SOUTH AFRICA

PARTNERING TO SAVE LIVES: ICAP SUPPORT FOR THE RAPID SCALE-UP OF HIV PREVENTION, CARE, AND TREATMENT

ICAP
Global. Health. Action.
COLUMBIA UNIVERSITY
Mailman School of Public Health

CDC
Centers for Disease Control and Prevention

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.

More information on ICAP and its activities in South Africa can be obtained by calling +27.11.656.3650, e-mailing rn2172@columbia.edu, or writing to ICAP, The Braides, Building B/C-First Floor; 115 Bowling Avenue; Gallo Manor, 2052, Republic of South Africa. Information on ICAP's global activities can be addressed to ICAP, Columbia University, 722 West 168th Street, New York, NY 10032 USA or by email to: icap@columbia.edu.

www.columbia-icap.org/

ICAP
Global. Health. Action.
COLUMBIA UNIVERSITY
Mailman School of Public Health

Acknowledgements

ICAP would like to extend its sincere gratitude to the National Department of Health (NDOH) for their support and for fostering an enduring partnership. We express our appreciation and heartfelt thanks to the Presidents Emergency Plan for AIDS Relief (PEPFAR) for the funding support and the United States Centers for Disease Control and Prevention - South Africa for facilitating the funding arrangements and for providing programmatic support.

ICAP would also like to express its thanks to the Departments of Health in Eastern Cape, Free State, Northern Cape and KwaZulu-Natal provinces, the management teams and staff of hospitals and health centers for their dedication in coordinating HIV program activities and delivering services in all ICAP-supported districts and facilities.

We wish to thank the associations of people living with HIV, the clients enrolled in care and treatment, the many NGOs working on health-related activities in general and HIV-related activities in particular, and the private sector for their collaborative activities with ICAP and for their active involvement in HIV prevention, care and treatment programs. We would also like to thank peer educators, who worked closely with ICAP to expand family focused HIV services and bring about sustainable behavior change in HIV care in the community.

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

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 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. Mailman's experience implementing the MTCT-Plus Initiative helped to inform the model and approaches later adopted by ICAP.

Columbia University's role in implementing PEPFAR began in 2003, when it received funding from the Global AIDS Program of the Centers for Disease Control and Prevention (CDC) under the University Technical Assistance Projects (UTAP) to support the development of important components of national HIV programs, including treatment protocols and training. In 2004, ICAP was founded and was awarded a new cooperative agreement from CDC under the PEPFAR framework to provide comprehensive HIV care and treatment in five countries: Kenya, Mozambique, Rwanda, South Africa, and Tanzania, with programming in Côte d'Ivoire, Ethiopia, and Nigeria subsequently added. This initiative, the Multicountry Columbia Antiretroviral Program (MCAP), has rapidly expanded programs for HIV care and ART by promoting early diagnosis of HIV infection, maintaining the health of those living with HIV, and preventing further transmission of HIV within the community. MCAP programming, 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.

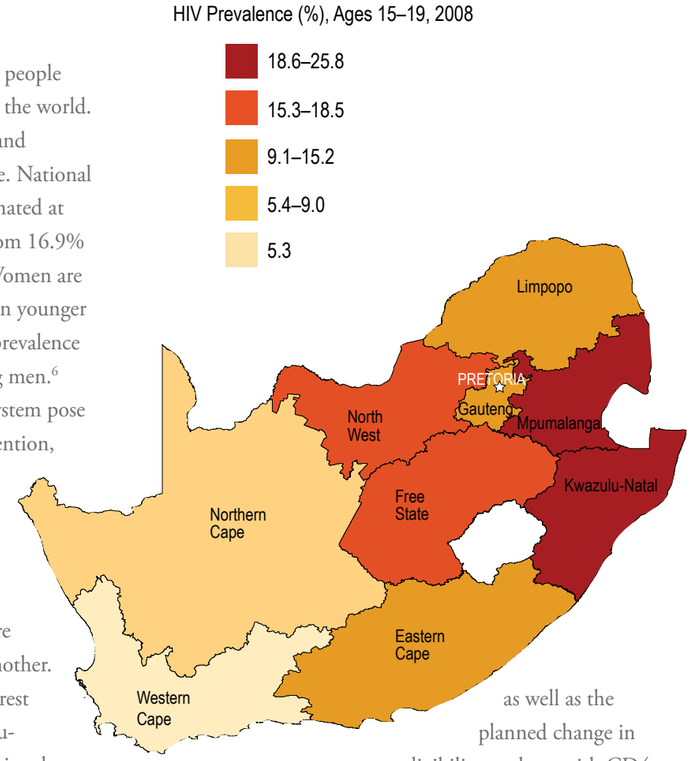
Today a global leader in HIV service delivery, human capacity development, and systems strengthening, ICAP has supported work at more than 2,000 facilities across 21 countries. More than one million people have accessed HIV services through ICAP-supported programs, and approximately one patient in 10 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

