NIGERIA

INNOVATION AND PARTNERSHIP: ICAP SUPPORT AND THE TRANSFORMATION OF HIV CARE

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UNITED STATES PRESIDENT'S EMERGENCY PLAN FOR AIDS RELIEF

Contents

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A staff member from the Township Clinic in Wanune rides a motorbike provided by ICAP, carrying a cooler with blood samples to Wanune General Hospital for CD4 tests.

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ADDRESSING THE GLOBAL HIV EPIDEMIC

Globally, 34 million people are living with HIV,[1] and 7,000 are newly infected each day.[2] As of 2011, HIV has infected more than 60 million people and caused at least 30 million deaths.

In the face of such overwhelming figures, it is easy to lose sight of the remarkable strides that have been made in the response to HIV over the past decade. Millions of people living with HIV have built better futures for themselves, their families, and their communities as a result of innovative, effective HIV prevention, care, and treatment programs.

A Global Response

At the end of 2010, roughly 6.65 million people in low- and middle-income countries were receiving antiretroviral therapy (ART),[3] almost a 22-fold increase since 2001 and an achievement that many considered impossible 10 years earlier. Over the same period, the rate of new HIV infections in 22 of the most severely affected countries dropped by more than 26 percent.[4]

A major reason for this dramatic turnaround has been the initiation of the United States President's Emergency Plan for AIDS Relief (PEPFAR), which was launched in 2003. Now, having reached its eighth anniversary, it has proved notable in its size, scale, and impact on increasing access to HIV prevention, care, and treatment and has proven one of the most successful large-scale global public health undertakings ever. By September 2011, the US government had directly supported ART for 50% of the global response—more than 3.9 million men, women, and children worldwide, and more than 13 million of those in HIV care and support services.[5]

Understanding how this turnaround was achieved can help inform health and development efforts around the world.

Key Partner

In 2002, in response to the United Nations Secretary General's Call to Action, the Mailman School of Public Health at Columbia University helped to establish the MTCT-Plus Initiative to address the HIV treatment and care needs of

impoverished communities around the world. This initiative, funded first by a coalition of private foundations and subsequently expanded with funding by the United States Agency for International Development (USAID), supported provision of comprehensive and specialized care, including ART, to HIV-infected women, their partners, and their children identified in prevention of mother-to-child transmission (PMTCT) programs. Mailman's experience implementing the MTCT-Plus Initiative helped to inform the model and approaches later adopted by ICAP.

Columbia University's role in implementing PEPFAR began in 2003, when it received funding from the Global AIDS Program of the Centers for Disease Control and Prevention (CDC) under the University Technical Assistance Projects (UTAP) to support the development of important components of national HIV programs, including treatment protocols and training. In 2004, ICAP was founded and was awarded a new cooperative agreement from CDC under the PEPFAR framework to provide comprehensive HIV care and treatment in five countries: Kenya, Mozambique, Rwanda, South Africa, and Tanzania, with programming in Côte d'Ivoire, Ethiopia, and Nigeria subsequently added. This initiative, the Multicountry Columbia Antiretroviral Program (MCAP), has rapidly expanded programs for HIV care and ART by promoting early diagnosis of HIV infection, maintaining the health of those living with HIV, and preventing further transmission of HIV within the community. MCAP programming between 2004 and 2012, in addition to being focused on rapidly scaling up care and treatment in partnership with host-country governments, also has emphasized the full continuum of HIV-related services, continued capacity building and health systems strengthening, and transition of operations to host governments and local nongovernmental organizations.

Today a global leader in HIV service delivery, human capacity development, and systems strengthening, ICAP has supported over 2,400 facilities across 21 countries. More than one million people have accessed HIV services through ICAP-supported programs, and approximately one patient in 10 receiving PEPFAR-funded ART in sub-Saharan Africa is obtaining it at an ICAP-supported health facility.

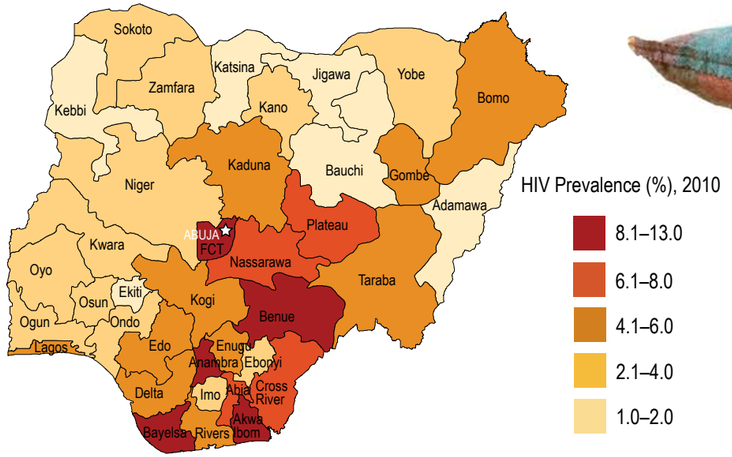
ICAP is grounded in the belief that HIV services should be universally accessible and that people in resource-poor areas can adhere to life-saving treatment regimens. ICAP works with ministries of health, local organizations, and people living with HIV to develop sustainable, locally appropriate HIV prevention, care, and treatment programs that are integrated with national AIDS control programs. ICAP's comprehensive model consists of:

- **A family-focused approach** to HIV prevention, care, and treatment services
- **Support for multidisciplinary teams** of health care providers
- **A continuum of clinical and supportive services** to meet patient and family needs at every stage of HIV disease
- **Programs to promote retention and adherence** to HIV care and treatment
- **Empowerment** of patients and their families
- **Linkages** to community resources
- **High-quality services,** with carefully set standards of care and methodologies for program evaluation, operations research, and program improvement

HIV in Nigeria

The most populous country in Africa, with a population of more than 155 million,[6] Nigeria has an overall 4.1% HIV prevalence, accounting for 10% of the global HIV burden; after South Africa, it has the world's second largest population of people living with HIV—3.3 million.[7,8] State-level statistics reveal the diversity of Nigeria's HIV epidemic—among Nigeria's 36 states, HIV prevalence ranges from 1% in Kebbi to 12.7% in Benue State.[9]

Heterosexual transmission accounts for 80% of all infections in Nigeria, and mother-to-child transmission and infected blood and blood products each account for 10%.[10] Many factors drive the HIV epidemic in Nigeria, including inaccurate



perceptions of risk behaviors, poverty, gender inequality, formal and informal transactional and intergenerational sex, stigma, and inadequate health services.

Efforts to respond directly to HIV began in earnest in 1991.[11] An ambitious ART program was launched in 2002, and the number of facilities offering HIV care and treatment began to increase. In 2006, the government began providing ART at no charge.

