CÔTE D'IVOIRE

BRINGING HIV SERVICES TO UNDERSERVED REGIONS: ICAP SUPPORT FOR HIV PREVENTION, CARE, AND TREATMENT

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UNITED STATES PRESIDENT'S EMERGENCY PLAN FOR AIDS RELIEF

Contents

Funding for this report was provided to ICAP at the Mailman School of Public Health, Columbia University as part of the Multicountry Columbia Antiretroviral Program (MCAP) and is supported by Cooperative Agreement #U62PS223540 from the US Centers for Disease Control and Prevention (CDC). The contents of this report are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.

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Acknowledgements

The ICAP Team would like to extend its sincere gratitude to the Ministry of Health and Fight Against AIDS for their support and partnership over these five years. We express our appreciation to the President's Emergency Plan for AIDS Relief, to the people of America for the funding support and to the Center for Disease Control and Prevention team in Côte d'Ivoire for their technical and funding support.

ICAP would also like to express its thanks to the General Direction of Health, all Central Directions and National Programs of the Ministry of Health and Fight Against AIDS, and to Regional and District Health Authorities for their dedication in coordinating and implementing HIV services at ICAP-supported facilities.

We also wish to thank the district management teams, the managers and staff at facilities, including private facilities, partner CBOs and other PEPFAR partners with whom we worked. Finally, we thank the patients and their family members for their close collaboration with ICAP and their active involvement in HIV prevention, care and treatment programs.

We gratefully acknowledge ICAP staff in New York and Côte d'Ivoire, whose dedication and team work made our support in Côte d'Ivoire a great success.

Merci à tous de votre engagement dans la lutte contre le VIH.

The clinic in Bozi, Marahoué region

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 treatment (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 from 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. Columbia'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, the Track 1.0 funding mechanism, 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 work at more than 2,000 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:

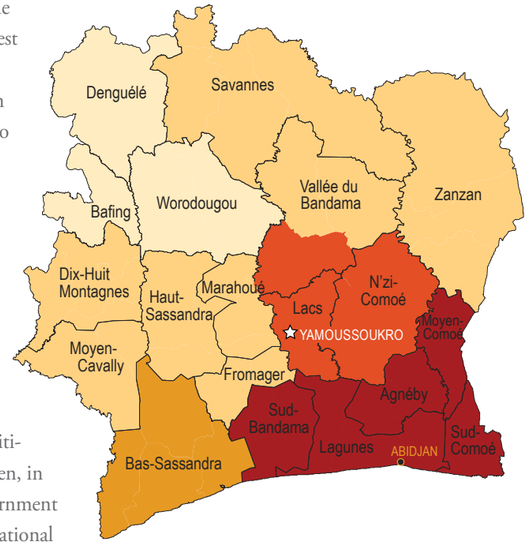
- **A family-focused approach** to HIV prevention, care, and treatment services
- **Support for multidisciplinary teams** of health care providers
- **A continuum of clinical and supportive services** to meet patient and family needs at every stage of HIV disease
- **Programs to promote retention and 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

Vaccinations are provided by the government in Cote d'Ivoire. However, there is no room in the clinic so the vaccinations are done outside.

HIV in Côte d'Ivoire

With an adult prevalence estimated at 3.9%,[6] the Republic of Côte d'Ivoire remains one of the West African nations most severely affected by the AIDS pandemic. Prevalence varies from 1.7% in Sud-Ouest to 6.1% in Abidjan. Prevalence is also higher in urban areas (5.4%) than in rural areas (4.1%) and remarkably higher among women (6.4%) than among men (2.9%), peaking at 14.9% among women aged 30–34.[7] Early on, the government of Côte d'Ivoire made commendable efforts to respond to the HIV epidemic, setting up structures for HIV services and initiating partnerships with international institutions. In 1988, Côte d'Ivoire became one of the first countries in sub-Saharan Africa to initiate research on HIV infection in pregnant women, in collaboration with UNAIDS. In 2001, the government created a dedicated ministry to coordinate the national HIV response and mobilize resources. A national HIV strategic plan (2002–2004) was developed, and partners funded by PEPFAR and the Global Fund to Fight AIDS, Tuberculosis and Malaria initiated activities. Within the Ministry of Health, several national programs have played a crucial role in the provision and expansion of HIV services. These include:

- **PNCEP** *Programme National de Prise en Charge des Personnes Vivant avec le VIH* (the National Program for the Care of People Living with HIV/AIDS, responsible for the support and overall coordination of health services)
- **DIPE** *Direction de l'Information, de la Planification et de l'Evaluation* (Office of Information, Planning and Research)
- **PNLT** *Programme National de Lutte contre La Tuberculose* (the National Program for the Struggle against Tuberculosis, the national TB control program)
- **PNN** *Programme National de Nutrition* (the National Nutrition Program)
- **PSP** *Pharmacie de la Santé Publique* (the Public Health Pharmacy)



HIV Prevalence (%), Ages 15–49, 2005

However, years of political turmoil, including the civil conflict that began in 2002, undermined the national response and impeded improvements in HIV services, in particular in northern and western regions. During this time, infrastructure was destroyed and health workers moved en masse to Abidjan. Poverty levels rose, and utilization of formal health services plummeted. The long peace-building process that led to the 2007 agreement eventually allowed the Government of Côte d'Ivoire to renew its focus on the national HIV program. Although the country is now back on track—following the resolution of the more recent political crisis in May 2011—much work remains.

ICAP IN CÔTE D'IVOIRE

ICAP began working in Côte d'Ivoire in 2003 when, as part of its MTCT-Plus Program, it initiated support to family-focused HIV prevention, care, and treatment services at two health facilities in Abidjan operated by ACONDA-VS, an Ivoirian nongovernmental organization that has played a lead role in the national HIV response since 1996. At these two clinics, the MTCT-Plus program focused on identifying HIV-positive pregnant women, ensuring that they receive prophylaxis to prevent transmission to their newborns, and enrolling them and their HIV-positive family members in care and treatment. In 2007, political stability brought the possibility of expanding HIV services beyond major urban centers. To assist in this expansion, CDC reached out to ICAP to join other PEPFAR partners in the effort to support the Ministry of Health to scale up services through the Track 1.0 care and treatment funding mechanism, and ICAP expanded its Multicountry Columbia Antiretroviral Program (MCAP) to Côte d'Ivoire. After discussions with PNPEC and CDC, it was determined that ICAP would support five underserved rural regions severely impacted by the civil war—Sud Bandama, Fromager, Marahoue, Haut Sassandra, and Worodougou.

The Ministry of Health stressed the importance of coordination among PEPFAR and Global Fund partners to prevent duplication of efforts and to maximize limited resources. Toward that end, PNPEC launched a regional approach, assigning one partner to support coordinated, integrated HIV services each region.

Daunting Challenges

Start-up of HIV services faced many challenges. Regional and district health teams were severely understaffed and often in need of the basic infrastructure, equipment, and management tools necessary to support and supervise services and manage logistics. Capacity of laboratories was weak; only a few were able to conduct HIV testing. Health authorities at all levels of the health system lacked access to the timely and complete data needed to make informed programming decisions and HIV service improvements.

