ETHIOPIA

ICAP SUPPORT TO THE SCALE-UP OF HIV PREVENTION, CARE, AND TREATMENT IN PARTNERSHIP WITH THE GOVERNMENT OF ETHIOPIA

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UNITED STATES PRESIDENT'S EMERGENCY PLAN FOR AIDS RELIEF

Contents

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We gratefully acknowledge ICAP staff in New York and Ethiopia, whose dedication and collective work have made our support in Ethiopia a great success.

Pediatrics waiting area at Adama Comprehensive Chronic HIV Care & Training Center and Laboratory

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 after 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 2011, the US government had directly supported ART for 50% of the global response—more than 3.9 million men, women, and children worldwide.[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, initially funded by a coalition of private foundations and subsequently expanded with funding by the United States Agency for Inter-

A peer educator directs clients outside of the adherence support room at Adama Comprehensive Chronic HIV Care & Training Center and Laboratory.

national 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 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. MCAP programming, 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.

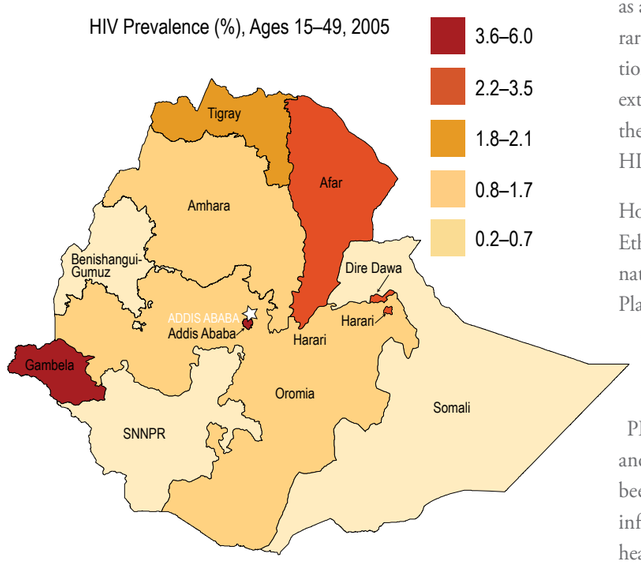
ICAP works with ministries of health, local organizations, and people living with HIV to develop sustainable, locally appropriate HIV prevention, care, and treatment programs that are integrated with national AIDS control programs. ICAP's comprehensive model consists of:

- 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 appropriate to 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 standards of care and methodologies for program evaluation

A religious leader testing for HIV at Somali region mobile voluntary counseling and testing

"The exemplary collaboration between ICAP and the Dire Dawa Health Administration has enabled us to deliver wide-ranging, high-quality HIV services across our entire health network. Many of our health facilities now provide high-quality HIV care and treatment services integrated with other care programs. The referral network is a national model."

—Dr Tsigereda Kifle, Director, Dire Dawa Administration Health Bureau

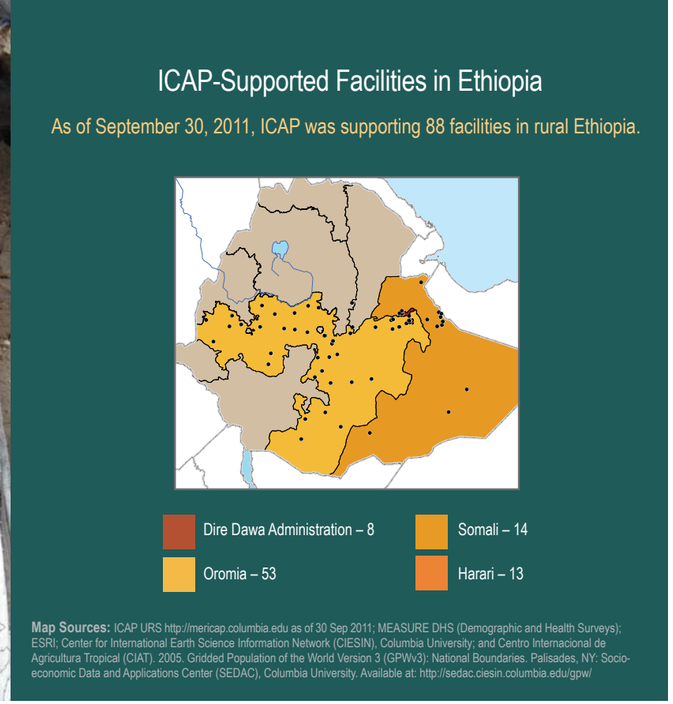


HIV in Ethiopia

More than a million of Ethiopia's 88 million people are living with HIV. Prevalence is estimated at 2%, though there are key populations with higher prevalence, such as 25% among sex workers along major transport routes.[6] Uniformed personnel, mobile workers, teachers, and youth are also considered particularly vulnerable to HIV infection.[7] Adults in urban areas are eight times more likely to be infected (7.7%) than in rural areas (0.9%).[8] Women account for 59% of all people living with HIV.[9]

Until relatively recently HIV services were concentrated in a very small number of large, urban hospitals inaccessible to the majority of the people living with HIV. Testing for HIV had not yet been integrated with such primary health care services as antenatal care in any systematic way. Specialized care was rare for HIV-positive individuals with opportunistic infections and AIDS-related cancers. Stigma surrounding HIV was extremely strong; many who were HIV infected did not know their serostatus, and support networks for people living with HIV were limited.