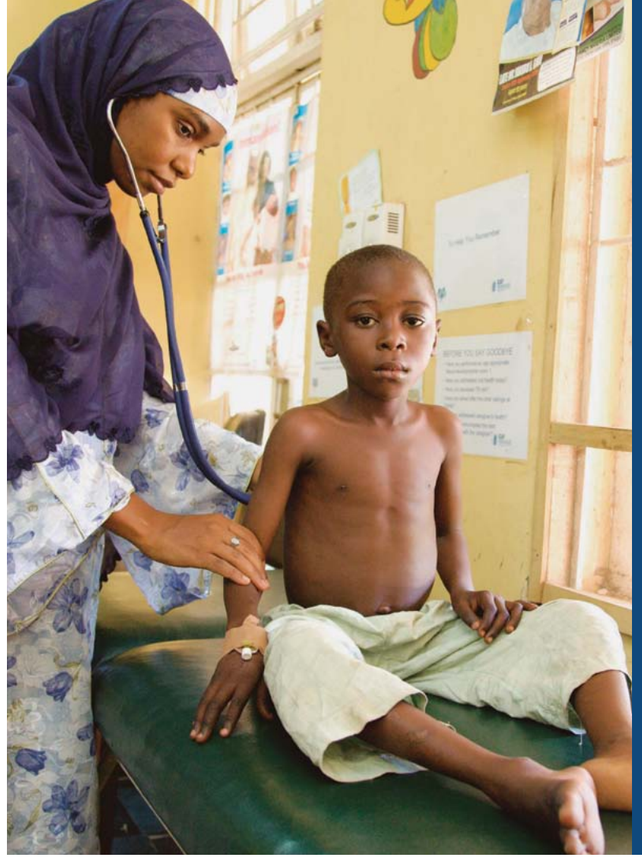
Although the national program has dramatically expanded over the past several years, further scale-up of HIV testing and counseling, prevention of mother-to-child transmission, and HIV care and treatment services is needed. Only 14% of adults aged 15–49 have been HIV tested and received results.[12] In addition, although there has been growth in numbers of HIV-infected pregnant women receiving antiretroviral prophylaxis to prevent transmission of HIV to their newborns, coverage remains low and Nigeria still contributes 29% of the global gap in reaching the international community's target of 90% of pregnant women living with HIV receiving PMTCT services.[13] Coverage for HIV-exposed infants also remains low—with only 2% of HIV-exposed infants receiving cotrimoxazole within two months of birth. Finally, only 23% of adults with a CD4 count of less than 350 cells/mm^3 are receiving treatment. Scaling up all of these services is crucial to averting the human suffering caused by AIDS-related morbidity and mortality and to curbing the generalized HIV epidemic in Nigeria.

Poor infrastructure, insufficient funding, and a shortage of skilled medical personnel disproportionately affect rural areas and challenge the health sector despite the significant investment in scale up.

The Evolution of ICAP Programs in Nigeria

In 2005, ICAP was asked to expand the coverage of its Multicountry Columbia Antiretroviral Program in order to support HIV services in Nigeria. ICAP subsequently opened an office in Abuja and, in 2006, began to support comprehensive HIV care and treatment services, in collaboration with the Government of Nigeria, in Kaduna and Cross River states. With successful initial implementation, this portfolio expanded, in 2007, to include Benue State and, soon after, Gombe, Kogi, and Akwa Ibom states. To more effectively support this expanded portfolio, three regional offices were established—one in the North-East region, a second in the North-West region, and a third in the South-South region. In addition, over the entire period, the number of ICAP staff in Nigeria increased dramatically.

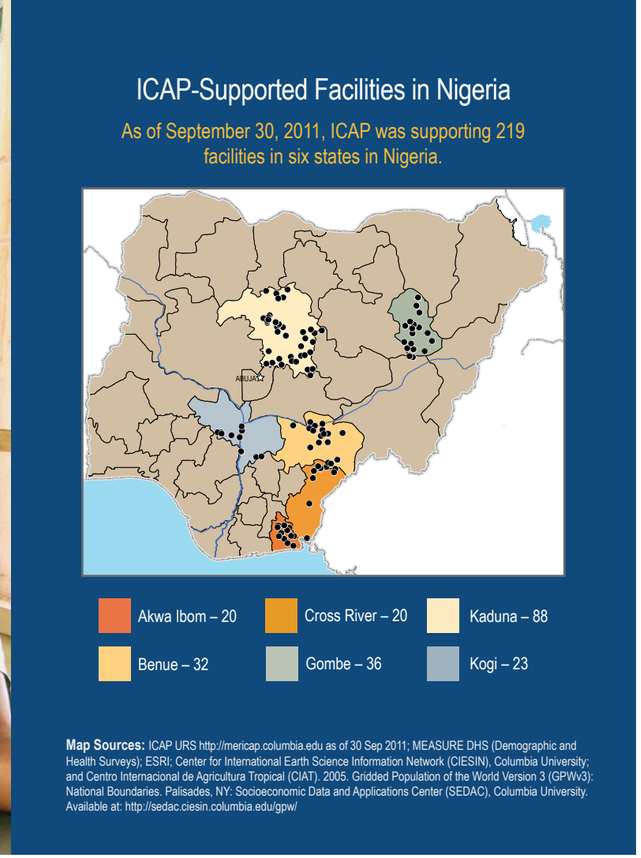
ICAP's geographic expansion was coupled with a rapid increase in the number of health facilities supported in each state. By the end of 2008, ICAP supported 31 facilities offering comprehensive HIV care and treatment services, 131 PMTCT facilities, 22 HIV testing and counseling facilities, and 65 TB/HIV integration facilities—many in rural and semirural areas—across all six states. Supported facilities included public, private, nonprofit, for-profit, faith-based, primary, and secondary health facilities; partnerships with this broad range of sites facilitated the targeted expansion of services according to where people in particular communities were already seeking health services. Following the initial intense phase of rapid scale-up, which focused largely on establishing necessary systems and initiating ART service provision at supported health facilities, ICAP's focus increasingly shifted toward developing capacity for quality improvement at all levels. By 2011, ICAP was supporting services and working to build capacity at 38 comprehensive facilities, 178 PMTCT facilities, 202 HIV testing and counseling facilities, and 82 TB/HIV integration facilities across six states. Of the 38 comprehensive facilities, 33 were supported with MCAP funding.



A child is treated at the pediatrics unit at the Barau Dikko Specialist Hospital in Nigeria.