Despite these challenges, ICAP was determined to build a strong program, drawing from the experience in other countries and grounded in core ICAP approaches. Since 2007, ICAP has worked with CDC, the Ministry of Health, PNPEC, and local health authorities to design and quickly roll out an integrated package of HIV prevention and care services in these five regions. The package includes HIV care and treatment for adults and children, HIV counseling and testing, PMTCT, TB/HIV services, primary prevention, and prevention with positives.

ICAP has made steady progress towards its prevention, care, and treatment targets while building the capacity of government and nongovernmental health facilities. Innovation has been key. For example, as a response to health worker shortages, ICAP has been implementing such innovative strategies as training nurses and midwives to determine patient eligibility for ART and coordinating with districts to request that a visiting physician be sent to facilities lacking a medical doctor on the premises, in order to provide ART and PMTCT services.

Evolution Start-Up and Scale-Up

In November 2007, with support from ICAP, district health authorities planned and initiated HIV services at select regional and referral hospitals, initially in three regions. At these facilities, ICAP improved physical infrastructure, provided essential medical and laboratory equipment and supplies, and enhanced human resource capacity to support quality HIV

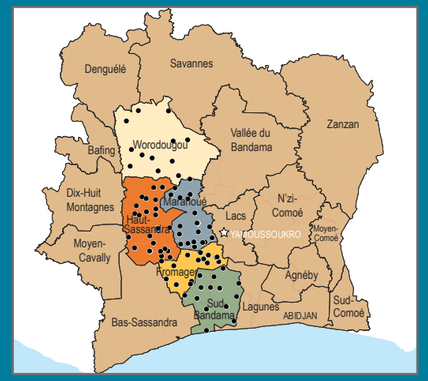
In Bouaflé, a nurse counsels and examines a 39 year-old-woman pregnant with her sixth child. The nurse fills out an invitation card to encourage her husband to visit the clinic for a free HIV test.

"Health facilities in our assigned regions were in remote areas and offered almost no HIV services. Many health care professionals had fled their posts during the political crisis, and even after the signing of the peace agreement, many of these posts remained vacant."

—Dr Ida Viho, ICAP Country Director, Côte d'Ivoire

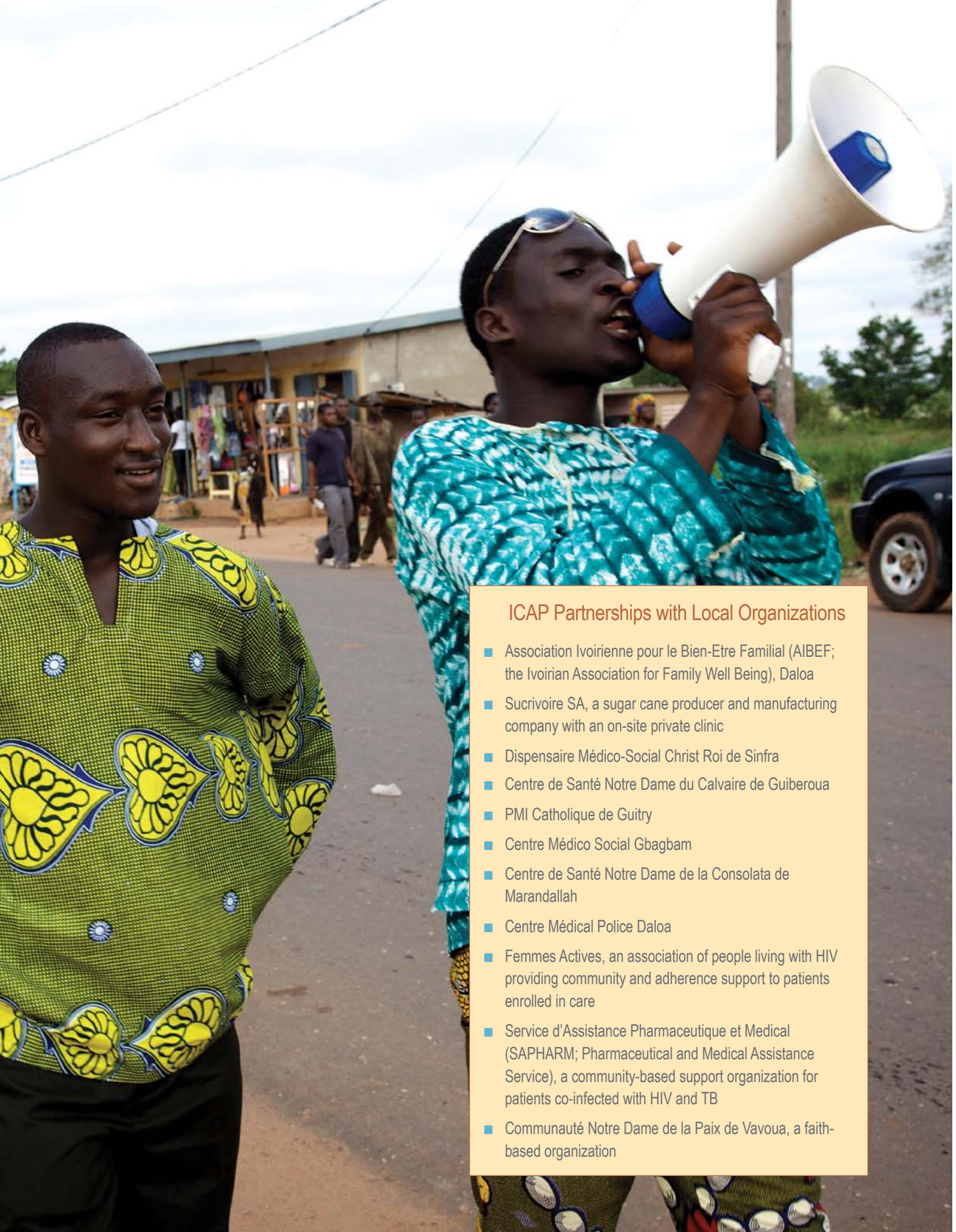
ICAP-Supported Facilities in Côte d'Ivoire

As of September 30, 2011, ICAP was supporting 106 facilities in Côte d'Ivoire.



- Haut-Sassandra — 33
- Sud-Bandama — 19
- Marahoué — 24
- Worodougou — 12
- Fromager — 18

Map Sources: ICAP URS http://mericap.columbia.edu as of 30 Sep 2011; MEASURE DHS (Demographic and Health Surveys); ESRI; Center for International Earth Science Information Network (CIESIN), Columbia University; and Centro Internacional de Agricultura Tropical (CIAT). 2005. Gridded Population of the World Version 3 (GPWv3): National Boundaries. Palisades, NY: Socioeconomic Data and Applications Center (SEDAC), Columbia University. Available at: http://sedac.ciesin.columbia.edu/gpw/



OPPOSITE Town criers in Bonon invite people to the clinic for a free education on HIV. The announcement is made in all the local languages. It is market day.

