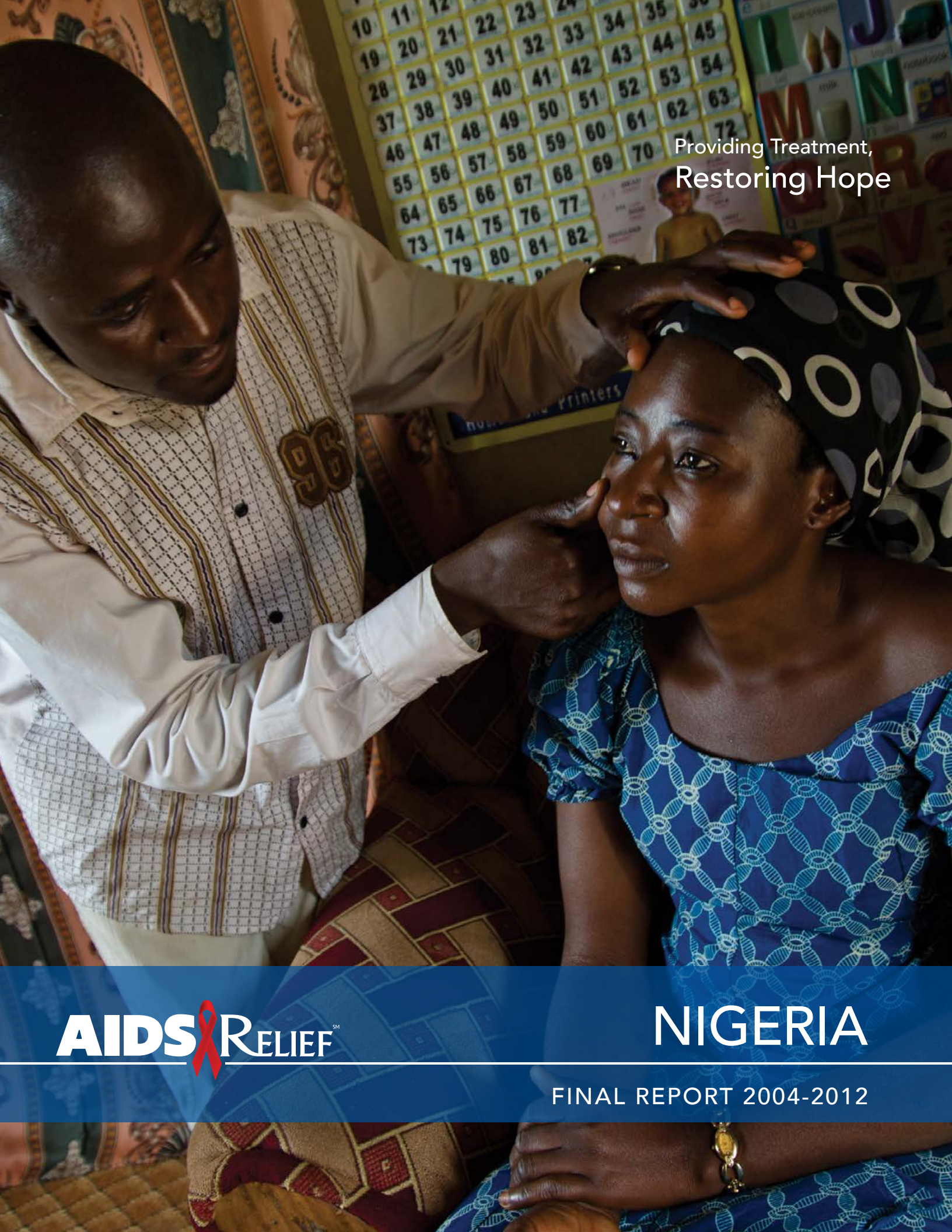

Providing Treatment,
Restoring Hope

AIDS RELIEF℠

NIGERIA

FINAL REPORT 2004-2012

AIDSRelief, a five-member consortium funded through the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), supported rapid scale up of HIV care and treatment services for poor and underserved people in ten countries across Africa, the Caribbean, and Latin America. Over nine years, the program served more than 700,000 people, including more than 390,000 who enrolled on antiretroviral therapy through 276 treatment centers.

AIDSRelief countries

AIDSRelief worked largely through rural facilities and established basic packages of care and treatment that exceeded what many thought possible in a resource-constrained environment. Instead of merely offering HIV tests and dispensing medicine, AIDSRelief helped broad cadres of health workers to identify and manage treatment failure or other adverse drug events; to diagnose, treat, and prevent opportunistic infections such as tuberculosis or pneumonia; and to provide patients with adherence counseling and support, empowering them to effectively manage their own treatment.

