

Establishing and sustaining HIV comprehensive care services in cottage hospitals in the Niger Delta

Report of the Niger Delta AIDS Response (NiDAR) Project

April 2007—October 2008



In July 2011, FHI became FHI 360.



FHI 360 is a nonprofit human development organization dedicated to improving lives in lasting ways by advancing integrated, locally driven solutions. Our staff includes experts in health, education, nutrition, environment, economic development, civil society, gender, youth, research and technology – creating a unique mix of capabilities to address today's interrelated development challenges. FHI 360 serves more than 60 countries, all 50 U.S. states and all U.S. territories.

Visit us at www.fhi360.org.

Establishing and sustaining HIV comprehensive care services in cottage hospitals in the Niger Delta

**Report of the
Niger Delta AIDS Response (NiDAR) Project**

April 2007—October 2008

© 2009 Family Health International (FHI)

ISBN: 978-978-900-460-7

Citation: FHI. 2009. End of Project Report. Niger Delta AIDS Response Project, Abuja, Nigeria. vi + 50 pp.

This publication may be freely reviewed, quoted, reproduced, or translated, in full or in part, provided the source is acknowledged. The mention of specific organizations or products does not imply endorsement and does not suggest that they are recommended by FHI or Shell over others of a similar nature that are not mentioned.

Family Health International
Godab Plaza
Plot 1073-A1, JS Tarka Street
Area 3, PMB 44, Garki
Abuja, Nigeria
Tel: 234 9 4615509, 234 803 9043555
Fax: 234 9 461 5511
E-mail: abu.communications@ghain.org

Contents

<i>Acronyms</i>	<i>iv</i>
<i>Foreword</i>	<i>vi</i>
Executive summary	1
Project accomplishments.....	1
Major challenges.....	3
Project background	5
Drivers of HIV/AIDS epidemic in the Niger Delta region.....	5
Project highlights	7
Project goal.....	7
Specific objectives.....	7
Expected outcomes.....	7
Pre-implementation assessment of focal health facilities	8
Implementing partners of NiDAR	10
Shell Petroleum Development Company.....	10
Family Health International.....	11
Contributions to the partnership.....	11
Project governance	16
Project accomplishments	17
HIV counseling and testing.....	17
PMTCT.....	18
Antiretroviral therapy.....	21
Integrated TB/HIV services.....	25
Crosscutting activities.....	26
Collaboration with the Government of Nigeria	34
Working on sustainable solutions	35
Lessons learnt	43
Conclusion	45
Annexes	46
Annex 1: Comments by stakeholders.....	46
Annex 2: Success story.....	47
Annex 3: NiDAR training programs.....	48
Annex 4: SBC materials produced for the NiDAR project.....	49
Annex 5: NiDAR project team.....	50
Annex 6: Standard operating procedure for routine data collection and management in NiDAR project.....	51

Acronyms

AFB	Acid-fast bacillus
AIDS	Acquired immune deficiency syndrome
ANC	Antenatal care
ART	Antiretroviral therapy
ARVs	Antiretroviral drugs
CH	Cottage hospital
CT	Counseling and testing
DHIS	District Health Information System
DOTS	Directly observed treatment short course
DQA	Data quality assurance
EoP	End of project
FCT	Federal Capital Territory
FHI	Family Health International
FMC	Federal medical center
FMOH	Federal Ministry of Health
GFATM	Global Fund to Fight AIDS, TB and Malaria
GH	General hospital
GIS	Geographic information system
GHAIN	Global HIV/AIDS Initiative Nigeria
GLRA	German Leprosy Relief Association
GoN	Government of Nigeria
HAC	Hospital advisory committee
HAD	HIV/AIDS Division (formerly NASCP)
HBC	Home-based care
HCC	HIV comprehensive care
HCT	HIV counseling and testing
HCW	Health care worker
HIV	Human immunodeficiency virus
HMB	Hospitals management board
HMIS	Health management information system
HMT	Hospital management team
HR	Human resources
IEC	Information education and communication
LGA	Local Government Area
LMIS	Logistics management information system
LOP	Life of project
MARPs	Most at risk populations
M&E	Monitoring and evaluation
MoU	Memorandum of understanding

MSFs	Monthly summary forms
MVCT	Mobile voluntary counseling and testing
NACA	National Agency for the Control of AIDS
NASCP	National AIDS and STIs Control Program
NEPWHAN	Network of People Living with HIV/AIDS in Nigeria
NIBUCAA	Nigeria Business Coalition Against AIDS
NDUTH	Niger Delta University Teaching Hospital
NiDAR	Niger Delta AIDS Response
NNPC	Nigeria National Petroleum Corporation
NNRIMS	Nigeria National Response Information Management System
NTBLCP	National TB and Leprosy Control Program
OI	Opportunistic infection
OVC	Orphans and vulnerable children
PH	Port Harcourt
PLWH	Persons living with HIV
PMM	Patient monitoring and management
PMT	Project management team
PMTCT	Prevention of mother-to-child transmission
QA	Quality assurance
QI	Quality improvement
RBM	Roll Back Malaria
RTK	Rapid test kit
SACA	State action committee on AIDS
SBC	Strategic behavioral communication
SCD	Suitable community development
SDPs	Service delivery points
SI	Strategic information
SMOH	State Ministry of Health
SMSA	Senior medical services advisor
SOP	Standard operating procedure
SPDC	Shell Petroleum Development Company
STBLCP	State TB and Leprosy Control Program
STI	Sexually transmitted infection
TA	Technical assistance
TB	Tuberculosis
TBA	Traditional birth attendant
TBLCP	TB and Leprosy Control Program
TOCAT	Technical and organizational capacity assessment tool
WHO	World Health Organization

Foreword

The Niger Delta AIDS Response (NiDAR) project was initiated by Shell Petroleum Development Company (SPDC) and Family Health International (FHI) and implemented by several partners. First among the partners are the Otuasega, Erhoike, Oben, Owaza, and Edagberi communities in Bayelsa, Delta, Edo, Abia, and Rivers states, respectively, where the cottage hospitals for the pilot project are located. FHI acknowledges the efforts and immense contributions of the medical staff and community leaders in the five communities and those of the State Action Committee on AIDS (SACA) and Ministry of Health in the five states. A list of the project teams and their members is provided in Annex 5 of this report.

The NiDAR project was implemented to support the integration of HIV/AIDS services into other health care services in the five selected rural cottage hospitals. The results of the pilot project have demonstrated that HIV/AIDS services can be effectively provided alongside other health care services at this level of health care. Once it had been demonstrated that it was possible to integrate the services, a key question arose: How could such services be sustained beyond the lifetime of the NiDAR project? The National Agency for the Control of AIDS (NACA) provided the answer by deciding to absorb the HIV/AIDS services being provided by NiDAR in the five cottage hospitals into the national health supply system for regular provision of commodities. This decision must be recognized as being crucial in ensuring the continuity of treatment and care for persons living with HIV (PLWH) in the five communities.

FHI extends its appreciation to Shell Petroleum Development Company of Nigeria for its partnership and leadership in the NiDAR project. First of all, the vision for creating the NiDAR project and for initiating the partnership with FHI to carry the vision to execution came from SPDC. Secondly, the sustaining the commitment and allocating the financial resources and the health team from within SPDC to execute the project and enable it to succeed deserves acknowledgement. The active engagement and support of the SPDC team in NiDAR contributed in large measure to the project's achieving its objectives.

FHI would also like to record the contribution to the NiDAR initiative made by the late Jim Ross, former Country Director of FHI Nigeria, who established the relationship with Shell Nigeria and developed and nurtured the idea to its implementation.



Dr Christoph Hamelmann
Country Director, FHI Nigeria

Executive summary

Niger Delta AIDS Response (NiDAR) was implemented by Family Health International (FHI) and Shell Petroleum Development Company of Nigeria (SPDC) as a pilot project to support five of the 27 Niger Delta cottage hospitals supported by SPDC in integrating HIV/AIDS services into patient care.

The goal of the initiative was to support the selected cottage hospitals to establish high quality HIV/AIDS services within the context of the national strategic response framework for HIV/AIDS. It was developed to reduce the impact of HIV/AIDS on communities and increase access to HIV/AIDS counseling, testing, treatment, care, and support services in a region where travel can be difficult, dangerous and costly. It was the first program to support successfully the delivery of comprehensive and integrated HIV/AIDS services in cottage hospitals in the Niger Delta region.

NiDAR was implemented between April 2007 and October 2008 and has demonstrated that private-public partnerships can be effective and successful in providing HIV/AIDS services at the primary level of health care. It has also proved that public health interventions by international organizations, in collaboration with local partners, can be implemented in the Niger Delta to support the provision of high quality services to rural populations in spite of the insecurity prevalent in most parts of the region.

Although there were challenges such as insecurity and weak health delivery systems with limited human resource capacity in the cottage hospitals, the project made positive impact by expanding access to health care and strengthening health systems. The project partnered with the governments of

Abia, Edo, Delta, Bayelsa, and Rivers states to support the delivery of HIV/AIDS services to rural populations and to strengthen the capacity of cottage hospitals to manage their services effectively.

The project had two main service components:

1. Supporting the activation and implementation of comprehensive antiretroviral therapy (ART) services in three communities – Owaza, Erhoike and Oben in Abia, Delta and Edo states respectively – through their cottage hospitals.
2. Supporting the establishment of HIV counseling and testing (HCT) and prevention of mother-to-child transmission of HIV (PMTCT) services in two communities – Otuasega and Edagberi in Bayelsa and Rivers states respectively – through their cottage hospitals.

Project accomplishments

The main project accomplishments were as follows:

Capacity building

NiDAR built the capacity of HCWs and SPDC staff in different HIV/AIDS technical and program management areas. Capacity building strategies included didactic training, on-the-job coaching, and mentoring in accordance with the national guidelines and curricula. Health care workers (HCWs) trained from the five cottage hospitals included doctors, nurses, laboratory and pharmacy personnel, and medical records and administrative staff. Advisors and public health nurses from SPDC were trained to provide overall guidance and technical support to the HCWs beyond the

project lifespan. A total of 237 HCWs from the cottage hospitals, FMC Yenagoa and Okolobiri General Hospital and 26 SPDC staff were trained in PMTCT, HCT, ART, M&E, program management, pharmacy/commodities logistics, laboratory best practices for HIV disease monitoring, TB/HIV integration, TB acid-fast bacillus (AFB) microscopy, palliative care, STI syndromic management, strategic behavioral communication (SBC), ART adherence counseling, referral coordination for optimal service utilization, and District Health Information System (DHIS) (SPDC staff only).

Capacity building activities enhanced knowledge and skills transfer to relevant staff at both SPDC and health facilities and helped them to provide quality HIV/AIDS services to clients at all service delivery points (SDPs) in compliance with the national standards and protocols.

Systems strengthening

Building institutional capacities for SPDC and the health facilities was a key component of NiDAR. Capacity gaps identified in health systems were addressed during project implementation. Priority was given to management and team building, strengthening of documentation and M&E systems, establishment of logistics management information systems (LMIS), and collaboration with government. The project strengthened collaboration with national and state governments to sustain private-public partnerships, and repositioned the focal facilities, SPDC and the state governments to provide sustainable HIV/AIDS services.

HCT

Between July 2007, when HCT services were activated in all five health facilities, and October 2008, 4,425 individuals were counseled and tested and given their results.

Out of these, 1,970 were male and 2,455 were female. A total of 741 (16.7%) were HIV positive, of whom 263 were male and 478 female. The highest number of individuals tested (1,240) was in Erhoike Cottage Hospital, followed by 1,215 in Owaza, and 412 in Edagberi.

PMTCT

Out of 1,341 pregnant women who attended antenatal clinic in the five cottage hospitals, 1,219 received HIV counseling and testing. Fifty-three (4.3%) of those tested were HIV positive. Forty-four (83.0%) of the HIV positive women received a complete course of antiretroviral (ARV) prophylaxis and 14 of the babies born to the HIV+ women received a complete course of ARV prophylaxis. The highest number of pregnant women receiving PMTCT services (390) was in Oben Cottage Hospital, followed by 273 in Erhoike and 155 in Owaza.

ART

Five hundred and eighty-two (201 male and 381 female) HIV positive clients were enrolled into HIV comprehensive care services. Twenty-one (9 male and 12 female) of these were children under 15 years of age. The cumulative number of HIV positive clients initiated on ART was 338 (122 male and 216 female). Fifteen (5 male and 10 female) of them were children under 15 years of age. Some 376 (144 male and 232 female) PLWH received cotrimoxazole prophylaxis, out of whom 19 (10 male and 9 female) were under 15 years of age.

TB/HIV

NiDAR provided TB/HIV services at Erhoike, Edagberi, Owaza, and Otuasega cottage hospitals. Cumulatively, 49 clients received TB services, out of which 19 (6 male and 13 female) were HIV positive and 30 (9 male, 19 female and 2 children) were non-HIV positive.

Major challenges

Insecurity

Insecurity is probably the greatest challenge in the Niger Delta region. FHI team members who worked in the NiDAR project followed SPDC's standard security protocols and procedures governing travel. SPDC provided safe working and living base for the team in Warri. However, team members had to face personal security risks when traveling to project sites in the cottage hospitals. On two occasions, they were attacked by armed robbers who stole their cash and valuables.

Political instability

There was delay in carrying out physical upgrade at the facilities due to political instability and resistance by the communities. Even the installation of portakabins in three sites was repeatedly deferred due to insecurity at the sites. A leadership crisis in Erhoike Cottage Hospital made the Delta State Health Management Board to transfer some key personnel from the hospital, who had already been trained in the provision of HIV/AIDS services. It was a loss to the project because replacement staff had to be identified and then trained. The crisis also made technical assistance and monitoring visits impossible for one month at the site.

Financial demands by community members

Community members in the Niger Delta region believe that international organizations have a lot of money and that community members are entitled to have their share of it. This belief presented a barrier to effective partnership because of the negative influence it had on staff working in the five facilities. For example, participants attending a training workshop on counseling and testing decided to boycott the training unless FHI provided each of them with a laptop, a cash incentive of ₦100,000 (about US\$820) as inconvenience allowance, and a medical

allowance of ₦10,000 (about US\$82).

There were also incidents of harassment of members of the project management team (PMT) by community members, especially the youth, who demanded money. However, SPDC's local contacts helped in resolving such issues when they arose.

Use of non-standard laboratory equipment

SPDC had been providing support to the cottage hospitals for several years before the NiDAR project began. SPDC supplied CD4 count and chemistry analyzing machines, which are essential for the provision of ART services, to the laboratories. However, the machines did not meet the Government of Nigeria's (GoN) specifications. SPDC provided Pointcare NOW CD4 and Spectroscan chemistry machines whereas the ones specified by the GoN for HIV/AIDS disease monitoring are BD FACS Count or Cyflow for CD4 analysis, Reflotron+ or Virtous for chemistry analysis and Sysmex or QBC for hematology.

Replacement of the non-standard laboratory equipment was included as an SPDC action in the memorandum of understanding (MoU) and has since been flagged by FHI to SPDC management as outstanding on a number of occasions. The machines must be replaced before April 2009 if the five hospitals are to be absorbed by NACA into the government system for the provision of laboratory reagents under the Global Fund. Otherwise, SPDC would have to make the financial and logistic commitment to provide the proprietary reagents required by these machines.

FHI also recommended that the laboratory equipment specified by the GoN be procured because the current non-standard machines appear not to be robust enough for the environment and have a poor maintenance and operational record at the facilities using them.

Inadequate staffing at health facilities

At the inception of the project, the five cottage hospitals had too few staff as well as significant skill gaps in certain service areas. Since health service staff are posted to hospitals by state governments, the project addressed the staffing issue through continuous advocacy and dialogue with the relevant authorities at the state level, specifically the health management boards, permanent secretaries and state commissioners of health. Each hospital organized a quarterly hospital advisory committee (HAC) meeting, which provided the opportunity for the collaborative analysis of all needs and gaps at the facilities. All the five states addressed the staffing need at the cottage hospitals to some extent after the matter had been brought to their notice. Not all the gaps had been filled by the end of the pilot project, but some of the teams in the cottage hospitals had been reinforced by the state governments' deployment of additional doctors and nurses as well as pharmacy, laboratory, and medical records staff.

