing PITC, leading to Pro-ACT overachieving its PMTCT targets. However, state supportive supervision visits were minimal.

In terms of the transitioning of chemistry and hematology tests, this provided an opportunity for Pro-ACT to work with health facilities to rethink how tests could continue to be provided to HIV patients by offering to the general patient population the broader range of tests that the PEPFAR purchased machines allow, and thus generate new resources to offset the cost of free services to HIV patients. This functioned quite well in the General Hospital Minna. However, the Pro-ACT Laboratory Specialist indicated that this was the exception. At Project end, he estimated that 75% of the machines were not being used. One of the problems was that all PEPFAR purchased machines used proprietary reagents that were more expensive. The great majority of the other equipment in the various facilities used non-proprietary reagents that could be obtained at a much lower cost.

Some Pro-ACT initiatives were already institutionalized and have a very high probability of being sustained. The state Logistical Technical Working Groups is one of these. Another is the SPEEiD model that the Federal Government itself identified and presented to the African Union as a PMTCT best practice for documentation by that body. Others were truly Pro-ACT products, but what made them sustainable was that they became Ministry norms and lost their product identification. Among these are the many SOPs developed for laboratory services by Pro-ACT.

Another initiative likely to be maintained and expanded is the Centers for Health Professional Continuing Education, given that, in some states, they now have their own budget line item.

This brief review of successes and failures provides some indications of which strategies lead to sustainability and which do not. When decisions are thrust upon counterparts that they have not participated in, as in the case of the discontinuation of the PMTCT sites and the laboratory and chemical testing, the probability of sustainability is decreased. This is particularly the case when continuity requires the outlay of resources that are not customarily budgeted for. In the cases of all of those elements that have become institutionalized, a common element is the patient nurturing over a long period and the full participation of the government in the development of the initiative. Where PEPFAR policy allows, this is the approach that Pro-ACT has pursued.

10. LESSONS LEARNED AND RECOMMENDATIONS

Lessons Learned

Seven years of implementation experience in eight states representing the three northern of Nigeria's six geopolitical regions has provided many opportunities for learning. Much of that learning has been shared in each of the 29 quarterly reports submitted over the life of the Project; in the success stories written and shared (see the Pro-ACT Success Story Compendium); in the innumerable TWGs, consultative meetings, national and international conferences, and meetings of various types; and in specific subject reports submitted to USAID. The lessons learned during the rationalization process were shared with USAID as mentioned earlier in this report in an April 2014 document entitled, "MSH Pro-ACT's Pre- and Post-Experience with Rationalization in Nigeria". Below are some of the broader lessons learned.

1. Short term decisions can have long term consequences

When the PEPFAR program began in Nigeria, it was a "vertical" system which resulted in parallel systems (e.g., laboratories, medical records, clinics) that were not integrated with existing systems. As PEPFAR's strategy shifted, and projects like Pro-ACT began to foster the integration of HIV programs into the mainstream health facility services, there were areas that did not fit well. For example, in some facilities, the proprietary lab equipment platforms could not be maintained by the facilities to which they were handed over. Another area to watch is the recent focus on priority states and LGAs, and subsequent de-emphasizing of critical HIV prevention support in the sustained response states. Towards the end of the Pro-ACT project, staff were already beginning to see some areas emerge as "hot spots" with high HIV positivity rates in the sustained response states and LGAs, while at the same time, the targets expected to be reached in some of the scale up states were not being reached. This type of situation has potential to put gains that have been achieved in controlling the epidemic at risk.

2. Transitioning takes time

Transitioning is the process whereby, under PEPFAR orientation, certain support provided by PEPFAR funds is discontinued with the expectation that it will be assumed by the host government. Two of the areas of support transitioned in the final two years of the Project were laboratory support for the chemistry (liver and kidney function tests) and hematology tests used to monitor HIV positive patients, especially those on ARVs and the support to PMTCT sites considered "low volume". Those decisions were made at the beginning of a USAID fiscal year and were expected to be implemented by IPs in that year. The realities of the state government budgeting process, however, are such that it was not possible to communicate that decision to the governments in time for them to analyze its implications, carry out needed advocacy, and obtain the budget modifications all in less than a year. This meant that either services were not provided during a considerable span or funds had to be diverted from another sources.

2. Rapid scale-up is possible and can be done well

Following a mandate from USAID, in mid-year 2012, Pro-ACT implemented the PMTCT state hyper-implementation plan (SHIP) in its then two high-prevalence states, Taraba and Kogi. By the end of December 2012, a total of 32 additional health facilities had been activated to provide PMTCT services. Given USAID guidance on rationalization, focus moved to Niger and was able in three months to activate an additional 31 sites. The process included data analysis with state teams, information gathering from LGAs about capacity of health facilities identified with state teams, health facility visits to assess capacity and willingness, selection, training of 2 HCWs per facility, providing supplies, and start-up. MSH followed up with intense quality control and support, and developed the "Townhall Cluster Mentoring" (TCM) meeting concept. In the TCM meeting, HCWs from an area gathered at a central location were provided with CMEs focused on quality HIV testing and counselling and provided data to the M&E teams. The TCM meetings helped improve the quality of services at the facilities, evidenced by improved knowledge about PMTCT, and better quality of services in their facilities as measured by standard of care assessments reports. Facility best practices were easily replicated and it served as a forum for networking and client referral coordination. The cost of mentoring was reduced to a quarter of what it had been while implementing routine site visits.