AIDSRelief consortium partners included Catholic Relief Services as prime grantee; the University of Maryland School of Medicine Institute of Human Virology as technical lead for clinical care and treatment; Futures Group as lead agency for strategic information; IMA World Health and Catholic Medical Mission Board as implementing partners; and Children's AIDS Fund as a key sub-grantee, operating sites in three countries.

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CRS CATHOLIC RELIEF SERVICES · INSTITUTE OF HUMAN VIROLOGY · Futures GROUP · IMA WORLD HEALTH · CMMB CATHOLIC MEDICAL MISSION BOARD

COVER PHOTO: KAREN KASMAUSKI FOR CRS; AFRICAN ART ILLUSTRATIONS (THROUGHOUT): STANISLAV/ALL-SILHOUETTES.COM

EXECUTIVE SUMMARY

From 2004 to 2012, AIDSRelief Nigeria expanded HIV care and treatment to nearly 110,000 patients, including more than 64,500 who enrolled on ART at 34 health facilities and 48 satellite sites. Consortium members Catholic Relief Services, University of Maryland School of Medicine Institute of Human Virology, and Futures Group worked hand-in-hand with local partners to build the skills and systems needed to support high-quality care. A deep commitment to partnership underscored AIDSRelief's relationships and capacity strengthening activities, which culminated in late 2011 when two local partners—the Christian Health Association of Nigeria and the Catholic Caritas Foundation of Nigeria—won new grants to receive PEPFAR funds directly and assume full responsibility for managing the program.

This report outlines key outcomes and lessons learned during the eight-year program. It also describes approaches and methods that contributed to the program's success.

HIGHLIGHTS INCLUDE:

- Patients on treatment in AIDSRelief-supported facilities maintained very high viral suppression rates—as high as 88.7%, indicating excellent adherence to treatment.[1]
- Community-based treatment support expanded services from clinic to community and contributed to low loss to follow-up (12.3%), high retention (83.2%), and very low mortality (6.3%)[2].
- More than 600,000 people were counseled and tested for HIV through a combination of facility-based, standalone and outreach testing, as well as provider initiated testing and counseling.
- Training and mentoring focused not only on clinical issues but also on comprehensive laboratory and pharmacy management, monitoring and evaluation, and organizational management. From 2008 to 2012, nearly 6,000 clinicians, nurses, pharmacy and laboratory staff, community volunteers, and other key health care workers were trained.
- A strategy of increasing points of service to reach more pregnant women and providing incentives by way of free ultrasound scans and delivery packs paid off with a 400% increase in testing from 2010 to 2011.
- A focus on strategic information prioritized comprehensive and timely access to clean, complete, and accurate data. Teams used data to make informed decisions to address gaps in program operations and services.

1 Based on a 2009 analysis of summaries of patients who had started ART a mean of 12 months prior to review. The analysis included retrospective chart review, viral loads, and patient adherence surveys. Earlier analysis in 2007 and 2008 indicated viral suppression rates of 86.7% and 83.4%, respectively.

2 Rates are derived from survival (time to event) analysis. At each time period, the probability of 'survival' is calculated. These 'survival probabilities' are then cumulated (multiplied) over several time periods. For instance, 12 month retention is a cumulation of survival probabilities over 12 one-month periods. Since mortality and LTFU are the reverse of retention, the rates are calculated as 100 % minus the survival probability

OUR CALL TO ACTION

HIV has ravaged sub-Saharan Africa for more than two decades, setting back a generation of progress made in life expectancy and maternal-child health, undermining economies, and pushing already fragile health systems to the brink. The prevalence of HIV in Nigeria is much lower than many other African countries (steadily 3% to 4% since 1992), but the country's share of the global burden is striking because Nigeria is Africa's most populous nation (162 million people[3]).

Life-saving antiretroviral therapy (ART) became available and increasingly affordable in the early 2000s, but the first efforts to roll out treatment were inadequate and threatened to siphon material and human resources from the overall health system. Early providers in Nigeria used clinical staging (as opposed to CD4 monitoring, which is dramatically more accurate) to determine which patients should receive therapy, and treated only the sickest HIV patients. Patients deemed eligible received a prescription (that rarely followed standard treatment guidelines), traveled to distribution points for their medication (for which they paid out of pocket), and often faced drug stock-outs when they got there. Most sites did not offer any type of adherence support or clinical monitoring; the entire patient-provider interaction consisted of ticking a name off a list and handing over a box of pills. Unsurprisingly, many patients dropped out of treatment and HIV-related morbidity remained high.

With the advent of PEPFAR came tremendous resources but indigenous organizations and providers initially lacked many of the systems, structures, and staff to manage these new resources, and the clinical skills to manage the complexities of ART.