Sustainability of services

The most significant challenge for any externally funded intervention in the public health system is how to sustain the service after the lifetime of the project, when external funding has ended. NiDAR addressed this challenge in two ways.

First, key relationships and collaboration were developed with health authorities

by the PMT at the state level, and with communities through the HAC. Hospital staff had their capacity developed to deliver and manage HIV/AIDS services and to gather and analyze service data through pedagogic training and continuous technical monitoring and mentoring by FHI.

Second, an essential component in sustaining HIV/AIDS service delivery in the longer term is the ability to provide regular and continuous logistic pipeline for the supply of commodities, that is, test kits, medicines, and reagents for laboratory testing. Because of the relationship that FHI has with the GoN as the sub-recipient to NACA for treatment under Round 5 of the Global Fund grant, FHI facilitated a dialogue between SPDC and NACA on how to sustain services in the five cottage hospitals in the long term.

The outcome of the three-way dialogue facilitated by FHI with the then Director General of NACA, Professor Babatunde Osotimehin, was that the five cottage hospitals would be included in the next phase of facility activation under Global Fund Round 5 and would become integrated for treatment services by FHI under the Global Fund. This transfer of the facilities to government and the Global Fund is expected to take effect after April 2009. Thus, the commodities supply chain for the facilities will be transferred from SPDC to the Nigerian government, through the mediation of FHI.

Project background

Nigeria has the second highest number of HIV infections in sub-Saharan Africa. An estimated 3.5 million of about 140 million people living in the country are HIV positive. Sentinel survey data indicate that HIV prevalence among pregnant women attending antenatal clinics increased from 1.8% in 1991 to 4.4% by 2005.

The Niger Delta region comprises nine of the 36 states in Nigeria. It has a population of about 30 million, about 23% of the country's total population, and is among the most densely populated regions in the world. There are about 265 people per square kilometer. HIV prevalence among adults in the region averages 6%, which is much higher than the national average of 4.3%. The Federal Ministry of Health (FMOH) estimates that

about one million PLWH live in the region, out of whom 100,000 are believed to be in need of antiretroviral treatment.

Drivers of HIV/AIDS epidemic in the Niger Delta region

Mobile populations contribute significantly to the HIV burden in the Niger Delta region. There are large numbers of migrant workers like employees of oil companies, long distance truck drivers, boat drivers, unskilled workers, female sex workers, uniformed services personnel, traders, etc.

Human population in the region is growing by about 3% every year because workers from other parts of Nigeria migrate to the region to seek employment in oil production companies and related industries.




 NiDAR project sites

Figure 1: The Niger Delta region showing the five NiDAR project sites

The high poverty rate in the region and low level awareness about HIV prevention also accelerate the HIV/AIDS epidemic. There is increased demand for transactional sex by men who live far from home and family and have disposable income that far exceeds that of the local population. Poor women see this as an opportunity to service the sex needs of these men in exchange for money or other transactions.

These factors place residents of the region at a great risk of being infected and of transmitting HIV to others, including unborn children.

Before the implementation of the NiDAR project, less than 10% of those in need of HIV/AIDS prevention, treatment, and care had access to the services. The key challenges to the scale-up of services were shortages of trained health staff, limited HIV/AIDS

diagnostic and treatment skills, and little or no community education about HIV prevention, testing and treatment. There was limited capacity for the management of opportunistic infections (OIs), sexually transmitted infections (STIs), and home-based care (HBC) for those infected by HIV.

In recognition of these challenges, SPDC prioritized the development of an effective and expanded response to HIV/AIDS in the region. Through its Community Health Services Department, SPDC partnered with FHI and the NiDAR project was launched in April 2007 to support five cottage hospitals to establish and provide comprehensive, community-based, and sustainable HIV/AIDS services. The focal cottage hospitals were located in Otuasega, Erhoike, Oben, Owaza and Edagberi, in Bayelsa, Delta, Edo, Abia, and Rivers states, respectively.

Project highlights

NiDAR was launched in April 2007 to deliver comprehensive, community-based HIV care and treatment services in selected hospitals in five of the nine states of the Niger Delta. NiDAR was predicated on the involvement and support of local communities and non-governmental organizations. It aimed to empower individuals, local partners, and communities to ensure sustainability of project initiatives.

Project goal

To establish high quality HIV/AIDS care services in five cottage health facilities in the Niger Delta region of Nigeria within the context of objective 3 of the national HIV/AIDS strategic response framework, which is “to increase access to comprehensive gender-sensitive prevention, care, treatment and support services for the general population, PLWH and orphans and vulnerable children by 50% in 2010, and mitigate HIV/AIDS impact on the health sector.”

Specific objectives

- Establish quality HIV/AIDS care and support services in five health facilities;
- Build capacity of at least 15 health care workers in each of the five facilities as well as in FMC Yenagoa and the Niger Delta University Teaching Hospital, Okolobiri to provide quality HIV/AIDS services;
- Establish networks and linkages with various HIV/AIDS wrap around services.

Expected outcomes

- Increased access to HIV/AIDS prevention, treatment, care, and support services in the Niger Delta region;
- Improved quality of health care delivery in the five focal health facilities and the two tertiary facilities;
- Increased quality of life of PLWH.
- Improved relationship between SPDC and the focal communities.

Pre-implementation assessment of focal health facilities

As part of the process of service activation, SPDC and FHI commissioned a needs assessment of each focal facility using an established methodology. The assessment examined management capacity, the nature and quality of existing HIV/AIDS services, infrastructure and equipment, as well as staff capacities in clinical care, monitoring and evaluation, laboratory services, and commodities logistics.

The assessment found that ownership of the services by key stakeholders and coordination were poor in all five cottage hospitals. SPDC, the state government and the local communities could not clarify roles and responsibilities of staff in the cottage hospitals. The state and local governments were not involved in the management of the cottage hospitals because they felt it was the responsibility of SPDC. The local

communities shared the same perception. Thus, the local government authority employed and paid hospital staff and SPDC maintained the facility. Management roles and systems were unclear within the health facilities themselves, reporting and communication lines were poor, supervision was lacking, and morale and productivity amongst HCWs were very low.

There was no evidence of technical capacities and competencies to provide HIV/AIDS services in any of the facilities. Even those facilities that claimed to be providing HCT services were not using the national protocols and guidelines and none of the HCWs had participated in any HIV counseling training.

Prior to project implementation, a form of HCT service was available but was not being provided in accordance to the national



Erhoike Cottage Hospital, one of the focal health facilities



Oben Cottage Hospital, one of focal health facilities

HCT guidelines and standards. The facilities provided only testing services without pre- and post-test counseling, probably because the HCWs lacked the necessary HIV counseling skills. The hospitals charged ₦800–₦1,000 (about US\$7–US\$8) for the serology test, which most community members could not afford. Facilities charged fees for HIV testing because they procured RTKs and reagents from the open market using a revolving fund scheme even though the national policy recommends that HCT should be provided to clients free of charge. Combined with the generally low perception of personal risk and anxiety about confidentiality, the high cost of serology testing artificially suppressed HCT service demand and uptake.

Owaza cottage hospital had been designated a directly observed treatment short course (DOTS) centre by the state TB and leprosy control program (STBLCP) but services were not available prior to commencement of the NiDAR project.

The hospitals had not established, and hence, were not using, basic health

management systems (HMIS). Record keeping was almost non-existent in all of the facilities and medical records staff had received no training in documentation and health management information systems. Commodities logistics and inventory management were also non-functional.

Provision of essential equipment in the cottage hospitals was not satisfactory: standard equipment was not available, or not functioning at all, or were not functioning optimally. None of the laboratories had HIV/AIDS monitoring equipment, such as CD4, chemistry and hematology machines. All the sites were constrained by insufficient space and inadequate facilities for scaling up HIV/AIDS services.

One of the specific objectives of NiDAR was to strengthen the capacity of HCWs in Okolobiri General Hospital (now Niger Delta University Teaching Hospital) and the Federal Medical Center, Yenagoa. Thus, they were included in the project. Findings from these two hospitals were similar to those of the five cottage hospitals.

Implementing partners of NiDAR

The NiDAR project was a unique partnership between SPDC and FHI.

Shell Petroleum Development Company

SPDC is one of the largest oil companies operating in Nigeria. It makes substantial investments in the social sector and in sustainable community development in different parts of Nigeria. SPDC supports a variety of health programs and health promotion activities in the Niger Delta region, where its activities are mainly based. The Community Health Services Department of the company has been working with non-governmental and community-based organizations to provide peer education for in- and out-of-school youth. The department has provided support for the Roll Back Malaria (RBM) program as well as purchased drugs and upgraded infrastructure and equipment for cottage hospitals.

In recognition of the impact of the HIV pandemic in Nigeria, SPDC has been supporting the expanded national response within the context of the national and state HIV/AIDS strategic plans. SPDC is an active member of the Nigeria Business Coalition Against AIDS (NIBUCAA). The company collaborates with the National Agency for the Control of AIDS, state action committees on AIDS, UNAIDS, World Health Organization, Network of People Living with HIV/AIDS in Nigeria (NEPWHAN), and other local organizations to reduce the AIDS burden in the Niger Delta region. The Community Health Services Department has introduced programs to promote HIV prevention in schools, set up voluntary counseling and testing centers, procured and distributed condoms, and conducted baseline surveys that assess populations' risk of HIV and AIDS. The department has organized several workshops to help stakeholders



FHI/SPDC partnership review meeting in January 2008. Left to right: Christoph Hamelmann, FHI Country Director; Babatunde Fakunle, SPDC Corporate Manager Community Health; Akinwumi Fajola, SPDC Public Health Adviser; Olayinka Mosuro, SPDC Clinical Adviser; Adamu Imam, former FHI Director Program Management; and Otto Chabikuli, FHI DCoP Technical

and community and religious leaders build consensus and positively change attitudes.

Family Health International

FHI is a non-governmental organization headquartered in the United States of America. Established in 1971, FHI manages research and field activities in more than 71 countries across Asia, Africa, and Latin America. FHI is at the forefront of programs and applied research in global health—most prominently in HIV/AIDS and reproductive health. However, FHI's technical assistance, program implementation and research portfolio expands beyond HIV/AIDS and reproductive health to include research and programs on infectious diseases, chronic diseases, and broader issues that impact health and development systems.

FHI's global staff of over 2000 includes public health specialists, scientists, business professionals, communication experts, economists, physicians, among others. FHI adopts a capacity building approach, where global solutions are applied to local contexts, working hand-in-hand with both governments and local implementing agencies to ensure long-term sustainable solutions.

Since 1988, FHI has been a major partner in HIV/AIDS prevention and care in Nigeria, working with and nurturing local partners to deliver community level HIV/AIDS services. FHI Nigeria's HIV/AIDS program is implemented in all the states of Nigeria, including the Federal Capital Territory (FCT). In addition to providing HIV counseling, testing, and treatment services, FHI integrates TB and HIV services, and supports prevention of mother-to-child transmission of HIV. FHI also improves the delivery of palliative care, supports community-based programs for orphans and vulnerable children, and implements strategic information management systems.

FHI is dedicated to providing a wide range of services to implement, support, monitor, and document public health programs for the private sector, including the oil and gas industry. FHI works closely with private sector companies to develop tailored solutions to meet their exact needs and deliver modern strategic input that is appropriate to local conditions.

Contributions to the partnership

Following the decision to implement the NiDAR project in five cottage hospitals, both organizations developed and signed a memorandum of understanding designed to deploy the relative advantages and core competencies of each corporate partner. FHI provided technical expertise for HIV/AIDS prevention, treatment and care and SPDC provided funding for the project.

Based on the MoU, SPDC was to contribute US\$1,565,243 funding for the project as well as to support direct communications with the five project communities and organize the production of advocacy materials. SPDC was also to cater for the procurement of drugs, reagents, consumables, medical and laboratory equipment and their installation; provide logistic support for the PMT; and renovate or upgrade and appropriately re-allocate space in the five hospitals in accordance with national standards.

FHI was to contribute US\$746,591 worth of training tools and materials to the project. As the technical partner, FHI was to provide the necessary technical and managerial expertise in delivering HIV/AIDS services, including facilitation and delivery of training programs to build capacity for project implementation.

However, as the project progressed the deliverables for each partner shifted away from those specified in the MoU and FHI's contributions expanded. (See *Table 1 on page 12*).

Table 1: Summary of FHI’s contractual deliverables, as specified by the MoU, against accomplishments

Contractual obligations	Accomplishments against MoU obligations	Accomplishments beyond MoU obligations
Establish HCT for increased demand and improve patient take up of service at the facilities	<ul style="list-style-type: none"> Established HCT services in the five cottage hospitals; Counseled and tested 4,425 individuals and gave them their results; Provided MVCT services in the project communities. 	<ul style="list-style-type: none"> Procured and distributed rapid test kits (RTKs) – 4,500 Determine, 45 packets Determine buffer, 4,500 Stat pack, and 700 Capillus; Provided 10 days logistics support for HCT training including hotel accommodation, meals, transport and communications for participants; Provided HCT commodities; Mobilized MVCT team/staff from FHI Edo zonal office to support NiDAR in community HCT outreach activities.
Establish core services in PMTCT	<ul style="list-style-type: none"> Established PMTCT services in the five cottage hospitals; Counseled and tested 1,219 pregnant women in PMTCT and placed 44 of them on ARV prophylaxis. 	<ul style="list-style-type: none"> Provided logistics support for 5 days PMTCT training; Procured and distributed rapid test kits (RTKs) for HCT in the context of PMTCT; Procured ARVs for HIV positive pregnant women under the PMTCT program.
HIV prevention through ABC and awareness messages, and demand creation for uptake of services	<ul style="list-style-type: none"> Provided technical assistance for demand creation activities in communities. 	<ul style="list-style-type: none"> Provided logistics support for 5 days SBC material development workshop; Produced SBC materials for advocacy and community mobilization activities – T-shirts, caps, booklets, cassettes, posters and fliers.
Integrate TB services into HIV/AIDS services (TB/HIV)	<ul style="list-style-type: none"> Conducted site assessments for TB DOTS integration for the five facilities; Carried out advocacy visits and meetings with stakeholders in the five states on TB integration services; 	<ul style="list-style-type: none"> Mobilized resources from STBLCP to support establishment of TB services in 4 out of 5 cottage hospitals (STBLCP supported the facilities with equipment such as microscopes, commodities and supervision);

Contractual obligations	Accomplishments against MoU obligations	Accomplishments beyond MoU obligations
	<ul style="list-style-type: none"> Trained 25 HCWs in integrated TB/HIV services; Set up and provided TB services in Owaza, Otuasega, Erhoike, and Edagberi cottage hospitals. A total of 56 patients received the integrated TB/HIV services. 	<ul style="list-style-type: none"> Provided logistics support for 4 days training in TB/HIV integration and 5 days TB AFB microscopic training at national TB center in Zaria, Kaduna state; Trained 10 laboratory personnel (2 from each facility) in TB AFB microscopy at the Zaria TB training center.
HIV/AIDS treatment	<ul style="list-style-type: none"> Commenced ART services in 2 comprehensive care sites; Registered 582 patients into comprehensive HIV services and initiated 338 into ART; Provided 3 sessions of ART adherence counseling per patient before commencement on ART. 	<ul style="list-style-type: none"> Commenced ART services in one additional comprehensive care site; Provided logistics support for 6 days ART, 3 days adherence counseling, 5 days laboratory, 5 days pharmaceutical and 5 days referral coordination trainings for HCWs and SPDC staff; Procured chemistry reagents for 3 ART laboratories in 3 cottage hospitals that provide comprehensive HIV services; Supplied ARVs for 338 patients on ART and 44 HIV positive pregnant women on ARV prophylaxis.
Establish palliative care activities	<ul style="list-style-type: none"> Established palliative care and treatment services 	<ul style="list-style-type: none"> Provided logistics support for 5 days palliative care and 5 days STI syndromic management trainings for HCWs including SPDC staff; Procured and distributed OI drugs for facilities.
Build the capacity of health personnel	<p><i>1. Pedagogic workshops</i> Trained the following:</p> <ul style="list-style-type: none"> 14 HCWs in project management; 23 HCWs in HCT 23 HCWs in PMTCT 33 HCWs in ART 9 facility staff in laboratory services; 	<ul style="list-style-type: none"> Provided logistic support for participants attending training workshops, including accommodation, meals, transport and communications; Trained 10 staff in TB AFB microscopy; Trained 13 SPDC staff in DHIS.

