



# FROM HIV RAPID SCALE UP TO A SUSTAINABLE HIV PROGRAM: STRENGTHENING HEALTH CARE DELIVERY SYSTEMS AND HUMAN RESOURCES FOR HEALTH IN ETHIOPIA



## PROJECT SUMMARY

From 2011 – 2015, with PEPFAR funding obtained through the Centers for Disease Control and Prevention and in partnership with Ethiopia's Federal Ministry of Health and the Regional Health Bureaus (RHBs) of Dire Dawa Administration and Oromia, Harari, and Ethiopian Somali regions, ICAP worked at the national, regional, and health facility level to increase access to comprehensive, high-quality HIV prevention, care, and treatment services.



## BACKGROUND

Ethiopia, with over 90 million inhabitants, is the second most populous country in Africa. By 2011, HIV services had largely been scaled up in the country, and over 265,000 people living with HIV (PLHIV) were receiving antiretroviral therapy (ART) at more than 700 HIV treatment sites across Ethiopia's 11 regions. Increased access to services contributed to a falling national HIV prevalence—from 6.6 percent in 2001 to 1.4 percent in 2011—and an impressive 80 percent decrease over ten years in the number of new HIV infections.

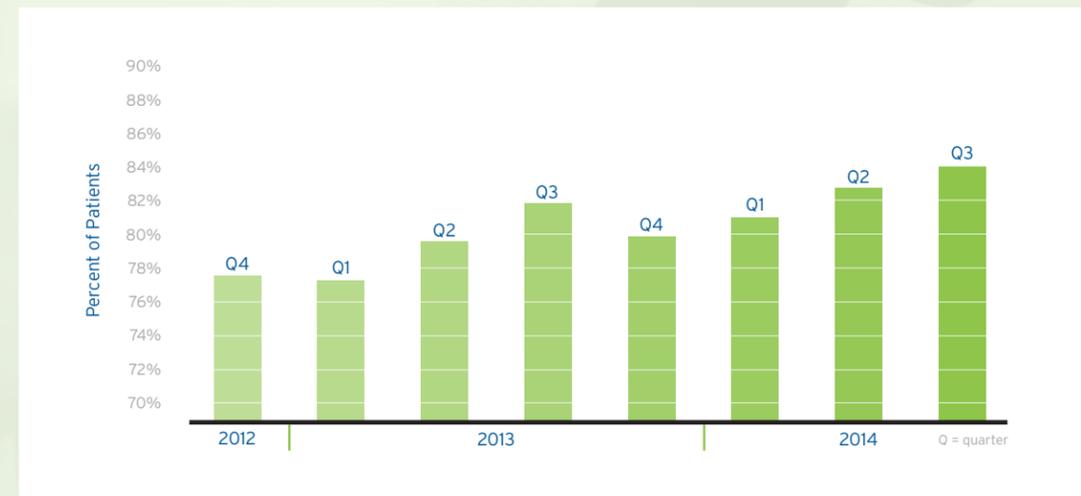
Many in Ethiopia, however, still lacked access to HIV services: only 56 percent of the 470,000 people needing ART in 2011 were receiving it, including only 19 percent of children, and less than a quarter of all pregnant women living with HIV received antiretroviral drugs to prevent mother-to-child transmission of HIV (PMTCT). A severe shortage of skilled health workers—Ethiopia has only 0.7 health workers per 1,000 people compared to the WHO recommended level of 2.3—complicated enrolling and keeping patients on treatment. In addition, government structures required further capacity building to enable them to successfully oversee HIV service delivery throughout the country.

## WHAT WAS ACHIEVED

As a result of the support ICAP provided to local partners in Ethiopia between 2011 and 2015,

- The number of health facilities providing HIV services in Dire Dawa Administration and Oromia, Harari, and Ethiopian Somali regions expanded from 86 to 513.
- 7,622,805 people were counseled and tested for HIV and received their test results.
- 1,383,222 pregnant women with unknown HIV status accessed HIV counseling and testing and 94 percent of those who tested positive accessed PMTCT services.
- Over 52,900 new patients were enrolled in HIV care and more than 45,150 were initiated on ART.
- The proportion of patients in HIV care or treatment at ICAP-supported facilities being screened for TB rose from 90 percent in 2011 to 99 percent in 2014.
- The proportion of patients enrolled in HIV care and treatment who received cotrimoxazole prophylaxis to prevent opportunistic infections increased from 75 percent in 2011 to 97 percent in 2014.
- The average 12-month retention rate at ICAP-supported facilities increased to 84 percent by 2014 (see Figure 1).