AIDSRelief Supported Health Facilities 2004-2012

Ahmadiyya Hospital
Al-Noury Hospital
Annunciation Specialist Hospital
Bishop Murray Medical Center
Ebonyi University Hospital
Enugu University Hospital
ERCC Hospital
Evangel Hospital
Faith Alive Foundation
Faith Mediplex
Gembu Centre for HIV/AIDS
Grimand Hospital
Holy Rosary Hospital, Emekuku
Holy Rosary Hospital, Onitsha
Mater Misericordiae Hospital
Mother of Christ Hospital
Nigerian Christian Hospital
Our Lady of Apostle's Hospital
Our Lady of Lourdes Hospital
Plateau State Specialist Hospital
St. Anthony's Hospital
St. Camillus Hospital
St. Catherine's Hospital
St. Francis Hospital
St. Gerard's Hospital
St. John's Catholic Hospital
St. Joseph's Hospital
St. Louis Hospital
St. Mary's Hospital
St. Monica's Hospital
St. Patrick's Hospital
St. Thomas Hospital
St. Vincent's Hospital, Aliade
St. Vincent's Hospital, Kubwa

3 http://data.worldbank.org/country/nigeria

PHOTO: KAREN KASMAUSKI FOR CRS

AIDSRelief Nigeria was comprised of three of the five AIDSRelief global consortium members: Catholic Relief Services (CRS), Futures Group, and the University of Maryland School of Medicine Institute of Human Virology (IHV). The consortium partners worked together to implement a care and treatment model that emphasized its core components equally: clinical care, strategic information, and site management. This model was supported by a foundation of health systems strengthening activities designed to ensure excellent patient outcomes that can be sustained over time by local partners, a goal that is wholly dependent on a functional health system.

CRS was the prime grantee and provided overall program coordination and oversight for grant administration and compliance, in addition to coordinating representation of the grant to the United States government donor agencies; local government, particularly the Ministry of Health; and other stakeholders. IHV served as the clinical lead for AIDSRelief in developing and implementing activities that built local partners' capacity to provide comprehensive, high-quality HIV care and treatment within the framework of national policies and guidelines. Futures managed strategic information through data collection and analysis; monitoring; generation of reports for donors, government, and other key stakeholders; and development and implementation electronic health records and other health informatics applications.

Impact

Beginning in 2004, AIDSRelief worked with Nigerian institutions to help turn around the epidemic. When the program began, nationwide only 13,000 people were receiving ART. In support of Government of Nigeria and PEPFAR goals, over eight years AIDSRelief leveraged effective partnerships and needs-based capacity strengthening to deliver exceptional HIV care and support to nearly 110,000 people. More than 64,500 patients enrolled on treatment including 3,300 children. Patients on treatment in AIDSRelief-supported facilities maintained very high viral suppression rates—for five years, viral suppression remained steady at or above 83%, indicating excellent adherence to treatment.

More than 64,500 patients enrolled on treatment including 3,300 children.

AIDSRelief helped partner facilities to develop skills and establish systems to function more effectively and sustain high-quality HIV service delivery. With an eye toward long-term sustainability, each AIDSRelief country program identified local partners that could serve as umbrella organizations to these facilities, enabling effective coordination, monitoring, and supervision of sites, and reducing the number of entities reporting directly to the donor. Local transition partners in Nigeria were the Christian Health Association of Nigeria (CHAN) and the Catholic Caritas Foundation of Nigeria (CCFN).

PHOTO: KAREN KASMAUSKI FOR CRS

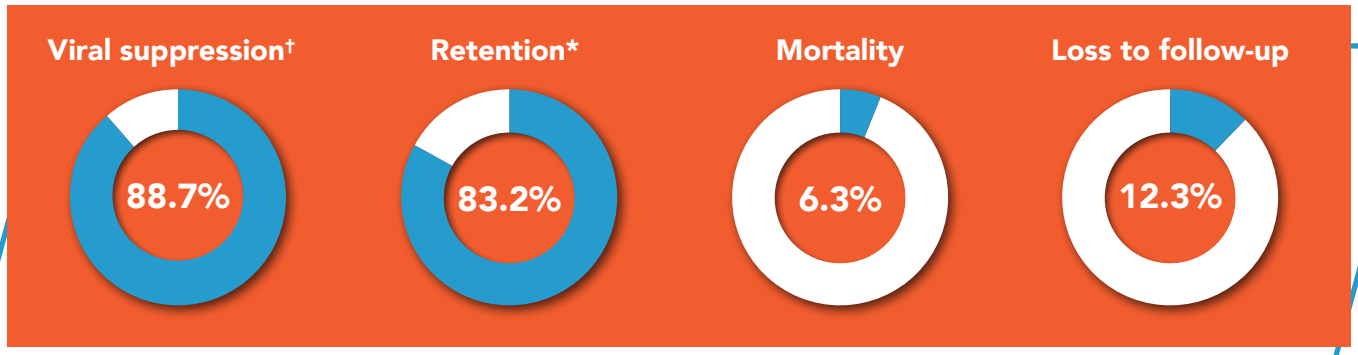
RAPID EXPANSION: A NETWORK OF TREATMENT FACILITIES