Contractual obligations	Accomplishments against MoU obligations	Accomplishments beyond MoU obligations
	<ul style="list-style-type: none"> • 10 facility staff in pharmacy services; • 19 facility and SPDC staff in M&E and data utilization; • 18 facility staff in SBC materials development; • 29 facility staff in drug and RTKs logistics management; • 10 facility staff in referral coordination; • 25 facility staff in TB/HIV integration; • 10 facility staff in TB AFB microscopy; • 20 facility staff in palliative care/OVC; • 23 health care workers in STI syndromic management/RH/ PMTCT; • 13 SPDC staff in DHIS. <p>2. <i>Conducted orientation for</i></p> <ul style="list-style-type: none"> • 75 HCWs on the use of SOPs in HCT and PMTCT; • 75 HCWs on the use of SOPs. <p>3. <i>Technical assistance</i></p> <ul style="list-style-type: none"> • The PMT visited each site at least once a week to provide technical assistance. 	
Procure equipment	<ul style="list-style-type: none"> • N/A but included in the revised project budget. 	<ul style="list-style-type: none"> • Procured and delivered 5 portakabins for 5 cottage hospitals at SPDC's request, 2 out of the 5 portakabins were delivered in 2 cottage hospitals while the remaining 3 were under construction at close of project.
Manage commodities procurement	<ul style="list-style-type: none"> • Procured RTKs, reagents, and drugs including ARVs and drugs for prevention and treatment of opportunistic infections. 	<ul style="list-style-type: none"> • Procured reagents for chemistry machines in 3 ART sites.

Contractual obligations	Accomplishments against MoU obligations	Accomplishments beyond MoU obligations
Provide strategic information (SI)	<ul style="list-style-type: none"> • Produced and delivered the national M&E tools and SOPs for HCT, PMTCT, ART, comprehensive laboratory, pharmacy, and adherence to all sites; • Trained 19 HCWs and mentored 62 on the use of the tools; • Held periodic M&E review meetings; • Trained SPDC staff in the use of the DHIS. 	<ul style="list-style-type: none"> • Held periodic M&E review meetings including logistics support for 2 meetings involving facility and SACA M&E focal persons and SPDC staff; • Trained 13 SPDC staff and provided technical assistance in DHIS; • Set up DHIS system for SPDC as part of systems strengthening and integration into the national HIV/AIDS framework; • Provided logistics support for 5 days M&E training for HCWs including SPDC staff.

Project governance

To strengthen institutional framework and governance for the project, a hospital advisory committee was inaugurated.

Membership of the HAC comprised key stakeholders from NACA, FMOH, FHI, PLWH, and representatives of the state Ministry of Health, state Health Management Board, and SACA in the focal states. The HAC met quarterly, rotating the venue of meeting among the project states.

The project was managed by a PMT made up of four FHI and two SPDC staff, who were deployed to Warri. The team comprised a team leader, a senior medical services advisor (SMSA), CT/laboratory technical officer, and an M&E officer. Most of the team

members were familiar with the Niger Delta region. SPDC provided a project office in Warri and logistic support.

A technical advisor, who was based in the Medical Services Department of FHI's country office in Abuja contributed 25% of work time to provide technical back up to the project. Other technical assistance, for training or mentoring, was sourced from FHI country office in Abuja or from the Edo zonal office in Benin. Such assistance covered pharmacy, commodities and logistics management, monitoring and evaluation, TB/HIV, laboratory, STIs, palliative care, pediatric AIDS, and referral coordination services.



Members of NiDAR's expanded hospital advisory committee

Project accomplishments

The NiDAR project MoU specified minimum target achievements across the five health facilities. This section presents the major project accomplishments according to the project area.

HIV counseling and testing

NiDAR branded its HCT services as part of the national Heart-to-Heart campaign, which has widespread recognition and acceptability. Friendly, confidential, and high quality services were established in all of the hospitals and provided free of charge. The five facilities started provider-initiated HCT in addition to the client-initiated services previously provided. This expanded HCT service access to all clients who voluntarily presented for HIV testing as well as all other clients visiting the facility for any form of health care need.



Figure 2: The Heart-to-Heart logo, national symbol of HIV/AIDS confidential counseling and testing

Capacity building

A 10-day workshop was conducted in July 2008 for 23 nursing and laboratory staff from the five cottage hospitals and one SPDC staff. NiDAR used national and international standards, guidelines, and training syllabus for the training. FHI provided both technical and logistic support for the training. The training covered client counseling and testing, commodities logistics management procedures for RTK utilization, and system strengthening.

Commodities supply and management

FHI procured and supplied RTKs to the facilities to support HCT services. Procurement and utilization were in line with the national algorithm, which supports non-cold chain dependent kits. RTKs procured included 4,500 each of Statpak and Determine and 700 of Capillus as tiebreaker. Documented utilization rates determined the distribution of test kits to the cottage hospitals.

Mobile voluntary counseling and testing and outreach activities

To raise the profile of HCT services, create demand, and increase uptake of HIV/AIDS services generally among the rural population, FHI deployed its mobile voluntary counseling and testing (MVCT) team from Edo zonal office to conduct outreaches in the project communities. MVCT targeted especially the most at-risk populations (MARPs) such as sex workers, the youth, transport workers, and commercial motorcycle operators and was extended to the general population through churches and faith-based groups. This “on the doorstep” approach to HCT service increased access to and coverage of CT and enrolment for other available care and support services including

ART. MVCT service uniquely accesses hard to reach populations and provides the opportunity for people who would not use HCT services to know their HIV status. The number of eligible HIV positive patients enrolling for treatment services increased as a result of MVCT.

Accomplishments

From July 2007, when HCT services were activated, to October 2008, 4,425 (1,970 male and 2,455 female) individuals were counseled and tested and given their results. Cumulatively, 741 (263 male and 478 female) of the total number of people tested were positive.

Challenges associated with HCT implementation

HCT service uptake in Edagberi and Otuasega cottage hospitals was lower than expected. Two nurses at Edagberi, who had been trained in HCT, were transferred out due to negligence and failure to comply with HCT national guidelines. This created a capacity gap in service delivery for HCT until other staff could be trained to replace them.

There was resistance to the implementation of provider-initiated HCT in Otuasega Cottage Hospital. The facility therefore had to rely on testing the few patients who voluntarily presented for testing.

PMTCT

PMTCT service was implemented in the five cottage hospitals. It comprised a package of services, including counseling and testing for pregnant women, ARV prophylaxis for HIV positive pregnant women, ARV prophylaxis for newborns, safer delivery practices, and safe infant feeding practices. In addition, mothers who were in need of treatment were initiated on ART, provided with family planning counseling, and linked to ongoing care and support services along with their children.

Capacity building

PMTCT was an entirely new service area in the five facilities. Therefore, staff training, ongoing technical assistance, and supervision were provided to the staff to ensure that they adhered to essential service standards. Thirty HCWs including doctors, nurses and pharmacy personnel, from the facilities and

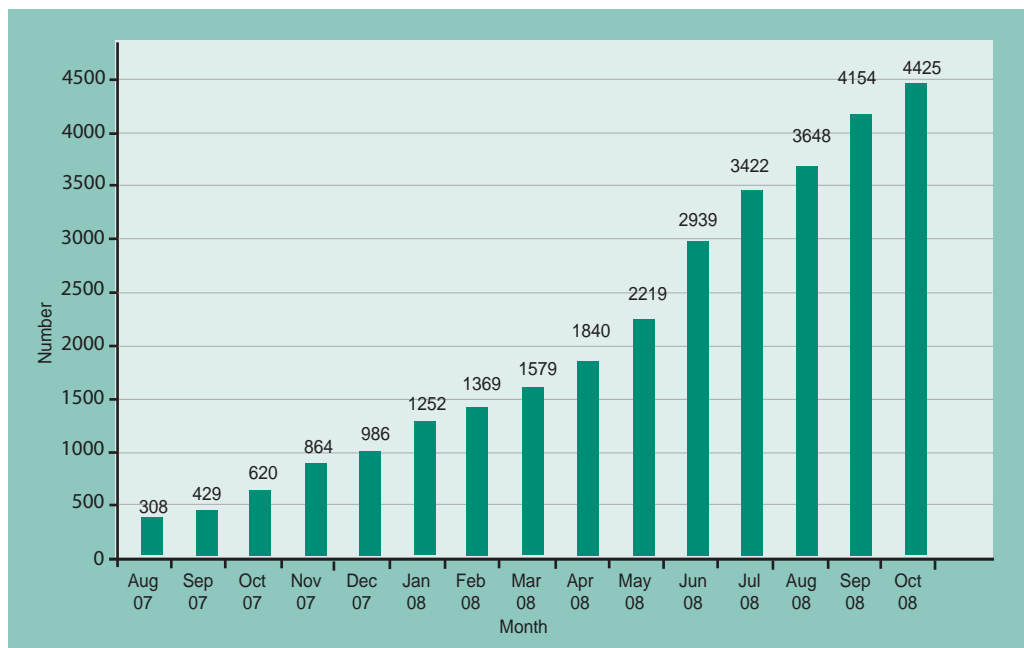


Figure 3: Cumulative number of individuals counseled, tested, and given their results

three SPDC staff participated in a five-day training course on PMTCT. Ten of the HCWs were from FMC Yenagoa and NDUTH. The approved national PMTCT curriculum and manuals were used in the training. FHI provided the technical facilitation and instruction and assumed the responsibility of providing accommodation, transport and other logistics support, which were allocated to SPDC in the MoU.

Commodities supply and management

Commodities for PMTCT included RTKs for HCT targeted at pregnant women attending antenatal care and ARVs provided as prophylactic for HIV positive pregnant women to reduce the risk of HIV transmission to unborn children. FHI procured and supplied these commodities to the five cottage hospitals throughout the duration of the project.

PMTCT community outreach activities

Expectant mothers in the Niger Delta prefer to utilize the services of traditional birth attendants (TBAs) during pregnancy and delivery. For this reason, many of them do not attend a clinic or hospital for antenatal care (ANC) or obstetric services. To meet the need of pregnant women for PMTCT services and improve ANC, NiDAR organized an orientation meeting for TBAs in Ukwa West LGA, Abia State. The purpose of the meeting was to educate them on the benefits of PMTCT and the techniques of HIV prevention.

Following this meeting, NiDAR set up referral linkages between the TBAs and the facility. HCWs in Owaza Cottage Hospital reinforced the meeting by conducting community outreaches to provide HCT for pregnant women at TBA maternity homes during ANC. They referred HIV positive pregnant women identified during the outreaches to the facility for care and support services. The TBAs also referred HIV positive women who had delivered under their care and their babies

for ARV prophylaxis at the health care facility. This led to an increase in the number of HIV-exposed infants that received prophylaxis and an increase in referral of pregnant women by TBAs to the hospital for HCT.

NiDAR leveraged on existing systems within the SPDC community health management program to broaden access to PMTCT among pregnant women that attended ANC services in neighboring health centers. A three-day orientation on PMTCT was conducted for HCWs from the health centers. Consequently, HCWs in Oben and Erhoike conducted outreaches to carry out HCT, including CD4 tests, for pregnant women. HIV positive women identified were referred for follow-up services.

Accomplishments

NiDAR used the opt out rather than opt in approach for HIV testing of pregnant women in the five hospitals and it significantly increased PMTCT service take-up. Cumulatively, out of 1,341 pregnant women that attended antenatal care during the project period in the focal cottage hospitals, 1,219 were HIV counseled, tested and received their results. Fifty-three of the women tested were positive. Out of the 53 positive women, 43 received a complete course of ARV prophylaxis. Thirteen babies born of HIV positive mothers received complete courses of ARV prophylaxis.

Challenges associated with PMTCT implementation

TBAs lack capacity to provide quality ANC services

Many pregnant women used the TBAs, but the quality of ANC services provided by the TBAs was not assured because they lacked training. The TBAs also lacked knowledge of HIV/AIDS and other reproductive health issues, and could not provide PMTCT services to their clients. To overcome these challenges, the project strengthened linkages

for referral with the TBAs, particularly in Abia State, to ensure that pregnant women were referred to NiDAR facilities for PMTCT services.

Low partner involvement in PMTCT

As is the case in other parts of Nigeria, pregnant women who tested positive to HIV were not willing to disclose their status to their partners. Men who were aware that their wives were positive were very reluctant to take a test and ascertain their status. To address this challenge, NiDAR organised outreaches to educate community members on the importance of partner involvement in PMTCT. The project also encouraged couple counseling and provided advice on family planning and family centered care for those affected by HIV/AIDS. This approach yielded positive results in Oben Cottage Hospital. More men became involved in family centered care

through PMTCT services accessed by their wives. The increased partner cooperation provided opportunities for increased children counseling and testing. HIV positive children were enrolled into comprehensive HIV services or referred to facilities where ART services were available.

Tracking HIV exposed babies born to HIV positive mothers

Although the number of HIV exposed babies that received ARV prophylaxis was higher than the number of babies born to HIV positive mothers, there was still a challenge of identifying exposed babies under the PMTCT program. This was because some of the HIV positive mothers identified during ANC did not bring their babies for ARV prophylaxis. The project therefore carried out sensitization activities among community members to educate them on the benefits of completing the PMTCT service cycle.

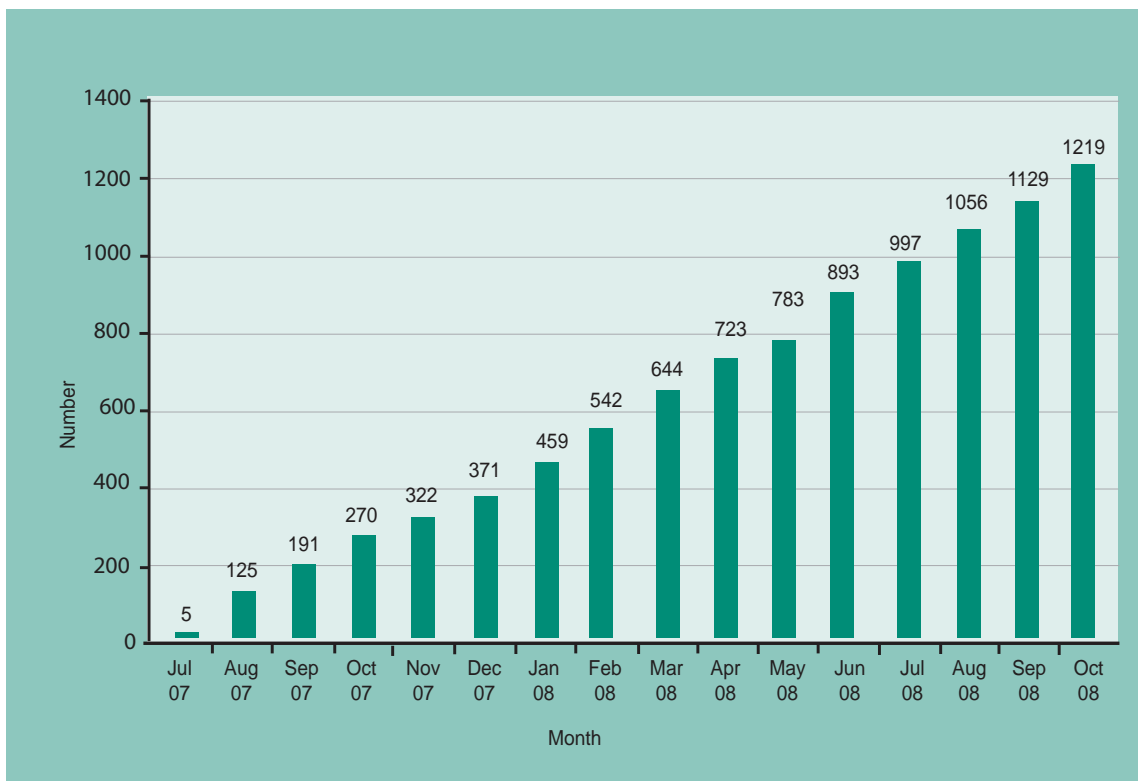


Figure 4: Number of pregnant women counseled, tested and given their results



Orientation meeting with traditional birth attendants in Ukwa West LGA of Abia State

Antiretroviral therapy (ART)

NiDAR provided ART services in three of the five focal facilities. Prior to the project, none of the five NiDAR-supported cottage hospitals had implemented an ART program. The original MoU for NiDAR specified that ART services would be set up in two of the five cottage hospitals, i.e. Owaza and Erhoike. But after negotiations between FHI and SPDC Oben Cottage Hospital was included, thus increasing the ART sites to three. FHI bore the additional costs of training HCWs and for providing commodities, drugs, reagents and other additional resources.