HIV in South Africa

South Africa is home to an estimated 5.6 million people living with HIV, more than any other country in the world. AIDS is the leading cause of maternal mortality and accounts for 35% of deaths in children under five. National HIV prevalence among those aged 15–49 is estimated at 17.8%, but rates vary widely across provinces, from 16.9% in Western Cape to 39.5% in KwaZulu-Natal. Women are disproportionately affected by HIV, particularly in younger age groups; among South Africans aged 20–24, prevalence was 21.2% among women but only 5.1% among men.[6] A high TB burden and an active migrant labor system pose additional challenges to South Africa's HIV prevention, care, and treatment efforts.[7]



The apartheid system, which endured until 1994, created stark inequalities along both geographic and racial lines, and its effects are still visible in the form of vast disparities in health care infrastructure and access from one province to another. Many primary health clinics in the country's poorest provinces—including Eastern Cape and KwaZulu-Natal—are understaffed and in dire need of additional space and upgrades. In Eastern Cape Province, where ICAP has worked since 2004, more than 4 million people (nearly 70% of the population) live in poverty,[8] and the estimated HIV prevalence is 28.1%. The province's burden of tuberculosis—which includes strains that are multidrug-resistant and extremely drug-resistant—is the second-highest in the country.[9] Access to health services is inhibited by long distances to health facilities and a high rate of departure from the public sector among doctors.

The scale-up of care and treatment services in South Africa under PEPFAR has vastly increased the number of people on ART. At the end of 2007, it was estimated that only 27% of people with CD4 counts less than 200 cells/mm^3 were accessing ART.[10] By the end of 2009, this figure had increased to 56%.[11] Given the number of new infections as well as the planned change in eligibility to those with CD4 count of fewer than 350 cells/mm3, program challenges continue. Human resource shortages, late entry into health services by many people with HIV, requiring more intensive care, and a rapidly increasing patient load will test the continuing expansion of ART and demand substantial future investment by the government of South Africa and other stakeholders.

In this report, ICAP's key achievements, with a particular focus on MCAP programming, is described using program data as well as through the stories of the individuals, families, and communities behind the numbers. It will be demonstrated how ICAP, working in partnership with the Department of Health, nongovernmental organizations, and people living with HIV, has helped to achieve these and other gains in the areas of access, quality, and capacity in South Africa.

ICAP IN SOUTH AFRICA

ICAP began supporting HIV and TB prevention, care, and treatment activities in South Africa in February 2004. From the beginning, ICAP adopted a network model characterized by close collaboration with provincial and district Department of Health authorities in all phases of project implementation. ICAP was an innovator in making care and treatment services available at primary health centers, at a time when these services were offered predominantly at large district or teaching hospitals.

As care and treatment services began to take root at facilities throughout South Africa, ICAP support expanded to include a full range of family-focused HIV services, spanning communities, hospitals, and primary health centers in Eastern Cape Province. TB infection control as well as services for integrated TB/HIV care, prevention of mother-to-child transmission of HIV, and psychosocial support (including peer education and home-based care and support groups) became priorities alongside basic HIV care and treatment services.