3. Champions make a difference

Pro-ACT found that in many of its successful interventions, the ability to identify champions for change and support them with encouragement, training, and as a listening ear was key to the success. This practice was systematized with the facility Quality Improvement Teams where the Coordinator was not determined by position but rather by interest, motivation, and commitment. This was also the case with the various TWGs at the state level.

4. Partnering with states was important

From the very beginning, Pro-ACT attempted to interact with its counterparts, particularly at the state level, in a spirit of true partnership. Joint decision making around project planning and implementation was sought, truly wanted and needed, and incorporated and used input from various counterparts. One government authority stated that he appreciated Pro-ACT's humility, i.e., its willingness to listen and understand. Another aspect of partnering that proved important was having personnel present in the states. This was noted in Zamfara that had been managed by one IP from a regional office in Kano state, but reveled in having a team dedicated to its particular needs.

5. Working with legislators proved effective

One of the achievements described above was the mobilization of resources from state governments in support of the HIV/AIDS program, a key to its long-term sustainability. A significant step in that regard was the high level meeting at MSH's office in Abuja with Commissioners of Health, Director Generals of SACA, and key legislators from health committees of the State Assemblies. The importance of the legislators in mobilizing funds, and their willingness to do so when they understand the situation and feel they are part of the solution to problems, was evident.

6. CSOs know their communities and operate at a low cost

Working with CSOs proved more cost effective than Pro-ACT had imagined. Their knowledge of and presence in their communities and their lean operations enabled the Project to extend its range much more broadly than it would have been able to without working with them. Pro-ACT's commitment and ability to develop the capacity of those same organizations was also key to making them more effective and sustainable.

Recommendations

1. USAID and PEPFAR should carefully watch for the potential impact of the reduced support for prevention activities in the non-priority states given early indications of the emergence of "hotspots" in sustained response states, and the underachievement of targets in the priority states.
2. USAID and PEPFAR should have a more realistic timeframe for transitioning to allow the states time to evaluate, advocate and budget the resources to really accept the support transitioned from PEPFAR to them. At the same time, they should consider being more deliberate in rate of changes. Since rationalization, the changes in PEPFAR strategies happened so fast that Pro-ACT's state government partners and the facilities themselves were oftimes confused and left wondering whether they are really partners or just recipients of support which can change at any time without notice.
3. US government agencies, particularly CDC and USAID need for to harmonize approaches to avoid the challenges Pro-ACT had with winning over and gaining acceptability by facilities and states that had previously been supported by CDC financed IPs that had leeway to do a lot of things that USAID would never allow their IPs to do.
4. USAID should continue to support CSO grants as a cost effective means to extending project impact and building local capacity.

ANNEXES

Annex 1. Pro-ACT Technical Briefs

Financing Sustainable Laboratory Programs in Nigeria - Laboratory Revolving Funds

Improving Retention in HIV Treatment Programs in Nigeria - The STRIDE Strategy

Strengthening the Health Workforce for Improved HIV Service Delivery - The SHARE Strategy

Improving Dried Blood Spot Transport Logistics for Early Infant Diagnosis of HIV - The SPEEID Model

Creating Sustainable Government Commitment in Kwara State, Nigeria

Institutionalizing Government-led Capacity Strengthening of Human Resources for Health: The CPHCE Model

Annex 2. Pro-ACT Fact Sheets

Pro-ACT's Key Results

Pro-ACT's Key Results in Zamfara State

Pro-ACT's Key Results in Sokoto State

Pro-ACT's Key Results in Niger State

Pro-ACT's Key Results in Kwara State

Pro-ACT's Key Results in Kebbi State

Annex 3. Pro-ACT Success Stories

Pro-ACT Success Story Compendium

Annex 4. Pro-ACT Summary Performance Monitoring Plan (PMP)

PY1 M&E Plan			
Indicator	**FY10 (Oct 1, 2009 - Sept 30, 2010)**		
	Target	Reached	% Reached
IR1.3 Sustained uptake of quality community based HIV services in assigned states			
Indicator #NC5.2D Output: Number of active beneficiaries served by PEPFAR program for children and families affected by HIV/AIDS	N/A	991	N/A
Indicator #C1.1.D *Outcome: Number of eligible adults and children provided with a minimum of one care service**	17,303	7,912	46%
Indicator #NC1.1.D *Outcome: Number of Persons Affected by HIV/AIDS (PABA) provided with palliative care**	N/A	27,902	N/A
IR 2.2: Sustained uptake of integrated facility-based HIV/AIDS and TB care and treatment services in assigned states			
2.2.1 ART (Including Counseling and Testing)			
Indicator # P11.1.D: Output: Number of individuals who received testing and counseling services for HIV and received their test results (including PMTCT)	164,184	179,834	110%
Indicator # P11.1.D: Output: Number of individuals who received testing and counseling services for HIV and received their test results (HCT Sites Only)	115,177	131,051	114%
Indicator #T1.1.D Outcome: Number of adults and children with advanced HIV infection newly enrolled on ART	3,795	4,599	121%
Indicator #T1.2.D Outcome: Number of adults and children with advanced HIV infection receiving ART	6,770	6,807	101%
Indicator #T.1.2N Outcome: Percent of adults and children with advanced HIV infection receiving ART	50%	77%	154%