ICAP Partnerships with Local Organizations

- Association Ivoirienne pour le Bien-Etre Familial (AIBEF; the Ivoirian Association for Family Well Being), Daloa
- Sucrivoire SA, a sugar cane producer and manufacturing company with an on-site private clinic
- Dispensaire Médico-Social Christ Roi de Sinfra
- Centre de Santé Notre Dame du Calvaire de Guiberoua
- PMI Catholique de Guitry
- Centre Médico Social Gbagbam
- Centre de Santé Notre Dame de la Consolata de Marandallah
- Centre Médical Police Daloa
- Femmes Actives, an association of people living with HIV providing community and adherence support to patients enrolled in care
- Service d'Assistance Pharmaceutique et Medical (SAPHARM; Pharmaceutical and Medical Assistance Service), a community-based support organization for patients co-infected with HIV and TB
- Communauté Notre Dame de la Paix de Vavoua, a faith-based organization

"Local organizations played an important role in the rapid scale-up of HIV services in Côte d'Ivoire. Already they had health care services in place and good patient flow, with an understanding of the sociocultural barriers to access to care, as well as ample experience mobilizing communities to overcome HIV stigma and discrimination."

—Dr Ida Viho, ICAP Country Director, Côte d'Ivoire

services. ICAP also formed partnerships with nongovernmental organizations to address HIV-related stigma at the community level and to raise awareness of these new HIV services. As care and treatment services took root, ICAP worked with district health authorities to expand supported services to include PMTCT, pediatric HIV, and TB/HIV integration activities. HIV services have now been scaled up to all health facilities in the five regions, bringing HIV services closer to people who need them.

In 2009, while supporting the rapid scale-up of HIV services, ICAP opened a regional office in Daloa in order to provide more intensive clinical mentorship and targeted support to multidisciplinary teams of providers and district health teams. ICAP has engaged the provider teams in continuous data-driven assessement, improving HIV service integration and quality of care over time.

Partnerships

In Côte d'Ivoire, ICAP owes much of its success to the partnerships built with the Ministry of Health and local nongovernmental and community-based organizations operating in the five regions. These partnerships have helped ICAP make major, sustainable gains in increasing access to vital HIV services for the Ivoirian population, especially those living in rural areas.

ICAP partners include the governmental entities responsible for HIV programs and regional and district health teams in the five regions. Other key partners include nongovernmental organizations that were already providing basic health care services. Leveraging these organizations' strong community relationships, ICAP built their capacity to provide new and expanded HIV prevention, care, and treatment services, through infrastructure improvements, training, and clinical mentorship. ICAP also collaborates with three community-based organizations and has enhanced their technical and management capacity to provide follow-up care and support to people living with HIV as well as to carry out HIV public awareness campaigns.

Inclusion and Involvement

Building local government capacity to assume responsibility for HIV services is central to ICAP's approach. In collaboration with the Ministry of Health, ICAP has adopted various strategies to support local capacity for HIV services at decentralized levels. Among these strategies, one is unique: direct allocation of financial resources to district health teams to cover expenses such as support for planning and participating in district- and regional-level programmatic exchanges and best practices meetings and the transportation of antiretroviral and other HIV-related drugs to lower-level health facilities. ICAP has also trained district health teams in management and leadership functions and has established and trained a pool of district-level technical experts in each region to provide ongoing clinical support to health facilities in need.

With a shortage of health providers in government health facilities, ICAP and the Ministry of Health had to devise strategies to meet health care needs in the five regions and has done so by collaborating with local nongovernmental and community-based organizations to expand the number of HIV service delivery outlets, to mobilize community and religious leaders to sensitize the population about HIV, and to address cultural barriers to access.

At community level, the involvement of community counselors and HIV-positive peer educators to deliver care and

This woman felt sick and weighed only 43 kg. She was tested, found to be HIV positive, and began treatment. Her family rejected her status, and her husband died due to hiding his status. She has been in and out of treatment, but is now consistently on treatment at the clinic in Issia, and her weight increased to 55 kg.

OPPOSITE The head nurse at the clinic in Gboguhe runs the clinic. They have been without a doctor for a while, leaving all responsibilities to him.

support services to people living with HIV has helped to raise awareness about HIV and change community attitudes and norms about HIV, promoting service uptake and facilitating effective patient follow-up. Use of peer educators has also enabled ICAP to decrease congestion in crowded facilities, to alleviate clinical provider workloads, and to reduce travel time and associated costs for patients enrolled in care.

Adaptability

The challenges that followed the November 2010 elections tested ICAP's ability to work in a volatile political environment. During the crisis, several ICAP-supported facilities, including the Bouaflé prison infirmary, were pillaged. Because of the lack of security, many patients were unable to reach a health facility, and nearly half the health workforce could not report to work. The crisis also disrupted the supply and transport of HIV drugs and reagents from the central pharmacy to the regions, further impeding HIV service delivery and hampering the basic work of laboratories.

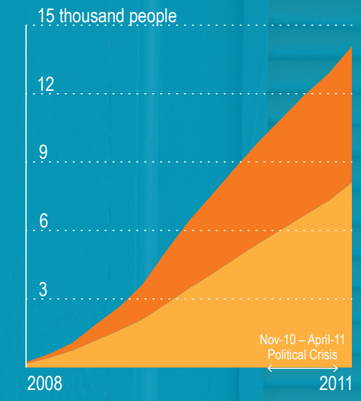
As the crisis unfolded, CDC, ICAP, the Ministry of Health, and other stakeholders—increasingly concerned about its effect on the supply of antiretroviral drugs and the impact that treatment interruptions would have on drug resistance—shifted their efforts to securing treatment access for patients already in HIV care.

In the ensuing months, ICAP worked in coordination with PNPEC and the Ministry of Health and district health teams to provide patients with a two- to three-month supply of antiretroviral drugs. Providers at ICAP-supported facilities asked patients to carry their HIV care and treatment records at all times in case a sudden displacement required them to access care at a different facility. ICAP maintained weekly phone contacts with supported facilities to closely monitor clinic staffing levels, drug supply, the security situation, mobility, and rates of patients returning for scheduled appointments. Eventually these strategies paid off. At ICAP-supported health facilities, the effect of the crisis on HIV treatment disruption was minimal.

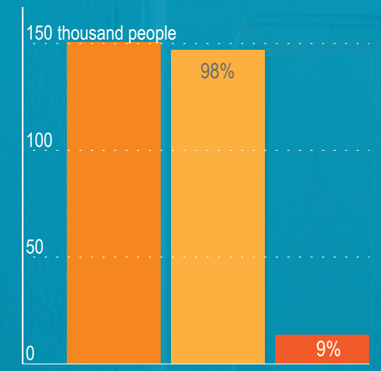
Garnering Support from Religious Leaders

In bringing HIV services to patients, ICAP often faced cultural barriers. Because they varied from one region to another, ICAP had to remain ready to adapt. For example, in the northwest department of Mankono, in the remote Worodougou region, where the population is largely Muslim, almost every family prays in a different mosque. "Working in Mankono was challenging. We knew we couldn't call all the imams to one meeting to garner their support for HIV activities, and meeting with one imam at a time would have prevented us from working with all the others," comments ICAP adherence and community linkages officer Françoise Silue. ICAP and the Mankono department health director succeeded in convincing a local radio host to air a series of health programs on HIV and invite the participation of local imams as well as health providers and local political leaders.