There has been controversy regarding the provision of high technology ART programs in primary health centers because of the belief that ART requires certain expertise that cannot be made available in this setting. However, against this widely held view, NiDAR successfully provided ART services within the traditional health care system by promoting task shifting with corresponding capacity building among

HCWs. NiDAR's approach supported the provision of infrastructural upgrade, equipment and commodities supplies, and system strengthening for sustainable provision of comprehensive HIV services. Access to ART services was enhanced in the project communities. For instance, FMC Umuahia was the only ART center in Abia State providing comprehensive HIV services to PLWH prior to the commencement of NiDAR. Many PLWH had to travel as far as to Imo, Rivers, Anambra and Enugu states to access services. However, PLWH in the state can now access services at Owaza Cottage Hospital and at the other two NiDAR ART sites, which are closer to them.

ART service was in line with the national guidelines, which was derived from established best practices. It was constructed around prolonging regimen efficacy by encouraging treatment adherence amongst patients, providing ongoing clinical and laboratory monitoring, and addressing the side effects of treatment.

Capacity building

All the cottage hospitals lacked the essential technical and institutional capacity to provide ART service. None of the HCWs had the skills necessary for clinical management of HIV/AIDS. The essential first step was to build capacities amongst HCWs for ART treatment and care services in the three cottage hospitals identified for the service. A six-day residential workshop on ART was conducted in September 2007 for 20 doctors and nurses from the three facilities and three SPDC staff.

Additional training courses to support the activation of ART services were also conducted for other facility personnel. A five-day workshop on laboratory best practices and equipment use (for CD4, chemistry and hematology tests) and maintenance was conducted for nine laboratory personnel selected from the three cottage hospitals and from FMC Yenagoa and NDUTH. A five-day training workshop on pharmacy services for ART was organized in Warri for 10 pharmacy

staff drawn from the five facilities. The training covered both pharmaceutical care and drugs logistics management (both ARVs and OI medicines).

Other training conducted to implement ART service included a three-day adherence counseling workshop and a three-day training of 12 referral focal persons. The training built the capacity of referral focal persons and improved referral documentation at various service points within and outside the health facilities. Better referral coordination provided broader information on other available care and support services elsewhere and ensured systems were in place to track clients that were lost to follow-up and those that defaulted in the treatment programs. A five-day training in palliative care and OVC management training was carried out for 19 HCWs as well as a five-day training in STI syndromic management for 20 HCWs and three SPDC staff. FHI contributed technical content and covered logistic costs for these training events.



Activation of ART laboratory at Erhoike cottage hospital: the equipment procurement vendor test-runs and shows laboratory staff how to use the newly installed equipment

Commodities and equipment procurement and supply

FHI procured and distributed first and second line ARV regimens to the three ART sites. FHI also procured and supplied OI drugs to the sites to support clinical palliative care services provided for PLWH. Provision of laboratory reagents for the chemistry machines was not included in the project budget but it was added to FHI's responsibilities. HCWs were trained on documentation and reporting of the utilization of ART commodities in accordance with national tools. FHI established a logistics management information system (LMIS), which allowed for monitoring stock levels and consumption against service utilization, statistics, and forecasting.

In June 2008, as part of NiDAR closeout plan, FHI developed and shared with SPDC a forecast of the drugs and commodities that would be required to maintain ART services at the three facilities after the close of NiDAR in November 2008 and until the end of March

2009. The facilities are expected to be transitioned to the national commodities system from April 2009 with support from the Global Fund under the oversight of NACA.

To support ART in the three sites, SPDC procured and delivered laboratory equipment for patient management and monitoring. SPDC initially provided Aurica CD4 and Spectroscan chemistry machines, to the sites in November 2007, three months after the staff had been trained on ART. SPDC later provided three CD4 machines, one to each ART site. However, the machines provided to Oben and Erhoike cottage hospitals were faulty at the time of installation by the contractor. Several attempts by the contractor to fix the machines failed. SPDC subsequently re-negotiated with another contractor to supply PointCare NOW CD4 machines in all the ART sites, but these were automated machines, which did not comply with the Nigerian FMOH national standard.

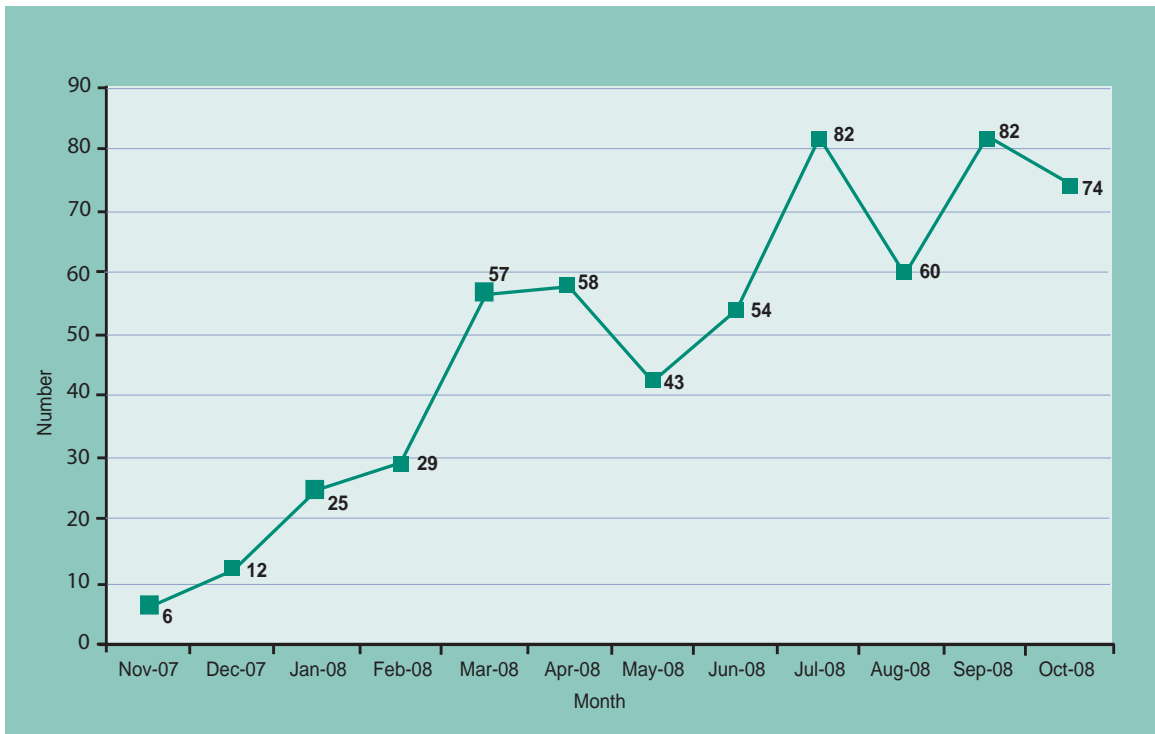


Figure 5: Monthly pre-ART registration for HIV positive clients in Owaza, Erhoike and Oben

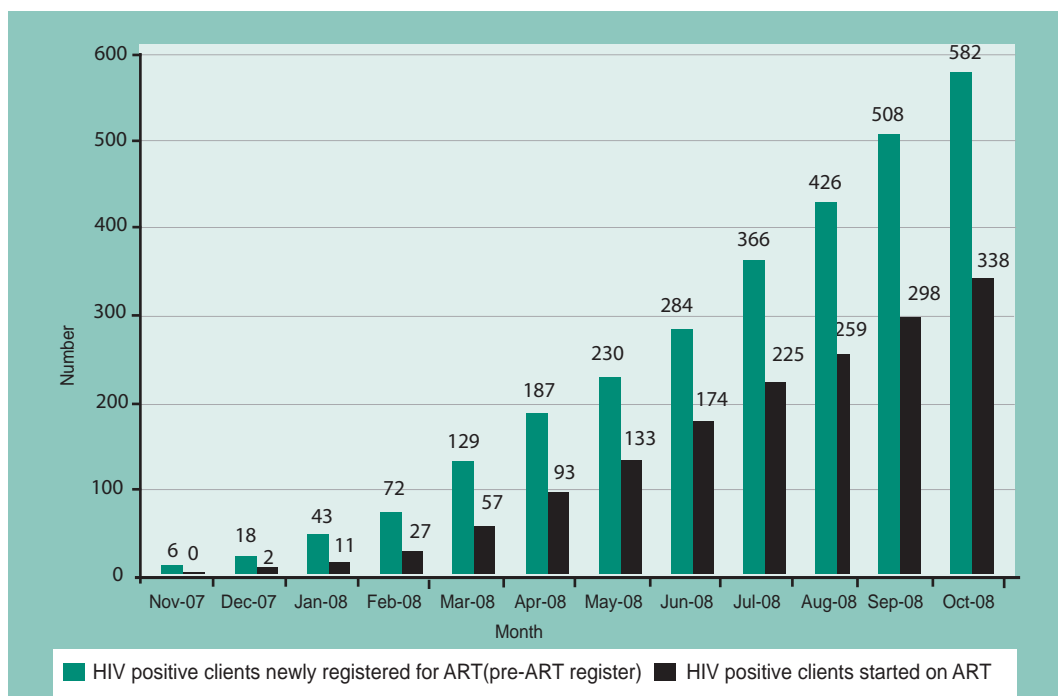


Figure 6: Cumulative number of HIV positive clients registered for ART vs. cumulative number of clients started on ART

In addition to the automated CD4 machines, a manual CD4 machine was procured for Oben in April 2008 with money from the drug revolving fund. Samples for CD4 testing at Erhoike were transported to Oben for analysis until July 2008 when a manual CD4 machine was provided for Erhoike.

Accomplishments

With the support of NiDAR, Owaza, Oben and Erhoike cottage hospitals were able to establish and integrate HIV/AIDS comprehensive treatment, care, support and ART services into their standard services to the communities. ART services for adults and children in the three ART sites included clinical palliative care, treatment with ARVs for eligible PLWH and management of OIs.

Five hundred and eighty-two (201 male and 381 female) HIV positive clients were enrolled into comprehensive HIV care services. Twenty-one (9 male and 12 female) were children less than 15 years old. Three hundred and thirty-eight (122 male and 216 female) HIV positive individuals were initiated

on ART. Fifteen (5 male and 10 female) of them were children less than 15 years. Three hundred and seventy-six (144 male and 232 female) clients received cotrimoxazole, 19 (10 male and 9 female) of whom were children less than 15 years old.

Challenges associated with ART services

Activation of ART services in the three cottage hospitals was delayed for three months. HCWs attended training on ART in September 2007 but services were not initiated until December because of problems with the procurement and supply of essential laboratory equipment necessary for the provision of ART services. By November 2007, three Aurica CD4 machines had been supplied to the three sites, but the machine supplied to Owaza Cottage Hospital did not work. Also, the contractor who supplied the laboratory machines for chemistry testing did not supply any of the reagents essential for testing. FHI therefore had to procure and supply reagents needed to activate ART services in all three sites. The faulty CD4

machines at Oben and Erhoike were only replaced in August 2008 and with machines that did not comply with the GoN specifications.

Integrated TB/HIV services

TB/HIV integration was embedded in the comprehensive care and support services delivered at four of the five NiDAR project sites. The TB/HIV integrated services provided included sputum examination, clinical monitoring, laboratory support, treatment and prevention of TB in HIV positive patients as well as referral of TB patients for HIV testing and clinical care.

Apart from Owaza, which provided weak and irregular services, TB services were new to the facilities supported by NiDAR. NiDAR collaborated with the State TB and Leprosy Control Programs (STBLCP) for integration of the cottage hospitals into the states' logistics supply chain management and partnered with the German Leprosy Relief Association (GLRA) for obtaining technical assistance to HCWs.

Capacity building

NiDAR collaborated with the state and LGA TBLCs to conduct joint site assessment for TB needs and organized sensitization and training workshops on TB integration in the cottage hospitals. Two training programs were organized. A four-day training course on TB/HIV integration was conducted in Warri for 25 HCWs, including doctors, nurses and pharmacy personnel from the five project facilities. Another five-day training course on AFB microscopy was organized at the national TB training center in Zaria for 10 laboratory personnel from the facilities. The national TB tools were distributed to the HCWs to enhance documentation and improve data integrity.

Equipment and commodities supply

FHI leveraged on its existing well-established partnership with the National TB and Leprosy Control Program (NTBLCP) and with the TB and leprosy control programs in the five states to set up the partnership necessary to make the TB services a reality in the five cottage hospitals. In four out of the five

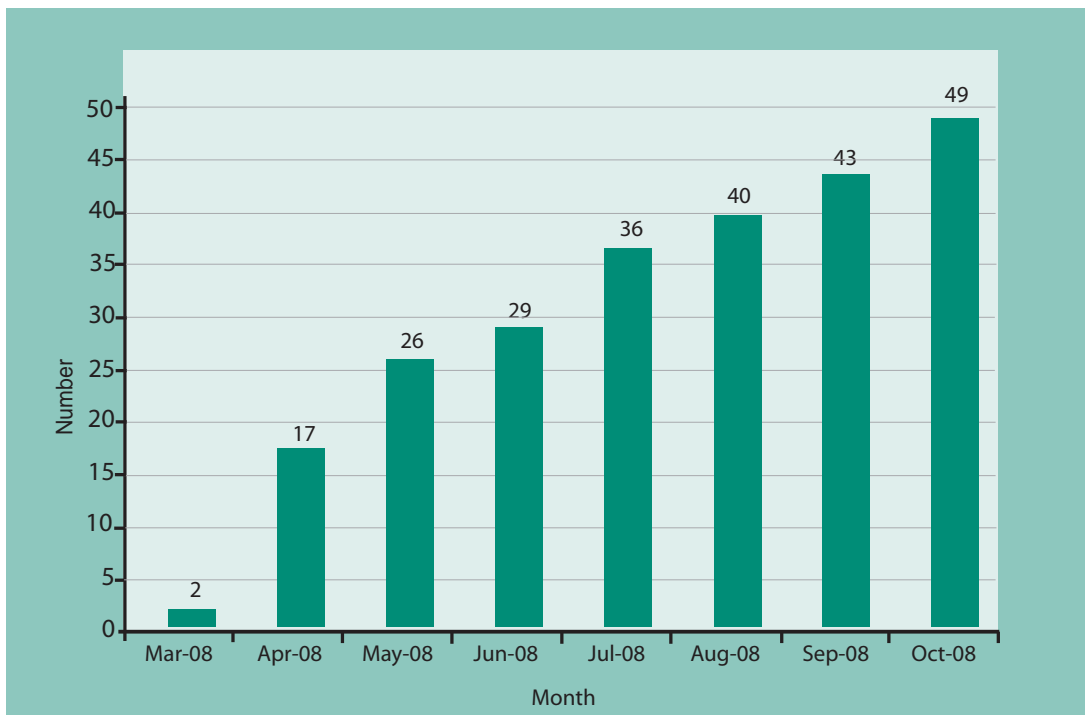


Figure 7: Cumulative number of clients started on TB treatment

states, i.e. Bayelsa, Rivers, Edo, and Delta, the TB and leprosy control program supplied commodities, anti-TB drugs, reagents, staining racks and other essential consumables to the cottage hospitals. In addition, Otuasega and Edagberi received microscopes from the state governments.

Accomplishments

TB/HIV services were activated at Erhoike, Edagberi and Otuasega cottage hospitals and re-activated at Owaza Cottage Hospital. TB/HIV integration was effectively monitored in the comprehensive ART and DOTS sites (PMTCT sites) to ensure that all HIV positive clients were clinically screened for TB. Clients scoring 1+ were referred to the TB laboratory for sputum AFB and those with positive results for AFB were placed on TB treatment. Cumulatively, 49 clients received TB services. Thirty (9 male, 19 female and 2 children) non-HIV positive and 19 (6 male and 13 female) HIV positive clients received TB treatment. TB patients were also provided with HIV care services, including HCT, in all the facilities.