Indicator #T.1.3.D Outcome: Percent of adults and children known to be alive and on treatment 12 months after initiation of ART	100%	47%	47%
Indicator #C2.1.D Outcome: Number of HIV-positive adults and children who received at least one of the following during the reporting period: clinical assessment (WHO staging), CD4 count or viral load	14,750	7,912	54%
Indicator #T1.4.D *Output: Number of adults and children with advanced HIV infection who **ever started** on ART**	N/A	9,267	N/A
Indicator # T.1.5.D Output: Number of health facilities that offer ART	25	25	100%
2.2.2 Prevention of Mother to Child Transmission			
Indicator #P1.3.D Outcome: Number of health facilities providing ANC services that provide both HIV testing and ARVs for PMTCT on site	41	41	100%
Indicator #P1.1.D Output: Number of pregnant women with known HIV status (includes women who were tested for HIV and received their results)	49,007	44,937	92%
Indicator P1.1.N Outcome: Percent of pregnant women who were tested for HIV and know their results.	80%	97%	97%
Indicator #P1.2.D Outcome: Number of HIV-positive pregnant women who received antiretrovirals to reduce risk of mother-to-child-transmission	2,450	639	26%
Indicator #1.2.N Outcome: Percent of HIV-positive pregnant women who received ARVs to reduce the risk of MTCT	65%	64%	98%
Indicator #1.2.N Outcome: Percent of infants born to HIV-positive women who received a virological HIV test within 12 months of birth	65%	64%	98%
2.2.4 TB/HIV			
Indicator # C2.4.D Outcome: Number of HIV-Positive patients who were screened for TB in an HIV care or treatment setting	13,275	4,794	36%

Indicator #C3.1.D Output: Number of TB patients who had an HIV test result recorded in the TB register	900	1,284	143%
Indicator # C2.6.D Number of individuals who received C&T for HIV and received the results at a USG supported TB services outlets (including suspects (a subset of P11.1D)	N/A	3,332	N/A
Indicator # C2.5.D Number of HIV-Positive patients (pre-ART or ART) who started TB treatment		339	
Indicator # C2.5.D Output: Percent of HIV-positive patients in HIV care or treatment (pre-ART or ART) who started TB treatment	6%	4%	67%
2.2.5 Laboratory Systems Services			
Indicator #H1.1.D Output: Number of testing facilities (laboratories) with capacity to perform clinical laboratory tests	23	23	100%
Prevention/Sexual and other Behavioral Risk Prevention			
*Output: Number of MARPs reached with individual and/or small group level interventions that are based on evidence and/or meet minimum standards**	30,000	43,552	145%
Indicator #P.8.4.D *Output: Number of targeted condom service outlets**	250	145	58%
IR 3.1: Strengthened capacity of health care workers to provide quality integrated HIV care & treatment services consistent with the national guidelines			
Indicator # H2.3.D: Output: Number of health workers who successfully completed an in-service training program	1,011	1,202	119%

	FY11 (October 1, 2010 - Sept 30, 2011)		
Indicators	**Target**	**Reached**	**% Reached**
PMTCT			
Indicator #P1.1.D:	49,007	42,999	88%
Output: Number of pregnant women with **known HIV status** (includes women who were tested for HIV and received their results)			
Indicator P1.1.N:	95%	96%	96%
Outcome: Percent of pregnant women who were tested for HIV and know their results.			
Indicator #P1.2.D:	2,450	649	26%
Output: Number of HIV-positive pregnant women who received antiretrovirals to reduce risk of mother-to-child-transmission			
Indicator #1.2.N:	65%	68%	68%
Outcome: Percent of HIV-positive pregnant women who received ARVs to reduce the risk of MTCT			
Prevention			
Indicator #P8.1.D:	49,091	67,820	138%
Output: Number of the targeted population reached with individual and/or small group level HIV prevention interventions that are based on evidence and/or meet the minimum standards required			
Indicator #P8.2.D:	32,727	61,181	187%
Output: Number of the targeted population reached with individual and/or small group level HIV prevention interventions that are primarily focused on abstinence and/or being faithful, and are based on evidence and/or meet the minimum standards required			
Indicator #P8.1.D:	30,000	63,528	212%
Number of individuals reached through community outreach that promotes HIV/AIDS prevention through other behavior change beyond abstinence and/or being faithful			
Number of individuals who received testing and counseling services for HIV and received their test results (PICT+LAB)	63,338	109,616	173%
Number of individuals who received testing and counseling (T&C) services for HIV and received their test results (including PMTCT)	115,177	149,806	130%