Initially, the Government of Nigeria and PEPFAR directed implementing partners to prioritize the country's highest-prevalence areas (such as North Central region); by 2006 partners were invited to work in other regions as well. AIDSRelief's most intensive scale-up period was 2006–2007. Recognizing their untapped potential to expand coverage of HIV care and treatment—and capitalizing on CRS's expertise and long-running relationships with the Church structure—AIDSRelief focused on faith-based facilities in Nigeria. The site-selection process involved consultations with Catholic dioceses as well as with other Christian and Muslim stakeholders.

Each facility participated in a dynamic assessment process to determine what the site needed in terms of material and capacity to begin delivering quality ART services. Treatment facilities were expanded and equipped. Financial and patient management systems were put in place. Hundreds of health workers were trained, and links were established with local clinical experts as well as with health institutions and organizations. Relationships with government health and social services agencies were strengthened.

The site-selection process involved consultations with Catholic dioceses as well as with other Christian and Muslim stakeholders.

AIDSRelief by the Numbers



† Based on an analysis of summaries for patients who had started ART a mean of 12 months prior to review.
* Rates are derived from survival (time to event) analysis. At each time period, the probability of 'survival' is calculated. These 'survival probabilities' are then cumulated (multiplied) over several time periods. For instance, 12 month retention is a cumulation of survival probabilities over 12 one-month periods. Since mortality and LTFU are the reverse of retention, the rates are calculated as 100% minus the survival probability.

PHOTO: KAREN KASMAUSKI FOR CRS

As HIV programs continue shifting from an emergency response to long-term care, it is imperative to assess treatment outcomes and provide technical support so that program scale-up does not come at the expense of service quality. AIDSRelief and its partner facilities made many changes that improved delivery and enabled scale-up of quality HIV services.

From the outset, AIDSRelief advocated for maximizing the initial ART regimen in an effort to ensure durable treatment outcomes and long-term cost control. This is especially important in low-resource settings where extensive laboratory monitoring and multiple treatment options are not available. In addition, the AIDSRelief model treated adherence as a therapeutic intervention. A patient's treatment experience included structured treatment preparation, adherence counseling, home visits by peer counselors, and community involvement. This emphasis on support networks helped patients adhere to their treatment plans and reduced the number of patients lost to follow-up.

Maternal-Child HIV Care

AIDSRelief approached prevention of mother-to-child transmission (PMTCT) services through the lens of maternal child HIV care. The program supported provision of comprehensive services at 33 health facilities and an additional 36 satellite sites. These services were integrated into antenatal clinics and included CD4 testing either on-site or through sample referral networks. To date, more than 170,000 pregnant women have been tested for HIV at these sites and more than 750 health care workers were trained in the provision of PMTCT services.

A strategy of increasing points of service to reach more women and providing incentives by way of free ultrasound scans and delivery packs paid off with a 400% increase in testing from 2010 to 2011. Other initiatives designed to improve coverage and adherence included re-organizing clinic flow for maximum convenience; coincident

...more than 170,000 pregnant women have been tested for HIV...

scheduling of antenatal, lab and counseling visits; and creating gender-sensitive areas for accompanying partners.

AIDSRelief Nigeria increased the number of children brought into care and treatment through a multi-pronged, family-centered approach that emphasized community mobilization and provider-initiated testing and counseling for all children. Exposed infants delivered in the health facilities were linked to ART clinics for care and support and aggressive community-based activities helped to identify >>

PHOTO: KAREN KASMAUSKI FOR CRS

those delivered outside a facility or lost to follow up. As a result, the number of children on ART grew from 10 in 2004 to 3,300 at the end of 2012.

Tuberculosis

AIDSRelief provided comprehensive TB-HIV care with a focus on introducing and implementing the WHO-recommended 3I's strategy: intensified case finding, isoniazid preventive therapy, and infection control. To this end, AIDSRelief Nigeria supported full integration of tuberculosis and HIV services at all its comprehensive treatment sites in collaboration with the national TB program. Sites were considered fully integrated if three conditions were met: TB patients were tested for HIV, HIV-infected patients received cotrimoxazole preventive therapy, and patients infected with both diseases received both cotrimoxazole and ART.