This graph shows the number of patients receiving HIV care and number of patients on ART at ICAP-supported health facilities in Côte d'Ivoire between 2008 and 2011.
Note the continued coverage during the political crisis of November 2010 through April 2011.



Cumulative Number of People Tested and HIV Positive from 2008 to 2011



"We arrived in uncharted territory. In the five regions supported by ICAP, only two health facilities—Issia and Oumé hospitals—were providing HIV care and treatment services, and only one was equipped with a CD4 count machine. Patients did not even try to seek care, and the few who did so had to travel long distances to get to a facility that offered ART."

—Dr. Laurent Dje, ICAP Laboratory Advisor

WHAT HAS BEEN ACHIEVED?

When ICAP arrived in the five regions in late 2007, only a handful of health facilities offered HIV care and treatment services, and many health facilities remained in dire shape after the civil conflict. With no access to HIV tests and no training in HIV, health providers lacked the confidence to diagnose patients with suspected cases of HIV.

Between 2007 and 2012, ICAP has scaled up HIV services to more than 116 health facilities in the five regions, dramatically expanding access for communities that previously had no HIV services. Within these regions, ICAP supports the general hospitals and the entire district network of care, which encompasses urban and rural health centers, TB diagnostic and treatment centers, and antenatal care clinics.

A Comprehensive Model of Care

Care and Treatment for Adults and Children

Working within the existing health system, ICAP has supported the Ministry of Health to integrate HIV care and treatment services into health structures in all five regions. To ensure better adherence and clinical outcomes, the focus of ICAP's approach has been on treating the entire family, not just the person who first enters into HIV services. With its country director having worked in the MTCT-Plus program implemented in Abidjan, ICAP's Côte d'Ivoire team understood the HIV chronic care model very well and, as a result, moved quickly.

Beginning with regional and general hospitals, ICAP rapidly expanded care and treatment services to all health facilities in the five regions:

- The number of health facilities providing ART services increased from 3 in 2008 to 65 in 2011.
- By 2011, 14,041 patients had enrolled in HIV care at ICAP-supported facilities—up from 195 in 2008.
- In all, 8,071 patients had initiated ART—429 of them (5%) children aged 0–14 years.

Initially, once care and treatment services were operational, encouraging patients to enroll presented a great challenge. Patients faced a variety of constraints, both structural and individual: lack of trust in the quality of services, compounded by adverse attitudes toward people living with HIV. Over time, service usage has increased, as a result of practical trainings; clinical mentorship to make providers comfortable initiating HIV care and treatment; quality improvement activities; support to health facilities to publicize availability of care and treatment services; and partnerships with community-based organizations to conduct sensitization activities and garner support from community leaders.

HIV Counseling and Testing

In 2007, few HIV programs in Côte d'Ivoire had penetrated beyond urban centers. The scarcity of counseling and testing services, especially in rural areas, was a critical roadblock to care and treatment for those who were HIV positive. ICAP regional program director Peter Twyman noted, "During my first visit to Côte d'Ivoire, it was disconcerting when we visited a regional hospital that didn't offer HIV counseling and testing—that this hospital was providing the highest level of care available in the region underscored the enormity of the task ahead. We've come a long way since then."

At each health facility where ICAP initiated care and treatment services, ICAP has introduced HIV counseling and testing services—both voluntary counseling and testing and provider-initiated counseling and testing—at key service delivery points: outpatient and inpatient wards; TB clinics; and antenatal care, PMTCT, and pediatric care services.

An inmate at the Daloa Prison Infirmary tested positive for HIV while in prison. His CD4 count is high so he is not on treatment, but is being monitored by the doctor.

Voluntary Counseling and Testing Services in Bouaflé Prison

ICAP supported Bouaflé Prison in central Côte d'Ivoire to become one of the first prisons in the country to provide voluntary HIV counseling and testing as well as access to HIV care and treatment. Digbehi Edmond, the prison's nurse and sole health care provider, offers the 479 inmates both general care and HIV services, including counseling and testing, collecting and transporting blood samples to the laboratory, and accompanying HIV-positive inmates for follow-up visits at the hospital. He is assisted by ICAP clinical advisors, who provide on-site training, clinical mentoring, and supportive supervision. ICAP also purchased a motorcycle for the prison infirmary to facilitate the transportation of laboratory samples.

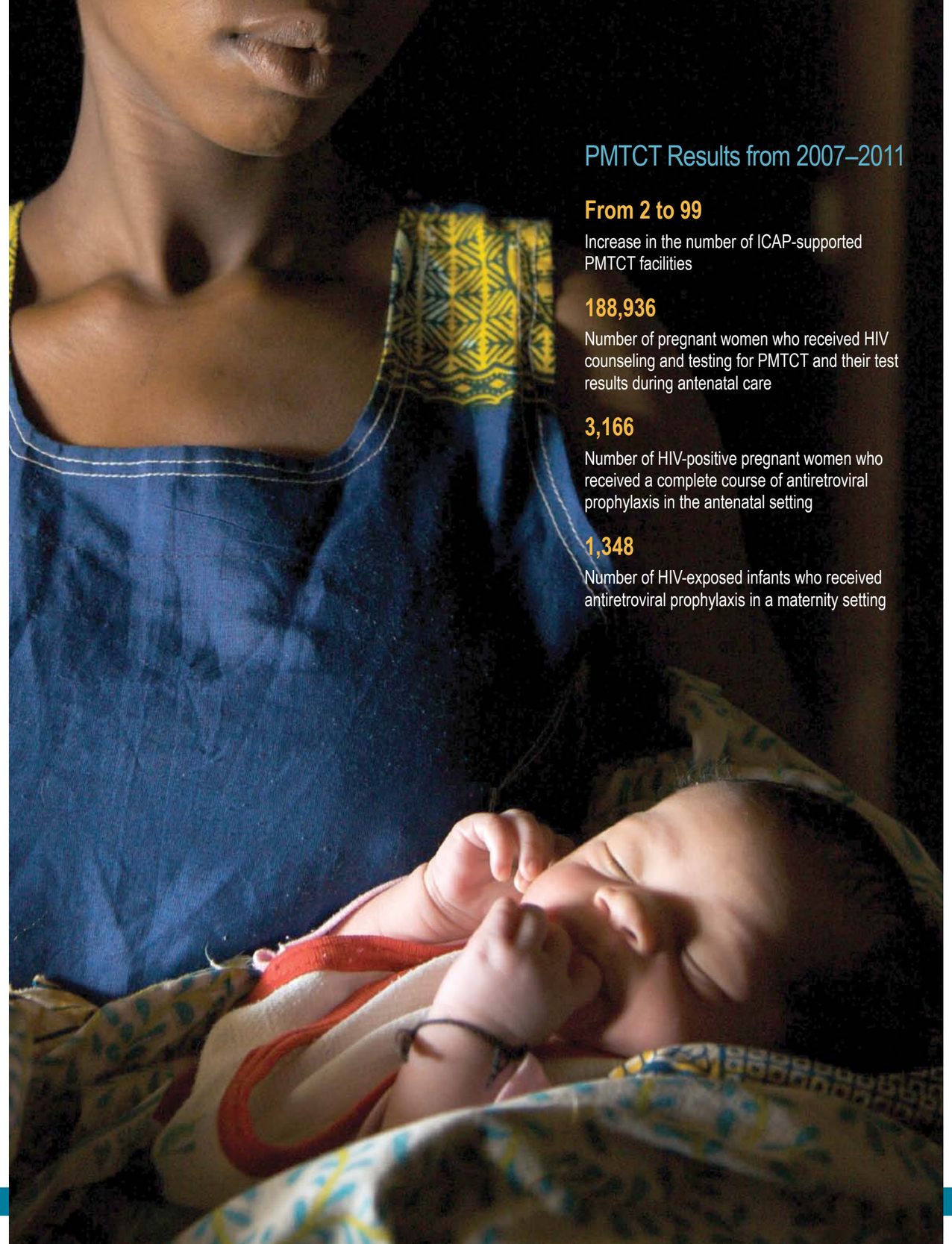
From program initiation in 2007 until 2012, ICAP support has grown:

- Voluntary counseling and testing and provider-initiated counseling and testing facilities now number 111.
- 147,056 patients have been counseled, tested, and provided their test results.

At all 111 supported HIV counseling and testing facilities, ICAP has provided basic equipment and medical supplies and initiated both voluntary and couples counseling and testing. ICAP also has introduced provider-initiated counseling and testing in clinical settings, such as in antenatal care, in TB and STI clinics, and in pediatric and outpatient services. To alleviate nurse workloads, tasks have been divided among health providers, with nurses or midwives conducting pre-test HIV counseling and performing HIV rapid testing (with same-day test results) and community counselors providing post-test counseling and psychosocial support. Patients testing positive are then offered CD4 testing on site and, through a referral and counter-referral system, referred to care and treatment. Health providers use ICAP's Family Testing Tool to counsel patients on bringing their family members for HIV testing—especially partners and children.

Prevention of Mother-to-Child Transmission of HIV

Only a handful of health facilities in the five regions were offering PMTCT services in 2007. HIV prevalence among pregnant women was 4%.[8] In the mostly rural regions supported by ICAP, about only 35% of pregnant women complete the recommended four antenatal care visits, and more than half deliver at home.[9] ICAP's immediate objective was to rapidly increase the number of health facilities providing PMTCT services. Building on its MTCT-Plus Program, ICAP has supported health facilities to provide HIV services alongside antenatal care, labor and delivery, and other mother and child health services, minimizing referrals and lowering the dropout rate of pregnant and postpartum women and infants enrolled in care. Early infant diagnosis has been introduced at all entry points for the delivery of pediatric care.



PMTCT Results from 2007–2011

From 2 to 99
Increase in the number of ICAP-supported PMTCT facilities

188,936
Number of pregnant women who received HIV counseling and testing for PMTCT and their test results during antenatal care

3,166
Number of HIV-positive pregnant women who received a complete course of antiretroviral prophylaxis in the antenatal setting

1,348
Number of HIV-exposed infants who received antiretroviral prophylaxis in a maternity setting

"At first, many providers were reluctant to take on new responsibilities, and many refused to conduct PMTCT activities. But the rehabilitation and renovation of health facilities and laboratories, the introduction of clinical support tools, and the trainings and intensive mentorship eventually motivated them to provide the new services and adhere to the PMTCT clinical guidelines."

—Dr Jean-Pierre Kouassi, ICAP PMTCT Advisor

ICAP has worked with facility multidisciplinary teams to ensure that PMTCT was effectively implemented with provider-initiated counseling and testing; same-day HIV rapid test results and same-day CD4 testing for all pregnant women found to be HIV infected; coordinated antenatal care and HIV care and treatment visits for pregnant woman initiated on ART; and follow-up of postpartum women and infants after delivery. Midwives and nurses have been trained in administering rapid testing for HIV, providing counseling to pregnant women and their partners, and conducting HIV DNA PCR testing of dry blood spots for early infant diagnosis. ICAP's investment in enhancing physical infrastructure, equipment, and supplies proved beneficial to all the women and children accessing maternal and child health services—not just for those in PMTCT.

Until a woman is eligible for ART, she receives care from a nurse or midwife. Once eligibility is established, a community counselor or a dedicated PMTCT peer educator offers psychosocial support and schedules an appointment for her to see a doctor at an ART clinic, using referral and counter-referral cards introduced in each health facility. Pregnant women rarely hesitate to get tested for HIV. Convincing their partner to receive HIV testing, however, remains a challenge. Over time, in partnership with PNPEC and district health teams, ICAP has enhanced the quality of PMTCT services by implementing standard operating procedures for PMTCT, didactic and practical trainings of teams of providers (dedicated PMTCT peer educators among them), and on-site supervision and clinical

A man waits in maternity clinic.

Akeem's New Lease on Life

Akeem got a new lease on life in 2009, thanks to antiretroviral therapy provided through ICAP at Bouaflé Regional Hospital. A tailor, Akeem was diagnosed with HIV when he suddenly fell ill. He enrolled in HIV care and regularly attended a support group organized at the hospital for people living with HIV. At first, he was too weak to speak. But the ART he adhered to religiously changed that. Free of opportunistic infections, he gained weight and strength and became a member of the hospital multidisciplinary team as a peer educator. He was also selected by his community to become their village leader. With a small stipend provided by ICAP, he bought a sewing machine and resumed his small tailoring business. He continues to provide support and counseling to HIV-positive individuals in Bouaflé and to sensitize his community about how to live positively with HIV.

mentorship. ICAP has also introduced the PMTCT model of care and standards of care quality assurance and improvement tools, and longitudinal registers to follow up on pregnant women and infants enrolled in care and treatment.

PMTCT support groups meet in health facilities and in the community, and peer educators and community counselors have been mobilized and trained to support women and families enrolled in care, to facilitate disclosure of HIV status, and to actively follow up on patients who have missed appointments. In Vavoua District, the Sisters from *Communauté Notre Dame de la Paix de Vavoua* has also mobilized community and religious leaders to organize sensitization campaigns for churches and mosques on the importance of antenatal care and PMTCT. ICAP collaborates with the USAID-funded Food and Nutritional Technical Assistance (FANTA) program and the national nutrition program to organize infant feeding counseling sessions for HIV-infected mothers in all PMTCT services and to expand nutritional support for malnourished children and their families at referral hospitals and health centers. ICAP also has strengthened two-way referral linkages between PMTCT and pediatric services and other social services for children and their families, such as immunization campaigns and services for orphans and vulnerable children.

TB/HIV Integration: A Smart Investment That Saves Lives

To expand access to TB/HIV coinfection services at peripheral health facilities, ICAP has adopted a three-prong approach, which built on its success scaling up TB/HIV services in Rwanda and optimized early detection of coinfected patients.

ICAP has introduced routine TB screening for all patients at ART clinics and provider-initiated HIV counseling and testing at first visit for TB patients seen at TB care facilities, following national guidelines. ICAP also took concrete steps to strengthen

"ICAP was one of the first implementing partners to work with the PNLT and PNPEC to bring TB/HIV coinfection services to peripheral facilities. Until 2007, TB/HIV coinfection services were available mostly in Abidjan and at regional hospitals."