However, the landscape of HIV care and treatment services in Ethiopia has changed dramatically in less than a decade. The national response is now guided by the Multisectoral Strategic Plan (SPM II) 2009–2014, Ethiopia's second national strategic plan and the Government of Ethiopia provides policy and normative guidance to the national program. In addition, thanks to strong leadership and support from PEPFAR, the Global Fund to Fight AIDS, Tuberculosis and Malaria, and other development partners, success has been achieved in the face of significant human resource and infrastructure constraints, including very limited numbers of health care workers.[10]



ICAP IN ETHIOPIA

To improve the limited scope and reach of HIV services, ICAP has worked to scale up HIV services both nationally and in the four regions where it has partnered with regional government and community organizations. At national level, ICAP played an important role in national technical working groups and has assisted the Ministry of Health and Social Welfare in developing national tools, guidelines, and training curricula relating to HIV prevention, care, and treatment.

Beginning in 2005, under the leadership of country director Zenebe Melaku, MD, with dedicated national, regional, and facility teams, ICAP worked closely with the Federal Ministry of Health (FMOH) and its directorates, Federal HIV/AIDS Prevention and Control Office (FHAPCO), and regional health bureaus, to support comprehensive HIV care at health facilities in four regions: Oromia, Dire Dawa, Harari and Somali.

Four key principles served as the basis for ICAP's subsequent achievements in Ethiopia:

- **Collaboration:** Working within the framework of the national HIV program with a range of partners
- **Sustainability:** Addressing national and regional priorities and building enduring skills and systems
- **Integration:** Involving entire families and providing a full continuum of services integrated into the basic health care system
- **Innovation:** Exploring new and creative ways to overcome challenges and meet the needs of diverse populations

Most hospitals and health centers that ICAP supports are rural or semi-urban, far from better resourced urban areas. ICAP provide continuous facility-level support and intensive hands-on mentoring, with a goal of transferring clinical and management skills. Every supported health facility has benefited from a holistic package that includes infrastructure enhancement, systems support, training, and mentorship.

To FMOH/FHAPCO, regional health bureaus, and laboratories, ICAP provides technical and capacity building support that encompasses a broad range of HIV services, including counseling and testing, adult and pediatric ART, PMTCT, and palliative care, prevention with positives, adherence and psychosocial support, TB/HIV integration, treatment for HIV and sexually transmitted infections, laboratory services, and support for monitoring and evaluation activities.

Building Partnerships at Every Level

National Guidelines Development

ICAP is the lead PEPFAR implementing partner in Ethiopia for greater and meaningful involvement of people living with HIV, pediatric HIV care and treatment, early infant diagnosis, and TB/HIV integration.[11] ICAP has supported development of national frameworks and guidelines, minimum service packages, national training curricula, data recording and reporting forms, and clinical tools and job aids for health care providers. ICAP also supports workshops and experience sharing meetings, where consensus is reached and plans are developed to initiate and scale up activities in these key program areas.

ICAP's comprehensive support has assisted the FMOH in the development and rollout of guidelines, implementation procedures and training packages for:

- The national pediatric HIV care and treatment program, including supporting the development and subsequent revision of Ethiopia's first stand-alone, national pediatric HIV care and treatment guidelines
- The further integration of TB and HIV, including participating in the National Technical Working Group on TB/HIV
- The development and distribution of the National Guideline for Greater Involvement of People Living with HIV/AIDS in Ethiopia, through linkages and partnerships with FHAPCO and associations of people living with HIV
- The participation in a national laboratory technical working group that developed standards and training for laboratory services relating to implementation of laboratory services, logistical and technical support, quality assurance programs for HIV and TB diagnosis, and ART monitoring, and assisted laboratories in working towards international accreditation

Together with CDC, PEPFAR and others, ICAP has facilitated the establishment of the National Infant Diagnosis Multidisciplinary Team, and collaborated with the Ethiopian Health and Nutrition Research Institute (EHNRI) to develop standard operating procedures, training modules, registers and job aids for HIV-exposed infant follow-up, and HIV DNA PCR laboratories.

Working with Regional and Local Partners

ICAP works closely with regional health bureaus for Oromia, Dire Dawa, Harari, and Somali to tailor support to regional needs and priorities and build technical and management capacity for short- and long-term program planning and implementation. ICAP's package of skills and systems strengthening support includes:

- **Financial Management Skill Building:** ICAP regional finance and subgrant teams deliver training, coaching, and systems support in record keeping; procurement and inventory management; budget preparation and financial reporting; and development of subagreements, modifications, scopes of work, and standard operating procedures.
- **Technical Assistance:** Some of the support that is provided to regional health bureaus includes:
  - the establishment of regional TB/HIV steering committees, where HIV and TB teams come together to plan and monitor collaborative activities
  - the design, implementation and monitoring of pediatric care and treatment programs
  - the training and support of regional referral laboratories in HIV DNA PCR testing for early infant diagnosis, regional PMTCT technical working groups, and a laboratory technical working group in Oromia region
- **Reinforcing Coordination and Linkages:** ICAP assisted regional health bureaus and zonal health departments to set up regular catchment area meetings of HIV coordinators to monitor the effectiveness of referral linkages between health centers and hospitals, building associations with people living with HIV, and the establishment of regional HIV partners' forums to promote the exchange of experience.