In addition, AIDSRelief was among the first providers in Nigeria to adopt and scale up isoniazid preventive therapy both for patients receiving palliative HIV care and those on ART, beginning with 500 patients at 7 treatment sites. The program also ensured co-location of TB and ART services; printed and supplied TB treatment cards, clinic registers and educational materials for clinical management of co-infected patients; trained healthcare workers in TB-HIV co-infection; modified reporting tools to include data about TB-HIV co-infection; and introduced several clinical screening and treatment protocols. AIDSRelief also provided support for laboratory infrastructure upgrades, including provision of bio-safety cabinets (at 22 >>

...the number of children on ART grew from 10 in 2004 to 3,300 at the end of 2012.

Advocating for the Best Care for Pregnant Women

Nigeria has the largest burden of mother-to-child transmission of HIV in the world in part because of a low testing rate of pregnant women, but also because the strategies used to prevent transmission—namely single-dose nevirapine—have had significant limitations. Evidence from resource-rich countries demonstrated that HIV-positive pregnant women and their children had much better outcomes when they received highly active antitretroviral therapy (HAART) from early pregnancy through cessation of breastfeeding. (HAART helps prevent HIV transmission through breastfeeding, but also improves the health of women who many not otherwise be considered eligible for treatment.) However, Nigeria's national guidelines did not include HAART for pregnant women as a preferred regimen.

In 2007, AIDSRelief felt there was enough scientific evidence for the efficacy of HAART in pregnant women and became the first and only Track 1.0 implementing partner to use this regimen. Because this was contrary to national guidelines, AIDSRelief simultaneously advocated with both CDC and Nigeria's national PMTCT technical working group to update the national guidelines.

Initially these consultations met some resistance, but AIDSRelief continued to champion the change. This campaign culminated in the first National Maternal and Child Health Summit in Abuja (funded by AIDSRelief in 2010). At the summit, experts from across Nigeria discussed pertinent issues including the choice of regimen for PMTCT. AIDSRelief shared evidence that program-supported patients receiving HAART had a transmission rate of less than 2%. This further strengthened the argument to use HAART to reduce vertical transmission of HIV and to improve care for pregnant women.

As a result of these advocacy efforts, HAART for all pregnant women was included in the final national PMTCT guidelines in 2010.

sites), LED microscopes (18 sites) and reagents, and also trained laboratory staff in TB diagnostic methods.

AIDSRelief trained health facility staff and spearheaded teams that conducted TB transmission risk assessments at their facilities and for the first time documented an infection control plan. To improve diagnosis, more than 300 clinicians, nurses, counselors and laboratory staff were trained in TB-HIV co-management, recording, reporting, and infection control.

The project also established a "cough triage" that fast-tracked HIV patients from the waiting area if they presented with a cough (for infection prevention), improved upon contact-tracing protocols for TB-infectious patients (case-finding), and was among the first implementers to apply ARV treatment preparation and counseling methods to long-term TB treatment (adherence).

Orphans and Vulnerable Children

AIDSRelief worked with community-based organizations to serve orphans and vulnerable children (OVC) affected by HIV. State-level ministries helped the program to identify existing OVC organizations and AIDSRelief selected three as partners: New Millennium Foundation, Community Support and Development Initiative (CSADI), and Care for the Child Organization. AIDSRelief funding and capacity strengthening (similar to the model employed at treatment sites) has helped each organization to provide a more comprehensive package of care to children and to improve the overall quality of services. The organizations have met all of their targets under AIDSRelief and are strong competitors for funding by other donors and NGOs.

CSADI helped the Ministry of Women's Affairs and Social Development (under which OVC programming falls) and UNICEF to pilot national standards for care and helped leverage educational block grants from AIDSRelief to guarantee primary school education to hundreds of orphans supported by the program. The New Millennium Foundation provided health insurance for more than 600 HIV-negative OVC in 2011 (HIV-positive children in Nigeria receive free care).

Infrastructure & Equipment

Based on each facility's needs, AIDSRelief funded and managed refitting of the physical structure at each of the 34 treatment facilities and 48 satellites, purchased essential equipment, and encouraged integration of HIV and non-HIV services when appropriate so that facilities could leverage the improvements for all patients. For example, a well-run, integrated pharmacy offers better services to all clients whether they need ARVs, basic antibiotics, or diabetes medication. Facilities now have improvements such as infection control measures in laboratories and clinics, private areas for patients receiving HIV test results or adherence counseling, and adequate space for co-located HIV and TB services. All treatment sites were equipped to carry out HIV testing, chemistry and hematology analysis, and automated and manual CD4 tests.