Indicator # P7.1D: Number of people Living with HIV/AIDS (PLHIV) reached a minimum package of PwP intervention	11,063	6,137	55%
Indicator #P.6.1.D: No of person provided with Post exposure prophylaxis	297	35	12%
Umbrella Care Services including OVC			
Indicator #C1.1.D: Output: Number of eligible adults and children provided with a minimum of one care service	49,001	34,744	71%
No of Clients who received at least one clinical care service	14,750	17,118	116%
No of PABAs reached	28,768	12,005	42%
Number of orphans & vulnerable children (OVC) that received at least one OVC care services	5,482	5,621	103%
Indicator #C5.1.D: Output: Number of eligible adults and children who received food and/or other nutrition services	8,850	5,397	61%
Number of HIV positive persons receiving cotrimoxazole prophylaxis	8,406	3,973	47%
TB/HIV Services			
Indicator #C3.1.D: Output: Number of TB patients who had an HIV test result recorded in the TB register		1,284	
No of individuals who received C&T for HIV and received their test results at a USG support TB services outlet (including suspect)	2,832	2,576	91%
Number of HIV+ patients screened for TBHIV Care or Treatment setting	13,275	5,352	40%
# of HIV+ patients in HIV Care or Treatment (pre-ART or ART) who started TB treatment	876	271	31%
Indicator # C2.5.D: Output: Percent of HIV-positive patients in HIV care or treatment (pre-ART or ART) who started TB treatment	6%	17%	4%
OVC Services			
# of HIV+ children (0-17)years provided with clinical care services (including those on ART)		614	
ARV Treatment			
Number of adults and children with advanced HIV infection newly enrolled on ART	3,795	4,042	107%
Indicator #T1.2.D: Output: Number of adults and children with advanced HIV infection receiving ART therapy	6,770	8,652	128%

Total Adult	5,278	8,165	155%
Total Children	492	487	99%
Health Systems Strengthening			
# of community health care workers who successfully complete an in service training	1,011	2,722	269%

PY3 M&E Plan Indicator	FY12 (Oct 1, 2011 - Sept 30, 2012)		
	Target	Reached	% Reached
IR1.3 Sustained uptake of quality community based HIV services in assigned states			
Indicator #NC5.2D Output: Number of active beneficiaries served by PEPFAR program for children and families affected by HIV/AIDS	10,000	7,110	71%
Indicator #C1.1.D *Outcome: Number of eligible adults and children provided with a minimum of one care service**	53,901	68,928	128%
Indicator #NC1.1.D *Outcome: Number of Persons Affected by HIV/AIDS (PABA) provided with palliative care**	22,845	41,212	180%
IR 2.2: Sustained uptake of integrated facility-based HIV/AIDS and TB care and treatment services in assigned states			
2.2.1 ART (Including Counselling and Testing)			
Indicator # P11.1.D: Output: Number of individuals who received testing and counseling services for HIV and received their test results (including PMTCT)	154,897	187,711	121%
Indicator # P11.1.D: Output: Number of individuals who received testing and counseling services for HIV and received their test results (HCT Sites Only)	9,350	125,553	1343%
Indicator #T1.1.D Outcome: Number of adults and children with advanced HIV infection newly enrolled on ART	4,343	4,811	111%
Indicator #T1.2.D Outcome: Number of adults and children with advanced HIV infection receiving ART	12,619	12,321	98%
Indicator #T.1.2N Outcome: Percent of adults and children with advanced HIV infection receiving ART	65%	70%	108%
Indicator #T.1.3.D Outcome: Number of adults & children who are still alive and on treatment at 12 months after initiating ART	4,237	2,717	64%

Indicator #T.1.3.D Outcome: Percent of adults and children known to be alive and on treatment 12 months after initiation of ART	100%	64%	64%
Indicator #C2.1.D Outcome: Number of HIV-positive adults and children who received at least one of the following during the reporting period: clinical assessment (WHO staging), CD4 count or viral load	21,056	20,606	98%
Indicator #T1.4.D *Output: Number of adults and children with advanced HIV infection who **ever started** on ART**	N/A	18,963	N/A
Indicator # T.1.5.D Output: Number of health facilities that offer ART	25	30	120%
2.2.2 Prevention of Mother to Child Transmission			
Indicator #P1.3.D Outcome: Number of health facilities providing ANC services that provide both HIV testing and ARVs for PMTCT on site	41	81	198%
Indicator #P1.1.D Output: Number of pregnant women with known HIV status (includes women who were tested for HIV and received their results)	72,099	56,652	79%
Indicator P1.1.N Outcome: Percent of pregnant women who were tested for HIV and know their results.	90%	96%	96%
Indicator #P1.2.D Outcome: Number of HIV-positive pregnant women who received antiretrovirals to reduce risk of mother-to-child-transmission	2,365	1028	43%
Indicator #1.2.N Outcome: Percent of HIV-positive pregnant women who received ARVs to reduce the risk of MTCT	75%	82%	109%
Indicator #1.2.N Outcome: Percent of infants born to HIV-positive women who received a virological HIV test within 12 months of biirth	75%	82%	109%
2.2.4 TB/HIV			
Indicator # C2.4.D Outcome: Number of HIV-Positive patients who were screened for TB in an HIV care or treatment setting	14,603	10,298	71%