In 2008 and 2009, ICAP extended its program activities to KwaZulu-Natal, Free State, and Northern Cape Provinces. In each province, ICAP intensified its collaboration with province- and district-level Department of Health authorities to support rollout of high-quality HIV care and treatment programs. ICAP adopted a district approach emphasizing sustainable, systems-based initiatives to increase the quality of services—skills building and performance improvement activities, continuing education, development of standard operating procedures, and implementation of the standards of care curriculum.

Over the space of eight years, ICAP has supported the Department of Health in extending ART to more than 69,017 men, women, and children living with HIV in South Africa. During the same period, also as a result of ICAP's collaboration with the Department of Health, more than 108,858 people living with HIV benefited from ICAP-provided care and support services, and nearly 70,000 women have received HIV testing and results through PMTCT, including 20,000 HIV-positive pregnant women who have received services and antiretroviral drugs to prevent the transmission of HIV to their infants.

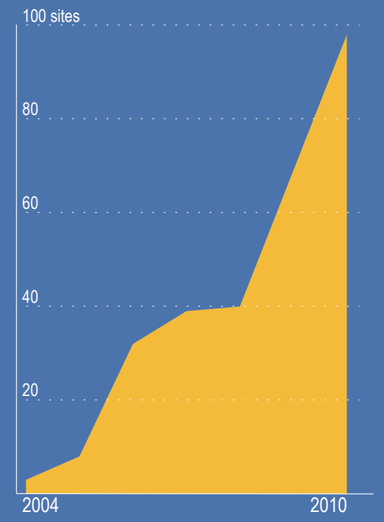
Rapid Scale-Up

With PEPFAR funding, ICAP expanded beyond the initial MTCT-Plus facilities in Johannesburg and Cape Town, to Eastern Cape Province, one of the country's most underserved and most resource-constrained regions. Despite notable advances in the scale-up of HIV services in other provinces, conditions in the Eastern Cape remained extremely challenging in 2004. Health infrastructure consisted of little more than basic clinics and facilities, some of them inaccessible by road; formal HIV care training for health professionals was lacking; and people living with HIV were not receiving appropriate care, much less the ART they urgently required. It was difficult to recruit staff to manage and administer HIV care and treatment programs in so rural and poor an area. Nonetheless, ICAP had a clear, compelling mandate: to support the Department of Health in the rapid scale-up of HIV care and treatment while building health care worker capacity.

ICAP collaborated with the Centers for Disease Control and Prevention (CDC) and the Eastern Cape Department of Health to plan a joint response to pressing local needs. ICAP established an office within Walter Sisulu University in Mthatha, the provincial capital, and began support to three hospitals and their associated primary health care clinics in nearby districts, with the introduction and expansion of quality HIV care and treatment services.

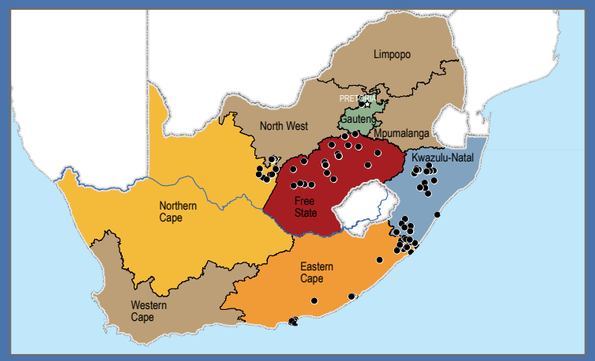
ICAP next rapidly expanded its technical support to health facilities throughout the Eastern Cape in partnership with local institutions. To promote quality improvement, ICAP worked with the Eastern Cape Department of Health to develop user-friendly tools for patient management, support, and monitoring consistent with domestic and international standards. Several of these tools were formally adopted by South African national or provincial governments; others, such as the patient referrals directory, were used across multiple ICAP-supported municipalities.