Clinical Skills & Knowledge

Even the best-equipped facility is lost without enough trained, competent staff and an enabling working environment. To make the most of physical and material improvements at each site, AIDSRelief clinical and site management staff worked with their counterparts at each facility to ensure that sites site had enough workers and that those workers had or could acquire the necessary skills and resources to do their jobs.

When AIDSRelief began work in Nigeria, antiretrovirals were uncommon and few providers had been trained to manage the complexities of long-term ART. Furthermore, providers were most familiar with treating acute infectious diseases; the long view required of providers and patients for chronic disease management was an uncommon concept. To raise competence and confidence among providers, AIDSRelief collaborated with national and state agencies for HIV control and other implementing partners to develop national curricula and guidelines, to conduct on- and off-site training and mentoring, and to provide needs-based technical assistance and continuing medical education.

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Treatment Preparation, Counseling, & Community Support

A key element of AIDSRelief's success was community-based treatment support, a cross-cutting program at all facilities. The comprehensive program emphasized strong links between people living with HIV, their families, and their communities and health facilities. Each patient's treatment experience included structured treatment preparation, adherence counseling, highly supported treatment initiation with home visits by peer counselors, and community-based treatment support. This emphasis on support networks helped patients adhere to their treatment plans and reduced the number of patients lost to follow up.

Before starting treatment, all patients participated in at least three structured counseling sessions to help them better understand the importance of adherence and the dedication required of and resources available to them as they embarked on the life-long therapeutic regimen. Patients were strongly encouraged to have a "treatment buddy"—a friend, family member, or other confidant—to join them at these sessions. After initiating treatment, patients attended adherence counseling as part of their monthly prescription-refill visits and were further supported by home visits from community supporters. These sessions presented an opportunity for counselors to answer questions, identify potential adherence challenges and opportunities, and reinforce messages about effective treatment. In one example, a patient's husband had passed away and tradition required her to remain in the family's home during a mourning period. Because the period conflicted with the patient's scheduled ART visit, she called her community supporter who made arrangements at the facility and discreetly delivered the medication to the patient in her home, while also offering condolences and emotional support.

Many treatment support specialists—and many adherence counselors—are on ART themselves, providing a unique perspective to other patients. Furthermore, these counseling and support roles help provide people living with HIV a chance to earn additional income. These approaches may be adaptable for other diseases that require diligent adherence and long-term care and treatment (such as tuberculosis, diabetes, hypertension).

Strengthening Health Systems through Nurse Refill Services

For the first several years of AIDSRelief, patients saw a physician and an adherence counselor at every visit, even if they were only picking up their monthly supply of medication. This helped ensure that thousands of new patients received expert care when they were at their most vulnerable (very ill or in the first several months of treatment). Because physicians are in short supply across Nigeria, this also often led to long wait-times and backlogged clinic records.

In response, AIDSRelief launched a pilot in 2009 to demonstrate that nurses could learn to safely provide ART refill services, absorbing some of physician caseload and decongesting clinics without compromising service quality. Now 12 clinics offer the service to eligible patients. The reduction in waiting times benefits all clients by making clinic visits an errand instead of an all-day affair taking them away from jobs and household responsibilities.

The 2009 pilot confirmed that shifting routine refill services from physicians to nurses reduced wait times from upwards of three hours to just 35 minutes, made patient flow in the clinic more efficient, and improved documentation. Nurses have improved their clinical decision-making skills and expanded their roles, and physicians gained time to focus on evaluating and stabilizing more complex patients. The nurse refill program also alleviates health workforce shortages and contributes to patient satisfaction.

COMMODITY SECURITY: PHARMACY & SUPPLY CHAIN MANAGEMENT

Access to medicines and commodities such as lab reagents or clean needles for drawing blood is the cornerstone of successful HIV care and treatment and requires a dependable supply chain and competent, trained pharmacy staff. As in other technical areas, needs-based training and accompaniment were hallmarks of capacity building among supply chain and pharmaceutical management staff.

A Reliable Supply Chain

A reliable supply of antiretroviral drugs and medications to prevent and combat opportunistic infections helps ensure adherence and excellent treatment outcomes and keeps drug resistance at bay. Consistent and adequate laboratory supplies allow providers to identify and monitor patients infected with HIV and opportunistic infections.

AIDSRelief-supported sites in Nigeria purchased lab commodities through CRS and ARVs through a pooled procurement mechanism coordinated by the Supply Chain Management System (SCMS) Project.[4] In support of accurate ordering, AIDSRelief and facility staff worked together to generate forecasts based on the previous year's month-by-month usage, to establish electronic inventory systems, and to identify necessary infrastructure upgrades such as air-conditioning and shelving for storage areas.