Indicator #C3.1.D Output: Number of TB patients who had an HIV test result recorded in the TB register	1,131	1,950	172%
Indicator # C2.6.D Number of individuals who received C&T for HIV and received the results at a USG supported TB services outlets (including suspects (a subset of P11.1D)	10,921	4,553	42%
Indicator # C2.5.D Number of HIV-Positive patients (pre-ART or ART) who started TB treatment	876	279	32%
Indicator # C2.5.D Output: Percent of HIV-positive patients in HIV care or treatment (pre-ART or ART) who started TB treatment	15%	1%	7%
2.2.5 Laboratory Systems Services			
Indicator #H1.1.D Output: Number of testing facilities (laboratories) with capacity to perform clinical laboratory tests	25	25	100%
Prevention/Sexual and other Behavioral Risk Prevention			
*Output: Number of MARPs reached with individual and/or small group level interventions that are based on evidence and/or meet minimum standards**	25,533	18,221	71%
Indicator #P.8.4.D *Output: Number of targeted condom service outlets**	250	67	27%
IR 3.1: Strengthened capacity of health care workers to provide quality integrated HIV care & treatment services consistent with the national guidelines			
Indicator # H2.3.D: Output: Number of health workers who successfully completed an in-service training program	300	855	285%

** Indicators in italics will not be tracked during the cost extension period.*

PY4 PMP	FY13 (Oct 1, 2012 - Sept 30, 2013)		
	Target	Reached	% Reached
Prevention of Mother-to-Child Transmission			
Number of pregnant women with known HIV status (includes women who tested for HIV and received their results)	238,138	105,263	44%
Percent of HIV-positive pregnant women who received antiretrovirals to reduce risk of mother-to-child-transmission	80%	78%	78%
(Numerator) Number of HIV-positive pregnant women who received antiretrovirals to reduce risk of mother-to-child-transmission	4,004	1,434	36%
(Denominator) Number of HIV-infected pregnant women identified in the reporting period (including known HIV-positive at entry)	5,005	1,842	37%
Percent of infants born to HIV-positive pregnant women who received an HIV test within 12 months of birth	80%		169%
Number of infants born to HIV-positive pregnant women who received an HIV test within 12 months (a subset of #P11.1D)	4,004	798	20%
Post-Exposure Prophylaxis			
Number of persons provided with post-exposure prophylaxis (PEP)	100	31	31%
Prevention with People Living with HIV (PLHIV)			
Number of People Living with HIV/AIDS (PLHIV) reached a minimum package of PwP interventions	17,989	15,241	85%
Sexual and Other Risk Prevention			
Number of (persons in) the target population reached with individual and/or small group level interventions that are based on evidence and/or meet the minimum standards	8,137	48,168	592%
Number of individuals reached with individual/small group interventions primarily focused on abstinence and/or being faithful	2,712	20,863	769%
Number of MARP reached with individual and/or small g level interventions that are based on evidence and/or meet the minimum standards	5,367	11,703	218%
Testing and Counseling			
Number of individuals who received Testing and Counseling (T&C) services for HIV and received their test results (including PMTCT, TBHIV, Infants)	405,826	361,510	89%
Number of individuals who received Testing and Counseling (T&C) services for HIV and received their test results (HCT sites Only)	154,484	252,083	163%

"Umbrella" Care (Including OVC)			
Number of eligible adults and children provided with a minimum of one care service	73,572	127,792	174%
Clinical Care			
Number of HIV-positive adults and children receiving a minimum of one clinical service	29,982	42,296	141%
Percent of HIV-positive persons receiving cotrimoxazole prophylaxis	80%		37%
(Numerator): Number of HIV-positive persons receiving cotrimoxazole prophylaxis	23,986	15,467	64%
Number of HIV-positive malnourished clients who received therapeutic or supplementary food	600	70	12%
TB/HIV (a subset of Clinical Care - C2.1D)			
Number of individuals who received C&T for HIV and received their test results at a USG supported TB service outlet (including suspects)(a subset of P11.1D)	9,200	3,101	34%
TB/HIV: Percent of HIV-positive patients who were screened for TB HIV care or treatment settings	90%		22%
TB/HIV: (numerator) Number of HIV-positive patients who were screened for TB in an HIV care or treatment settings	26,984	9,217	34%
TB/HIV: (numerator) Number of HIV-positive patients (pre-ART or ART) who started TB treatment	1,836	266	14%
Supportive Care Services (Including OVC)			
Number of eligible adults and children who received food and/or other nutrition services	12,507	19,987	160%
Treatment			
Number of adults and children with advanced HIV infection newly enrolled on ART	7,716	6,964	90%
Number of adults and children with advanced HIV infection infection receiving antiretroviral therapy (ART) [CURRENT]	14,991	18,543	124%
Percent of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy	85%		57%
(Numerator) Number of adults & children who are still alive and on treatment at 12 months after initiating ART	4,089	2,739	67%
(Denominator)Total number of adults & children newly enrolled between 01 September 2011 to 30 September 2012	4,811	4,825	100%