—Dr Souleymane Sidibe, PNLT Deputy Director

referral linkages between TB and HIV care facilities and rolled out a minimum package for TB infection control in all services caring for TB patients and those with symptoms suggestive of TB.

At TB treatment units, patients with or suspected of having tuberculosis receive HIV testing at their first visit. If found to be HIV positive, a dedicated community counselor accompanies the patient to the ART clinic for care and treatment; the ART clinic is co-located with the TB treatment unit at all but two supported facilities. On-site at these ART clinics, ICAP conducts provider trainings and has adapted and rolled out a simple five-question screening tool for use at patient enrollment and every three months thereafter. HIV patients confirmed to have active TB are accompanied to the TB clinic for treatment. The TB screening tool, which now forms an integral part of every patient's health record, has been adopted for scale-up in all ART clinics nationally. It has also been adapted to screen HIV-positive children for TB.

By October 1, 2011:

- All 16 ICAP-supported TB detection and treatment facilities in the five regions had a functioning one-stop TB service for TB patients with HIV.
- All 2,879 new patients with unknown HIV status at enrollment into TB care were tested for HIV while in care at the TB clinic.
- All 65 ART clinics routinely screen HIV-infected patients for TB.
- 10,229 new patients were screened for active TB at enrollment into HIV care.

Improving the Lives of Orphans and Vulnerable Children and Families Affected by HIV

ICAP's package of services for orphans and vulnerable children includes:

- HIV prevention and reproductive health messages
- Nutritional assessments and support
- Clinical care services for HIV-infected and -affected children
- Enhanced psychosocial support at facility, home, and community levels
- Access to education, economic support, and targeted food and nutrition support

In close collaboration with the *Programme National de Prise en Charge des Orphelins et Enfants Vulnérables* (PNOEV; the national program for orphans and vulnerable children), ICAP

has worked with local nongovernmental partners and teams of providers in health facilities to deliver an integrated package of services to eligible HIV-infected and -affected children and their families. The package of services is delivered by trained community counselors, social workers, and peer educators, who use national tools designed with ICAP support to identify and register orphans and vulnerable children. ICAP also works with multidisciplinary teams to strengthen referral mechanisms between health services and community-based services for orphans and vulnerable children, ensuring that they receive a full range of services, including access to education, economic assistance, and food and nutrition support.

Through October 2011:

- 10,612 orphans and vulnerable children were identified and benefited from at least one care and support service.
- 1,220 orphans and vulnerable children benefited from targeted food and nutrition support.
- 661 HIV-positive orphans and vulnerable children enrolled in care.
- 429 orphans and vulnerable children initiated ART.

Maximizing Patient Retention Through Social Support

When ICAP began working in communities in the five regions, it faced formidable challenges. Limited knowledge about HIV compounded with high illiteracy rates and traditional beliefs and practices contributed to HIV-related stigma and discrimination. To increase uptake of health services and to enroll and retain patients into care and treatment, ICAP has drawn on the experience and support of existing local nongovernmental organizations and of community members themselves. Working with Femmes Actives, SAPHARM, and Communauté Notre Dame de la Paix de Vavoua, ICAP has mobilized and trained community counselors and HIV-positive peer educators to provide individual and group care and support to people living with HIV and their caregivers at health facilities and during follow-up home visits. These nongovernmental organizations carry out HIV public awareness campaigns in markets and use local radios to broadcast HIV messages.

Prevention

Primary Prevention

During sensitization events organized locally by nongovernmental organizations, community counselors impart HIV prevention messages. Primary prevention messages educate the community about HIV and promote delay of first sexual encounter among adolescents in schools, abstinence, and fidelity among married couples and those in monogamous relationships, as well as condom use.

- More than 54,350 persons have been reached with individual and/or small-group preventive interventions primarily focused on abstinence and/or being faithful.
- 40,793 persons have been reached with individual and/or small-group preventive interventions primarily focused on condoms and other methods of prevention.

Prevention with Positives in Clinical Settings

Integrating prevention with positives interventions in care and treatment services is an effective way to reduce new HIV infections, as it allows for the repeated delivery of prevention services to the HIV-positive patient when he or she returns for care. ICAP has trained health care providers in all governmental and nongovernmental health facilities on the use of a five-step counseling tool to support HIV patients to reduce risk of HIV transmission. The tool, which was developed by the CDC, helps providers deliver consistent, targeted prevention messages and strategies to HIV-positive patients during routine care and treatment visits. Condoms are distributed to patients at each visit.

Improving and Sustaining Quality

ICAP has worked hand in hand with PNPEC, district health teams, and facility multidisciplinary teams to improve health system performance and effectiveness and ensure the quality of HIV services and ultimately of all services. The participatory nature of ICAP's approach to systems strengthening has built ownership over the HIV program, as district and facility multidisciplinary teams participate in quality improvement activities and gained the skills to lead such activities in the future.

Everyone's Daughter

Kani was not quite three years old when she arrived at the ICAP-supported AIBEF clinic in Daloa with her 10-year-old sister, although physically she looked more like she was only age one. The two sisters, who had lost both parents to AIDS, had walked six kilometers to reach the clinic. They lived with an aunt, who had lost hope of saving Kani. AIBEF providers nursed her back to life, providing comprehensive pediatric HIV care and treatment and nutritional support. They also linked Kani and her sister to social services. Kani's older sister received HIV counseling and testing; her test results retuned negative. AIBEF providers counseled her on proper ART administration for her sister and delivered HIV prevention messages. Eventually, she became Kani's strongest advocate, giving her antiretroviral drugs and bringing her to the clinic for monthly follow-up visits. "When Kani first arrived at the clinic, ICAP told the community counselor to care for her like her own daughter, and she did. But really, at AIBEF," says ICAP adherence and community linkages officer Françoise Silue, "Kani is everyone's daughter."

Rolling out Continuous Quality Improvement Activities

Initiating HIV services, introducing clinical protocols, or expanding the role of health care providers all require effective quality assurance tools for facility providers to remain focused on delivering quality care. One of ICAP's key strategies for comprehensive HIV service delivery has been its Clinical Systems Mentorship (CSM) methodology—a set of continuous quality improvement tools that builds the capacity of providers to deliver high-quality care based on defined standards of care indicators that are consistent with nationally validated standards of care, with regular quality assessment and support over time. Because CSM is grounded in continuous data-driven assessment, it explicitly targets service delivery challenges, improving not only the competence of individual providers but also strengthening on-site clinical teams as well as district health teams and health care systems.

Improving the Quality of PMTCT Programs

ICAP introduced Clinical Systems Mentorship at all its supported facilities. For example, at the Daloa Municipal Maternity, CSM helped facility staff identify and address problems with the effective integration of PMTCT services within antenatal care. By applying the standards of care tool, the facility multidisciplinary team discovered that only 35% of HIV-positive pregnant women had received antiretroviral prophylaxis for PMTCT. The team determined that overreliance on a single midwife to administer the drugs had created a situation in which—in the absence of that midwife—no other health provider could administer the drug to HIV-positive women in ANC. With ICAP support, the multidisciplinary team supported all the facility's midwives in increasing their skills and acquiring the confidence to provide PMTCT services.