"I was never open to people knowing my status until I came here. I was always sick, even though I obtained treatment. But after I had all the training from ICAP, I became healthier. I used to weigh 40 kg; now I weigh 70kg. I used to struggle with disclosure; now I have no shame disclosing my status. Of the people who used to run away from me, some have become my friends. The lives of my family members and my relationships with them have improved. My CD4 count used to be 202; now it is 688."

—A client receiving treatment at an ICAP-supported facility in Benue State



A Family-Focused, Multidisciplinary, and Integrated Model of Care

ICAP's model of care serves as an important foundation for its programs in Nigeria. This model recognizes that HIV affects not only individuals but whole families and communities. It defines the minimum package of services needed to provide high-quality care and treatment and assumes that service delivery must be both comprehensive and continuous. ICAP's multidisciplinary approach is fundamental to effectively meeting the clinical and psychosocial needs of patients and their families.

Inclusion and Involvement

A trademark of ICAP's work globally and a key to the organization's success in Nigeria has been its unflagging commitment to creating and sustaining partnerships at all levels. ICAP has partnered with Nigeria's national, state, and local governments to increase governmental capacity to oversee and support HIV care and treatment; with health workers and multidisciplinary teams to increase their capacity to effectively deliver services at facility level; with community-based organizations to increase their capacity to provide services that extend beyond the walls of health facilities; and with people living with HIV willing to provide others with vital one-on-one and group support as peer educators.

Innovation

At a time when most HIV care and treatment services in Nigeria were offered at teaching hospitals in cities, ICAP became the first PEPFAR implementing partner to scale up services to rural and semiurban areas. ICAP's success working in such challenging settings has been the result of the commitment of its leadership to think outside the box and to put truly innovative approaches into practice. Cutting-edge strategies that have been implemented or taken to scale include:

- Implementing the "Where Are the Children?" (WATCH) strategies to increase pediatric enrollment in HIV care and treatment services (page 11)
- Actively building the capacity of people living with HIV as peer educators, as a means of increasing availability of psychosocial support to others living with HIV, of increasing clients' retention in care, and of decreasing stigma and discrimination, both in health facilities and communities
- Engaging men through culturally specific modalities as a method to increase women's uptake of PMTCT services
- Integrating maternal and child health and PMTCT services by distributing "mama packs"
- Addressing issues of malnutrition and food insecurity by establishing and supporting food banks linked to or co-located at health facilities
- Engaging and building the capacity of community-based organizations and community-based support groups to provide HIV-related and other services, including coordinating income-generating activities
- Engaging government stakeholders to increase local capacity, program ownership, and sustainability
- Developing standardized medical record-keeping and data collection tools

WHAT WAS ACHIEVED?

Infrastructure and Systems Established

ICAP has distinguished itself as an implementing partner by being the first to scale up services to rural and semiurban areas of Nigeria. In many cases, this work has been at health facilities that had only rudimentary infrastructure and very limited preexisting HIV-related services. To quickly bring services to people with HIV in desperate need of treatment, the first phase of ICAP's program focused primarily on training health workers and setting up facility and laboratory infrastructure, supply chain systems, and strategic information systems to ready facilities for provision comprehensive, high-quality services.

General Facility Infrastructure

When initiating support of a health facility, ICAP begins by carrying out an assessment and developing a site-specific workplan for establishing the physical infrastructure needed to provide quality HIV services. This includes procuring furniture, shelves, and generators as well as upgrading plumbing, repairing roofs, drilling bore holes, and installing water tanks as needed.

Laboratory Infrastructure

Upgrading laboratory infrastructure constitutes a second key focus of each site-specific workplan. The goal has been to establish a complete laboratory capable of conducting more complex tests at each comprehensive ART facility and to establish side laboratories at all other supported facilities. Reaching this goal includes carrying out laboratory renovations, providing laboratory equipment (e.g., analyzers, microscopes, refrigerators), and training staff to operate them.

A laboratory worker uses a microscope provided by ICAP at the Barau Dikko Specialist Hospital.

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Standardized Tools Bring National Impact

ICAP's work with facility-level partners to set up efficient medical record-keeping and data collection systems revealed a critical gap: in many cases, no standardized national tools for gathering patient information existed. To fill this gap, ICAP has developed a range of tools, pilot testing and carefully adjusting them to make them appropriate for use in Nigeria. These tools reflect innovative record-keeping methods that allow for single records to capture and track key patient information over time—essential in long-term chronic care and a radical departure from previous records. Several of these tools have subsequently been adopted for national use:

- Adherence medication cards
- The adherence register
- The postexposure prophylaxis register

Finding Creative Solutions to Infrastructure Problems

Because of Nigeria's unreliable electrical grid, among other factors, ICAP staff often had to rely on their creativity to keep systems working consistently. Where facilities were not connected to the national electrical grid, ICAP provided kerosene refrigerators to keep reagents cold. At facilities that were connected, ICAP has developed three different plans to keep reagents cold:

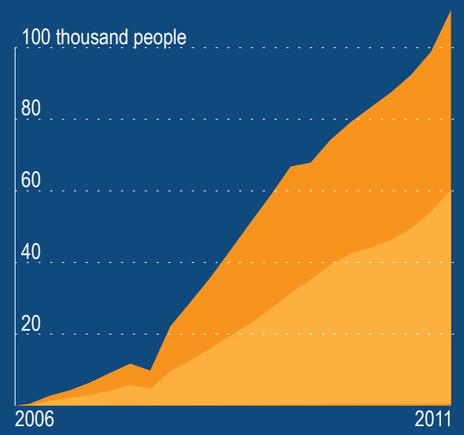
- Refrigerating them using electricity
- Refrigerating them using a diesel generator (in the case of a power outage)
- Refrigerating them using car batteries (in the case of both a power outage and a diesel shortage)

Such responsiveness to local circumstances has greatly helped ICAP and partners develop appropriate solutions to local challenges.