Facilities Providing HIV Care and Treatment with ICAP Support 2004–2010



ICAP-Supported Facilities in South Africa

As of September 30, 2011, ICAP supported 122 facilities in South Africa.



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/

Systems Strengthening

While facilitating the rapid scale-up of quality HIV services, ICAP emphasized human capacity development, particularly for nurses and other nonphysician personnel categories such as pharmacy assistants and counselors. Starting in 2006, ICAP collaborated with the Department of Health and local academic institutions to empower nurses as advanced practitioners in HIV management through personalized, hands-on mentorship and learning. This innovative approach became a model for other organizations supporting HIV care and treatment in South Africa. To lighten the load on overburdened health systems, ICAP recruited highly skilled staff and seconded them to the Department of Health, providing needed additions to the workforce and increasing providers' skill levels.

An Urgent Need

ICAP's global director, Wafaa El-Sadr, recalls the sense of desperation that greeted her during a facility visit to Native Unit #8 Clinic in Eastern Cape in October 2004. The clinic was struggling to obtain the accreditation required by the Government of South Africa to start providing care and treatment services for HIV, and medical staff were increasingly frustrated with the process. The nurse on duty produced a notebook she had been updating assiduously with the name of each patient in immediate need of ART.

"Her sense of urgency was palpable," El-Sadr remembers. "Each name in that book represented a human life that could be saved only through access to treatment." At the conclusion of the visit, El-Sadr asked ICAP's staff in South Africa to do everything in their power to expedite the facility's accreditation, resolving that the purpose of her next visit would be to check in on the status of active ART patients.

District and provincial Department of Health staff in Eastern Cape expressed gratitude for ICAP's assistance in navigating the facilitie and laboratory accreditation processes, singling out this assistance as one of the organization's most important contributions.

During El-Sadr's next visit to Eastern Cape, care and treatment services at NU8 Clinic were in full swing, and the names of patients had been transferred from a nurse's makeshift notebook into official patient records.

The years 2008 and 2009 ushered in a series of strategic and programmatic changes for ICAP in South Africa. ICAP's geographic expansion resulted in a massive increase in the number of patients supported by ICAP and a greater role for ICAP at national level.[12] To its assistance to hospitals and primary health clinics, ICAP added a district support package consisting of training and mentorship of Department of Health managers and staff; tools to further develop programs, rapidly assess facility needs, and prepare facilities for accreditation as HIV centers; and secondment of technical experts to health departments to alleviate severe human resource shortages. Working alongside provincial and district Department of Health staff to address jointly identified needs, ICAP helped achieve systemwide improvements in care and treatment services. For example, in response to a critical shortage of ART prescribers, ICAP provided technical, managerial, and financial support for a 24-month pharmacist-assistant apprenticeship course, which helped stabilize delivery of care and treatment at overburdened facilities in Free State and Eastern Cape provinces.

By September of 2011, ICAP was assisting with HIV care and treatment at over 100 facilities in four provinces and had enrolled nearly 70,000 patients in ART. ICAP-supported medical officers, professional nurses, quality assurance coordinators, monitoring and evaluation assistants, and health promotion assistants have all helped expand the scope, quality, and size of provincial care and treatment programs.

The ICAP Approach

In collaboration with its partners, ICAP in South Africa achieved rapid scale-up of care and treatment services by building on proven approaches that emphasize individual access to care and treatment, the system capacity to provide it, and the quality of the services provided. These approaches include a comprehensive model of care; innovative, systems-focused human capacity building; and active engagement of people living with HIV and their communities.

A Comprehensive Model of Care

The ICAP model of care, one key to improving access to HIV services in South Africa, is part of ICAP's broader Clinical Systems Mentorship (CSM) approach to strengthening health systems. The model of care defines the minimum package of services essential to high-quality HIV care, including a focus on the family as the core for provision of care, engagement with a multidisciplinary team of providers, an emphasis on adherence and prevention, and strong linkages between clinical and community services. When services are integrated and delivered in accordance with this model of care, people living with HIV and their families can access a full range of necessary services in a single visit to the health center, reducing the burden of time associated with seeking care.