In-Service Training and Supportive Supervision to Sustain High-Quality HIV Programs

When ICAP first initiated activities in Côte d'Ivoire, health workers equipped to provide HIV services were in short supply—a result of the lack of pre-service training in HIV. Hence, supporting in-service training in HIV care and treatment quickly became a priority. Accordingly, ICAP has supported regional-level HIV care and treatment trainings of trainers, which update participants' knowledge on various HIV technical areas.

Following these trainings, ICAP staff and Ministry of Health trainers selected individuals from among the pool of national trainers to conduct practical training covering the first weeks of HIV service initiation, in order to build providers' clinical skills and their confidence in providing HIV services. At that time, trainers work with the multidisciplinary teams at each facility to initiate standard operating procedures for care and treatment services, including the use of national protocols for ART eligibility criteria, ART, PMTCT, pediatric HIV and TB/HIV. The trainers also put in place systems for patient flow and data management. These practical trainings are followed by intensive on-site support and refresher trainings and mentoring.

Strengthening the Health System

Infrastructure

In 2007, few health facilities at the decentralized level had adequate physical structures and medical and laboratory equipment to provide comprehensive, integrated HIV services. In partnership with the Ministry of Health, ICAP has moved quickly to roll out a structured package of infrastructure enhancements adapted to each level of care. Between 2007 and 2012, ICAP carried out more than 63 health facility renovations. These essential renovations provide the physical improvements necessary if health providers are to be able to consistently deliver, day after day, vital HIV health services.

In addition to essential repairs of clinical, laboratory, and pharmacy structures, ICAP's facility support also includes a standard package of medical and laboratory equipment and supplies and IT equipment. Infrastructure improvements are complemented with training and mentoring by ICAP staff on key functions critical to HIV service delivery, such as financial management, health management information systems, and drug and reagent forecasting.

Expanding and Strengthening the Laboratory Network

In 2007, in the 10 districts receiving support from ICAP, only Issia General Hospital, in Haut Sassandra, was equipped with a FACSCount machine for CD4 testing, and only a handful of intermediary facilities had access to HIV rapid tests. Many laboratory tests had to be processed manually, and as a result, patient enrollment in care and treatment was very slow.

Early in 2008, in collaboration with district health teams and DIEM, the unit within the Ministry of Health responsible for the maintenance of infrastructure and medical equipment, ICAP carried out laboratory renovations and equipment upgrades, ensuring that at least one laboratory in each of the 10 districts was equipped with a FACSCount machine, a machine for biochemistry, and a machine for hematology. By February 2012, more than 12 ICAP-supported labs are offering full HIV monitoring tests. Laboratories at TB care and treatment facilities were also enhanced, and all laboratory personnel have been trained on HIV-related tests and quality assurance.

As laboratory capacity to conduct HIV-related testing improved, ICAP has expanded the lab sample-transportation system at district level. Health facilities with laboratory testing capacity are matched with satellite facilities, reducing processing time for CD4 tests to three days. In districts where the satellite facility and district laboratory were in the same city, CD4 tests results are now available within 24 hours.

A laboratory with new equipment and ICAP-trained technicians at the District Hospital in Issia

More Effective Commodity Management

Management of drug and commodity stock is essential to the success of an HIV program. Because Côte d'Ivoire's systems were weakened during the political crisis, ICAP had to strengthen the capacity of the pharmacy systems in the five regions. ICAP has worked with PEPFAR's Supply Chain Management System (SCMS), the national public health pharmacy known as PSP, and providers at health facilities to establish antiretroviral forecasts and to set up stock management and patient appointment systems; district-level pharmacists have also been trained and mentored on counseling patients on the side effects of antiretroviral medications and on the importance of adherence to treatment. Staff from peripheral facilities travel to district hospitals to obtain their stocks of antiretroviral drugs, and ICAP works with district staff to reduce district-level stockouts, in part by supporting provision of timely district consumption reports to the central-level public health pharmacy.

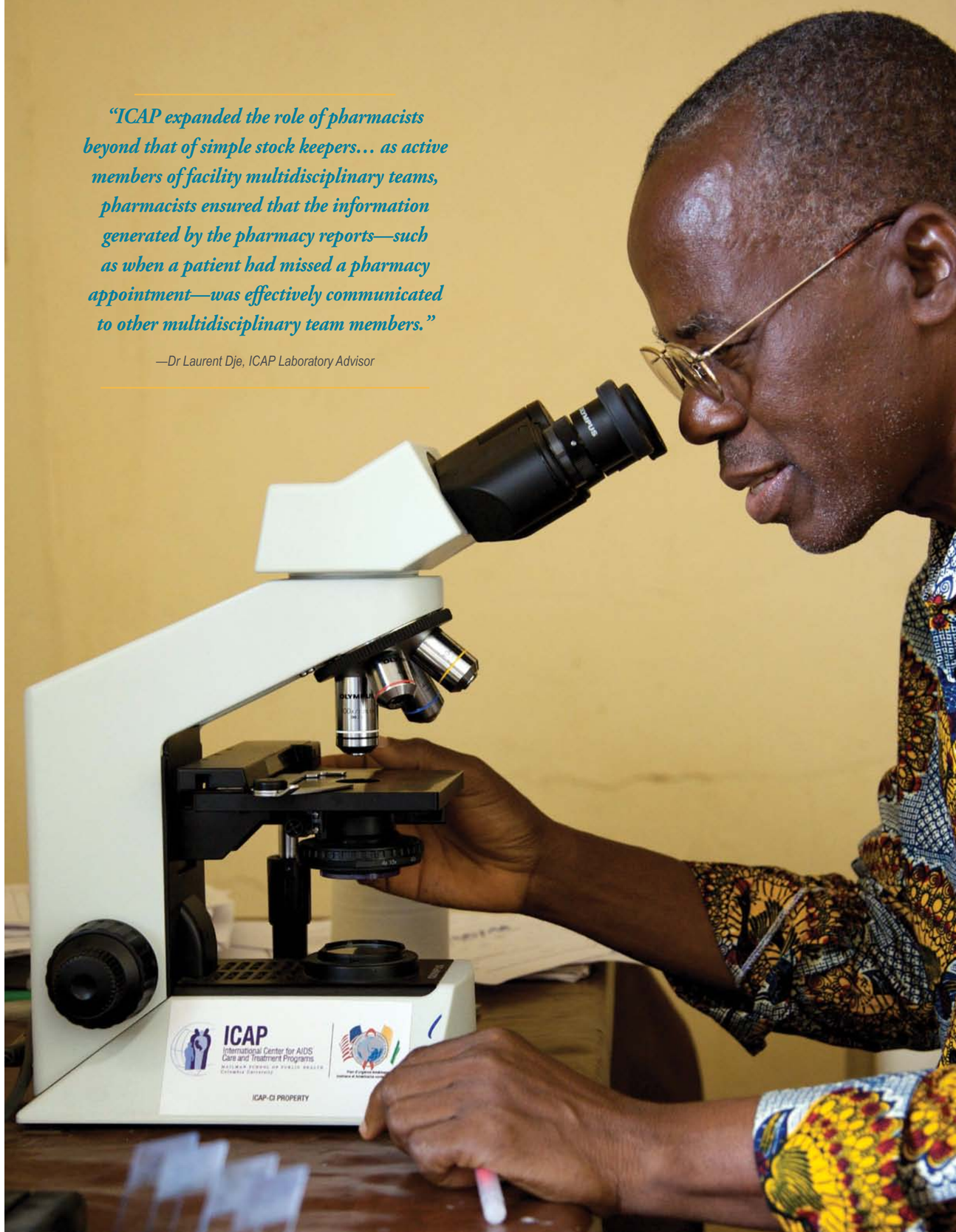
To address the challenge of stockouts if they occur, ICAP has created a network of pharmacies and laboratories within each district that will allow a facility experiencing a stockout to acquire drugs or reagents from a close-by facility with available supply.