Indicator	FY2014 (Oct 1, 2013 - Sept 30, 2014)		
	Target	Reached	% Reached
Intermediate Result (IR): 14.1 Increased demand for HIV/AIDS and TB services and interventions, especially among selected target groups			
Sub-IR: Prevention/Prevention of Mother to Child transmission			
Indicator #P1.3.D Output: Number of health facilities providing ANC services that provide both HIV testing and ARVs for PMTCT on site	198	198	100%
Indicator #P1.1.D Output: Number of pregnant women with known HIV status (includes women who were tested for HIV and received their results)	159,941	184,661	115%
(Denominator) Number of HIV-infected pregnant women identified in the reporting period (including known HIV-positive at entry)	5,236	2,432	46%
Indicator #P1.2.D Output: Number of HIV-positive pregnant women who received antiretrovirals to reduce risk of mother-to-child-transmission	2,970	2,299	77%
Numerator: Number of infants who had a virologic HIV test within 12 months of birth during the reporting period	2,970	866	29%
Number of infants born by HIV+ pregnant women	0	1696	
Percent of infants born to HIV-positive women that receive a virological HIV test within 12 months of birth	57%	51%	51%
Sub-IR: Prevention/Testing and counseling			
Indicator # P11.1.D: Output: Number of individuals who received testing and counseling services for HIV and received their test results (including PMTCT)	581,379	418,432	72%
Indicator # P11.1.D: Output: Number of individuals who received testing and counseling services for HIV and received their test results (HCT Sites Only)	410,585	229,030	56%
Indicator #P11.3.N: Outcome: Percentage of health facilities that provide HIV testing and counseling services	100%	100%	
Sub-IR: Care/"Umbrella" Care Indicators (formerly Adult Care and Support)			
Number of active beneficiaries served by PEPFAR OVC programs for children and families affected by HIV/AIDS (DSD)	40,000	18,342	45%
Sub-IR: Care/Clinical Care			
Indicator #C2.1.D Output: Number of HIV-positive adults and children receiving a minimum of one clinical service	56,296	184,131	327%

Sub-IR:Care/Clinical Preventive Care Services - Additional TB/HIV			
TB/HIV: Percent of HIV-positive patients who were screened for TB in HIV care or treatment setting	90%	80%	80%
Numerator: The number of PLHIV who were screened for TB symptoms at the last clinical visit to an HIV care facility during the reporting period	48,254	23965	50%
Numerator: The number of registered TB cases with documented HIV-positive status who start or continue ART during the reporting period	2,515	270	11%
Denominator: The number of registered TB cases with documented HIV-positive status during the reporting period		387	
Sub-IR:Treatment/ARV Services			
Indicator #T1.1.D Output: Number of adults and children with advanced HIV infection newly enrolled on ART	11,538	6869	60%
Indicator #T1.2.D Output: Number of adults and children with advanced HIV infection receiving ART therapy	35,744	28075	79%
Denominator: Total number of adults and children who initiated ART in the 12 months prior to the beginning of the reporting period, including those who have died, those who have stopped ART, and those lost to follow-up	9801	7855	68%
Indicator #T.1.3.D Number of adults & children who are still alive and on treatment at 12 months after initiating ART	8331	4888	62%
Indicator #T1.4.D Output: Number of adults and children with advanced HIV infection who ever started on ART		54,808	
Indicator # T.1.5.D Output: Number of health facilities that offer ART	41	41	100%
Intermediate Result (IR):14.2Increased access to quality HIV/TB services, practices and products in selected States			
Sub-IR: Health Systems Strengthening/Human Resources for Health			
Indicator # H2.3.D: Output: Number of health workers who successfully completed an in-service training program		1718	
Sub-IR: Health Systems Strengthening/Laboratory			
Indicator H1.1.D: Outcome: Number of testing facilities (laboratories) that are accredited according to national or international standards	41	41	100%
Intermediate Result (IR):14.3 Strengthened public, private and community enabling environments			
Sub-IR: Systems strengthening of States and Local Governments to decentralize HIV/AIDS service delivery			
Output: Number of state and local governments with strategic plans that are costed and have performance monitoring plans with clear targets and indicators (LMS Indicator Menu). Costed plans showing contributions of state and local government	5 States	5 States	100%

and their partners			
Output: Number of states and local governments who have annual operational plans for the current year with budgets that are used to monitor activities and outputs (LMS Indicator Menu)	5 States	5 States	100%
Monitoring and Evaluation			
Output: Number of state governments and LGAs demonstrating increased capacity for using data for decision making (LMS Indicator Menu)	5 States	5 States	100%
Overall Health Systems Strengthening			
Output: Number of local organizations (including grassroots CSOs and other CSOs) provided with technical assistance for HIV-related institutional capacity building (PEPFAR indicator 14.3)		22	
Sub-IR: Small Grants Program for grassroots organizations			
Output: Number ofCSOs receiving grants to deliver community HIV/AIDS services linked with health facilities		22	
Sub-IR: Quality Assurance of health and HIV/AIDS services			
Output: Number of states in which a system for quality assurance has been institutionalized and maintained (LMS Indicator Menu)	5 States	5 States	100%
***Data quality checks over the quarter revealed a number of under/ over reporting and were adjusted in the current reporting period to avoid cumulative under or over reporting effect following best practice			