**Figure 1**  
Percentage of Patients Alive and on ART 12 Months After ART Initiation



### DIRE DAWA CITY ADMINISTRATION

Population: 247,775

HIV Prevalence: 4%

4 hospitals and 8 health centers supported by ICAP

### HARARI REGIONAL STATE

Population: 137,679

HIV Prevalence: 2.8%

52 hospitals, 226 health centers, and 1 regional lab supported by ICAP

### OROMIA REGIONAL STATE

Population: 22,393,300

HIV Prevalence: 1%

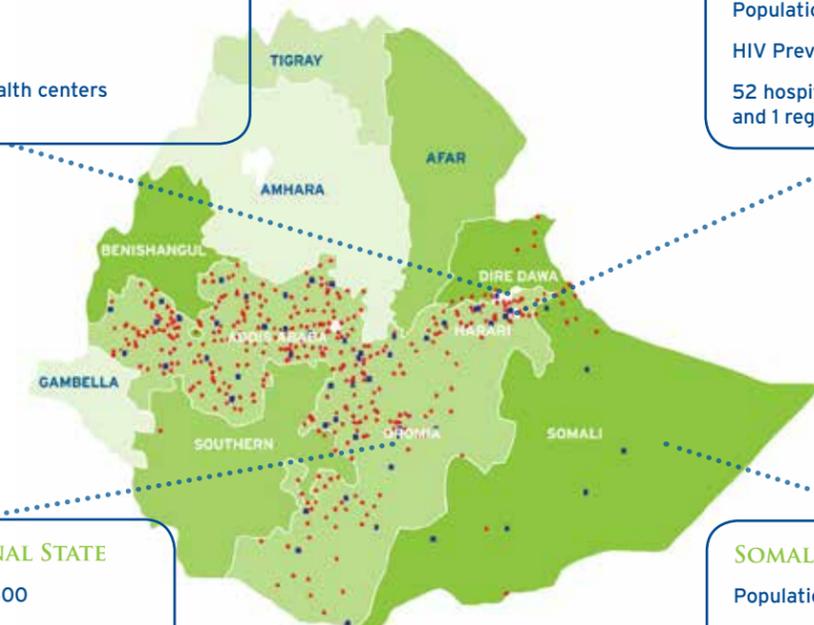
45 hospitals, 204 health centers, and 3 regional labs supported by ICAP

### SOMALI REGIONAL STATE

Population: 4,889,636

HIV Prevalence: 1.1%

4 hospitals, 14 health centers, and 1 regional lab supported by ICAP



● ICAP-supported health centers  
● ICAP-supported hospitals

## CORE PROJECT APPROACHES

Building on its history working hand-in-hand with Ethiopia's Federal Ministry of Health since 2005 to rapidly scale up HIV prevention, care, and treatment services in Oromia, Harari, Dire Dawa, and Ethiopian Somali regions, ICAP at Columbia University used several approaches to further expand access to and improve the quality of HIV services in these focus regions. Continuously building the capacity of local organizations to assume responsibility for Ethiopia's HIV program was an integral component of each approach.

### National-level Technical Assistance

- Through its participation in HIV-related technical working groups, ICAP made critical technical contributions to national HIV-related guidelines, health provider training and support materials, and monitoring and evaluation tools. This included playing an important role in the development of the national PMTCT Option B+ reference manual, national palliative care guidelines, national comprehensive clinical mentorship guidelines, the strategic framework to improve adherence to ART and retention in HIV care, and national TB/HIV training materials and guidelines.
- ICAP leveraged its role as lead PEPFAR implementing partner in pediatric HIV care and treatment, infant diagnosis, TB/HIV integration, and the greater involvement of PLHIV to convene meetings and workshops bringing together international and local partners to share experiences and collaboratively plan the initiation and scale-up of activities in these key domains.

### Supporting Regional Health Bureaus to Manage a High-Quality HIV Program

ICAP worked hand-in-hand with RHBs to strengthen their institutional capacity to:

#### Provide Independent Oversight and Direct Support to Health Facilities:

- To help standardize and improve the quality of HIV services, ICAP collaborated with the Oromia RHB to develop standard operating procedures for the provision of comprehensive HIV services. The first tool of its kind in Ethiopia, this document was subsequently adopted by the country's other regions as a template to guide the development of standard operating procedures that are customized to meet each region's needs (see Box 1).