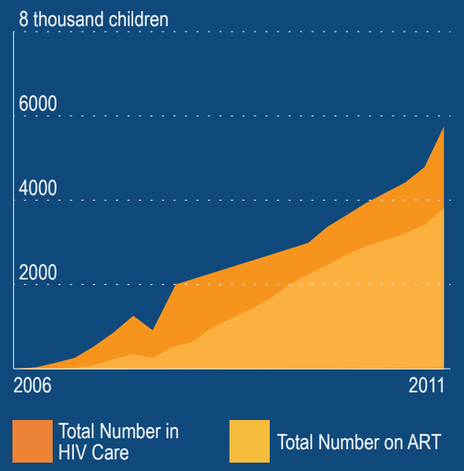
Supply Chain Management Systems

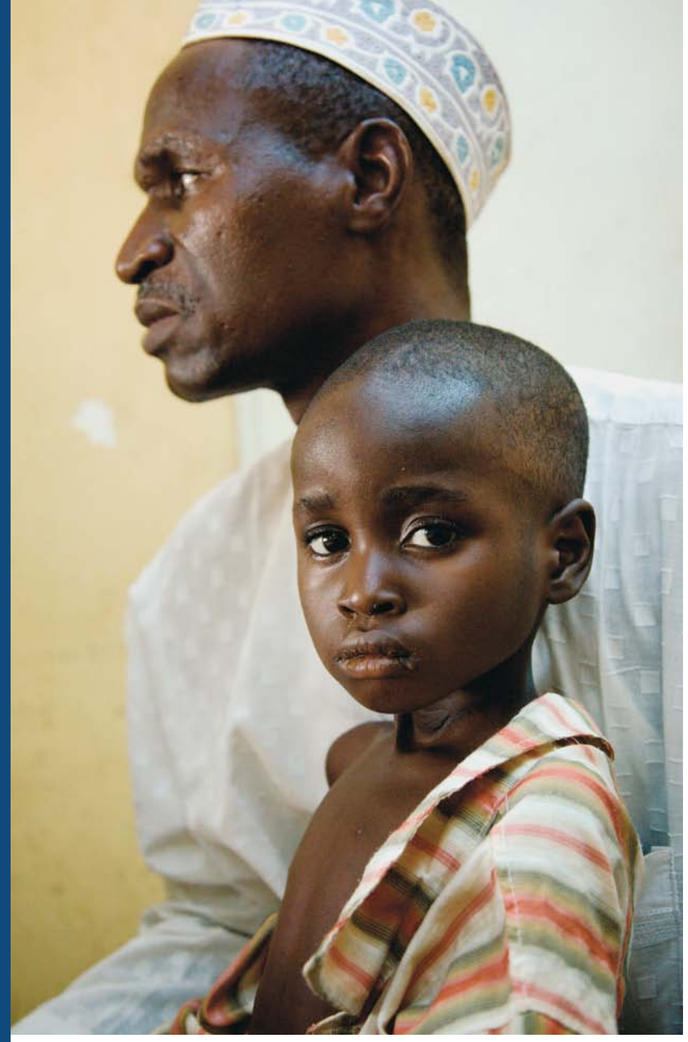
Establishing functional systems to guarantee an uninterrupted supply of antiretroviral medications, medications to treat opportunistic infections, and other supplies to all facilities constituted another crucial step preceding initiation of service provision. To support the development of such systems, ICAP provided initial comprehensive training to pharmacy staff and other key service providers on inventory management and pharmaceutical-related care of people living with HIV. ICAP also initiated the challenging, longer-term process of establishing a secure supply chain for drugs and commodities. After first collaborating with nongovernmental organizations to deliver supplies to supported facilities, ICAP worked toward a more sustainable system integrated with the existing, underresourced state commodity logistics systems, which had previously supplied commodities to facilities. To address infrastructure problems, poor storage practices, and poor lo-

Number of HIV-Infected Individuals Enrolled in ICAP-Supported HIV Care and Treatment



Number of Children Enrolled in ICAP-Supported HIV Care and Treatment





gistics management, which had resulted in frequent stockouts at health facilities, ICAP supported renovation of state-level central medical stores and conducted in-depth trainings with the personnel staffing them. By 2011, these efforts had resulted in the conversion of three such stores into fully functional parts of a now-integrated supply chain serving both ICAP-supported facilities and all other government health facilities in these states.

Because unsafe blood products account for 10% of HIV infections in Nigeria, ICAP has collaborated with the National Blood Transfusion Service and the Safe Blood for Africa Foundation to establish and reinforce systems of safe blood provision. Specifically, ICAP provided infrastructural upgrades, blood bank refrigerators, and other blood safety commodities to 33 comprehensive ART facilities lacking functional blood banks and trained laboratory and clinical personnel on blood safety. These facilities were then linked to the National Blood Transfusion Service, which screened blood products and supplied safe blood to facility-based blood banks. At each facility ICAP has also supported blood drives and awareness programs and established safe blood committees to oversee blood transfusion activities and ensure adherence to the national safe blood policy.

Strategic Information Systems

When ICAP first began work with health facilities in Nigeria, data collection was solely based upon the logging of patient information in multiple, disjointed clinic registers. Since that time, ICAP has collaborated with the Ministry of Health to develop a robust system for recording, monitoring, and evaluating patient data at supported facilities. This has included establishing effective medical record-keeping systems at each facility and developing and implementing concise tools, where no harmonized national tools existed, to enable collection of quality data.

To support quality data reporting and management, ICAP in Nigeria developed the aggregate-level Monitoring and Evaluation Research Support System (MERSS) and the patient-level Patient Wellness Information System (PWIS). These databases, the first of their kind in Nigeria, have strengthened systems that permit aggregate data sharing with the Government of Nigeria and that aid in utilization of facility-level data by health workers for strategic planning to improve program quality. The MERSS tracks more than 400 indicators across program areas and facilitates sending monthly site-specific feedback reports to each facility. The PWIS had been implemented at seven comprehensive ART facilities by 2011 and now serves as an additional tool for robust patient monitoring, evaluation, management, and reporting.

Soaring Access to Services

In Nigeria, ICAP has focused on scaling up clinical services in six programmatic areas encompassing key aspects of HIV prevention, care, and treatment. Once infrastructure and basic systems were functional, impressive results began to be achieved in each programmatic area.

Adult HIV Care and Treatment Services

In 2006, Nigeria's health sector provided ART to only 108,572 people with HIV infection—only a third of those in need.[14] Some people living with HIV, particularly those living in Cross River and Kaduna states, had to travel as far as 500 km to gain access to care and treatment services. To increase access, ICAP has supported rapid scale-up of comprehensive, family-centered adult HIV care and treatment services in the six states. By September 2011, these efforts had resulted in active support for 38 comprehensive ART facilities supporting cumulative initiation of 60,377 patients on ART; at the 33 MCAP supported facilities, a cumulative 56,501 patients initiated ART. The scale-up has been accomplished by:

- Conducting an initial assessment of each potential facility
- Upgrading infrastructure as needed
- Supplying equipment and commodities
- Establishing multidisciplinary teams (comprising all personnel involved in patient care) and project management teams (comprising all facility-level unit heads with a critical role in HIV service delivery)
- Establishing effective patient flow systems
- Establishing strong referral linkages between health facilities and communities
- Providing intensive training on HIV care, treatment, and support to relevant health facility staff and members of community-based organizations
- Implementing new medical record-keeping methods suited to chronic care services

To further increase access and in response to new decentralization guidelines and directives from the Nigerian government, ICAP has also begun a gradual process to decentralize ART services to primary health facilities. Starting with a single primary health facility in Kaduna State and ensuring quality through careful monitoring and supervision, the decentralization process was gradually streamlined and scaled up to include 10 primary health facilities in Kaduna, Cross River, and Benue states.