PY 6 Indicator	FY 2015 (Oct 1, 2014 - Sept 30, 2015)		
	Target	Reached	% Reached
Sub-IR: Prevention/Prevention of Mother to Child transmission			
Indicator #P1.3.D Output: Number of health facilities providing ANC services that provide both HIV testing and ARVs for PMTCT on site	198	198	100%
Indicator #P1.1.D Output: Number of pregnant women with known HIV status (includes women who were tested for HIV and received their results)	159,941	184661	115%
(Denominator) Number of HIV-infected pregnant women identified in the reporting period (including known HIV-positive at entry)	5,236	2432	46%
Indicator #P1.2.D Output: Number of HIV-positive pregnant women who received antiretrovirals to reduce risk of mother-to-child-transmission	2,970	2299	77%
Numerator: Number of infants who had a virologic HIV test within 12 months of birth during the reporting period	2,970	866	29%
Number of infants born by HIV+ pregnant women	0	1696	
Percent of infants born to HIV-positive women that receive a virological HIV test within 12 months of birth	57%	51%	51%
Sub-IR: Prevention/Testing and Counseling			
Indicator # P11.1.D: Output: Number of individuals who received testing and counseling services for HIV and received their test results (including PMTCT)	581,379	418018	72%
Indicator # P11.1.D: Output: Number of individuals who received testing and counseling services for HIV and received their test results (HCT Sites Only)	410,585	229030	56%
Indicator #P11.3.N: Outcome: Percentage of health facilities that provide HIV testing and counseling services	100%	100%	100%
Sub-IR: Care/"Umbrella" Care Indicators (formerly Adult Care and Support)			
Number of active beneficiaries served by PEPFAR OVC programs for children and families affected by HIV/AIDS (DSD)	40,000	17248	43%

Sub-IR: Care/Clinical Care			
Indicator #C2.1.D Output: Number of HIV-positive adults and children receiving a minimum of one clinical service	56,296	52,822	94%
Sub-IR: Care/Clinical Preventive Care Services - Additional TB/HIV			
TB/HIV: Percent of HIV-positive patients who were screened for TB in HIV care or treatment setting	90%	50%	50%
Numerator: The number of PLHIV who were screened for TB symptoms at the last clinical visit to an HIV care facility during the reporting period	48,254	23916	50%
Numerator: The number of registered TB cases with documented HIV-positive status who start or continue ART during the reporting period	2,515	270	11%
Denominator: The number of registered TB cases with documented HIV-positive status during the reporting period		387	
Sub-IR: Treatment/ARV Services			
Indicator #T1.1.D Output: Number of adults and children with advanced HIV infection **newly** enrolled on ART	11,538	7036	61%
Indicator #T1.2.D Output: Number of adults and children with advanced HIV infection receiving ART therapy	35,744	32,932	92%
Indicator #T1.4.D Output: Number of adults and children with advanced HIV infection who **ever started** on ART		51,448	
Indicator # T.1.5.D Output: Number of health facilities that offer ART	41	41	100%
IR 14.2 Increased access to quality HIV/TB services, practices and products in selected States			
Sub-IR: Health Systems Strengthening/Human Resources for Health			
Indicator # H2.3.D: Output: Number of health workers who successfully completed an in-service training program		1718	
Sub-IR: Health Systems Strengthening/Laboratory			
Indicator H1.1.D: Outcome: Number of testing facilities (laboratories) that are accredited according to national or international standards	41	41	100%

IR 14.3 Strengthened public, private and community enabling environments			
Sub-IR: Systems strengthening of States and Local Governments to decentralize HIV/AIDS service delivery			
Planning:			
Output: Number of state and local governments with strategic plans that are costed and have performance monitoring plans with clear targets and indicators (LMS Indicator Menu). Costed plans showing contributions of state and local government and their partners	5 States	5 States	100%
Output: Number of states and local governments who have annual operational plans for the current year with budgets that are used to monitor activities and outputs (LMS Indicator Menu)	5 States	5 States	100%
Monitoring and Evaluation:			
Output: Number of state governments and LGAs demonstrating increased capacity for using data for decision making (LMS Indicator Menu)	5 States	5 States	100%
Overall Health Systems Strengthening:			
Output: Number of local organizations (including grassroots CSOs and other CSOs) provided with technical assistance for HIV-related institutional capacity building (PEPFAR indicator 14.3)		22	
Sub-IR: Small Grants Program for grassroots organizations			
Output: Number of CSOs receiving grants to deliver community HIV/AIDS services linked with health facilities		22	
Sub-IR: Quality Assurance of health and HIV/AIDS services			
Output: Number of states in which a system for quality assurance has been institutionalized and maintained (LMS Indicator Menu)	5 States	5 States	100%