Crosscutting activities

Capacity building

Capacity building and institutional strengthening formed the cornerstone of the NiDAR project. Training, mentoring, and supportive monitoring were provided to build the capacity of facility staff in different HIV/AIDS service areas, including program and information management. Staff capacity was developed in strategic information, which enabled them to develop improved tools and models for collecting, analyzing, and disseminating HIV/AIDS-related data, lessons learnt and best practices. They were trained on how to plan and evaluate prevention, care, and treatment efforts; how to assure the quality of demographic and health data; and how to implement sustainable monitoring and evaluation systems to guide decision making and

scale-up. Data management tools, data flow, and computerization followed the national M&E framework. A data quality assessment (DQA) system developed by FHI and adopted by NACA was established in the project facilities.

The competency of clinical staff was developed in:

- care, treatment and support, including antiretroviral therapy, clinical and patient monitoring, and drug adherence promotion;
- counseling and testing, which is the entry point to such critical services as ART and PMTCT;
- PMTCT services, including testing and counseling for pregnant women, antiretroviral prophylaxis for those who are HIV positive and their newborns, and assistance on safer delivery and safe infant feeding practices;
- commodity management, or the selection, procurement, distribution and use of test kits, reagents, laboratory equipment, and drugs;
- integrated TB/HIV services to treat or prevent AIDS-related complications, including examinations, clinical monitoring, laboratory services, and screening and referral for HIV testing; and
- management of other AIDS-related infections and care and support to optimize the quality of life of HIV positive adults and children and their families, including social and material support and culturally appropriate end of life care.

To address the weaknesses in management capacity and coordination at the facility level, a technical and organizational capacity assessment was conducted in the five facilities. This helped in identifying institutional and programmatic strengths and gaps. Following the assessment, 14 members of the hospital management team (HMT) from the five cottage hospitals and



Cross section of participants in the training on comprehensive care (ART)

from FMC Yenagoa and NDUTH participated in a five-day project management training in June 2007 in Warri, Delta State. The training covered overall management of hospitals and the health care service delivery systems. It focused specifically on how to integrate HIV/AIDS services with the overall health care service delivery system within the hospital as well as human resource management and resource mobilization and allocation within the facilities.

Stakeholders' roundtable meeting

A stakeholders' roundtable meeting involving representatives of the Ministry of Health and SACA from the five project states, members of the target communities, NGOs working in those communities, FHI and SPDC staff, and representatives of NACA and the HIV/AIDS Division of the FMOH was held in Port Harcourt in June 2007 to explain project objectives to key stakeholders and to formally inaugurate the project. The meeting enhanced partnership among key stakeholders and laid the foundation for an enabling environment for successful project implementation.

Advocacy and sensitization

Following the initial stakeholders meeting, the PMT engaged the state governments and community leaders in continued advocacy and sensitization to strengthen support and secure acceptance of services in the five facilities. This comprised regular sensitization visits, meetings, and courtesy calls. SPDC and FHI jointly developed and produced advocacy resource materials documenting project goals, activities, and challenges and circulated these among all project stakeholders. It was a time and resource intensive venture but it was essential for securing support from community, religious and government gatekeepers.

Demand creation for services

In addition to building partnerships with gatekeepers and stakeholders, the project carried out community dialogues in the focal communities to convey basic facts about HIV and AIDS to community members and alert them on the need to reduce risky behavior and change attitudes positively. A training course involving target communities was conducted to design information, education,

Table 2 Training programs conducted by NiDAR

Project training area	Categories of staff trained	Number trained
PMTCT	Doctors, pharmacists, pharmacy technicians, nurse/midwives, and community health officers	33
Counseling and testing	Doctors, midwives, laboratory technicians, and lay counselors	23
ART	Doctors, pharmacists, pharmacy technicians, and nurse/midwives	23
M&E	Record officers, doctors, pharmacists, and nurses	19
Program management	Chief medical officers (doctors in charge) and administrators	14
Pharmacy and drug logistic management	Pharmacists and pharmacy technicians	10
ART laboratory services	Laboratory scientists and technicians	9
TB AFB microscopy	Laboratory scientists and technicians	10
TB/HIV integration	Doctors, pharmacists, and nurse/midwives	25
Palliative care	Doctors and nurse/midwives	20
STI syndromic management	Doctors, pharmacists, and nurses/midwives	23
ART adherence counseling	Doctors, pharmacists, and nurse/midwives	12
Referral coordination	Referral focal persons (doctors and nurse/midwives) and medical record staff	10
SBC material development	Nurses, administrators, community representatives, and SACA officials	19
DHIS	SPDC staff	13

and communication (IEC) materials that would conform to social, cultural, and political norms of the Niger Delta region. The workshop took place in July 2007 in Warri and 18 participants, including HCWs from the focal facilities, SACA members

and community representatives from the five states, participated. A range of IEC materials such as posters, booklets, T-shirts, caps, audio tapes, stickers, etc, were produced from the workshop and distributed to a range of target groups.

In addition, HCWs were trained on how to initiate, plan and implement regular community outreach and sensitization events on HIV/AIDS prevention, treatment, care, and support services offered at the facilities.

Monitoring and evaluation

FHI has provided technical assistance for strengthening the national strategic information system and for supporting the national M&E framework for HIV/AIDS at the federal, state and health facility levels. The national District Health Information System (DHIS), whose development and implementation was supported by FHI, provided the platform for the integration of HIV/AIDS and TB data into the general health management information system of the facilities.

Strengthening of the weak M&E system in the five focal facilities was a priority in the NiDAR project. M&E activities started with a five-day residential training course for 19 HCWs

including doctors and medical records and pharmacy staff. It focused on tools and models for collecting, analyzing, and disseminating HIV/AIDS related data. This training was followed up with regular on-site technical assistance and monitoring as well as oversight of the monthly data collection and reporting (Annex 6 on page 51). Special attention was given to enhancing the skills of HCWs in data interpretation and analysis, not only record keeping but also record utilization for decision-making. SPDC staff were also trained in the use of the DHIS, to enable them to continue using and interpreting facility data after the NiDAR project has ended.

NiDAR used the geographic information system (GIS) to map the distribution of clients, in terms of distance and number, accessing comprehensive HIV services at Owaza Cottage Hospital. The GIS map showed that clients came from all LGAs in Abia State and from the nearby states. This informed the



A technical and organizational capacity assessment with the staff of Oben Cottage Hospital in May 2008

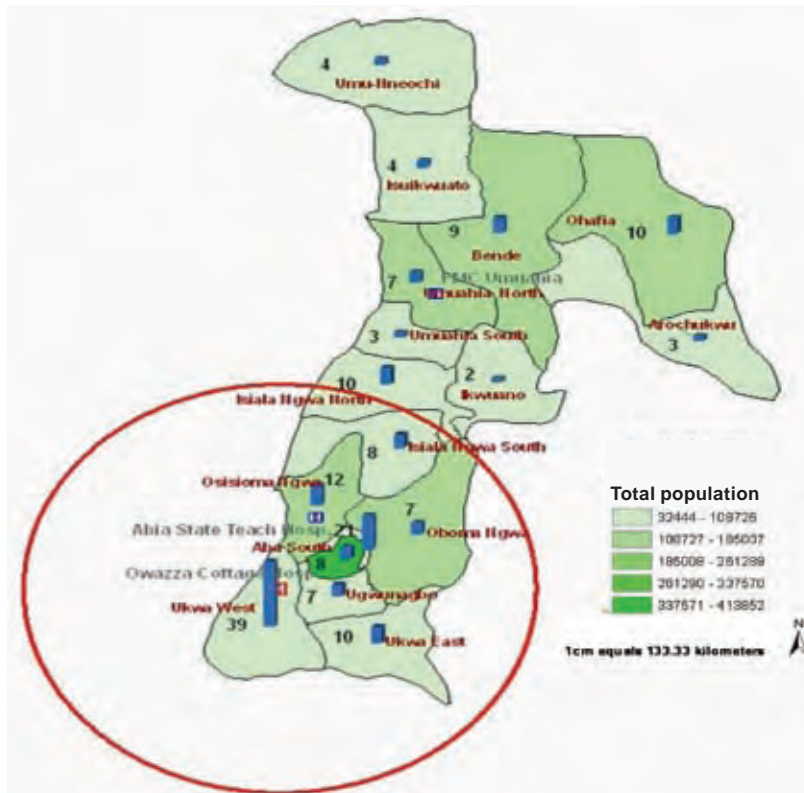


Figure 8: GIS mapping of number of patients accessing care and treatment in Owaza Cottage Hospital and distances covered in kilometer (overall average of 32.16km)

scaling up of ART services at the facility and gave an idea of the transport cost implications of accessing services on clients.

Technical assistance and mentoring support

FHI staff in the NiDAR project team provided continuous on-site technical and mentoring support to HCWs in the five health facilities to monitor and ensure quality and effectiveness of services provided to clients. Technical and service areas supported included HCT, laboratory, PMTCT, ART, TB, pharmaceutical care, logistics, strategic information, program management, etc. Continuous mentoring helped reinforce the skills that facility staff acquired during pedagogic training. SPDC staff participated in joint technical and mentoring visits to sites during the transition period, i.e. from May to October 2008.

Linkages and referral

To enhance access to treatment, care, and support services within the project sites, NiDAR strengthened the capacities of HCWs in maintaining effective referral between available services within each site and linkages with other care and support services elsewhere. HIV positive individuals were referred to clinical care (management of opportunistic infections), TB and ART services available within the site or otherwise to facilities where such services were available. Tools such as registers (transfer in and out) and referral forms were provided in each of the facilities for proper documentation. For example, HIV positive clients in Otuasega were referred to FMC Yenagoa or NDUTH, while those who were found positive in Edagberi were referred to Ahoada General Hospital since Otuasega and Edagberi were not providing all of the HIV/AIDS services.



Sensitization meeting with a Catholic women group in Warri



Advocacy visit to the wife of Abia State Governor, Lady Mercy Orji (second right), in June 2008. Left to right: Ngozi Ezema, NiDAR project team leader; Dr Akinwumi Fajola, SPDC Public Health Adviser; and Elder Uka Uduma, Abia SACA Project Manager



Condom promotion by SPDC staff during World AIDS Day 2007 in Warri

PLWH support group activities

NiDAR provided technical assistance to staff in Owaza Cottage Hospital to help them initiate and sustain a support group of PLWH. The local group has been registered with NEPHWAN and meets monthly to provide mutual support and address issues of stigma, nutrition, welfare, care and support. Owaza Cottage Hospital provided an office space for PLWH who wish to provide volunteer support services to the facility in adherence, psychosocial counseling, and contact tracking of members. Two members of the support group were elected as treasurer and provost of Abia State NEPHWAN during the state elections in October 2008.

International conferences and meetings

Some senior management staff of FHI joined SPDC staff to participate in an international oil and gas sector conference in London in November 2007 to report on the NiDAR

initiative and make presentations. One of the outcomes of the meeting was the discussion with Nigeria National Petroleum Corporation (NNPC) to create a central forum that will help pool resources for more comprehensive and impact-driven HIV/AIDS intervention programs by oil and gas sector companies.

Some members of senior management of FHI and SPDC also participated and made joint presentations at a meeting entitled “Netherlands Network of UN Global Compact Partnership for Development” in The Hague, Netherlands in March 2008. Participants included stakeholders from governments, private companies, and NGOs worldwide. The meeting was held to foster partnerships between companies and NGOs.

NiDAR was also represented through a presentation at the “2008 Society for Petroleum Engineers (SPE) International Conference on Health Safety and Environment (HSE)” in Nice, France, in April 2008.

The project produced and distributed HIV/AIDS and project promotional materials for these meetings and conferences.

Sustainable community development NGO leadership awards

In recognition of FHI's success in collaborating with SPDC to mitigate the impact of HIV/AIDS in the Niger Delta region, SPDC presented the best overall partner in Nigeria award to FHI during the Sustainable

Community Development (SCD) NGO leadership award in July 2008. Dr Edet Edet presented the award on behalf of SPDC at a ceremony held in SPDC's Warri office. The objective of the SCD NGO award was to identify and reward high performing implementing NGOs and to encourage the development of an intellectually vibrant, mutually supportive, and cross-fertilizing network of social work colleagues involved in multiple facets of work in SPDC's host communities.



NiDAR project team leader, Ngozi Ezema (second right) displaying the Shell SCD award with other team members: Ugochi Ezenwelu, Laboratory/CT Officer (left); Solomon Odafe, Senior Medical Services Advisor (second left); and Abiodun Adeyemi, M&E Officer (first right)

Collaboration with the Government of Nigeria

The NiDAR project was aligned to the strategic responses to HIV/AIDS by the Government of Nigeria and the governments of the five project states. Government authorities were involved in the project and showed high level commitment towards its success. Representatives of NACA, the HIV/AIDS Division of the FMOH and SACAs in the five states participated in project consultative meetings, and their representatives sat on or chaired central- and state-level hospital advisory committees that supervised project activities at the health facilities. Part of the mission of the state-level committees was to ensure that facilities had adequate human resources and that trained staff were retained, thus creating an enabling environment for sustainability.

The leadership provided by NACA and the support of the governments of Abia, Bayelsa, Delta, Edo, and Rivers states enriched the partnership between FHI and SPDC. In July 2008, NACA hosted the quarterly HAC meeting of NiDAR in Abuja, where participants discussed strategies for sustaining the NiDAR project and for developing other public-private partnership initiatives to improve and expand access to ART services in Nigeria. The meeting also delineated the roles and responsibilities of all NiDAR stakeholders, including the project communities, SPDC, FHI, and the governments of Abia, Edo, Delta, Rivers, and Bayelsa states.

Strategic engagement with NACA and the HIV/AIDS Division of the FMOH from the

inception of NiDAR influenced the decision by NACA to take the public-private partnership on HIV/AIDS response to the next level and to integrate the five cottage hospitals supported by NiDAR into phase II of the Global Fund round 5, which will commence in April 2009. At the national level, NACA undertook to ensure the transition of the five sites to the Global Fund and to support the next HAC meeting in Port Harcourt in January 2009.



Prof. Babatunde Osotimehin, then NACA Director-General (now Minister of Health) (middle); Dr Edet Edet, of SPDC (left); and Dr Christoph Hamelmann, FHI Country Director during the NiDAR stakeholders meeting hosted by NACA in July 2008

Working on sustainable solutions—

Sustainability was an integral part of NiDAR's implementation strategies. Project sustainability strategies included capacity building and on-site technical assistance through coaching and mentoring to ensure adequate skills transfer in all service areas for facilities and SPDC staff. Staff capacity was developed in project management, SBC material development, HCT, PMTCT, laboratory best practices, pharmacy, HIV comprehensive care (HCC), monitoring and evaluation, palliative care, ART, adherence counseling, referral coordination, TB AFB microscopy,

TB/HIV integration, reproductive health, and syndromic management of STIs.

Stakeholders at the local, state, and national levels were involved in project planning and implementation to support successful integration of the cottage hospitals into the national HIV/AIDS response. To ensure long-term stakeholders involvement, a central hospital advisory committee was established, which met quarterly to discuss project accomplishments and challenges and suggest options for sustainable improvements.



Participants in the NiDAR stakeholders meeting hosted by NACA in July 2008, a key meeting for the discussion on NiDAR sustainable solutions.

Left to right: Dr Fortune Sorgwe, Permanent Secretary Bayelsa SMOH; Ope Abegunde, NACA GFATM Relationship Manager; Paulinus Nsirim, Rivers SACA Communications Officer; Dr Edet Edet, SPDC Assistant Manager; Peter Erigbali, Bayelsa SACA Program Manager; Dr Aminu Abubakar, FHI Associate Director M&E; Dr Christoph Hamelmann, FHI Country Director; Dr Uriel Dambo, Permanent Secretary/Chief Executive Bayelsa HMB; Prof. Babatunde Osotimehin, Minister of Health (then NACA DG); Dr (Mrs) Minimim Oseji, Director Delta PHC; Dr Patrick Ofili, Permanent Secretary/Chief Executive Delta HMB; Dr Okoreaffia Okereke, Chief Executive Abia HMB; Chiagwina Eigbe, Representative of Edo SMOH Permanent Secretary; Robert Chiegil, FHI Director of Program Management; Dr John Nwidadah, Rivers HMB Chief Executive; Umoru Oleghe, Edo SACA M&E Officer; Modupe Oshingbemi, FHI Program Assistant; Ngozi Ezema, NiDAR Team Leader; and Ededem Hogan, FHI Associate Director for Communications.