#### BOX 1

#### The standard operating procedures guiding HIV service implementation include:

- Detailed guidance on how the HIV program should be led and coordinated at the regional, zonal, and Woreda level.
- Standards for implementing comprehensive HIV prevention, care, and treatment services.
- Guidance on key program quality support activities, including clinical systems mentorship, conducting catchment area meetings, and using a multidisciplinary team approach.

- ICAP collaborated with RHBs in the four focus regions to create a pool of capable clinical mentors who provide training, mentorship, and supportive supervision to facility-based health workers.
- ICAP transitioned its facility-level support responsibilities (described below) in a phased and incremental manner, with all facility-level responsibilities in Oromia, Harari, and Dire Dawa fully transitioned to RHBs by 2014.

**Gather and Use Strategic Information for Program Improvement:**

- ICAP supported RHBs in the four focus regions to adopt a systematic approach to monitoring and evaluating HIV services—an approach that comprises regular data collection, analysis, and use, as well as data quality assurance, feedback, and follow-up.
- ICAP collaborated with RHBs to establish aggregate databases and fully integrate facility-level HIV data in the Health Management Information System, improving RHB capacity to generate, disseminate, and use strategic information for program improvement.
- ICAP built the capacity of RHBs to lead regional data review meetings, to provide health facilities with technical assistance on data reporting, and to effectively aggregate health facility-level data for reporting to the Federal Ministry of Health and funders.

**Manage Direct Donor Funding:**

- ICAP used a sub-award to the Ethiopian Somali RHB as a means of strengthening this entity's planning, operational, and financial management capacity.
- Building on work conducted previously, where ICAP provided incrementally larger sub-awards to Oromia, Dire Dawa, and Harari RHBs, ICAP supported these RHBs to effectively manage their first CDC cooperative agreements, further strengthening their planning and reporting capacity and training them on relevant financial regulations.



**Working Hand-in-Hand with Health Facilities to Build Human Resource Capacity and Improve Service Quality**

By 2014, ICAP was providing support to 513 hospitals and health centers in Oromia, Harari, Dire Dawa, and Ethiopian Somali regions using the methods summarized in Box 2 to build capacity for the delivery of comprehensive, family-focused HIV prevention, care, and treatment services. This included providing support across the full spectrum of HIV-related services.

**BOX 2**

**ICAP's Methods of Building Health Facility Capacity**

- Conducting facility assessments and collaboratively developing facility-level work plans
- Developing and distributing clinical job aids—including reference manuals and standard operating procedures—and patient education materials
- Supporting minor facility renovations to improve service quality
- Supporting continuing medical education, including basic and refresher trainings by technical area
- Implementing regular 'standard of care assessments' as part of a continuous quality improvement cycle
- Providing health workers with ongoing clinical mentorship and supportive supervision

**Preventing Mother-to-Child Transmission of HIV:**

To increase the number of pregnant women living with HIV who access services to prevent mother-to-child transmission, ICAP worked with RHBs to expand high-quality PMTCT services to 427 new health facilities. This included:

- Supporting health facilities to integrate PMTCT and maternal and newborn child health (MNCH) services to ensure that all pregnant women and children have easier access to critical HIV services.
- Supporting the standardization of intra- and inter-facility referral systems across hospitals and health centers and strengthening linkages with community-based organizations to promote the uptake of antenatal care, PMTCT, and family testing services.
- Helping to integrate PMTCT and HIV care and treatment services by training health providers at MNCH clinics to initiate and monitor patients on ART. ICAP built on this experience when national rollout of Option B+ commenced in 2013—a model where all HIV-infected pregnant women are initiated on lifelong ART—training over 1,500 health workers on the new model of care and supporting 351 facilities to offer integrated PMTCT and ART services.

**Increasing HIV Counseling and Testing Rates and Supporting Linkage to HIV Care and Treatment Services:**

ICAP strengthened the provision of quality HIV counseling and testing (HCT)—including building capacity in couples' HCT—at all entry points of 513 health facilities. In addition, ICAP:

- Supported 33 health facilities to conduct mobile, voluntary HCT services in hard-to-reach areas of Ethiopian Somali Region, and supported 40 high-volume facilities to provide weekend HCT services.
- Trained nonprofessional community adherence counselors to conduct HCT with clients in order to lessen the workload of overburdened professional counselors and nurses.
- Strengthened linkages between HCT services and HIV prevention, care, and treatment by providing ongoing mentorship to health workers on post-test counseling, referral processes, and proper documentation.