A training session in a newly renovated training room at Adama Comprehensive Chronic HIV Care & Training Center and Laboratory

"ICAP's support for regional universities such as Haramaya University in efforts to develop human resources capacity for health will have far-reaching impact on the delivery and quality of programs for HIV and other basic health care. Having a dedicated and well-versed partner like ICAP on our side right from the opening of our medical school has had a positive impact on the training of various cadres of health professionals at my university."

—Dr Tekabe Abdosh, Dean, College of Medical Sciences, Haramaya University

- **Enhancing Monitoring Systems:** ICAP continues to build regional health bureaus' capacity to monitor compliance of service inputs, availability, and quality with national standards. Through participating in quarterly regional health bureau supportive supervision visits to health facilities and by working with the bureaus to resolve issues requiring ad hoc site presence, ICAP has improved routinely collected data for planning, performance management, and continuous quality improvement.
- **Clinical Skills Transfer:** ICAP technical advisors and regional support staff have provided basic HIV treatement and care training and training-of-trainers to regional health bureaus
- **Laboratory Systems Enhancement:** To enhance the laboratory system capacity to support expanded HIV services in the four supported regions, ICAP has worked with regional health bureaus to:
  - renovate three regional laboratories
  - set up HIV DNA PCR facilities
  - establish TB drug sensitivity testing and multidrug-resistant TB monitoring facilities
  - deliver comprehensive training to regional laboratory staff
  - develop regional laboratory sample referral system
  - train a range of health center and hospital staff in collection, delivery, and transportation of whole blood and dry blood spot samples and laboratory data management

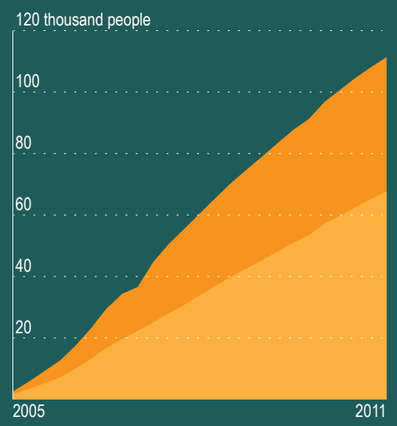
Building Human Resources with Universities

ICAP is partnering with Jimma and Haramaya Universities to build teaching capacity in HIV; to mainstream HIV into pre-service training programs for various health cadres; and to equip the universities to serve as technical hubs for regional program implementation. ICAP has also supported the creation of two regional chronic HIV care and training centers, where university staff train health care providers. One center was established at the Adama Regional Referral Hospital and the other at Jimma University Teaching Hospital.

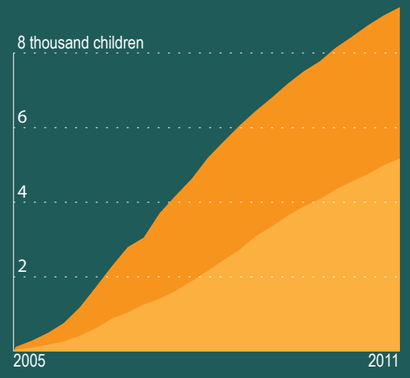
"From day one, ICAP shared the Federal Ministry of Health commitment to innovating, learning through innovation, getting things done, and changing perceptions about what was possible."

—Miriam Rabkin, ICAP Director of Health Systems Strategies

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



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



WHAT WAS ACHIEVED?

ICAP's support to 53 hospitals and 32 health centers is designed to enable them to apply the standard package of services for HIV prevention, care, and treatment and the systems required to manage these services effectively. ICAP's support model is one of regular presence rather than brief facility visits; staff benefit from ongoing mentorship. ICAP regional staff, together with central technical advisors, provide regular supervision in clinical services and management at all ICAP supported facilities.

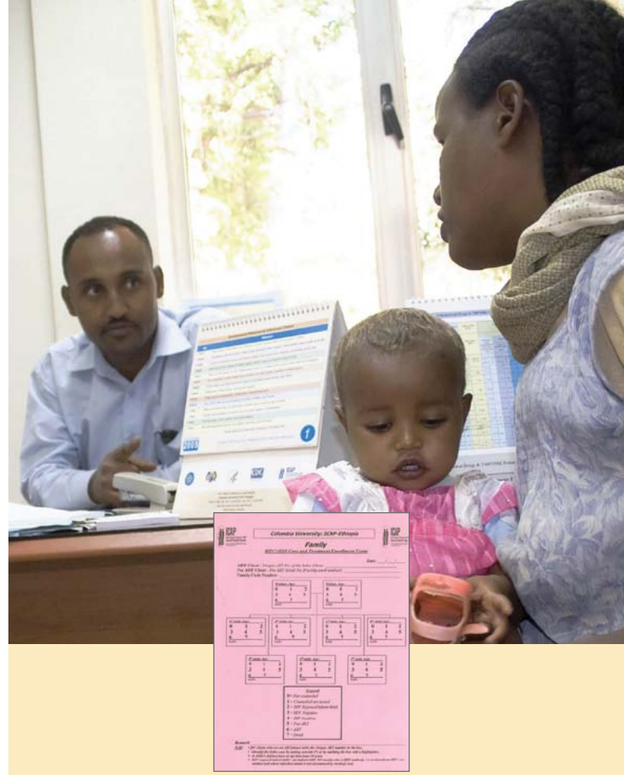
Expanding Access to Services

To date, ICAP has supported facilities to enroll more than 111,000 patients in HIV care and to initiate ART for more than 67,000 patients, accounting for nearly 20% of Ethiopians on ART.