Throughout each step of implementation, ICAP has collaborated with state and local government partners to provide close technical guidance and support to facilities, developing joint workplans, monitoring progress toward program targets, providing hands-on clinical mentoring, updating standard operating procedures and clinical guidelines, and developing job aids in response to health worker needs. ICAP also provides support for regular patient care meetings, continuous medical education, and refresher trainings in order to enhance the quality of care and treatment services. Finally, ICAP addresses emerging needs in innovative ways, such as by providing motorbikes to 33 comprehensive ART facilities and 80 primary health facilities to be used to transport blood samples and strengthen the mechanism for CD4 sample logging.

Pediatric Care and Treatment Services

With an estimated 360,000 children aged 0–14 living with HIV in Nigeria, pediatric care and treatment services are an essential part of the comprehensive package of care supported by ICAP.[15] Increasing pediatric enrollment in HIV care and treatment services has been challenging due to:

- Limited health worker knowledge of how to effectively manage pediatric care and treatment
- Fragmented pediatric health service systems and a lack of services for adolescents
- Poor linkages between PMTCT and HIV-exposed infant services
- Poor coverage of provider-initiated testing and counseling, especially among hospitalized children and the children of people living with HIV enrolled in care
- Poor tracking system for HIV-exposed infants and HIV-infected children

In response to these challenges, ICAP has implemented an initial package of strategies, including building staff capacity in pediatric care and treatment through intensive training and mentorship, enhancing follow-up of HIV-exposed infants, strengthening linkages between adult and pediatric treatment services, strengthening provider-initiated testing and counseling at all pediatric services points, and strengthening the capacity of multidisciplinary teams to closely monitor facility-level pediatric activities. In addition, in response to continued low pediatric enrollment, ICAP developed the WATCH initiative.

- ICAP had enrolled cumulative 5,748 children in care and 3,805 on treatment by September 2011 as a result of WATCH strategies.

Palliative Care

ICAP in Nigeria has been supporting provision of palliative care services to all patients, including HIV-exposed and HIV-infected infants. This was achieved through a mix of facility- and community-based approaches, including clinical care, psychosocial support, prevention with positives education, hospice care, and home-based care for adults as well as orphans and vulnerable children. Facility-based palliative care included treatment for opportunistic infections, pain management, TB screening, syndromic management of sexually transmitted infections, adherence and peer counseling, nutritional support through food banks, and referrals to community-based services. ICAP's basic care kits were also offered to all clients enrolled in HIV care and treatment at supported facilities. These kits included:

- Insecticide-treated bed nets—one provided to each client annually
- WaterGuard® and water storage cans (as safe water measures)—with two bottles provided to each client monthly
- Multivitamins—provided as needed
- Condoms for people living with HIV and their partners
- Cotrimoxazole for all eligible people living with HIV

By 2011, ICAP had expanded the provision of palliative care services to 38 comprehensive ART facilities and to the 10 primary health facilities that receive down-referred patients.

WATCH Strategies

As adult enrollment in care and treatment services began to increase dramatically, Dr Bola Oyeledun, ICAP country director 2005–2011, recalls attending meetings where the question was continually posed, "But where are the children?" It was this question that eventually led to the development of the Where Are the Children? strategies, implemented by ICAP in 2009 to further increase the identification, prompt enrollment, and retention of children in HIV care and treatment. WATCH strategies include:

- **Improving linkages between services for PMTCT and HIV-exposed infants** by improving education provided to HIV-infected mothers during antenatal care and post-delivery; enrolling HIV-exposed infants (HEI) into care before their discharge; establishing HEI services at all supported PMTCT facilities; implementing appointment registers at antenatal care clinics; and decentralizing dry blood spot sample collection to primary testing facilities
- **Improving HIV testing and counseling quality at antenatal care clinics** to encourage HIV-infected mothers to return to facilities for delivery and to bring their babies to the HIV-exposed infant clinics for follow-up
- **Establishing and/or strengthening point-of-service testing** at pediatric service points in comprehensive ART facilities
- **Implementing a reminder system** to prompt for initiation of HIV testing and counseling among the children of people living with HIV by auditing charts and, based on previously completed genealogy forms, tagging charts with a sticker indicating how many of a particular client's children have not already been tested. This strategy proved particularly effective, resulting in the testing of 2,883 children between May and July 2009—22.5% of them testing positive—and the enrollment in care of 1,514 children with HIV infection. (This number includes 866 children who had previously been tested but were not receiving care and who were subsequently traced and successfully enrolled in care.) See graph page 8.
- **Creating dedicated support groups** for women bringing their children to facilities for HIV testing and counseling services
- **Developing and implementing youth-friendly health services** for adolescents, including those living with HIV

- Cumulatively, 110,549 patients have been enrolled in palliative care; 33 MCAP-supported facilities enrolled 102,837 patients in care. In addition, effective linkages had been established using intra- and inter-facility referral forms and patient escort services, which were provided by peer educators.

PMTCT

When ICAP began working in Nigeria, PMTCT services were offered centrally—that is, primarily at secondary health facilities, although most pregnant women in Nigeria receive antenatal care at primary health level. ICAP sought to eliminate this barrier to care, collaborating with the Nigerian government to pioneer a decentralization strategy in provision of family-focused, comprehensive PMTCT services. As a result, by 2011, ICAP had scaled up to support PMTCT services at 33 secondary level health facilities and 80 primary health facilities.

Further initiatives to strengthen PMTCT services have included establishing services for HIV-exposed infants at 70 primary health facilities, for definitive HIV diagnosis and to increase the number of HIV-exposed infants receiving prophylaxis. In addition, ICAP has increased access to treatment for eligible HIV-positive pregnant women by integrating standardized treatment services in maternal and child health clinics at 14 comprehensive facilities and five high-volume primary health facilities. At community level, in 2009, ICAP began rolling out the innovative Men Taking Action initiative. Because women in many parts of Nigeria must obtain their husband's or mother-in-law's permission before seeking medical care—leading to harmful delays, in many cases—ICAP worked to engage community gatekeepers to identify ways of encouraging men to support their partners throughout the continuum of antenatal and postnatal care. A further prong of this initiative has involved working with facility-level management to establish a male-friendly environment at maternal and child health clinics.