ICAP operationalized its model of care by applying measurable standards of care for HIV services. These provide a framework for assessing the quality of care and for systematically identifying and remediating barriers to care; and, thereafter, for implementing innovative approaches to HIV care and treatment, to PMTCT, and to treatment for TB/HIV coinfection developed in response to the challenges identified by multidisciplinary teams on the ground.

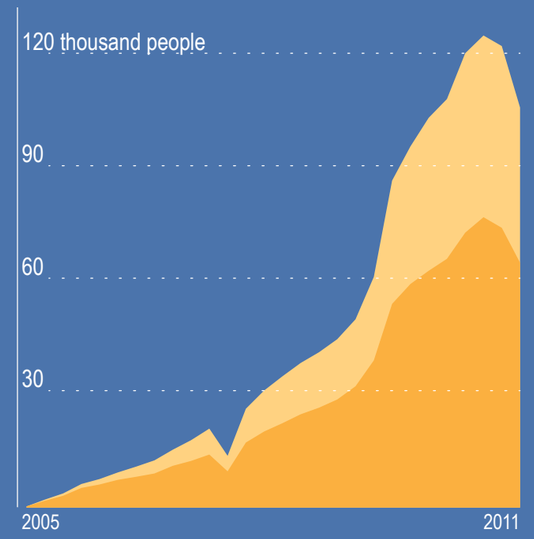
HIV Care and Treatment

ICAP has provided wide-ranging support for HIV prevention, care, and treatment in each of the four-supported provinces. At each facility, ICAP has worked with a multidisciplinary team of health care providers and support staff to implement a model of care consistent with national and international standards, including clinical and immunologic staging (CD4 testing) and provision of cotrimoxazole prophylaxis as well as counseling, laboratory screening, ART, and psychosocial support. ICAP's support for care and treatment included:

- Holding regular planning and data review meetings with multidisciplinary teams to identify and address barriers to care
- Renovating and upgrading facilities to eliminate overcrowding, and to improve basic amenities
- Reengineering patient flows to reduce wait times and facilitate patients' access to multiple services during a single visit
- Designing and delivering a nurse mentorship training program to equip nurses to initiate and manage ART
- Developing the adult clinical record monitoring tool, known as the ACR, adopted throughout Eastern Cape
- Providing patient support groups so that people with HIV infection could be be open about HIV, leading to a reduction of the stigma associated with HIV

ICAP peer educator who provided support to patients in St. Patrick's Hospital in the Eastern Cape Province

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



NOTE: Seven clinics transitioned away from ICAP support as part of transition plan in June 2011.

Cumulative PMTCT Results

Facilities supported	101
Pregnant women counseled, tested, and receiving results	68,994
HIV-infected pregnant women receiving antiretroviral prophylaxis to prevent mother-to-child transmission of HIV	19,547
HIV-exposed infants receiving antiretroviral prophylaxis in maternity	20,420

All numbers as of September 30, 2011

"As a country, we were having a very big problem with PMTCT data collection and quality. ICAP . . . was our biggest partner in this area and worked hard with us to develop the PMTCT register. We saw a change for the better in the quality of PMTCT because of ICAP's technical contribution."

— *Precious Robinson, PMTCT Manager, National Department of Health*

Prevention of Mother-to-Child Transmission

Despite the fact that women of childbearing age constitute the segment of South Africa's population who are most at risk for HIV acquisition, the nation's PMTCT efforts started slowly: health care workers and facilities were overburdened, the understanding of mother-to-child transmission was limited among health care staff and the general public; and PMTCT services were concentrated at referral health care facilities (despite most births occurring at primary health clinics). Working through multidisciplinary teams and Department of Health authorities in four provinces, ICAP built on the model established under the MTCT-Plus program to improve access to PMTCT services via a variety of interventions at provincial and national levels, including:

- Implementing a "one-stop shop" approach, allowing pregnant women and their families to secure all needed services during a single visit to their health care site
- Advocating for a quick-start policy that would allow pregnant women to initiate treatment within two weeks of screening for treatment eligibility
- Designing and introducing an assessment tool, the Pregnancy Wheel, that helped health care workers assess the pregnancy stage and the new mother's eligibility for services
- Providing technical leadership for PMTCT by developing national norms, guidelines, and tools, including a standardized PMTCT register

TB/HIV

Tuberculosis is a major public health problem in South Africa, which ranks fifth on the global list of high-burden TB countries. Given the high susceptibility of HIV-infected individuals to TB as well as the need to protect health care workers from TB infection, TB was a high priority for ICAP from day one. Following the World Health Organization's "3 I's" for TB/HIV—that is, intensified case finding, isoniazid preventive therapy, and TB infection control—ICAP employed a combination of bottom-up and top-down approaches to combat TB in South Africa, including:

- Supporting early diagnosis of TB among people living with HIV via TB screening tools for patients in HIV care
- Training health care workers in integrated TB/HIV care
- Helping TB clinics implement HIV testing
- Working with facilities to establish TB infection control committees and develop customized infection control plans
- Educating patients enrolled in HIV care and treatment about cough etiquette and other protective measures
- Introducing isoniazid preventive therapy for HIV patients that do not have active TB
- Supporting community-based intensified case management and treatment of multidrug-resistant TB in Tugela Ferry through subpartner Yale University

Cumulative TB/HIV Results

Facilities supported	100
Cumulative number of new patients screened for active TB at enrollment into HIV care	39,993
Cumulative number of new patients with unknown HIV status who were tested for HIV while in care at theTB clinic	20,817
Cumulative number of new patients diagnosed with HIV while in care at the TB clinic who were subsequently enrolled in HIV care and treatment	8,919

The Chatty Primary Healthcare Clinic devised an innovative "cough priority box" for charts of patients suspected to have TB; this simple measure reduced the wait time of patients from over two hours to 15 minutes.

TB Infection Control at Health Facilities

ICAP and the Eastern Cape Department of Health, working with a group of facilities, developed materials aimed at educating and motivating health care workers to adopt TB infection control practices in order to protect their own health and minimize transmission of TB within their health facilities. Health care worker training and job aids emphasized the importance of being alert for coughing patients and prioritizing them—ensuring that they are seen quickly so as to minimize their potential to infect others.

ICAP supported facilities to establish infection control committees and develop customized infection control plans that included such strategies as good ventilation in waiting areas, outdoor sputum collection, and managing patient flow to prevent the spread of infection. The Chatty Primary Healthcare Clinic devised an innovative "cough priority box" for charts of patients suspected to have TB; this simple measure reduced to just 15 minutes, from 146, the wait time of patients suspected to have TB. With waiting-room posters promoting "cough etiquette," ICAP also educated patients in HIV care about the importance of TB infection control.

Innovation in Human Capacity Development

In order to help the Department of Health fill gaps in human resources for health—for doctors, pharmacists, and data managers—ICAP implemented an innovative, multiprong strategy for human resource development. Its main elements included:

- Secondment of staff to provincial health departments to fill gaps and build knowledge in areas of need, such as monitoring and evaluation, pharmacy, commodities management, and laboratory
- Implementing—in partnership with local academic institutions—ICAP's nurse mentorship training program to empower nurses as primary caregivers for patients enrolled in HIV care
- Ensuring continuous mentorship for nurses at nearly 100 public health facilities
- Conducting training in nurse-initiated management of ART (NIMART) for staff at primary health clinics on comprehensive HIV care and procurement and antiretroviral-drug stock management
- Providing technical, managerial, and financial support for a 24-month pharmacist-assistant apprenticeship course, resulting in the training and placement of 62 pharmacist assistants at public health facilities in Free State and Eastern Cape Provinces

Community-Based Detection and Treatment of Multidrug-Resistant TB in Tugela Ferry

In 2005, at the Church of Scotland Hospital (COSH) in Tugela Ferry, a poor, rural area of KwaZulu-Natal, researchers identified multiple cases of a deadly and nearly untreatable form of TB occurring among people living with HIV. The diagnosed cases of this infection—resistant to almost all anti-TB drugs available in South Africa—constituted the largest recorded cluster of HIV-related cases of extensively drug-resistant TB, alarming medical and public health officials worldwide.