Antiretroviral Therapy for Adults

Since 2005, more than 100,000 adult patients have been enrolled in HIV care and treatment and more than 67,000 adults have initiated ART at 85 ICAP-supported health facilities. More than 40,000 adult patients are currently enrolled on ART.

ICAP has facilitated the delivery of adult ART services at 53 hospitals and 32 health centers in Oromia, Dire Dawa, Harari, and Somali regions. ICAP's facility support approach and focus on quality of care and continuous quality improvement have enabled supported facilities to maintain high levels of retention in treatment, even as access has expanded to include more hospitals and health centers in remote areas. Over the program's duration, the aggregate proportion of ART patients retained in treatment after six months at ICAP-supported facilities is 81%, and the proportion retained after 12 months improved from 59% to 84% between 2006 and 2011.



Innovation: The Family Enrollment Form

Identifying HIV-positive individuals can be a challenge. The family enrollment form, can support "case finding" for the family members of people living with HIV.

HIV care patient are counseled to bring their partners and children for testing. The form has been adopted by all implementing partners at health facilities nationwide to provide comprehensive support to families by:

- Identifying and enrolling HIV-infected partners and children and HIV-exposed infants
- Facilitating adherence through disclosure and family support
- Creating prevention and family planning counseling opportunities with serodiscordant couples
- Linking families with psychosocial, nutritional, and other support services
- Ensuring that family members can access services at a single facility and at the same time

The family enrollment form was adopted by other implementing partners in Ethiopia. The initiative has also been adopted by ICAP programs in other countries.

A pediatric nurse takes a blood sample from an HIV exposed baby.

"In 2005, there were only 500 children on ART; today we have more than 14,500 children alive and on ART. ICAP provided valuable technical and guidance and support to the national government and played a key role in the development of our strategies, policies and guidelines. ICAP has also assisted with operationalizing the minimum package of pediatric HIV services through curriculum development, training and training of trainers."

—Dr Yibeltal Assefa,Director of Monitoring and Evaluation, FHAPCO

Pediatric ART

All 85 ICAP-supported facilities offer pediatric ART. Over time, they have enrolled close to 10,000 children aged 0–14 in HIV care and treatment and initiated more than 5,000 on ART.

In 2005, fewer than 500 children were on ART in the whole of Ethiopia. ICAP pediatric advisors have worked intensively with regional health bureaus and health facility teams to build capacity in pediatric HIV care and treatment and ensure that services are as child- and family-friendly as possible. Pediatric HIV services at ICAP-supported facilities have been progressively integrated with general maternal, child, and infant health care. Children and caregivers can now access general pediatric services, immunizations, HIV testing, follow-up care for HIV-exposed infants, and pediatric ART at a single point of service.

Saving Children's Lives

Prevention of Mother to Child Transmission

An estimated 200,000 pregnant women yearly are living with HIV in Ethiopia. However, linking these women with PMTCT services is challenging as fewer than a third of pregnant women attend even one antenatal consultation and just 6% deliver in a health facility.[12] Community initiatives to increase antenatal attendance have maximized the number of HIV-positive pregnant women and HIV-exposed infants who receive ARV prophylaxis.

Since 2005, ICAP-supported facilities that provide PMTCT have:

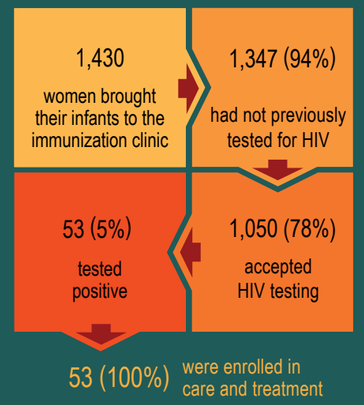
- Counseled and tested nearly 300,000 women for HIV at antenatal clinics and in delivery wards
- Counseled and tested more than 50,000 male partners at antenatal clinics and in labor and delivery wards
- Trained more than 1,800 health care workers to provide PMTCT services
- Provided ARV prophylaxis to more than 6,500 pregnant women

ICAP has instituted provider-initiated counseling and testing at three key points of service: antenatal clinics, delivery wards, and immunization clinics. Although antenatal attendance and institutional delivery are low, national vaccination coverage is much higher; 74% of infants receive their first vaccinations.[13] ICAP has worked with regional health bureaus and health facilities to integrate this approach at all facilities.

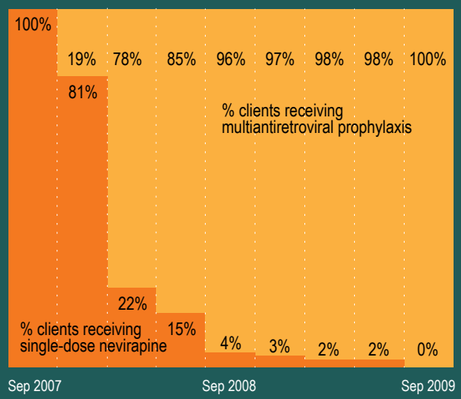
ICAP has integrated provider-initiated counseling and testing into outreach antenatal services by training outreach nurses to conduct rapid tests and accompany HIV-positive mothers to PMTCT services. ICAP has also provided training and mentoring to help supported health facilities transition from single-dose nevirapine to multidrug prophylaxis. The transition was largely achieved within just six months—in January 2008, 81% of PMTCT clients received single-dose nevirapine; by June of that year, 85% were receiving multidrug regimens.