**Increasing Access to and Improving the Quality of Adult HIV Care and Treatment:**

ICAP supported the delivery of comprehensive HIV care and treatment at 351 health facilities. This included supporting health facilities to:

- Offer a full care package comprising cotrimoxazole prophylaxis, nutrition assessment and counseling, water sanitation and hygiene counseling, pain assessment and management, and malaria prevention.
- Provide coordinated, multidisciplinary services by building the capacity of clinicians, nurses, counselors, pharmacists, laboratorians, and peer educators to develop comprehensive patient care plans and work collaboratively to provide care as a team.
- Co-schedule and co-locate appointments to increase service integration.
- Better support patient adherence to ART and retention in HIV care by developing active defaulter tracking mechanisms; establishing a program whereby dedicated adherence case managers provide adherence support to patients; and providing health workers with training and mentorship to improve their counseling skills.
- Implement infection prevention programs and post-exposure prophylaxis services to prevent medical transmission of HIV.

**Reaching More Children with HIV Care and Treatment:**

To increase the access of HIV-infected children to life-saving HIV services, ICAP supported the provision of comprehensive pediatric HIV care and treatment services at 265 health facilities. This included:

- Training and mentoring health workers on key pediatric topics, such as early infant diagnosis, early treatment initiation, and treatment failure in children.
- Supporting health facilities to integrate pediatric HIV services with other child survival interventions, including those focused on immunizations, safe water and hygiene, micronutrient supplementation, growth monitoring, and improving infant and young child feeding.

**Integrating TB and HIV Services:**

Ethiopia has the tenth highest TB burden in the world and over 10% of patients who test positive for TB in the country are also HIV-infected. To better integrate TB and HIV services, ICAP built the capacity of health workers at:

- 351 TB clinics to systematically test patients for HIV and to trace and screen household contacts for TB.
- 351 HIV clinics to systematically screen all HIV-positive patients for TB and initiate eligible HIV patients on isoniazid preventive therapy.

In addition, to curb the spread of multidrug-resistant TB, ICAP helped scale up multidrug-resistant TB diagnostic and treatment services in Oromia, Harari, Dire Dawa, and Ethiopian Somali regions.

**Cultivating Accredited, High Quality Laboratories and Functional Blood Banks**

To further strengthen Ethiopia's system of laboratories and blood banks in Oromia, Harari, Dire Dawa, and Ethiopian Somali regions, ICAP:

- Supported the ongoing training, supervision, and mentorship of laboratory staff at 513 health facilities and five regional laboratories (see Spotlight 1).
- Supported four regional reference laboratories to strengthen and expand ART laboratory monitoring, early infant diagnosis, MDR-TB diagnostics, and quality assurance for HIV and related laboratory tests.
- Supported 11 health facilities to enroll in the WHO/AFRO accreditation initiative, 19 health facilities to complete Strengthening Laboratory Management Towards Accreditation (SLMTA) training, and 11 laboratories to initiate Stepwise Laboratory Improvement Process Toward Accreditation (SLIPTA), in order to help these labs attain proper accreditation.
- Strengthened nine blood banks by assisting in the transition of regional blood banks from the Ethiopian Red Cross Society to RHBs, working to mobilize individuals to donate blood, and supporting systems that ensure all donated blood is screened for transfusion-transmissible infections.

**SPOTLIGHT 1**

**Improving Laboratory Quality in Oromia Region**

After expanding support to over 200 health centers in Oromia Region in 2012, an ICAP assessment revealed that no lab personnel at the 76 high client-load primary health care laboratories assessed were trained in quality assurance. To address this gap, ICAP trained the heads of all 76 laboratories in quality assurance techniques, prepared standard operating procedures for all tests performed (along with internal quality control monitoring tools), and procured furniture needed to improve lab performance. ICAP provided lab staff with intensive training and laboratory system mentorship, supporting them to quickly acquire the needed knowledge and skills, and to implement laboratory quality management at the primary health care level—the lowest tier of Oromia's health system.