Other sustainability strategies included systems strengthening, expansion of the roles of hospital management teams, establishment of LMIS, and institution of M&E systems in the cottage hospitals. Crucially, the project ensured that SPDC staff were adequately trained and supported to take over technical and mentoring activities in all service areas in the cottage hospitals after the NiDAR pilot had come to an end.

In May 2008, the project management team jointly developed a comprehensive transition plan, covering May to October 2008, with SPDC. The objective of the plan was to institute a systematic framework that guided the overall integration and re-alignment of roles and responsibilities of partners for long-term continuous provision of HIV/AIDS services in the cottage hospitals.

The transition plan contained detailed description of activities, timeframe, measurable indicators, and responsibilities of the implementing partners (FHI and SPDC) (*Table 3 on page 37*).

All NiDAR stakeholders played important roles in implementing the transition plan. FHI continued to provide technical assistance and mentoring support while SPDC repositioned its staff to take over on-site mentoring and coaching of facility staff as well as to support commodities procurement and distribution using the LMIS. FHI trained and mentored 13 SPDC staff in setting up and using the

DHIS at the project facilities and at SPDC. FHI and SPDC staff made joint on-site technical visits to the five cottage hospitals, in addition to weekly technical (PMTCT, HCT, ART, M&E) interactive sessions held through video conferences with SPDC Warri and Port Harcourt offices. FHI worked with SPDC to develop a drug and commodities forecast for the period, including costing and inventory management for ARVs, OI drugs, RTKs and laboratory reagents for the facilities (*Tables 4 to 8 on pages 39 to 41*). Stakeholders from the local, state, and federal governments facilitated the integration of HIV/AIDS services established in the cottage hospitals into the national HIV/AIDS response.

Following successful implementation of the transition plan in October 2008, FHI and SPDC made interim management plans to sustain service provision at the facilities from November 2008 to March 2009, while the Government is working out modalities for integrating the sites into the Global Fund projects in April 2009.

Since the official end of the project in October 2008, SPDC has been sending M&E reports on the facilities to FHI using the DHIS, and FHI has been providing technical assistance to SPDC and the facilities through the Edo zonal office in Benin. To ensure smooth transition to the Global Fund in April 2009, FHI and SPDC will conduct a joint review of the interim management plan by the end of March 2009 to ascertain its effectiveness.

Table 3: NiDAR transition plan

Key issues	Activity	Measurable indicators	Timeframe
Establish understanding of NiDAR/ SPDC teams on guidance for sustainability	Meeting of SPDC and NiDAR teams in Port Harcourt to harmonize roles and responsibilities	<ul style="list-style-type: none"> Draft copy of transition plan 	<ul style="list-style-type: none"> 14 May 2008
	Review of draft sustainability plan by both teams/FHI management and subsequent review of accomplishments/challenges	<ul style="list-style-type: none"> Copy of finalized sustainability plan duly signed by FHI/SPDC Joint bi-weekly review meetings held 	<ul style="list-style-type: none"> 3rd week of May 2008 Ongoing review meeting
Strengthen capacity of SPDC staff on key technical areas through mentoring	2 - 3 hrs per week in-house session on ART/HCT/ PMTCT/TB/ pharmacy/laboratory/M&E (data tools) technical update (once per week for East and West focal persons) using LCD projector/video conference	<ul style="list-style-type: none"> Modules covered from the manuals Number of practical sessions held 	<ul style="list-style-type: none"> Weekly
	Participate in 5-day training on STI syndromic management/RH/ PMTCT in Port Harcourt	<ul style="list-style-type: none"> Number of SPDC focal staff trained 	<ul style="list-style-type: none"> 18 – 24 May 2008
	Joint mentoring and technical assistance (TA) visits to sites by NiDAR and SPDC site leads (focal persons and nurses) – data collation, compilation and reporting	<ul style="list-style-type: none"> Number of TA visits conducted Number of SPDC focal persons participated in the TA visits 	<ul style="list-style-type: none"> Ongoing
	Follow-up and monitoring of CT/PMTCT components (West) – Erhoike and Oben CHs	<ul style="list-style-type: none"> Number of TA sessions conducted with HCWs in each site from August 	<ul style="list-style-type: none"> Ongoing
	Follow-up and monitoring of CT/PMTCT components (East) – Owaza, Edagberi, and Otuasega CHs	<ul style="list-style-type: none"> Number of TA sessions conducted with HCWs in each site from August 	<ul style="list-style-type: none"> Ongoing
	Follow-up and monitoring of CT/PMTCT components (East and West) – Owaza, Erhoike, and Oben ART sites	<ul style="list-style-type: none"> Number of TA sessions conducted with HCWs in each site from August 	<ul style="list-style-type: none"> Ongoing
	Joint application of technical and organizational capacity assessment tool (TOCAT) in all sites with SPDC focal persons	<ul style="list-style-type: none"> Number of SPDC staff in the team Number of sites targeted 	<ul style="list-style-type: none"> 4th week of June 2008

Key issues	Activity	Measurable indicators	Timeframe
	Training of SPDC laboratory focal persons on laboratory equipment maintenance and use	<ul style="list-style-type: none"> Number of SPDC staff trained and can operate and maintain CD4 and chemistry machines 	<ul style="list-style-type: none"> 4th week of June 2008
	Mentoring on commodities/service forecasting and costing and inventory management for ARVs, OI drugs, RTKs and laboratory reagents, commodities and overseeing the LMIS/laboratory reagents/RTKs for all sites (corporate level)	<ul style="list-style-type: none"> First commodities forecast developed/prepared by the focal person 	<ul style="list-style-type: none"> 2nd week of June 2008
	Procurement and sustenance of laboratory reagents and consumables for NiDAR supported sites (once NiDAR supplies get exhausted)	<ul style="list-style-type: none"> Copy of forecast document developed and finalized by SPDC 	<ul style="list-style-type: none"> 31 October 2008
	Procurement and sustenance of RTKs and consumables for NiDAR supported sites (once NiDAR supplies get exhausted)	<ul style="list-style-type: none"> Copy of forecast document developed and finalized by SPDC 	<ul style="list-style-type: none"> 31 July 2008
	Procurement and sustenance of ARVs and consumables for NiDAR-supported sites (once NiDAR supplies get exhausted)	<ul style="list-style-type: none"> Copy of forecast document developed and finalized by SPDC 	<ul style="list-style-type: none"> 31 August 2008
Sustainability of established structures by SPDC	Facilitate heads of facility meeting and monitoring of HMT (site level) meetings	<ul style="list-style-type: none"> Number of HMT and heads of facility meetings held by October 2008 	<ul style="list-style-type: none"> Ongoing
	Facilitate August 2008 central HAC meeting and subsequently host HAC meetings	<ul style="list-style-type: none"> Number of HAC meetings coordinated by SPDC 	<ul style="list-style-type: none"> Ongoing
Promote documentation and integration of data into state DHIS	<ul style="list-style-type: none"> Training of all focal persons in DHIS and facilitation of monthly data collation and reporting in conjunction with SACAs/SMOH Installation of updated DHIS and excel spread data spread sheet for SPDC M&E focal staff 	<ul style="list-style-type: none"> Number of SPDC focal staff trained in DHIS Number of SPDC focal staff participating in monthly data collection and reporting activities 	<ul style="list-style-type: none"> 4 week of August 2008
Lack of power supply in Erhoike and Oben	Procurement of 10KVA generators for Oben and Erhoike CH	<ul style="list-style-type: none"> Number of generators procured Number of 10KVA generators installed and functioning 	<ul style="list-style-type: none"> 15 May 2008

Key issues	Activity	Measurable indicators	Timeframe
Facilitate the provision of ART services in Erhoike and Oben CHs	Joint visits to Oben to fix the CD4 machine with Deux Project	<ul style="list-style-type: none"> • CD4 machine in Oben produce reliable results 	<ul style="list-style-type: none"> • 20 May 2008
	Joint visits to Erhoike to install new CD4 monitor with Deux Project	<ul style="list-style-type: none"> • CD4 machine in Erhoike is functional and produces reliable results 	<ul style="list-style-type: none"> • 21 May 2008
Motivation and retention of trained HCWs in all NiDAR supported sites	Design incentives packages for core NiDAR project HCWs in all sites (monetary/conferences/workshops/ ongoing CME/ internet facilities)	<ul style="list-style-type: none"> • Varieties of incentive packages developed 	<ul style="list-style-type: none"> • 20 May 2008
Strengthening of HMTs through twinning for training	Exchange/review visits by HMTs to NiDAR supported sites	<ul style="list-style-type: none"> • Facility-specific challenges/management issues identified and action plans developed and reviewed periodically 	<ul style="list-style-type: none"> • July 2008
Formal project handover to SPDC and state governments	Stakeholders roundtable in Port Harcourt to officially hand over the project to SPDC	<ul style="list-style-type: none"> • Stakeholders' roundtable meeting held • Stakeholders in attendance • Roles of SPDC and state governments documented 	<ul style="list-style-type: none"> • 3rd week of October 2008

Table 4: Projected enrollment for November 2008 to March 2009

	On treatment	Nov.	Dec.	Jan.	Feb.	Mar.	Total
Option 1 Low	612	100	110	120	130	140	1,212
Option 2 Medium	682	120	130	140	150	160	1,382
Option 3 High	765	150	160	170	180	190	1,615
PMTCT drugs will be part of the forecast above							
<i>PMTCT = 5 sites starting from June '08</i>							
OIs = 3 ART sites							
<i>150% factored into it</i>							
	On treatment	Nov.	Dec.	Jan.	Feb.	Mar.	Total
Option 1 Low	918	250	275	300	325	350	2,418
Option 2 Medium	1023	300	325	350	375	400	2,773
Option 3 High	1147	375	400	425	450	475	3,272
HCT = 5 sites							
<i>Factor 10% increment every quarter</i>							
		Nov.	Dec.	Jan.	Feb.	Mar.	Total
Option 1 Low		1250	1250	1250	1375	1375	6,500
Option 2 Medium		1875	1875	1875	2062	2062	9,749
Option 3 High		2500	2500	2500	2750	2750	13,000

Table 5: Commodities requirements

Algorithm [Determine Stat-Pak Capillus] serial testing									
		Unit pack	Unit price	Option 1 (n = 6,500)		Option 2 (n = 9,749)		Option 3 (n = 13,000)	
Item description	Specifications			Qty	cost	Qty	cost	Qty	cost
Determine HIV 1/2 Test Kit + Chase Buffer*	100%	100	92.80	65	6,032.00	97	9047.07	130	12,064.00
Stat-Pak Dipstick HIV 1/2 Test Kit*	20%	30	31.96	43	1,384.93	65	2077.19	87	2,769.87
Rack*		1	0.31	43	13.43	65	20.15	87	26.87
Tube*		30	2.10	43	91.00	65	136.49	87	182.00
Bundi	2% tie-breaker	20	36.04	7	234.26	10	351.35	13	468.52
Sub-total (US\$)					7,755.63		11,632.25		15,511.25
Accessories									
Item	Specifications	Unit Pack	Unit price	Qty	cost	Qty	cost	Qty	cost
Vacutainer [80% venous draw]	4 ml, EDTA, plastic	100	8.630	52	448.76	78	673.07	104	897.52
Needle	21G x 1"	100	6.460	52	335.92	78	503.83	104	671.84
Needle holder	single-use	1000	16.000	5	83.20	8	124.79	10	166.40
Pipette	paddle pastette, 50 µl drop	100	4.000	65	260.00	97	389.96	130	520.00
Lancet	single use, safety	500	80.000	3	208.00	4	311.97	5	416.00
Capillary tube [20% capillary draw]	200 µl, EDTA	250	39.000	5	202.80	8	304.17	10	405.60
Sub-total					1,538.68		2,307.78		3,077.36
Grand total					9,294.31		13,940.03		18,588.61

Table 6: Requirements for pediatric and adult first and second line drugs for the three NiDAR ART sites (November 2008 to March 2009)

Drug name	Strength	Unit pack	Unit cost (US\$-CIP)	Option 1 (n = 1,127)		Option 2 (n = 1,285)		Option 3 (n = 1,502)	
				Qty	Cost (US\$)	Qty	Cost (US\$)	Qty	Cost (US\$)
Adult first line drugs									
D4T/3TC/NVP	30/150/200 mg	60	9.50	2695	25,598	3065	29,113	3563	33,844.64
Efavirenz (EFV)	600 mg	30	13.75	857	11,788	975	13,407	1134	15,586.35
D4T/3TC	30/150 mg	30	5.20	857	4,458	975	5,070	1134	5,894.47
AZT/3TC/NVP	300/150/200 mg	60	16.00	2511	40,173	2856	45,690	3320	53,115.03
AZT/3TC	300/150 mg	60	10.90	367	4,005	418	4,555	486	5,295.31
TDF/FTC	300/200 mg	30	27.25	174	4,728	197	5,377	229	6,251.41
Adult second line drugs									
				Qty	Cost (US\$)	Qty	Cost (US\$)	Qty	Cost (US\$)
ABC (Abacavir)	300 mg	60	32.50	204	6,634	232	7,545	270	8,771.54
DDI (Didanosine EC)	400 mg	30	24.61	204	5,024	232	5,714	270	6,642.08
LPVr/r (Aluvia)	200/50 mg	120	43.23	255	11,031	290	12,546	337	14,584.37
Sub-total (US\$)					113,439		129,018		149,985
Pediatric first line drugs									
				Qty	Cost (US\$)	Qty	Cost (US\$)	Qty	Cost (US\$)
Zidovidine syrup	10 mg/ml	200	4.74	279	1,325	318	1,506	369	1,751.29
Lamivudine syrup	10 mg/ml	240	4.54	559	2,537	636	2,886	739	3,354.80
Nevirapine syrup	10 mg/ml	240	4.64	279	1,297	318	1,475	369	1,714.35
Zidovidine Tab	100 mg	100	6.40	56	358	64	407	74	472.92
D4T6/3TC30/NVP50 FDC	6/30/50 mg	60	5.00	47	233	53	265	62	307.89
D4T12/3TC60/NVP100 FDC	12/60/100 mg	60	6.00	186	1,118	212	1,271	246	1,477.88
Stavudine 20mg	20 mg	60	5.25	93	489	106	556	123	646.57
Efavirenz 50mg	50 mg	60	3.85	31	120	35	136	41	158.05
Pediatric second line drugs									
ABC (Abacavir Syrup)	20 mg/ml	240	32.50	36	1,170	41	1,331	48	1,547.40
DDI 100 mg	100 mg	60	14.00	7	101	8	115	10	133.31
Kaletra syrup	80/20 mg/ml	300	41.10	15	634	18	721	20	838.66
Sub-total (US\$)					9,381		10,669		12,403
Grand total (US\$)					122,820		139,687		162,388

Table 7: Drug requirements for opportunistic infections

S/No.	Drug name	Pack size	Unit price (\$)	Option 1 (n = 2,418)		Option 2 (n = 2,773)		Option 3 (n = 3,272)	
				Qty	Cost	Qty	Cost	Qty	Cost
1	Acyclovir 200 mg tablet	100	9.52	1261	12,002.34	1437	13,680.24	1693	16,117.36
2	Co-trimoxazole 800/160 mg tablet	10	1.71	9203	15,737.94	10490	17,938.07	12359	21,133.72
3	Co-trimoxazole 400/80 mg tablet	1000	10.54	1657	17,460.83	1888	19,901.82	2225	23,447.31
4	Co-trimoxazole 240 mg/5 ml suspension	50	0.98	18407	18,038.81	20980	20,560.60	24718	24,223.44
5	Nystatin 100,000 IU/ml oral suspension	30	0.77	4203	3,235.93	4790	3,688.30	5643	4,345.37
6	Folic acid tablet	1000	0.91	303	275.35	345	313.84	406	369.75
7	Ferrous sulphate tablet	1000	5.28	303	1,597.62	345	1,820.97	406	2,145.37
8	Multivitamin syrup	100	0.6	9077	5,446.44	10346	6,207.84	12190	7,313.76
9	Tinidazole 500 mg tablet	100	2.56	756	1,936.51	862	2,207.23	1016	2,600.45
10	Fluconazole 50 mg tablet	3	0.32	33620	10,758.40	38320	12,262.40	45147	14,446.93
11	Oral rehydration Salt	100	21.3	303	6,444.95	345	7,345.94	406	8,654.62
12	Ciprofloxacin 500 mg tablet	100	5	2017	10,086.00	2299	11,496.00	2709	13,544.00
13	Ceftriaxone injection 1 g	1	5.5	10086	55,473.00	11496	63,228.00	13544	74,492.00
14	Azithromycin 250 mg tablet	6	0.938	3782	3,547.75	4311	4,043.72	5079	4,764.10
15	Tramadol 50 mg capsules	10	0.2	3782	756.45	4311	862.20	5079	1,015.80
Total cost (US\$)					162,798.33		185,557.17		218,613.97

Table 8: Budget summary for ARVs, OI and RTK for the NIDAR project including buffer (November 2008 to March 2009)

Item category	Option 1	Option 2	Option 3
ARV Medicines	122,819.93	139,687.25	162,388.31
Rapid Test kits	9,294.31	13,940.03	18,588.61
OI drugs	162,798.33	185,557.17	218,613.97
Grand total (US\$)	294,912.57	339,184.45	399,590.89

Lessons learnt

Unification of technical and procurement management is a critical success factor

Based on the experience of FHI in implementing a rapid scale up of HIV/AIDS services across all the 36 states of Nigeria, a critical success factor is to have a unified system and structure for technical supervision and procurement management. For the Global HIV/AIDS Initiative Nigeria (GHAIN) project, FHI manages upgrading, procurement and equipping of all sites as well as the technical support in the 36 states and supported health facilities. However, in the NiDAR project, technical management was separated from procurement management, hence the pace of implementation and service activation was slowed down.