At 15 health facilities with high PMTCT uptake, ICAP has supported the integration of antenatal, PMTCT and ART

Spotlight:
Piloting the Opt-Out Approach
Dil-Chora Hospital, April-November 2007



Transition of Single-Dose Nevirapine to Multiretroviral Prophylaxis 2007–2009



services. Women identified as HIV-positive during antenatal visits are now able to access PMTCT, CD4 staging and, if eligible, to initiate lifelong ART at the antenatal clinic. After her pregnancy, the mother is referred to the ART clinic, where a mothers' support group facilitates enrollment.

ICAP mentors have also supported integration of provider-initiated counseling and testing to family planning clinics and, since 2008, more than 70,000 family planning clients have received HIV counseling and testing services. ICAP mentors have also supported integration of family planning services within ART clinics at selected facilities and strengthened referral between ART and family planning clinics at other facilities.

Increasing Early Infant Diagnosis

ICAP supported in the development of the National EID Implementation Plan and training and provision of supplies to the EHNRI laboratory in Addis Ababa. Subsequently, ICAP trained health care workers at 16 pilot health facilities in dry blood spot collection, sample preparation and dispatch for HIV DNA PCR testing, and pre- and post-test counseling of caregivers; mechanisms for receiving and communicating results and linking HIV-positive infants to care and treatment were created at these facilities.

After the conclusion of the pilot phase, ICAP supported FMOH and EHNRI to plan the national rollout of the early infant diagnosis program to six referral laboratories and more than 1,000 health facilities. In the early stages of the national rollout, turnaround times for results took up to two to three months at some facilities. Currently, EHNRI has established an agreement with the national postal service for sample transportation and the average national turnaround time now has been reduced to two weeks.

ICAP is now working with partners to expand the number of laboratories with HIV DNA PCR testing capacity, and is providing ongoing technical support and mentorship to early infant diagnosis services at 86 health facilities in Oromia, Dire Dawa, Harari, and Somali regions.

The lead role ICAP played in piloting the early infant diagnosis program in collaboration with CDC and EHNRI has been well recognized, and ICAP also supported the national effort to develop the scale-up plan. We have cherished partnering with ICAP as we could jointly impact program implementation.

—Dr Yibeltal Assefa,
Director of Monitoring and Evaluation, FHAPCO

Expanding HIV Counseling and Testing

Since 2007, ICAP has worked closely with regional health bureaus to make HIV counseling and testing an integral part of care at every point of service. At present, all ICAP supported health facilities have introduced provider-initiated counseling and testing and point-of-care HIV testing in order to increase identification of HIV-positive clients, and enrollment into HIV care and treatment. Patients now can be tested, and receive results, with appropriate counseling in a single visit.

Between October 2009 and October 2011, approximately 2,225,000 adults and children were tested for HIV at ICAP supported facilities. Expanding provider-initiated counseling and testing to general adult clinics had a dramatic impact on the number of HIV-positive individuals identified and enrolled in care and treatment.

ICAP has also partnered with regional health bureaus to support HIV counseling and testing outreach at orphanages, regional universities, and traditional public gatherings. In the pastoral, sparsely populated Somali region, where many people live far from health facilities, expanding access to HIV testing presented a particular challenge. ICAP partnered with the Family Guidance Association of Ethiopia (FGAE), one of the oldest nongovernmental organizations in the country to integrate provider-initiated counseling and testing into their mobile reproductive health services, along with additional support. More than 28,000 clients have been counseled and tested for HIV at these mobile services.

Enhancing Palliative Care

Since 2005, ICAP has supported FMOH/FHAPCO and regional health bureaus to develop and roll out palliative care activities. HIV care patients at ICAP-supported facilities have access to a tailored, comprehensive package of palliative care services, including:

- Cotrimoxazole prophylaxis
- Isoniazid preventive therapy for TB prophylaxis
- Diagnosis and treatment of opportunistic infections
- Routine pain assessment and management
- Nutritional assessment and counseling
- Linkage to organizations providing nutritional support and insecticide-treated bed nets
- Counseling on sanitation and hygiene and provision of water treatment products at selected facilities, with other PEPFAR implementing partners.

Integrating Services

TB and HIV

Tuberculosis is a major cause of morbidity and mortality among people living with HIV, and undiagnosed TB increases the risk that HIV patients will develop immune reconstitution inflammatory system when ART is initiated. At the same time, TB programs represent an important entry point to HIV services. As 17% of adult TB patients are also HIV positive,[14] and Ethiopia, is the world's 7th highest TB-burden country, integration of TB and HIV services is particularly important.

ICAP-supported health facilities have achieved impressive standards in TB/HIV integration.

- More than 75,000 HIV care patients have been screened for TB at 67 facilities, including 93% of newly enrolled patients.
- More than 7,900 HIV-positive patients have been diagnosed with active TB, and started treatment.

- More than 21,000 TB-negative HIV care patients have been initiated on isoniazid preventive therapy.
- Nearly 75,000 TB patients have tested for HIV via provider-initiated counseling and testing at TB clinics, and between 2007 and 2012, 97% of TB patients were tested for HIV. In this way, nearly 4,000 new HIV patients have enrolled in care and treatment.