### Supporting Ethiopian Universities to Play an Integral Role in Medical Education

- ICAP supported assessments at nine Ethiopian universities and used the results to identify and fill critical gaps. This included procuring needed medical textbooks and reference materials for each university, and procuring equipment to be used by students in skills labs.
- With the goal of improving the quality and quantity of health professionals in Ethiopia, ICAP worked closely with Jimma and Haramaya Universities to strengthen their pre-service medical training program. ICAP built faculty capacity, helped integrate HIV/AIDS competencies into the curriculum, and established health resource centers at both universities. ICAP also supported both universities to begin providing two weeks of pre-placement training in HIV care and treatment to graduating students.
- As part of the strategy to transition HIV-related training to local entities, Jimma and Haramaya Universities were capacitated as in-service HIV training centers. ICAP gradually built the capacity of university faculty in HIV technical areas, which has enabled them to organize and lead in-service trainings, in collaboration with RHBs, for diverse cadres of health workers and to travel to health facilities to provide on-site mentorship directly to health workers.
- ICAP supported the creation of both a complete Chronic HIV Care and Treatment and Training Center—to support pre-service and in-service training at Jimma University—and a fully renovated and refurbished integrated laboratory facility. Both have been fully handed over to the university leadership.”.

### Building Sustainable Peer Education Programs in Ethiopia

- After initiating the first pilot, and then scaling up, a program engaging peer educators to provide psychosocial and adherence support to clients, ICAP continued to work closely with three PLHIV associations in Dire Dawa, Jimma, and Adama, strengthening their organizational infrastructure and further building their capacity to independently manage a cadre of peer educators (see Spotlight 2).
- For nearly a decade, ICAP has played a vital role in strengthening the Network of Networks of HIV Positives in Ethiopians (NEP+), the umbrella organization of PLHIV networks in Ethiopia. By 2014, ICAP reached a true sustainability milestone by fully transitioning its peer educator and adherence support activities to NEP+.

### LESSON LEARNED

- Integrating PMTCT and ART services within MNCH clinics so that pregnant women and children can access all of their care in one place greatly facilitates the efficient initiation of pregnant women and children living with HIV on critical care and treatment services.
- Establishing close working relationships with local partners at all levels of the health system—and engaging in joint planning from the outset—is essential to optimizing service delivery and fostering local ownership.
- To effectively build and maintain human resource capacity, it is important that health workers receive intensive onsite clinical mentorship and supportive supervision. This includes providing sufficient resources to establish and maintain ongoing facility-based mentorship activities that cover both hospitals and the health centers in each hospital's catchment area.
- Conducting training of trainers to create a pool of mentors within the public health system is one way to cultivate sustainable systems of clinical mentorship and supportive supervision.



### THE WAY FORWARD

Ethiopia has now reached a 'tipping point' in its HIV epidemic, as the number of HIV-infected patients initiated on ART each year has surpassed the number of new infections. Despite this achievement, it is important that the quality and accessibility of HIV services be maintained—and further increased—so that ART coverage continues to expand and existing patients are successfully retained in care.

By 2014, ICAP had fully transitioned its facility-level support activities to local partners—including RHBs, Ethiopian universities, and NEP+—in Oromia, Harari, and Dire Dawa regions. Going forward, ICAP will continue to support a strong HIV program in Ethiopia by providing site-level support to health facilities in the country's four “emerging regions”—Ethiopian Somali, Gambella, Benishangul-Gumuz, and Afar. In addition, ICAP will provide higher-level technical assistance to the other seven RHBs in Ethiopia, supporting them as they oversee and support the implementation of comprehensive, quality HIV prevention, care, and treatment services with increasing levels of independence.

### SPOTLIGHT 2

#### Empowering PLHIV in Adama

Building on the great success of a peer education pilot that ICAP supported in Adama Hospital, ICAP provided Adama's particularly motivated group of peer educators with technical assistance to establish their own non-governmental organization. The resulting organization—Ethio-Life Saving Association—then received a sub-award from ICAP to continue its work providing adherence support to people living with HIV and expand as an organization. As a result of this support, by 2014, Ethio-Life Saving Association had begun to receive funds directly from NEP+ and was managing peer educators in 50 health facilities throughout the region.

## ABOUT ICAP

ICAP was founded in 2003 at Columbia University's Mailman School of Public Health. Now a global leader in HIV and health systems strengthening, ICAP provides technical assistance and implementation support to governments and non-governmental organizations in more than 21 countries. ICAP has supported work at more than 4,328 health facilities around the world. More than 2.3 million people have received HIV care through ICAP-supported programs and over 1.4 million have begun antiretroviral therapy.

Online at [ICAP.columbia.edu](http://ICAP.columbia.edu)

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