For effectiveness of future programs, the technical partner should also be responsible for procurement management of all infrastructure, equipment, and commodities. During the course of the project, SPDC recognized that the separation of functions was affecting project implementation negatively. They therefore asked FHI to assume further responsibilities beyond those stipulated in the MoU, such as management of site upgrade at the cottage hospitals.

Pre-NiDAR presence of partners in the region facilitated project implementation

The NiDAR project leveraged on the strong presence and contacts of SPDC in the Niger Delta region over many years as well as FHI's experience working in the project states. Thus, FHI staff who were members of the PMT understood the terrain and were familiar with the security hazards, possibilities and limitations dictated by the environment. The pre-NiDAR relationships between FHI

and stakeholders in the health sector in these states facilitated dialogue and advocacy for NiDAR at the state level. The states strongly supported the TB/HIV program within the NiDAR project by providing commodities and microscopes. Although the NiDAR project has formally ended, FHI will continue to provide technical support to facilities in the Niger Delta region through its Edo zonal office.

Task shifting can optimize use of available human resource

The GoN encourages task shifting and multi-tasking at the lower levels of the health sector, and NiDAR applied this principle in carrying out many of its activities. Without task shifting, there would never have been enough staff to cover all the distinct service functions. Although there was initial resistance to this, facility staff eventually accepted the additional responsibilities after seeing the need to be involved. All available HCWs in the five health facilities were trained in all areas of HIV/AIDS service delivery, which was supported with on-site mentoring and technical assistance to ensure that all the staff had the same level and spread of competencies in service delivery to patients.

Cost-effective non-monetary incentives can boost the morale of health care workers

The experience of FHI in the GHAIN project is that activation of HIV/AIDS services increases the workload of health facility staff, which creates expectation of increased compensation. The NiDAR project team was constantly faced with demands for cash incentives by HCWs in the facilities, especially because this project had a link to the oil sector. Since FHI's policy and practice does not allow such cash incentives, SPDC should work with the governments and partners to provide cost-

effective non-monetary incentives for HCWs involved in its projects. Such incentives could be in the form of enhancement or maintenance of staff quarters, provision of recreational facilities for staff, etc. Creating a conducive working environment for HCWs will boost their morale and improve service delivery to the community.

Partnership with government can enhance program sustainability

FHI deployed its existing relationships with the government at all levels to ensure the integration of the five NiDAR cottage hospitals into the national HIV/AIDS response system. FHI facilitated a dialogue with NACA and the HIV/AIDS Division of the FMOH, which led to the acceptance by NACA to include the hospitals in the national system. As a result, NACA has commended the NiDAR project

as a model of public-private partnership that Nigeria can present globally.

Phasing interventions can improve project outcomes

Given that the NiDAR project was a pilot project, it was essential that activities were carefully timed and phased. Phase-in activities included on-site mentoring and coaching through site visits and intensive capacity building for HCWs and SPDC staff to manage and sustain quality HIV/AIDS services. Phase out activities included development by FHI and SPDC of a joint transition plan for the facilities, technical training for SPDC staff on all program areas, joint site mentoring visits, and weekly video conference meetings. This method improved project outcomes and laid a solid foundation for project sustainability.

Conclusion

The NiDAR project has been implemented by FHI and SPDC in five cottage hospitals in five states of the Niger Delta region. In spite of several challenges encountered during implementation, the project has achieved the purpose for which it was established. HIV/AIDS services have been successfully integrated into other health care services in the selected rural cottage hospitals. The project has trained 246 HCWs in the provision of HIV/AIDS services, and they are now providing services in the hospitals. Although the NiDAR project has ended officially, the five cottage hospitals continue to provide HIV/AIDS services to clients. A sustainability plan involving all stakeholders in the project, including the Government of Nigeria, FHI, SPDC, hospital staff and management, and the project communities, has been made and approved to ensure that clients can continue to access services.

The results of this pilot project have demonstrated that HIV/AIDS services can be effectively provided alongside other health

care services at the primary level of health care. The success of the project is a proof that public-private partnership in the provision of HIV and AIDS services is possible in Nigeria. It provides lessons for furthering public-private partnerships in scaling up HIV/AIDS response to meet increasing demand for services.

The NiDAR project has many achievements to its credit, several of which have been described in the pages of this report. NiDAR's most significant achievement is probably that it stretched the limits of what everyone assumed was possible in a place like the Niger Delta, with its infamous reputation for conflict and insecurity. The project demonstrated that with strong commitment and an earnest and flexible partnership amongst government, the private sector and a technical partner, it is possible to improve substantially the services provided to local communities and make a real difference in the lives and outlook of the people living in the Delta, and to do all this in a manner that is sustainable in the long run.

Annexes

Annex 1: Comments by stakeholders

The successful implementation and significant impact of the NiDAR project has warranted comments from stakeholders, who were excited by the improvements the project has made in the health of millions in the focal communities. This section highlights some of these comments.

HCWs in Owaza

“Many improvements have been observed since the introduction of comprehensive HIV/AIDS services through the NiDAR project. The training programs for various categories of health workers, including doctors, nurses, laboratory and pharmacy personnel, and medical records staff have impacted on their skills to deliver quality services to patients. Due to the increased awareness about HIV/AIDS services among the general population, there is increased inflow of patients from all parts of the state and beyond. This has contributed to the recognition of the community and the Owaza Cottage Hospital, unlike before when only few people knew about the community and the hospital.

A 14-year-old female orphan, who was infected with TB and HIV and had been written off by her uncle was resuscitated with anti-TB drugs and ARVs. By the time she came back for review, she was looking healthy. Her uncle has since then continued to express gratitude to NiDAR. A support group, which was established in March 2008, is growing in membership. The formation of this group has helped minimize stigmatization in the area. The NiDAR project has also brought the facility to limelight. The Clinton Foundation has recognized the Owaza

Cottage Hospital and invited the staff to share their experiences in pediatric treatment at the meeting of the National Network on Pediatric ART held in Enugu State.”

Elder Uka Uduma, Abia State SACA Project Manager

“The ART program in Owaza Cottage Hospital has provided easy access to ART by residents of Abia State and environs, who used to travel long distances to FMC Owerri in Imo state, the University of Nigeria Teaching Hospital, Enugu and Onitsha General Hospital to access ART services. We remain grateful to FHI and Shell for including Abia State in this project.”

Dr Ebi Monye, Medical Officer, NASCP

“NiDAR is a model that can be replicated in Nigeria and elsewhere in Africa as a public partnership response to HIV/AIDS.”

Dr George Nwolu, Permanent Secretary, Rivers State Ministry of Health

“NiDAR has contributed to the promotion of universal access initiative of the Rivers State government. We will continue to sustain HIV/AIDS services in Edagberi Cottage Hospital through integration into our existing logistics system.”

Jeph Sopuruchi Ikocha, Youth Leader, Owaza community

“The NiDAR project has raised the consciousness of our people, particularly youth, to realities of the HIV/AIDS pandemic, the need for risk perception assessment and importance of knowing one’s HIV status. We appreciate the efforts of Shell and FHI in executing this great initiative.”

Annex 2: Success story

Saved by a rural clinic

A former employee in the oil-rich city of Port Harcourt, who had lost hope of living, was revived through HIV/AIDS services provided by NiDAR in a rural clinic.

“I decided to tell my story because I know it can inspire someone. My name is Emma W. Obi. I am 44 years old and a former employee of a major company in the oil-rich city of Port Harcourt, Nigeria.

I started experiencing serious health challenges about a year ago, when I was afflicted by a strange illness that seemed to defy medical solution. I was taken to several hospitals in Port Harcourt but my condition did not improve. Because of the illness, I could not work for about nine months and, consequently, my employer had to terminate



Chief Emma Obi (right) during a repeat CD4 count test after his recovery

my appointment. I spent all my savings and the entitlements I received from my employer in search of a solution that never came. Then I started selling my properties to raise more money to settle my medical bills.

In spite of the huge amount of money spent on medical treatment, there was no clear diagnosis of the disease I was afflicted with, hence no improvement. Then my family decided to take me to my village, a town called Owaza in Abia State, to die! They kept me in a room alone with just one mattress and a radio. Almost everyone avoided me like the plague because no one was sure of the nature or the cause of my illness. The only contact I had with anyone was when they brought me food.

One day, my family invited a nurse from Owaza Cottage Hospital to check if I was still alive or dead, because my condition became worse. Fortunately for me, however, the NiDAR project was being implemented in the hospital at the time of her visit. When she saw me, she advised my family to take me to the village hospital and they did.

Health workers at the hospital counseled me by my bedside, tested me for HIV, and found that I was HIV positive. They conducted other diagnostic tests and then decided to place me on ART, with support and care services. I experienced some side effects, initially, because of the drugs, but gradually I started to recover.

Today I am a very different man from the one that they brought to the village several months ago to die. I am healthy! I am now a member of a support group and I'm dedicated to helping people living with HIV to live positively.”

Annex 3: NiDAR training programs

S/No. Technical area		Training theme	Date/duration	Venue	Participants
1.	PM	Project management	27–30 June 07 (4 days)	Warri, Delta State	14 HCWs from Owaza, Erhoike, Oben, Edagberi, Otuasega, FMC Yenagoa, and Okolobiri GH
2.	HCT	HCT	21 June–1 July 07 (10-day)	Warri, Delta State	23 HCWs from Owaza, Erhoike, Oben, Edagberi, Otuasega, FMC Yenagoa, Okolobiri GH, and SPDC
3.	SBC	SBC material development	3–7 July 07 (5 days)	Warri, Delta State	18 HCWs from Owaza, Erhoike, Oben, Edagberi, Otuasega, FMC Yenagoa, Okolobiri GH, SACA, and communities
4.	PMTCT	PMTCT	23–27 July 07 (5 days)	Warri, Delta State	33 HCWs from Owaza, Erhoike, Oben, Edagberi, Otuasega, FMC Yenagoa, Okolobiri GH, and SPDC
5.	Laboratory	Laboratory services	27–31 Aug. 07 (5 days)	Warri, Delta State	9 HCWs from Owaza, Erhoike, Oben, Edagberi, Otuasega, FMC Yenagoa, and Okolobiri GH
6.	Pharmacy	Pharmacy best practices	10–14 Sept. 07 (5 days)	Warri, Delta State	10 HCWs from Owaza, Erhoike, Oben, Edagberi, Otuasega, FMC Yenagoa, and Okolobiri GH
7.	M&E	M&E	3–7 Sept. 07 (5 days)	Warri, Delta State	19 HCWs from Owaza, Erhoike, Oben, Edagberi, Otuasega, FMC Yenagoa, and Okolobiri GH
8.	ART	ART/HCC	24–29 Sept. (6 days)	Port Harcourt, Rivers State	23 HCWs from Owaza, Erhoike, Oben, Edagberi, Otuasega, FMC Yenagoa, Okolobiri GH, and SPDC
9.	ART	Adherence counseling	10–12 Oct. 07 (3 days)	Warri, Delta State	12 HCWs from Owaza, Erhoike, Oben, Edagberi, Otuasega, FMC Yenagoa, and Okolobiri GH
10.	TB/HIV	TB/HIV	11–15 Feb. 08 (4 days)	Warri, Delta State	25 HCWs from Owaza, Erhoike, Oben, Edagberi, Otuasega, FMC Yenagoa, and Okolobiri GH
11.	TB	AFB microscopy	18–22 Feb. 08	Zaria, Kaduna State	10 HCWs from Owaza, Erhoike, Oben, Edagberi, and Otuasega
12.	Palliative Care/OVC	Palliative/OVC management	28 April–2 May 08 (5 days)	Port Harcourt, Rivers State	19 HCWs from Owaza, Oben, Erhoike, Otuasega, Edagberi, and SPDC
13.	RH/PMTCT	STI syndromic management/RH/PMTCT	19–23 May 08 (5 days)	Port Harcourt, Rivers State	20 HCWs from Owaza, Oben, Erhoike, Otuasega, Edagberi and 3 SPDC staff
14.	M&E	Weekly DHIS training and practice sessions on data import and export	Sept–Oct 08	Warri & Port Harcourt	SPDC staff

Annex 4: SBC materials produced for the NiDAR project

Type of material	Quantity
Posters (1,000 per model)	4,000
Cue cards	200
Cue charts	100
Healthy mothers healthy babies (flyer)	20,000
Staying healthy and living positively (booklet)	15,000
Basic home care (booklet)	10,000
HIV/AIDS - What to know and do (booklet)	20,000
Antiretroviral therapy (ART) (flyer)	20,000
Antiretroviral drugs for adults and adolescents (flyer)	20,000
Take the burden off your heart (flyer)	20,000
T-shirts	5,000
Caps	5,000
Stickers	5,000
<i>No condi</i> audio tapes	10,000

Annex 5: NiDAR project team

Shell Petroleum Development Company (SPDC)

- Dr Dudley Wang, Regional Manager Health, Shell Nigeria
- Dr Babatunde Fakunle, Corporate Manager, Community Health Services
- Dr Edet Edet, Assistant Manager, Community Health Services
- Dr Akinwunmi Fajola, Public Health Adviser
- Dr Olayinka Mosuro, Clinical Health Adviser
- Mrs Rosemary Isiekwena, Public Health Nurse and Journey Manager

Facility staff at the cottage hospitals

- Dr Rock Hemuka, Owaza
- Dr Golden Iwo, Edagberi
- Dr John Owie, Oben
- Dr Omu Ebikefe, Otuasega
- Dr Onamor, Erhoike
- All the other care providers in these sites

Family Health International (FHI)

- Ngozi Ezema, NiDAR Team Leader
- Dr Solomon Odafe, Senior Medical Services Advisor
- Jeph Oluwagbemiga, M&E Officer
- Ugochi Ezenwelu, CT/Laboratory Technical Officer
- Adeyemi Abiodun, M&E Officer
- Dr Babajide Keshiro, former Technical Advisor
- Dr Hadiza Khamofu, Associate Director for Medical Services
- Adamu Imam, former Director of Program Management
- Robert Chiegil, Director of Program Management
- Dr Mohammed Ibrahim, Director of Medical Services
- Dr Henry Mbah, Director of Laboratory Services
- Dr Mike Merrigan, Director of Monitoring and Evaluation
- Brigid O'Connor, Deputy Chief of Party (Management)
- Dr Christoph Hamelmann, Country Director

Annex 6: Standard operating procedure for routine data collection and management in NiDAR project



Standard operating procedure
for
routine data collection and management
in the
Niger Delta AIDS Response (NiDAR) Project

1. Introduction

The monitoring and evaluation system in NiDAR conforms to national and international standards, and applies best practices for managing routine data. NiDAR maintains a structured and organized system of collecting, aggregating and reporting data at different organizational levels. Data from NiDAR-supported facilities pass through the same organized structure, and at every level of the structure, data integrity must be assessed.