The high rate of home delivery—two thirds of pregnant women in Nigeria give birth in their homes—constitutes a second key barrier to reaching women with PMTCT services.[16] To address this barrier, ICAP began dispensing antiretroviral prophylaxis at first contact with pregnant women at antenatal care clinics, greatly increasing uptake. In addition, ICAP

"With the coming of ICAP to the Gombe State Specialist Hospital, our PMTCT is working well: HIV-positive mothers are giving birth to HIV-uninfected babies. The knowledge and skills that the staff have acquired improved the quality of services, both for managing HIV infection and management of other chronic infections. Today, stigma and discrimination have been greatly reduced."

—Aisha Ahmed Tijjani, Secretary, Gombe State Specialist Hospital

rolled out an innovative strategy first conceived of by the Safe Motherhood Initiative—"mama packs"—to reduce financial barriers to institutional delivery. These packs contain items such as clean delivery supplies, which pregnant women would otherwise need to purchase in order to deliver at a health facility. Finally, ICAP piloted and then rolled out a project to reduce missed opportunities for PMTCT interventions, by engaging traditional birth attendants, who assist many women during pregnancy. ICAP trained high-volume traditional birth attendants on when and how to refer pregnant women for HIV testing and counseling and on universal precautions for preventing HIV transmission as well as on how to assist pregnant women in administering antiretroviral prophylaxis. ICAP expanded this project to all six supported states and, by September 2011, had trained 288 traditional birth attendants. Post-training town hall meetings have also been implemented in order to provide a forum for continuous information sharing between traditional birth attendants and representatives from surrounding health facilities.

- Cumulatively, 431,439 pregnant women were tested, counseled and received results at ICAP-supported antenatal care clinics between January 2006 and September 2011. 10,347 women in ANC, 11,244 in maternity, and 7,647 HIV-exposed infants received antiretroviral prophylaxis for PMTCT.

TB/HIV Service Integration

Approximately 25% of TB patients in Nigeria are coinfected with HIV.[17] ICAP has contributed to the integration of TB and HIV services at government level by supporting coordinating bodies to oversee state and national TB/HIV integration activities. At facility level, ICAP implemented a two-prong strategy:

- Offering HIV testing and counseling to all TB patients and establishing linkages to HIV services
- Ensuring TB screening for all HIV-infected patients and enhancing linkages to TB care

The first prong includes ensuring that all TB patients receive HIV testing and counseling and that those with a positive result are provided with cotrimoxazole to prevent opportunistic infections during the intensive phase of TB treatment. In addition, ICAP has been supporting patient escort services to actively link TB patients to HIV care and treatment. By September 2011, ICAP supported HIV testing and counseling at 74 TB facilities that provided directly observed therapy (DOTS),

"ICAP has brought [people living with HIV] life through treatment. Before ICAP, the only treatment center was at teaching hospital. ICAP has brought treatment to the doorsteps of people living with HIV. ICAP supports orphans and vulnerable children in the form of education and nutrition through our organization. ICAP has also supported us to visit people to track people living with HIV who would have been lost to follow-up."

—Representative of Community-Based Organization, Akwa Ibom State

and 14,011 TB patients and those suspected of having active TB have been tested for HIV since the start of the program. Of these, 4,104 tested positive and were subsequently enrolled in HIV care and treatment programs.

The second prong included collaborating with the National TB and Leprosy Control Program to implement WHO's "3 I's" (intensified case finding, isoniazid preventive therapy, and TB infection control), in order to lower the burden of TB among people living with HIV. Specifically:

- **Intensive Case Finding:** ICAP support for the colocation of DOTS services at eight comprehensive ART facilities in Cross River and Kaduna states has served to enhance TB screening, care, and treatment among patients living with HIV: HIV patients diagnosed with TB can easily be referred for free treatment at the co-located DOTS unit. In addition, ICAP conducted assessment tours of potential DOTS facilities in collaboration with the state TB and leprosy control programs, which has resulted in the activation of 38 stand-alone DOTS facilities. Intensified case finding has been further enhanced by screening all clients enrolled in HIV care for active TB at each visit using a structured, ICAP-developed TB symptom checklist. To ensure its proper, consistent use, ICAP has provided ongoing mentoring to health workers at multiple points of service, including at those providing PMTCT and HIV testing and counseling services. ICAP has also supported provision of free chest X-rays to patients with possible TB and has facilitated access to DOTS for coinfected patients. Cumulatively, 70,048 HIV care and treatment patients were screened for TB at enrollment at ICAP-supported facilities, and 4,379 patients were diagnosed with TB and began treatment.
- **Isoniazid Preventive Therapy:** In line with national guidelines, ICAP has supported DOTS facilities to provide this therapy to eligible patients who do not have active TB. Cumulatively, it has provided this therapy to 697 eligible people living with HIV to protect them from developing TB in the future.
- **Infection Control:** To minimize TB transmission risk, effective TB infection control measures, including TB infection control committees and distribution of tissue paper and waste bins, have been implemented at all 38 comprehensive ART facilities and 12 stand-alone DOTS facilities.

HIV Testing and Counseling

ICAP supports HIV testing and counseling services at multiple service points within health facilities (e.g., antenatal care, outpatient, TB, pediatric, family planning, and postnatal clinics) at all 38 supported comprehensive ART facilities. Provider-initiated testing and counseling has been instrumental at facility level in increasing testing and access to other services. Barriers to testing have also decreased by providing all client testing-related services, including pre-test counseling, testing, post-test counseling, and referral services, in the same location and on the same day. This one-stop approach, along with provision of same-day results, was facilitated by training lay counselors to conduct HIV rapid testing. Effective linkage of HIV-positive clients to care and treatment services was ensured via referral forms and patient escort services. As of September 2011, 139,448 individuals received HIV testing and counseling services and received their results;; and of these, 4,112 tested HIV positive and were referred to care and treatment.

To enhance targeted testing at community level, ICAP built the capacity of community-based organizations to provide community-based HIV testing and counseling services: using mobile testing stations in locations where most at-risk populations were accessible; establishing stand-alone testing centers in settings with a concentration of individuals at high-risk for HIV acquisition; and carrying out home-based family testing targeting family members of unknown status of people living with HIV.

As of September 2011, ICAP had trained 209 staff from selected facilities and community-based organizations on HIV testing and counseling and works to ensure high-quality service delivery through ongoing mentoring, supervision, close monitoring of the information provided to clients during pre-test and post-test counseling, and providing facilities with toolkits, job aids, and other materials for information, education, and communication.

Increasing Capacity

A crucial component of ICAP's work in Nigeria has been to continuously build capacity of those who ultimately determine the quality of HIV care and treatment services in both the short term and the long term: health workers; people living with HIV providing peer support; community-based organizations; and local, state, and national government stakeholders.