At national and regional levels, ICAP has provided technical leadership and capacity building in TB/HIV integration. ICAP has been supporting 86 health facilities in Oromia, Dire Dawa, Harari, and Somali to implement the following TB/HIV collaborative activities:

- Routine TB screening at HIV clinics
- Provider-initiated counseling and testing at TB clinics
- Cotrimoxazole prophylaxis for co-infected patients
- Isoniazid preventive therapy for HIV patients who screen negative for TB
- Family TB contact screening for contacts
- ART for co-infected patients
- TB treatment for patients with active TB
- TB infection control

Provider-Initiated Counseling and Testing 2007–2011

Point of Service	Tested	HIV Positive		Enrolled in Care
Adult outpatient department *	1,038,454	13,564	1.3%	11,663
Adult inpatient department *	87,615	1,763	2.0%	1,274
Pediatric outpatient department *	264,451	1,050	0.4%	897
Pediatric inpatient department *	45,540	408	0.9%	318
TB clinic	74,735	4,672	6.3%	3,840
Antenatal clinic	181,945	2,912	1.6%	not available
Labor and delivery ward	115,208	not available	not available	not available
Sexually transmitted infection clinic *	12,464	163	1.3%	139
Family planning clinic *	54,454	298	0.5%	192
Immunization clinic *	254,151	11,435	4.5%	9,028
Other *	99,851	1,037	1.0%	688

*Cumulative from October 2009 to October 2011 only.

Routine TB Screening of HIV Patients: Screening HIV patients for TB provides a crucial entry point for both isoniazid preventive therapy for TB-negative patients and TB treatment and cotrimoxazole prophylaxis for HIV patients with tuberculosis. A TB screening questionnaire existed, but it was not used consistently.

In 2007, ICAP developed a simplified TB screening tool, integrated it into the HIV patient care record, and piloted its use at a number of hospital clinics. The results demonstrated the effect that a simple, user-friendly provider tool can have on quality of service: the proportion of new HIV care patients screened for TB at the five pilot facilities increased from 55% to 95%, and the number of active TB cases detected increased by 400%. The new tool is now widely used nationwide.

HIV and Sexually Transmitted Infections

ICAP has promoted integration of HIV services with diagnosis and treatment of sexually transmitted infections at all 86 health facilities that it supports. To ensure visibility and integration of these services, ICAP successfully advocated for STI focal point persons to be assigned at each health facility. ICAP ensures that STI clinics have the National STI Syndromic Case Management Guidelines and job aids such as flow charts for syndromic STI diagnosis and treatment.

ICAP has trained and mentored nurses to routinely offer HIV counseling and testing to all patients accessing STI treatment services. At ICAP-supported facililties, 93% of STI clients now have HIV testing. HIV and STI risk reduction activities, including counseling on risk reduction and condoms are now provided.

Building Adherence and Psychosocial Support

ICAP-supported health facilities have implemented innovative strategies to improve patient retention in treatment and ART adherence; psychosocial support is now integral to the continuum of care. Peer educator and mothers' support group programs engage people living with HIV to counsel and mentor other patients.

In addition, ICAP has implemented "Prevention with Positives" services. This package of services functions as a retention strategy, improving the quality of life for individuals living with HIV and giving those who do not need ART a reason to come for regular consultations.

Peer Education

As part of its commitment to the greater involvement of people living with HIV, ICAP pioneered the involvement of peer educators in HIV services and continues to support peer education program rollout in Oromia, Dire Dawa, Harari, and Somali regions.

In collaboration with FMOH/FHAPCO, regional health bureaus, and the NEP+, ICAP first piloted and then based upon positive evaluations, FHAPCO subsequently adopted the piloted program and rolled it out nationally. Peer educators:

- Reduce stigma and empowered HIV patients to disclose their status
- Increase uptake of HIV services and improved adherence
- Facilitate the tracing of patients who are lost to follow-up and brin them back into care
- Enhance positive living and positive prevention activities at hospitals
- Strengthen linkages among hospital services and between hospital, health center and community services
- Reduce workload of providers, relieving them of adherence counseling and psychosocial support

ICAP program officers regularly map community resources around supported health facilities and provide peer educators and health facility staff with details of care and support organizations to whom they can refer patients.

Mothers' Support Groups

In 2008, to enhance PMTCT services, address stigma, and empower HIV-positive women, ICAP worked with the four regional health bureaus to introduce mothers' support groups

"The peer educators are people living with HIV who have been bold enough to come out with their status. Other people learn from the peer educator's exemplary actions and now they are disclosing and demanding ART services."

—Ato Tibebe Ashine, Community Planning Officer, CDC-Ethiopia, 2008

At Ambo Zonal Hospital in Oromia region, the above building was chosen for the HIV clinic. Below, the newly renovated Comprehensive Chronic HIV Care Clinic appears after renovation with ICAP support.

at 11 hospitals. ICAP trained volunteer HIV-positive mothers in HIV prevention and care and treatment, and trained PMTCT nurses to coordinate mothers' support groups. Since then, ICAP has assisted the FMOH with a national mothers' support group training-of-trainers and extended the initiative to additional health facilities.

As soon as a woman tests positive at an ICAP-supported PMTCT facility, she is linked with another HIV-positive mother already trained as a mentor. The mentor supports the newly diagnosed woman with disclosure to her partner. This mentor's support empowers the patient to take up all available services, deliver her baby at the health facility, and have her infant followed up in care. Groups of mentors and mothers meet regularly at the health facility, following an HIV education curriculum on prevention, care, treatment, and wellness. Nurses deliver the curriculum and support the mentors. The groups, monitor each woman's health and uptake of services until the final HIV status of her infant is determined.