Strengthening Strategic Information Systems

Improving data quality is a major priority both for CDC and for DIPE. A multitude of tools, including HIV registers and patient files, existed and were available to providers. However, these tools needed to be streamlined, standardized, and used consistently across facilities. Furthermore, as health facilities expanded HIV services, the burden of data management and the need for dedicated staff, effective health management information system tools, and adequate supervision increased proportionally. ICAP has collaborated with DIPE, as a member of its technical working groups, to revise such national tools

"ICAP expanded the role of pharmacists beyond that of simple stock keepers… as active members of facility multidisciplinary teams, pharmacists ensured that the information generated by the pharmacy reports—such as when a patient had missed a pharmacy appointment—was effectively communicated to other multidisciplinary team members."

—Dr Laurent Dje, ICAP Laboratory Advisor



ICAP computer equipment operated by ICAP personnel

as PMTCT registers, TB/HIV registers, and patient charts, and has rolled them out in health facilities in the five regions during provider trainings and mentoring. Where necessary to collect results on indicators not captured in national registers, ICAP also introduced its own tools.

Having provided a basic package of essential equipment and technical support to districts and health facilities to enhance their health management information systems capacity, ICAP has oriented Ministry of Health data managers at district level to data quality assurance approaches and tools, and works with multidisciplinary teams and district health teams to introduce standard operating procedures for data entry, data quality assurance, and patient confidentiality. ICAP has also provided support for routine data audits across paper-based and electronic data collection systems. Finally, ICAP has contributed to the development of and participated in the deployment of SIG/DIPE, an electronic reporting system that accepts Internet-based data entry for HIV indicators. This Web-based system connects facilities with districts, laboratories, and SCMS and enables them to collect and share critical patient information related to care and treatment and drug shortages.

Setting the Stage for Transition

ICAP's approach is to always to implement activities jointly with local governments. In early 2008, as PEPFAR's focus began to shift to sustainability and greater country involvement, the Côte d'Ivoire PEPFAR team and its implementing partners began to put in place transition plans for transferring technical and managerial capacity for HIV program support to local institutions. With CDC support, to ensure local ownership and sustainability for the HIV programs, ICAP helped establish *Santé Espoir Vie–Côte d'Ivoire* (SEV-CI), a fully local organization, with the intention that it will continue to strengthen health facilities starting with three of the five regions: Fromager, Haut Sassandra, and Marahoué.

"ICAP was willing to work in districts where, until that time, other partners would not work. In and of itself, this has meant a lot to us."

—Dr Souleymane Sidibe, PNLT Deputy Director

SEV-CI was launched in 2010, and ICAP began incrementally transferring technical and managerial functions to it. Many key ICAP staff moved over to the new organization, ensuring continuity and successful transition.

In 2011, SEV-CI was awarded a cooperative agreement from CDC to continue to strengthen integrated HIV services in the three regions, and ICAP was awarded new funding as well. With this new funding, ICAP will continue to provide technical assistance to the Ministry of Health and to SEV-CI to bolster their technical and institutional capacity.

THE NEXT CHAPTER

Lessons Learned 2007–2012

As ICAP's activities in Côte d'Ivoire have evolved and adapted to better address inevitable programmatic challenges, significant lessons were learned:

- Planning and implementing activities in close partnership with the Ministry of Health helps ensure synergies with the national HIV program.
- ICAP's investment in building district health teams' capacity promotes mutual accountability and local ownership for HIV services at the decentralized level. At the same time, it helps minimize treatment disruptions in the districts most affected by the political crisis.
- Establishing the regional office in Daloa facilitated intensive facility mentorship and helps multidisciplinary teams quickly address service delivery gaps as they arise.
- Providing each health facility with a comprehensive HIV care package adapted to each level of care—a package consisting of medical and laboratory equipment and supplies, training, and mentorship—has a spillover effect. That is, it benefits all areas of service delivery, not just HIV services.
- Integrating HIV services with other health services, by introducing provider-initiated counseling and testing and other screening tools in multiple entry points to care, maximizes enrollment and retention into HIV care and treatment. Integration also centers care on patients and their families as HIV services become easier to access.
- Access to tested clinical and capacity building tools from other countries, which could be readily adapted to the Côte d'Ivoire context, as well access to a pool of HIV experts based at ICAP headquarters at Columbia University's Mailman School of Public Health, contributes to the rapid scale-up of HIV services.
- ICAP's Clinical Systems Mentorship empowered facility multidisciplinary teams to target service delivery challenges. CSM has raised competency and capacity in individual providers and at the same time has strengthened whole clinical teams and health care systems.
- Investing in essential strategic information resources—such as hiring data managers, purchasing computers, and establishing a reliable power supply to support tools for record keeping—demonstrates the importance of these inputs in improving data quality.

Moving Forward in Côte d'Ivoire

The programs that ICAP has implemented as of 2012 will have a lasting influence on the availability and quality of HIV treatment, having dramatically expanded access for communities that previously lacked HIV services.

After MCAP ends late in February 2012, ICAP's focus in Côte d'Ivoire will be on consolidating the gains of the preceding years, while continuing to provide technical assistance to facilities, districts, and the Ministry of Health as well as to SEV-CI as it assumes its new technical and managerial role for HIV program support in Fromager, Haut Sassandra, and Marahoué and, to additional districts in the future.

ICAP will also provide technical assistance to the Ministry of Health and its central-level institutions (PNPEC, PNLT, and DIPE). ICAP will also continue working with regional health teams in all five districts and working with two of those districts to enhance HIV-related technical programs to support facilities in their catchment areas. ICAP will also continue to institutionalize continuous quality improvement methodologies in health facilities; sharing the latest research findings with local partners; identifying key evaluation questions related to effectiveness of HIV programming; identifying new approaches for increasing access to HIV care and treatment services for underserved and key marginalized populations; and testing and implementing innovative strategies for integrated health services, including the use of HIV services as a platform to improve the quality of care and treatment for other critical health issues: malaria, maternal and child health, and reproductive health.

The programs that ICAP has implemented in Côte d'Ivoire as of 2012 will have a lasting influence on the availability and quality of HIV treatment, having dramatically expanded access for communities that previously lacked HIV services.

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PHOTO: ICAP–Côte d'Ivoire staff in Daloa

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