The NiDAR project supports five cottage hospitals across five states in the Niger Delta region. NiDAR's monitoring and evaluation team provides technical oversight for all monitoring and evaluation activities.

This document describes data management procedures, timelines and responsibilities at every stage of the data collection and reporting cycle.

2. Data flow

a. Compilation of paper-based monthly summary forms

At the end of each month, data from different HIV/AIDS-related program service areas (e.g. ART, PMTCT, lab, pharmacy, HCT, TB, etc.) are extracted from the program registers and from other tools at all supported facilities into the FMOH national monthly summary forms (MSFs). While health care providers, pharmacists and laboratory technicians are responsible for the correct maintenance of the data collection tools,

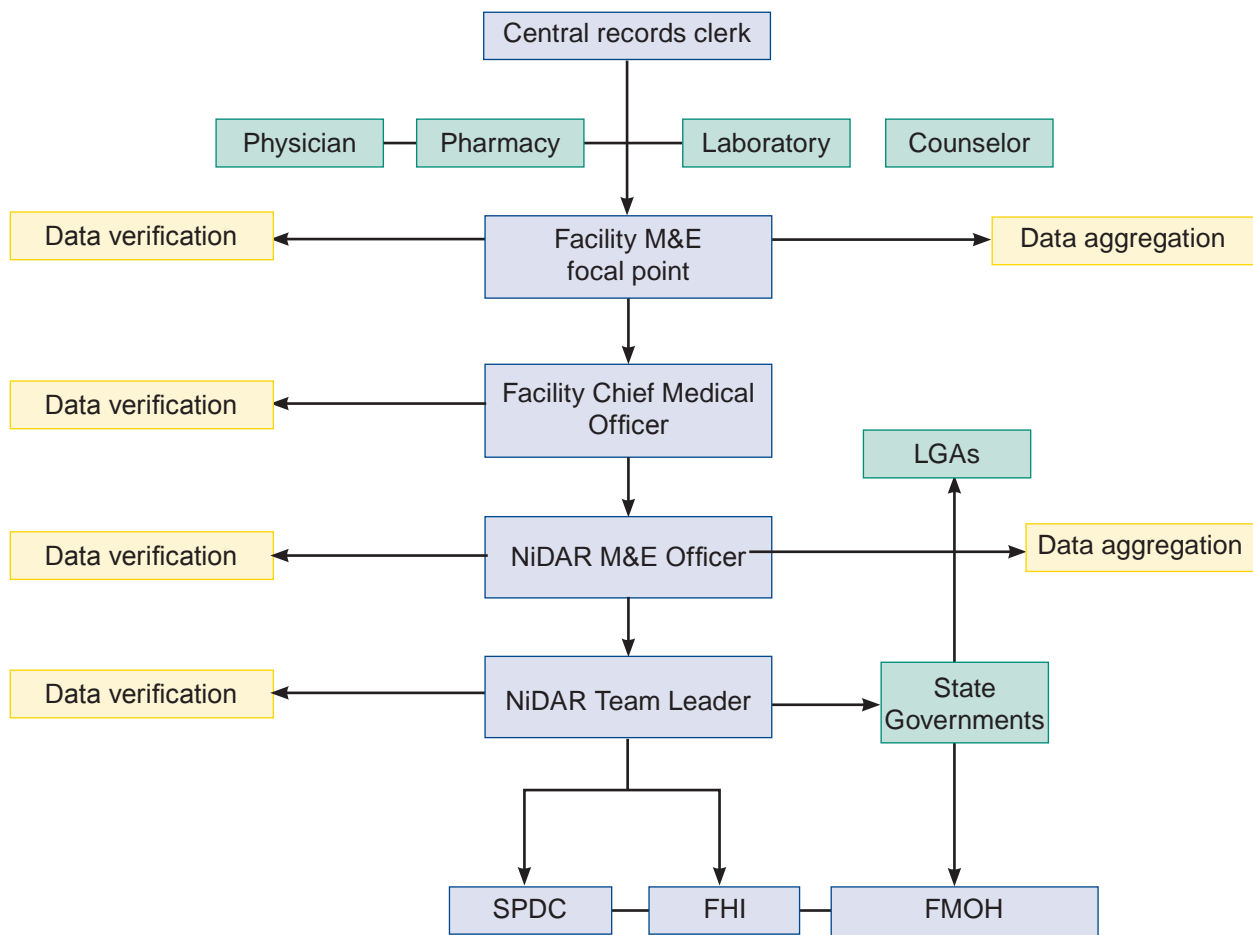


Figure 1: NiDAR project M&E framework for data flow, aggregation and verification

each facility has M&E focal persons who are responsible for ensuring that data from these tools are correctly aggregated and entered into the MSF in time. Once the MSFs are completed, they are passed on to the facility chief medical officer, who counter signs them after verifying the reported data.

b. Submission of paper-based monthly summary forms

During the first week of each month, the NiDAR M&E officer conducts routine monitoring visits to all supported facilities to provide on-site technical assistance and supportive supervision to M&E focal persons, and to collect paper-based MSFs from the facilities. Facility M&E focal persons are expected to submit a complete set of MSFs based on services delivered at their facilities. The MSFs are completed in triplicates and one copy is

always filed at the facility. The NiDAR M&E officer validates data submitted on MSFs during the visit to ensure that they accurately reflect services delivered and activities undertaken.

c. Entry of data into the District Health Information System

Following collection of the MSFs by the NiDAR M&E officer, data is entered into the District Health Information System (DHIS) by the second week of the month. The DHIS contains a list of all public facilities (including the NiDAR-supported facilities) in Nigeria, and data is entered according to geographical location of the institution (local government area and state).

Data entry templates have been customized for each program service area, and to correspond in layout with MSFs to reduce the potential for error.

The screenshot shows a Microsoft Access database window titled 'Microsoft Access - [Anti-Retroviral Therapy (ART)]'. The main window displays a data entry form for 'an Awka General Hospital' for the month of 'Oct-07'. The form is titled 'ART MONTHLY SUMMARY FORM' and contains a table with 19 data elements. The table is organized into columns for 'Males' and 'Females', with sub-columns for 'Non-pregnant' and 'Pregnant' under 'Females'. A 'Total' column is on the far right. The data elements are as follows:

Data Elements	Males		Females		Total
	-15	15+	Non-pregnant	Pregnant	
1. No of HIV positive individuals newly registered Pre-ART register	1	26	2	76	105
2. No of individuals newly initiated on ART	2	22	1	49	74
3. No of individuals who ever received ART	do not capture				
4. No of ART patients transferred in from other ART service points	0	1	0	4	5
5. No of ART patients transferred in from non USG supported ART service points	0	0	0	0	0
6. No of ART patients who stopped treatment for medical/social	0	0	0	0	0
7. No of ART patients who are lost to follow up	0	1	1	10	12
8. No of ART patients transferred out to another ART service point	0	0	1	2	3
9. No of ART patients known to have died	0	3	0	2	5
10. No of individuals receiving ART at the end of the reporting period	do not capture				
11. No of individuals who re-started ART	0	2	0	0	2
12. No of ART patients who came for a refill within 7 days of the appointment	5	158	6	288	465
13. No of ART patients who defaulted to come for a refill within 7 days of app	2	68	3	107	183
14. No of external onsite monitoring visit(s) conducted by government official(s) in-charge using standard check list					2
15. No of external onsite monitoring visit(s) conducted by TAC/Consultants using standard check list					1
16. No of ART service providers of facility newly trained					2
17. No of ART service providers of facility re-trained					6
18. No of trained ART service providers who provided the above services at the facility			Males	Females	Total
					10

Below the main table is a section titled 'PHARMACY ORDER FORM' with columns for 'Adult 15+', 'Child 15-', and 'Pregnant females', each with sub-columns for 'Males' and 'Females'. The data for this section is:

No of HIV+ individuals initiated on Co-trimozole	Adult 15+		Child 15-		Pregnant females	
	Males	Females	Males	Females	15-	15+
	41	37	11	12		

Figure 2. ART monthly summary form DHIS data entry template

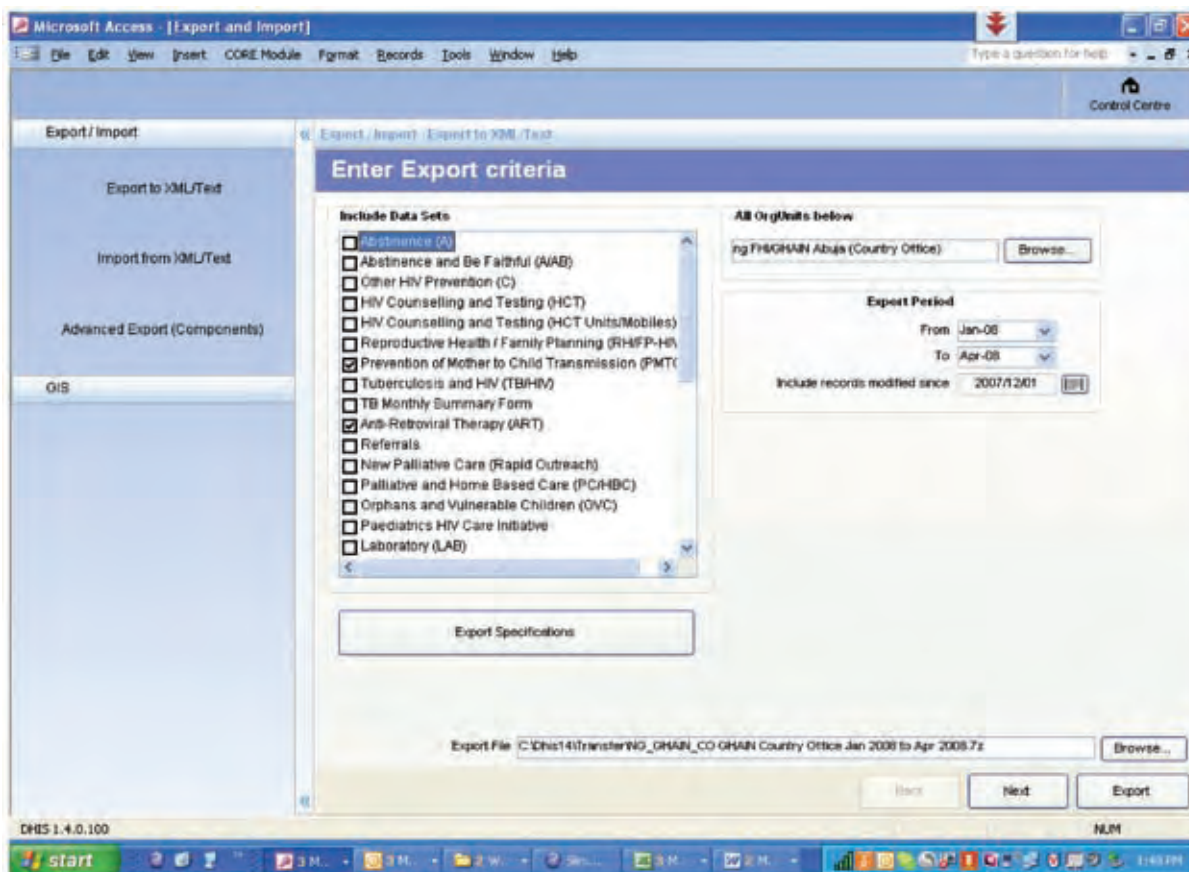


Figure 3. Screenshot of DHIS export/import module

d. Transmission of routine data to implementing partners

After reviewing the data for accuracy in the DHIS-generated pivot tables or charts, the NiDAR team leader sends the data to the implementing partners (FHI and SPDC) by the 15th of the month.

Data is transmitted through the process of data exchange and is sent through the DHIS export and import module. The data exchange protocol involves a compacted encrypted data transfer, while maintaining completeness of the data set based on the parameters specified during the export process. The algorithm of encryption can only be interpreted by the DHIS through the import process, meaning the encrypted file can be sent via email without violating the integrity of the data set.

e. Sharing data with state government authorities and relevant stakeholders

To contribute to the national M&E system and support the analysis and use of data at state and national levels, the NiDAR project is expected to export monthly data sets into SACA DHIS databases in the respective states. According to the Nigeria National Response Information Management System (NNRIMS) national operational plan 2007–2010, HIV/AIDS-related intervention data should flow from the states to the national government from all government facilities in both the Ministry of Health and the multi-sectoral coordinating agency.

f. Quarterly M&E meetings

Quarterly M&E meetings attended by the NiDAR team, facility M&E focal persons and other relevant staff will be convened to review data submissions. During these meetings, data analysis for the previous quarter will be presented and interpreted and performance issues will be discussed constructively.

3. Data management procedures and timelines

Table 1. Data management procedures, timelines, and responsible persons

Data management procedures	Date due	Responsible person (s)
Compilation of paper-based monthly summary forms	5th day of the month	<ul style="list-style-type: none"> Facility M&E focal person Chief medical officer
Submission of paper-based monthly summary forms	8th day of the month	<ul style="list-style-type: none"> Facility M&E focal person NiDAR M&E officer
Entry of data into the DHIS	Second week of the month	<ul style="list-style-type: none"> NiDAR M&E officer
Transmission of routine data of implementing partners	15th day of the month	<ul style="list-style-type: none"> NiDAR team leader
Sharing data with state government authorities and relevant stakeholders	25th day of the month	<ul style="list-style-type: none"> NiDAR M&E officer NiDAR team leader
Quarterly M&E meeting	Quarterly	<ul style="list-style-type: none"> NiDAR team M&E focal persons

4. Data collection and management roles and responsibilities

a. PHC M&E focal persons

The M&E focal persons provide support to ensure proper documentation of activities. They are responsible for:

- supporting service providers to capture summary data for services delivered
- maintaining patient folders and files and keeping them up to date
- maintaining confidentiality in storage of and access to patient information
- ensuring that changes to the registers are properly authenticated and documented
- using the registers to complete monthly summary forms for each program area
- participate in data validation exercises in the facility and quarterly M&E meetings

b. Facility supervisor/chief medical officer

- Overseeing the work of the M&E focal person

- Analyzing data during meetings of the project management team to look for gaps or unlikely trends in the data

c. NiDAR M&E officer

- Backstopping all NiDAR-supported facility M&E focal persons to ensure the completeness of registers and other source documents forming part of the national HIV/AIDS and HMIS data collection system
- Ensuring the completeness and accuracy of data transferred from registers and other source documents into monthly summary forms for each program area
- Ensuring that all data is ready and submitted on time as part of the monthly reporting cycle
- Ensuring that collection tools at the sites are complete and available, well sorted and filed
- Ensuring that at the end of the month three copies of the monthly summary forms are produced and that M&E officers take one copy to the office while the other two copies are retained at the facility

- Ensuring accurate capturing of the monthly summary form data into the DHIS every month
- Providing feedback to facility backstops in case of missing data or incorrect aggregation
- Ensuring that all signed monthly summary forms from supported facilities are well arranged and sorted in their individual folders at the NiDAR office by month
- Generating products like charts and power-point presentations (progress report) for periodic review
- Provides additional mentoring to facility M&E focal points
- Conducts DQA visits in supported facilities each month, using the national DQA tools

c. NiDAR team leader

- Supporting the M&E officer to maintain completeness and quality of data in the project
- Ensuring that complete datasets are submitted to implementing partners and stakeholders in time
- Reviewing and endorsing key performance data originating from the project prior to transmission to implementing partners



Country Office for Nigeria

**GODAB Plaza
Plot 1073 – A1, J. S. Tarka Street
Area 3, P.M.B. 44, Garki
Abuja, Nigeria.
Tel: 234-9-461 5555
Fax: 234-9-461 5511
E-mail: abu.communications@ghain.org**