Pediatric Psychosocial Support

Pediatric psychosocial support is a new and important ICAP initiative. It is crucial that HIV-positive children initiate and remain in treatment; without treatment, half will die by age two.[15]

ICAP developed and is piloting a pediatric psychosocial support curriculum with CDC and FMOH at one hospital. A multidisciplinary team is now helping children and their parents understand their status and treatment, deal with stigma, and empower them to live positively. A psychologist leads the children's group, educating them about HIV and treatment and equipping them with practical life skills, such as how to handle questions about their medication at school.

Improving Laboratory Services

ICAP supports 85 laboratories athealth facilities and also the Adama, Harari, and Nekemt regional referral laboratories. Originally focused on ART monitoring and early infant diagnosis, ICAP now also addresses infrastructure and human resource needs and general quality assurance capacity building.

- **ART Monitoring:** ICAP has built diagnostic capacity for CD4 testing, hematology and chemistry analysis at 40 laboratories.
- **Training and Mentoring:** At monthly mentoring visits to all 88 supported laboratories, ICAP laboratory advisors help improve workflow, record keeping, and supply chain management. ICAP comprehensive laboratory training includes HIV diagnosis, TB microscopy, and malaria microscopy.
- **Upgrading Laboratories:** ICAP has renovated health facility laboratories and provided basic laboratory equipment and materials, such as microscopes and slides.
- **Quality Assurance:** All ICAP-supported laboratories are involved in external quality assessment. ICAP is now supporting 10 referral laboratories to achieve accreditation by the World Health Organization.

Building Stronger Skills and Systems

Physical Infrastructure Enhancement

Renovations, improvements, and material support to health facilities have strengthened their capacity to cope with large increases in client volume arising from the scale-up of the HIV program, and to ensure quality of care and promote health-seeking behavior. Even seemingly minor improvements, such as shaded outdoor waiting areas, can affect patients' motivation to seek services and keep appointments.

Quality Improvement

A focus on continuous quality improvement guides ICAP's facility support, which follows an ICAP methodology called Clinical Systems Mentorship (CSM). CSM builds provider, team, systems, and infrastructure capacity to optimize patient outcomes. CSM also includes methods for quantitative assessment of progress in key care indicators.

Training and Mentorship

Needs-based training for different cadres of health care workers is followed by one-on-one mentorship, with ICAP staff observing their counterparts in action and providing feedback and coaching. In addition, ICAP regularly monitors each supported facility to identify and address skills, infrastructure, and systems gaps.

In-Service Training: Ethiopia's shortage of human resources for health is among the most severe in sub-Saharan Africa. ICAP has conducted extensive in-service training to develop human resource capacity for HIV program implementation. ICAP has supported the delivery of hundreds of in-service trainings—more than 3,000 physicians, 10,000 nurses, 1,500 health officers, 1,200 laboratory technicians, 400 pharmacists, 80 data clerks, and 1,000 lay care providers have attended.[16] Facility-level ICAP mentorship, supervision, and quality monitoring reinforce formal training. Training activities adhere to the government's national and regional training plan, and have involved the private sector.

Support for Task Shifting: Moving key tasks from doctors to nurses and from nurses to lay staff (e.g., peer educators, mother-to-mother mentors, community counselors) through task shifting mitigates staffing constraints, increases client access to services, and strengthens the health system.

When the national ART program began, only doctors were authorized to prescribe ART. Their limited availability impeded the goal of universal access to HIV care, and ART provision has been shifted to nurses. ICAP provides in-service nurse training and ongoing individual mentorship and coaching at HIV clinics, antenatal clinics, maternity wards, TB units, and laboratories, and during HIV counseling and testing.

In addition, shifting ART prescription to nurses has alleviated a burden on doctors and improved patient flow, training people living with HIV as peer educators (to act as adherence counselors, among other roles) has, in turn, enabled nurses to focus more on clinical care. Leveraging the skills of people living with HIV also gives patients the benefit of the peer educators' experience and a comfortable resource for discussing issues.

Support to Multidisciplinary Teams

Multidisciplinary teams have been established at every facility. These teams manage patient flow and follow-up, and meet weekly to discuss issues such as retention, patient tracing, adherence and to generate solutions.

Coordination of HIV-Related Activities

ICAP advocated for the creation of the post of health facility HIV coordinator, and has provided regular training and intensive mentoring to those in this position. These coordinators have gained the capacity to assist colleagues with complex cases, coordinate HIV activities among units within the health facility, and monitor facility compliance with national guidelines.

Supporting the Network of Networks of HIV Positives: As lead PEPFAR implementing partner promoting greater involvement of people living with HIV, ICAP has provided support to the Network of Networks of HIV Positives in Ethiopia (NEP+)—a national umbrella organization comprised of more than 200 associations—with a goal of strengthening it to involve association members more extensively and meaningfully in HIV programming. This support helped NEP+ become a principal recipient of the Global Fund and a prime recipient of US government funding support. At regional level, ICAP has supported the Tesfa Bisrat Miskir Association of PLHIV, the Mekdim Ethiopia National Association Jimma branch, and Adama City Life Saving Association through subagreements, capacity building, and implementation assistance. As a result, peer educator program implementation was transferred to these associations in 2008.

Monitoring and Evaluation

ICAP has supported integration of the national HIV monitoring and evaluation system into the national health management information systems by improving provider competency in data recording, compilation, and helping to integrate HIV records into general records. ICAP has helped to implement standardized, paper-based patient record-keeping and reporting systems. An electronic patient-level database, now used at more than 40 facilities with high client load, generates automated care and treatment reports, including quality-of-care indicators.