Skilled Pharmacy Staff

AIDSRelief helped pharmacy staff to improve their skills for proper forecasting, inventory, storage, and dispensing of medicines using industry standard approaches (such as analyses of the prior year's usage or morbidity rates to accurately estimate inventory needs). Pharmacists also play a key role in patient care and data analysis as they are well-positioned to notice issues such as potentially adverse drug interactions or an unexpected change in drug inventory that might indicate a shift in patient population or a need for refresher training in standard treatment guidelines.

AIDSRelief technical teams struggled to adapt curriculums and trainings to the wide variety of skills and qualifications held by pharmacy managers. The AIDSRelief capacity strengthening approach suited these challenges exceptionally well: needs-based, side-by-side technical support and mentoring allow trainers to give different sites and facilities as much or as little assistance as they need to meet quality of care standards.

Pharmacy capacity building included training pharmacy staff to forecast ARV needs, store and dispense medications appropriately, and the installation of an electronic dispensing tool and software to improve the quality of reports. Standard operating procedures were developed to guide pharmacy staff in all aspects of their work. These activities were expanded when, in 2010, the AIDSRelief Nigeria supply chain team trained the Government of Nigeria's TB-DOTS program staff in inventory management, forecasting and quantification, and monitoring utilization of commodities.

4 Pooled procurement streamlines the purchase and distribution of bulk commodities such as ARVs by bundling orders from multiple pharmacies, projects, and even countries. SCMS coordinates pooled procurement across 19 PEPFAR-supported countries. It was established under PEPFAR in 2005 to ensure the availability of essential products (notably, HIV-related medicines) for programs in developing countries, and to strengthen national supply chain management systems.

PHOTO: KAREN KASMAUSKI FOR CRS

STRATEGIC INFORMATION: TRANSFORMING HEALTH SYSTEMS & PATIENT CARE

To evaluate the successes or struggles of patients, facilities, and programs, comprehensive and timely access to clean, complete, and accurate data is a top priority. In keeping with AIDSRelief's commitment to excellent patient outcomes, informed decisions, and continuous quality improvement, strategic information was a technical pillar from the earliest stages of program design. AIDSRelief strengthened health information systems at supported facilities through a three-pronged approach: monitoring and evaluation, data demand and information use, and health management information systems, involving the deployment and use of electronic medical records.

Creating a Culture of Data Use

Strong health information systems can revolutionize patient care and site management, change the face of resource allocation, and shift an entire country's response to an epidemic like HIV. Yet the foundation of data use—program data collection and reporting—can be misperceived as an administrative burden. Before receiving AIDSRelief support, most clinics lacked effective record-keeping systems for patient management and aggregation of data at the site level, and most facility staff did not differentiate between reporting (to donors and government) and data use (leveraging data to support decisions or activities).

AIDSRelief advocated for staff to have adequate time and resources to collect and analyze data regularly, improving data quality and analyses. Strategic information experts also worked with facility staff in different ways to use statistical analysis to extract meaningful information. Together, these efforts and targeted capacity strengthening and technical assistance helped create a culture of timely, data-driven information use that has transformed management and patient care.

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Electronic Medical Records & Paperless "e-Clinics"

One of AIDSRelief's key achievements was strengthening the capacity of facilities and their staff in using electronic health information systems and good monitoring and evaluation practices. Initially, the staff at Ahmadiyya Muslim Hospital in Kano did not understand the systems and thought they were not useful, but they caught on quickly. Now, with a click of the mouse, data staff can tell you the number of patient visits scheduled for any day, highlight patients who have missed appointments, and schedule future appointments without having to manage reams of paper. In addition to helping providers and managers work more efficiently, the system also has pleased the patients. In particular, many are delighted to receive text messages reminding them of upcoming appointments or reaching out to them if they miss a clinic visit—data easily viewed and retrieved from the facility's patient database.

By the end of 2010, Ahmadiyya had gone entirely paperless—providers input patient information directly into the computers, improving efficiency and reducing error by eliminating the need to transfer patient information from paper forms to the database. By providing equipment and meaningful capacity strengthening, and capitalizing on the commitment of Ahmadiyya's dedicated staff, the e-Clinic is poised for long-term success.

AIDSRelief helped create a structure and a culture within which clinicians and data managers now collaborate, see the value and interconnectedness of each other's work, and can associate that work with patient outcomes, site management and improved teamwork.