Health Workers

Throughout implementation of its program in Nigeria, ICAP has worked tirelessly to increase the capacity of health workers and the quality of clinical services. ICAP has provided health workers with start-up training as an integral part of facility preparation, including comprehensive training on HIV testing and counseling, PMTCT, adult and pediatric ART, early infant diagnosis, and monitoring and evaluation. In addition, ICAP has helped establish multidisciplinary teams for HIV care and treatment at comprehensive ART facilities and supported them to hold weekly meetings to share information and discuss how to improve patient management.

To lay the groundwork for increased and sustained capacity, ICAP carried out workshops to introduce its Clinical Systems Mentorship (CSM) methodology to facility support teams and state government officials charged with providing facility-level support to multidisciplinary teams. CSM is a set of approaches and activities used by facility support teams to improve the capacity of individual health workers, the teams, and entire facilities. Its foundation is a continuous quality improvement cycle based on participatory assessments using routine program data that aims to identify priority areas requiring attention. CSM uses tools that make it easy to identify what stage of quality a service has achieved, how much progress has been made, and what key challenges remain.

When establishing its package of services at a specific facility, ICAP uses the model of care assessment checklist. This assessment ensures that the minimum necessary resources are identified so that they could be put in place to deliver all components of the package of care. Minimum criteria met, the second key assessment tool—a standards of care assessment—is implemented quarterly in each care area to quantitatively assess the quality of service delivery. Next, regional facility support teams present results back to multidisciplinary teams at facility level to highlight problem areas requiring quality improvement planning and future assessments. Finally, ICAP staff have worked jointly with the multidisciplinary team to identify priorities and to develop workplans for monitoring trips, improvement interventions, clinical guidance job aids, continuous medical education sessions, and refresher trainings.

Many health workers initially perceived quality assessments as an additional burden that increased their workload without providing clear benefits. To begin to change this perception, ICAP took the lead in carrying out initial assessments but ensured the engagement of multidisciplinary teams in the entire cycle. Over time, the process has resulted in a general recognition of the benefits of standards of care assessments as well as an increased sense of ownership among health workers over the services being delivered at their facilities. In turn, this sense of ownership has ignited health workers' interest in carrying out routine quality assessments themselves. Key achievements resulting from this process include:

- Staff of comprehensive ART facilities now effectively carry out monthly mentoring with the surrounding primary health facilities, with a particular focus on quality improvement.
- Staff of comprehensive ART facilities now host monthly referral meetings for all primary health facilities and community-based organizations in their area.

People Living with HIV Providing Peer Support

HIV is highly stigmatized in Nigeria, as in the rest of the world. When ICAP began its work in Nigeria, this stigma had produced a silence about HIV within communities, a silence that prevented many from seeking necessary care and treatment. To lessen stigma, ICAP partnered with health facilities and community-based organizations to identify people living with HIV who had successfully enrolled in services and to engage them as peer educators to work in facilities and in their own communities. By 2006, ICAP had developed a standardized peer educator scope of work that made these volunteers an integral part of the provision of palliative care services at supported facilities. Their duties include tracking clients who missed

"Through ICAP capacity building, I have learned a lot and acquired confidence… my counseling skills have grown to include counseling on deeper issues. With counseling, patients are happier and keep coming, and they are able to solve a lot of the problems that are damaging their lives….ICAP's presence has been a relationship builder between clients and health care workers, and the long-lasting relationships formed cannot be broken."

—Rifkatu Joseph, Adherence Counselor,
Turaki Buga Memorial Hospital, Kaduna State

appointments, providing facility-based patient escort services and adherence counseling, and facilitating health talks and support group meetings. By September 2011, ICAP had trained 577 peer educators. Among other achievements, peer educators have been instrumental in significantly increasing facilities' ability to trace patients—they succeed in tracing and bringing back into care approximately 70% of patients previously lost to follow-up.

Another successful component of ICAP's work with peer educators began when one of ICAP in Nigeria's adherence advisors participated in a study visit to learn about South Africa's Mothers2Mothers program, which engages mothers living with HIV who have themselves received PMTCT services as mentors to newly diagnosed pregnant women and mothers. This study visit led ICAP to establish mothers' support groups at 31 comprehensive ART facilities and 7 primary health facilities, including all PMTCT facilities, and to engage 60 "mentor mothers" in providing peer education, default tracking, escort services, and adherence counseling. The purpose of this initiative is to improve retention in care of mother–baby pairs as well as uptake of postpartum HIV care—in part by decreasing the stigma experienced by HIV-infected mothers.

> ***"When my wife was sick very early in 2008, she was discovered to be HIV-positive. I tested and was also was positive, so we both joined the support group. Because of ICAP's intervention, our lives have become more meaningful and we now have a 5 month old HIV-negative baby."***
>
> *—Husband in photo above, members of Al Barka Skills Acquistion Center in Nigeria*

To bring the benefits of support groups directly to communities, ICAP has also built the capacity of peer educators to establish support groups within their own communities. This includes groups to support adherence to treatment among patients newly initiated on ART and to meet the needs of and engage HIV-infected children while caregivers participate in adult support groups. These groups provide a powerful source of peer support and acceptance for their members and, in many cases, eventually expand their focus to address additional participant needs, such as by initiating income-generating activities. The groups' positive effects were noted by Seember Steven, peer educator and member of Mimi Support Group Cooperative Society, established by facility-based peer educators in Benue State: "The support group has helped me to come out of hiding and allowed public disclosure of my status."

> ***"ICAP has played a major role in my community, such that people now know what HIV is all about. Before, when someone died, a person would be bullied and accused of bewitching the dead. But now, if the death is related to HIV, they know it."***
>
> *—Ibrahim Laah, Councilor for Education and Social Development, Kaura Local Government Area, Kaduna State*

Community-Based Organizations

When ICAP began working in Nigeria, its primary focus was to rapidly build capacity at health facility level. With time, however, ICAP's leadership in Nigeria adopted additional approaches. Former senior project officer Adaku Ejiogu recalls, "We realized that patients were coming from the community and returning to the community. If we couldn't engage them there, we risked losing them." To address this gap, ICAP developed a strategy to extensively engage community-based organizations—building their capacity to provide community-based services that would extend the continuum of care beyond the health facility. At the time, this was groundbreaking, because few local community-based organizations were being directly involved in supporting HIV care.

ICAP established subcontracts with two management organizations, which then established subcontracts with chosen community-based organizations already working on the ground. ICAP has chosen community-based organizations with direct training and technical support and also financially enabled the hiring of several dedicated staff for each organization. The management organizations sent technical staff to visit community-based organizations quarterly to provide direct supportive supervision and mentoring to members on site. Within a year, a standard scope of work for partner community-based organizations had been developed—which included the provision of home-based care, HIV testing and counseling, outreach, and support services for orphans and vulnerable children—and, by 2011, ICAP had established partnerships with 25 community-based organizations. To ensure that they had the capacity to provide each service within the package, ICAP has provided training as needed and capitalizes on individual organizations' vast specialized experience by facilitating cross-mentorship activities among community-based organizations.