At the time, the system of care for drug-resistant TB in KwaZulu-Natal consisted of a single specialty hospital in Durban that was incapable of managing a province-wide multidrug-resistant TB epidemic. Dr Gerald Friedland of Yale University recalls, "Mortality was extremely high among people arriving at the hospital with multidrug-resistant TB. Diagnosis took months. Many died before being diagnosed."

COSH, the University of KwaZulu-Natal, a local nongovernmental organization called Philanjalo, and ICAP subpartner Yale University collaborated with the Department of Health to pioneer an innovative program in UMzinyathi District, TF Cares, for treating cases of multidrug-resistant TB in the community. Daily for six months, the program dispatches a nurse to the home of a patient with multidrug-resistant or extensively drug-resistant TB to administer injectable medications. Patients stay with their families and communities rather than in prolonged isolation in hospital wards; costs are lower; and very few patients leave treatment. The program's success, replicated throughout South Africa, has been incorporated into national guidelines for treatment of drug-resistant TB.

In 2010, Yale University, the Department of Health, and Philanjalo extended the community-based approach to intensified TB case finding. Community TB screening allows for earlier identification of drug-resistant TB cases while facilitating linkages to care and treatment for HIV. Of the more than 3,000 individuals screened for TB in the community to date, 10–12% have tested HIV positive. These individuals have been referred to care and treatment at local health facilities.

The success of this community TB treatment and intensified case finding demonstrates the value of extending critical clinical services beyond the health facility. Dr Friedland notes, "You have to go to where people are and not wait for them to come to you, particularly in poor, rural communities."

Peer educators advised people living with HIV on disclosing their status to others; worked with serodiscordant couples and family members to promote HIV testing, care, and treatment; counseled and educated people living with HIV and family members on coping strategies and positive living; and—as task-shifting initiatives engaged nurses as primary caregivers—helped to reinforce the image of nurses as capable professionals.

Engagement of People Living with HIV, Involvement of Local Communities

Increasing utilization of services for HIV care and treatment must address HIV-related stigma, as well as other barriers. The use of outreach peer educators (who are HIV-infected themselves), and support groups is essential to improving not only adherence but also overall quality of life for people living with HIV. Early on, ICAP recognized the critical role of peer educators in conducting outreach and reducing stigma, especially in rural areas, where awareness of accurate HIV information was weak and and misconceptions about HIV were widespread. To better respond to the clinical and nonclinical needs of people living with HIV, ICAP implemented adherence and psychosocial support activities in partnership with multidisciplinary teams and communities, including:

- Ensuring adherence counseling for HIV care and treatment patients at every clinic visit
- Installing Wellness Centers next to high-volume HIV clinics to provide HIV education, pre-test and post-test counseling, support groups, and other assistance to people living with HIV
- Establishing peer education programs to help those newly diagnosed with HIV adhere to their care and treatment regimens
- Launching psychosocial support groups for individuals of different ages and backgrounds (including adolescents and pregnant and postpartum women)

These services help fill the gap between what the formal health system provides and the broader needs of HIV patients.

ICAP's peer educators were critical to implementing the program. Peer educators advised people living with HIV on disclosing their status to others; worked with serodiscordant couples and family members to promote HIV testing, care, and treatment; counseled and educated people living with HIV and family members on coping strategies and positive living;

A park home was installed to house the HIV clinic and wellness center at Holy Cross Hospital in the Eastern Cape Province in 2005. The hospital did not have an HIV clinic before this structure was erected.