PY7 PMP Indicator	FY2016 (Oct 1, 2015 - Sept 30, 2016)		
	Target	Reached	% Reached
Intermediate Result (IR): 14.1 Increased demand for HIV/AIDS and TB services and interventions, especially among selected target groups			
Sub-IR: Prevention/Prevention of Mother to Child transmission			
Indicator #P1.3.D Output: Number of health facilities providing ANC services that provide both HIV testing and ARVs for PMTCT on site	161	161	100%
Indicator #P1.1.D Output: Number of pregnant women with known HIV status (includes women who were tested for HIV and received their results)	122,435	173,993	142%
(Denominator) Number of HIV-infected pregnant women identified in the reporting period (including known HIV-positive at entry)	5236	2,334	46%
Indicator #P1.2.D Output: Number of HIV-positive pregnant women who received antiretrovirals to reduce risk of mother-to-child-transmission	1,437	2,114	147%
Numerator: Number of infants who had a virologic HIV test within 12 months of birth during the reporting period	2,970	866	29%
Number of infants born by HIV+ pregnant women	0	1696	
Percent of infants born to HIV-positive women that receive a virological HIV test within 12 months of birth	57%	51%	90%
Sub-IR: Prevention/Testing and counseling			
Indicator # P11.1.D: Output: Number of individuals who received testing and counseling services for HIV and received their test results (including PMTCT)	274,414	404,725	147%
Indicator # P11.1.D: Output: Number of individuals who received testing and counseling services for HIV and received their test results (HCT Sites Only)	151,979	224,821	148%
Indicator #P11.3.N: Outcome: Percentage of health facilities that provide HIV testing and counseling services	198	198	100%
Sub-IR: Care/"Umbrella" Care Indicators (formerly Adult Care and Support)			
Number of active beneficiaries served by PEPFAR OVC programs for children and families affected by HIV/AIDS (DSD)	40,000	17,248	43%
Sub-IR: Care/Clinical Care			
Indicator #C2.1.D Output: Number of HIV-positive adults and children receiving a minimum of one clinical service	56,296	52,822	94%

Sub-IR:Care/Clinical Preventive Care Services - Additional TB/HIV			
TB/HIV: Percent of HIV-positive patients who were screened for TB in HIV care or treatment setting	90%	50%	50%
Numerator: The number of PLHIV who were screened for TB symptoms at the last clinical visit to an HIV care facility during the reporting period	48,254	23,916	50%
Numerator: The number of registered TB cases with documented HIV-positive status who start or continue ART during the reporting period	2,515	270	11%
Denominator: The number of registered TB cases with documented HIV-positive status during the reporting period		387	142%
Sub-IR:Treatment/ARV Services			
Indicator #T1.1.D Output: Number of adults and children with advanced HIV infection newly enrolled on ART	11,538	7,036	61%
Indicator #T1.2.D Output: Number of adults and children with advanced HIV infection receiving ART therapy	35,744	32,932	92%
Denominator: Total number of adults and children who initiated ART in the 12 months prior to the beginning of the reporting period, including those who have died, those who have stopped ART, and those lost to follow-up	9,801	7,883	80%
Indicator #T.1.3.D Number of adults & children who are still alive and on treatment at 12 months after initiating ART	7,883	4,881	62%
Indicator #T1.4.D Output: Number of adults and children with advanced HIV infection who ever started on ART		51,448	
Indicator # T.1.5.D Output: Number of health facilities that offer ART		41	100%
Intermediate Result (IR):14.2Increased access to quality HIV/TB services, practices and products in selected States			
Sub-IR: Health Systems Strengthening/Human Resources for Health			
Indicator # H2.3.D: Output: Number of health workers who successfully completed an in-service training program		1,718	
Sub-IR: Health Systems Strengthening/Laboratory			
Indicator H1.1.D: Outcome: Number of testing facilities (laboratories) that are accredited according to national or international standards	41	41	100%
Intermediate Result (IR):14.3 Strengthened public, private and community enabling environments			
Sub-IR: Systems strengthening of States and Local Governments to decentralize HIV/AIDS service delivery			
Output: Number of state and local governments with strategic plans that are costed and have performance monitoring plans with clear targets and indicators (LMS Indicator Menu). Costed plans showing contributions of state and local government and their partners	5 States	5 States	5 States

Output: Number of states and local governments who have annual operational plans for the current year with budgets that are used to monitor activities and outputs (LMS Indicator Menu)	5 States	5 States	100%
Monitoring and Evaluation			
Output: Number of state governments and LGAs demonstrating increased capacity for using data for decision making (LMS Indicator Menu)	5 States	5 States	100%
Overall Health Systems Strengthening			
Output: Number of local organizations (including grassroots CSOs and other CSOs) provided with technical assistance for HIV-related institutional capacity building (PEPFAR indicator 14.3)	22	22	100%
Sub-IR: Small Grants Program for grassroots organizations			
Output: Number of CSOs receiving grants to deliver community HIV/AIDS services linked with health facilities	22	22	100%
Sub-IR: Quality Assurance of health and HIV/AIDS services			
Output: Number of states in which a system for quality assurance has been institutionalized and maintained (LMS Indicator Menu)	5 States	5 States	100%
***Data quality checks over the quarter revealed a number of under/ over reporting and were adjusted in the current reporting period to avoid cumulative under or over reporting effect following best practice			

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