Evidence-based Program Quality Improvement

Data can be a powerful tool. To optimize its analysis and use, AIDSRelief emphasized the careful management and practical application of data in all facets of patient care and facility management. By linking clinicians and data managers through combined training (formal and informal), assessments, evaluation meetings, and other activities, AIDSRelief helped create a structure and a culture within which clinicians and data managers now collaborate, see the value and interconnectedness of each other's work, and can associate that work directly with patient outcomes, site management, and improved teamwork. For example, a routine monthly report might reveal a facility-wide gap in cotrimoxazole prophylaxis among pre-ART patients. Further investigation could then determine possible explanations and responses: a pharmacy stock-out that could be resolved by supply chain management, or a provider who is unfamiliar with national guidelines and can benefit from refresher training or mentoring. These analyses can—and should—be done at the facility level, engaging those managers and clinicians who best know their context.

PHOTO: KAREN KASMAUSKI FOR CRS

LASTING CHANGE

Each AIDSRelief country program was designed to transition management of the program to a local partner, but the early project years were necessarily focused on initiating patients on treatment. As transition moved to the forefront, the program's scope of work became clearer: 1) strengthen health facilities for sustainable provision of care and treatment services, and 2) strengthen and reinforce the capacity of local partners CHAN and CCFN to oversee and maintain the quality of services.

As the project moved toward transition, AIDSRelief continued to support the provision of quality care at health facilities while also considering their organizational capacity (e.g., management of human and material resources, governance, planning and budgeting). Furthermore, AIDSRelief and the local partners came together to determine how best to ensure their success in absorbing responsibility for AIDSRelief-supported sites and maintaining quality of care. The resulting framework became the basis of the program's transition plan.

To become a local partner for transition or a direct recipient of PEPFAR funding, local partners had to come into compliance with stringent regulations and meet criteria set forth by the U.S. government. AIDSRelief worked with CHAN and CCFN to position them for the new and expanded responsibilities they would face in transition. By bolstering systems and procedures and training and mentoring staff, AIDSRelief helped strengthen each organization's capacity to effectively manage large U.S. government grants and sub-grants, and to deliver high-quality mentoring, supervision, and oversight to facilities. Additionally, by establishing and reinforcing systems, improvements were not dependent on individuals who might move on to other opportunities.

This gradual shift from international management to local ownership culminated in 2011, when the local partners demonstrated their readiness for local leadership, management and ownership by developing a competitive funding application that won a new grant from the U.S. Centers for Disease Control and Prevention (CDC). CHAN received PEPFAR grant funds directly to oversee the Comprehensive HIV/AIDS Response: The Interfaith Solution (CHARIS) project. CCFN and the Centre for Clinical Care and Research Nigeria became sub-grantees to CHAN on the CHARIS project.

PHOTO: KAREN KASMAUSKI FOR CRS

CONCLUSION

AIDSRelief was created to ensure that people living with HIV could access high-quality care and treatment and that local entities would be able to maintain these life-long services after the grant ended. By simultaneously scaling up quality HIV care and treatment, working to strengthen the entire health system, and encouraging integration where appropriate, AIDSRelief helped ensure that the wide reach of services did not come at the expense of service quality and that the emergency response to HIV did not devastate other health services. In fact, the AIDSRelief program helped individual facilities and state- and central-level government bodies better serve all patients and operate more efficiently and effectively.

Because of the intensive partnerships and capacity strengthening inherent in the program's design, facilities once supported by AIDSRelief are poised to expand and maintain the level of care that patients now expect and have always deserved. State and national policy such as medical curricula and treatment guidelines are current, and decision-makers at all levels believe in the power of evidence and their own experiences to continuously improve services and systems for superb patient outcomes and effective management.

ACKNOWLEDGEMENTS

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Patients Served by AIDSRelief in Ten Countries

Country	# Sites	Cumulative ever in care and treatment at transition	Cumulative ever on ART at transition	Current on ART at transition (incl. adults and pediatrics)	Current pediatrics on ART at transition
Ethiopia	5	4,125	2,179	1,062	144 (13.6%)
Guyana	3	2,443	1,519	1,083	74 (6.8%)
Haiti	11	14,644	6,473	4,469	306 (6.8%)
Kenya	31	141,734	88,615	60,549	6,320 (10.4%)
Nigeria	34	109,872	64,564	52,559	3,301 (6.3%)
Rwanda	20	11,928	6,698	4,850	670 (13.8%)
South Africa	28	73,293	35,038	21,204	1,518 (7.2%)
Tanzania	102	165,488	85,673	44,924	3,414 (7.6%)
Uganda	23	87,943	45,221	35,047	3,263 (9.3%)
Zambia	19	96,247	60,041	42,783	3,197 (7.5%)
Total	**276**	**707,717**	**396,021**	**268,530**	**22,207 (8.3%)**

CRS CATHOLIC RELIEF SERVICES

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