OPPOSITE A young girl in the Rigasa area in Kaduna

Helping Community-Based Organizations Improve Patient Support Services

In 2008, ICAP began to work closely with the Rural Women Development Initiative (RUWDI) in Bekwara, Cross River State. RUWDI educates the community about HIV and provides support services to people living with HIV and their families. With technical support from ICAP, RUWDI provides escort services to patients in order to ensure their adherence to care and treatment; helps trace patients who have missed appointments; and provides food and financial support when needed, including school fees.

Key activities of ICAP-supported community-based organizations include:

- **Home-Based Care:** ICAP provides community-based organizations with home-based care kits and trains them to implement a package of services that included home visits, psychosocial and crisis counseling, tracking of patients who missed appointments, escort services to bring patients back into care, and the distribution of insecticide-treated bednets, Water Guard, and condoms.
- **Support Groups:** Community-based support groups have been formed that report to and are supervised by partner organizations in the community. Each support group has established a home-based care team that provides care to nearby clients.
- **HIV Testing and Counseling:** ICAP has trained community-based organizations to either provide these services directly or to sensitize members of the community and refer people to facility-based testing and counseling, providing escort services as needed. Effective follow-up is ensured through monthly meetings with the nearby facilities providing HIV care.
- **Orphans and Vulnerable Children and Food Banks:** ICAP established food banks at eight comprehensive ART facilities to provide families in need with nutritious food. To encourage food banks' community ownership, ICAP formed facility-based, community-led coalition committees, bringing together local government officials, community leaders, and prominent community members to mobilize community donations of food; to systematically identify children to receive educational, nutritional, and psychosocial support; and to solicit land to grow crops. ICAP also encourages community-based organizations to conduct advocacy on food security. With ICAP encouragement, community resources have been used to establish 15 community-based food banks.
- **Outreach:** ICAP has supported community-based organizations to conduct educational outreach into the community to promote HIV prevention and care services, supported by information, education, and communication materials to promote HIV testing and counseling uptake among community members and positive living among people living with HIV.

Renovation of the serology lab at the Barau Dikko Specialist Hospital was made possible by ICAP. The following equipment was provided: Mixer, CD4 machines (2), Haematology and Chemistry analyzers and their storage systems for samples and reagents.

Blood samples stored at the General Hospital in Adikpo

"The CSM training has helped [the state team] understand our supervisory roles in strengthening the health system. CSM was a great eye opener, and we are privileged to be associated with an organization like ICAP."

—Executive Director, Kogi State Hospitals Management Board

Government Partners

Since program inception in 2005, ICAP has consistently supported the Government of Nigeria at state and federal levels to refine and implement national HIV-related strategies, guidelines, and protocols, and has been providing expert input and participating actively in technical working groups, such as those that review and finalize national guidelines and standard operating procedures on adult and pediatric ART, PMTCT, and TB/HIV integration.

To increase government stewardship and program sustainability, ICAP works actively to build the capacity of state and local government stakeholders in the six states, training them in leadership and team-building to reduce staff turnover, to enhance their ability to manage teams, and to promote the equitable distribution of trained health workers. Furthermore, ICAP has trained 177 state ministry of health and local government officials on Clinical Systems Mentorship, increasing their ability to effectively provide mentorship and supportive supervision at facility level. To reinforce skills learned during trainings, to provide hands-on practice, and to foster a culture of mentorship, ICAP and state officials also perform joint mentorship visits to supported facilities. These visits also, at times, have prompted concrete actions by government health officials to address observed challenges. For example, following mentorship visits in Kogi State, the state director of nursing services inaugurated quarterly meetings of all heads of nurses of Kogi State government hospitals to discuss challenges and to chart a way forward.

Joint mentorship visits have raised awareness about insufficient numbers of health workers at many facilities. As a result, effort has been made to post doctors, pharmacists, and laboratory graduates to supported facilities in Kogi and Benue states via the National Youth Service Corps. ICAP has transferred training knowledge and skills to a pool of state-based ministries of health and local government staff by conducting training of trainers in all key areas related to HIV prevention, care, and treatment.

THE NEXT CHAPTER

Sharing Lessons Learned

- Strong partnerships are essential for program success and sustainability.
- Building strong partnerships that allow for productive collaboration and the successful transfer of skills to a variety of stakeholders contributes significantly to a program's long-term success. This means partnerships at all levels, including with national, state, and local governments, with health workers and multidisciplinary teams, with people living with HIV, and with community-based organizations.
- Investment in strong training programs for health workers is a fundamental component of health systems strengthening.
- Providing health workers with competency-based training that incorporates ongoing mentorship, and supportive supervision to reinforce knowledge and skills, are necessary and effective investments.
- Programs should place a strong emphasis on experience sharing and the sharing of skills and knowledge.
- Facilitating opportunities for health workers, support group members, and volunteers from community-based organizations, to meet counterparts from other communities and regions in order to share experiences and lessons learned, is an invaluable way of increasing capacity and improving programs.
- Flexibility and innovation are integral to program success.
- When working in challenging settings, a program's leadership team must have a focused vision while also maintaining a commitment to thinking outside the box. A team's ability to constantly adapt in the face of obstacles in ways that reflect local culture is a key factors in determining success or failure.

Moving Forward

The Centre for Integrated Health Programs

Following PEPFAR's shift in strategy from an emergency response to scale up HIV services to achieving long-term sustainability, ICAP supported the development of the Centre for Integrated Health Program (CIHP), a locally registered, indigenous nongovernmental organization aiming to deliver integrated public health interventions through partnerships. Shortly after CIHP's formation in 2010, it was subcontracted to assume a significant portion of the ICAP facility support work in three states; by September 2011, a full transition of facility support to CIHP had taken place in all six states. In addition, in late 2011, CIHP was awarded direct unding by CDC. CIHP will continue ICAP's legacy of building the capacity of government and nongovernmental partners. In addition, CIHP will focus on continuing to decentralize services for both HIV care and treatment and PMTCT.

ICAP in Nigeria

ICAP continues activities under other PEPFAR-funded initiatives in Nigeria. Moving forward, ICAP will continue to focus on the evaluation of strategies and the improvement of tools, leveraging its global reach, its technical expertise, and its focus on innovation.

CIHP has chosen to closely collaborate with ICAP, benefiting from its international scope and continuing the process of capacity transfer, especially in quality management, organizational development, and program evaluation, while it expands its facility support services.

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