A peer educator discusses adherence with a client.

THE NEXT CHAPTER

Lessons Learned 2005–2012

Counseling and Testing

The introduction of point-of-service provider-initiated HIV counseling and testing at ICAP-supported health facilities and the shift from opt-in to opt-out counseling have significantly increased the number of people tested and enrolled in HIV care. Over the past six years, expansion of provider-initiated counseling and testing to all inpatient and outpatient departments facilitated testing of more than 1.8 million adults, 2% of whom tested positive. Maternity wards are a good opportunity to provide testing for men and to identify HIV-positive men who may benefit from ART. In the context of low uptake of ANC and institutional delivery, introducing provider-initiated counseling and testing to the Expanded Program on Immunization has been effective for identifying children with HIV.

Family-Focused Care

The Family Enrollment Form, a simple tool designed by ICAP and is being used by implementing partners, has greatly helped providers to ensure that all immediate family members are tested for HIV and avail themselves of post-test counseling, peer education, and community support services. Couples and families are supported to disclose HIV status, discuss their fears, and plan together. Scheduling family members' appointments at the same time, whenever possible, promotes greater understanding of each family member's health and treatment.

Ownership

ICAP's national, regional, and facility support has helped foster ownership and accountability regarding HIV services at every level of the health system. Secondment of technical experts to FMOH/FHAPCO and regional health bureaus has enhanced program coordination at national and regional levels. At facility level, coordination has been strengthened by creating the post of HIV coordinator and developing multidisciplinary ART teams and HIV/AIDS committees. These initiatives also improve service and administrative linkages within health facilities. Annual joint program review and planning processes consolidate the regional health bureaus' leadership role. Regular catchment area meetings enable HIV coordinators to monitor the effectiveness of referral networks and continuity of care to clients. ICAP's Clinical Systems Mentorship methodology, which facilitates objective measurement of quality and planning for improvement, has empowered providers and teams to manage their own performance.

Service Integration

Adapting the structure of HIV services to patient's needs has contributed to enrollment in, compliance with, and retention to care and treatment. Integrating HIV and related services reduces delays as well as unnecessary referrals and follow-up appointments, for example by enabling pregnant women to access HIV testing, PMTCT, and ART eligibility screening at ANC. Introducing PMTCT activities in maternity wards has ensured that babies of women with HIV who were not tested in ANC can still benefit from prophylaxis. Integrating TB and HIV services has improved detection and access to prophylaxis and treatment.

Task Shifting

Building the capacity of various health cadre as well as patients as peer educators to take on tasks formerly conducted by higher level cadres has freed up scarce health workers to focus on activities that they alone can perform. Introducing and scaling up rapid HIV testing have reduced the burden on laboratories and reduced waiting time for results. From the patient perspective, task shifting has enhanced quality of care, and improved provider-to-patient ratios. Leveraging the experiences and skills of people living with HIV as peer educators has further benefited patients, giving them access to both practical and emotional support.

Moving Forward in Ethiopia

Much progress in a response to HIV in Ethiopia has been made over the past seven years. Hundreds of thousands of individuals living with HIV are now benefiting from care and treatment today. ICAP will continue to have an important role in the continued response to HIV, guided by a commitment to:

- Intensifying the integration of services for PMTCT and maternal and child health within health facilities and the communities they serve, and improving broader services for mothers and their children to help reduce maternal and infant mortality
- Building sustainable human, system, and infrastructure capacity at all levels of the health system
- Partnering with national institutions that are shaping future public health leaders
- Fostering a culture of ownership and continuous quality improvement at all health facilities
- Innovating, evaluating, and advocating for changes that improve HIV care and treatment services
- Strengthening linkages among services and communities and engaging people living with HIV in the delivery and management of HIV services, to improve patient care and address stigma

Over the next few years, with a new Cooperative Agreement with CDC, ICAP will support decentralization of care and treatment services by expanding facility support to 440 additional health centers in Oromia region—many of which are in remote areas. Lessons learned will be leveraged to optimize the package of clinical and systems support and adapt it to meet the needs of a greater number of facilities.

A major focus in the coming years will be continuing the transition to national and local ownership. To date, ICAP has undertaken significant capacity building with NEP+ and the regional health bureaus to equip them to directly manage funding for prevention, care, and treatment programs. Some of these organizations are now direct recipients of PEPFAR and other external assistance, and ICAP will work with them to ensure that they are successful. ICAP will continue to work closely with regional health bureaus, regional laboratories, and regional universities to help build technical, management, and leadership capacity and robust systems. These activities will ensure that ICAP's achievements and its positive outcomes for the Ethiopian health system will be sustainable over the long term, improving the health and quality of life of Ethiopian families affected by HIV and helping to prevent new infections.

"ICAP has been a staunch supporter of comprehensive, high-quality, integrated, family-centered HIV services within the framework of Ethiopia's national HIV program. ICAP has promoted and supported achievement of standardized HIV care, treatment, and support, coupled with capacity building and health systems strengthening to ensure program sustainability.

Over the coming years, ICAP will uphold its core principles and strive to consolidate and build on these achievements, working to further strengthen local capacity to ensure transition of responsibilities while continuing to scale up services and, most importantly, to ensure quality. ICAP will also contribute to the Global Health Initiative and the national effort to meet Millennium Development Goals in Ethiopia."

—Dr. Zenebe Melaku, ICAP Country Director, Ethiopia

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