Over time ICAP supported significant improvements to health infrastructure—conversion of an old maternity ward into a modern pharmacy; conversion of outbuildings to house ART services; addition of windows to waiting rooms to improve ventilation and reduce TB transmission; installation of air conditioning units; and furnishing waiting rooms with comfortable, sheltered seating and monitors continuously showing educational videos to promote family wellness.

A New Beginning for Godfrey

Phehello Godfrey Ramabodu comes from a poor family in Welkom, Free State. A "people person" by nature, Godfrey always sought a career that would allow him to help others. In 1998, after completing his secondary schooling in Senekal, he went to study at the University of Limpopo but was soon forced to drop out by financial pressures.

In 2008, while working a temporary job to make ends meet, one of Godfrey's friends told him about a pharmacist-assistant apprenticeship course being offered by the Department of Health with support from ICAP. The course was designed to address the pharmacist shortage in South Africa, which was impeding access to HIV care and treatment. Seeing the course as a potential stepping stone towards a career in human services, Godfrey applied and was selected as one of 20 new trainees in Free State.

When the course began in July 2009, Godfrey distinguished himself as one of the most committed trainees. He learned about antiretroviral drugs and pharmaceutical management at Mohau District Hospital, and there benefited from the experience and guidance of his tutors—professional pharmacists who, in his words, "helped me settle down and made sure I understood how a pharmacy works and what would be expected from me."

Two years after finishing the course, Godfrey is now employed as a post-basic pharmacist assistant at Mohau (Hoopstad). He feels that his life was transformed by the experience. Not only is he able to provide for his family in a way that he previously could not, but he is also making a difference in the lives of his patients. In reflecting on what the course meant to him and his 19 fellow students, Godfrey expressed gratitude for the opportunity to "put into practice what he have learned to improve lives in our communities."

and—as task-shifting initiatives engaged nurses as primary caregivers—helped to reinforce the image of nurses as capable professionals. ICAP psychosocial support officer Thulani Vazi noted, "The peer education program has shifted the focus away from the medical to the individual. People now see that HIV is something you live with. Peer education has allowed people to see the individual above all else."

ICAP-sponsored support groups provided people living with HIV with psychosocial care that was tailored to their age and life situation. PMTCT support groups, targeting pregnant women in their third trimester or postpartum women, focused on timely HIV testing and good care for their infants. Adolescent support groups stressed life skills, adherence, disclosure, and transition to adult care. Still other support groups helped psychologically prepare children infected through mother-to-child transmission for the loss of one or both parents and helped these youngsters build social safety nets (see "Planning to Remember," next page). The combined effect of ICAP's social support activities was to reduce the stigma associated with HIV, to allow people to see that it was possible to lead a fulfilling life when HIV-infected, and to access ART and HIV services without shame.

Partnership and Consultation

ICAP succeeded in supporting the rapid scale-up of care and treatment services in South Africa by working in close partnership with stakeholders at every level of the health system.

People Living with HIV

ICAP helped bring about important changes at facility and community levels by empowering people living with HIV—specifically, by training them to provide health care, work as peer educators, and lead support groups. Not only did this inclusive approach allow health facilities to serve more people, it also made HIV care more effective and more meaningful to all who received it.

Health Care Workers

Because ICAP engaged them as agents of change at every stage of the program, health care workers often went above and beyond the call of duty, leveraging their relationships with other staff to link ART patients to critical services such as the antenatal clinic, pediatric care, and outpatient clinics. Recognizing in ICAP's activities both a response to urgent patient needs and an opportunity to build their own clinical skills, nursing supervisors and clinic managers would regularly encourage a high level of energy and focus from the entire team in support of ICAP activities. Health care workers' engagement during multidisciplinary team meetings facilitated many significant incremental improvements to facility procedures.

Communities

ICAP actively engaged communities by setting up wellness programs and centers that served as community hubs, where residents could participate in groups and meet on topics relating to HIV care and treatment. During local government-sponsored health fairs, ICAP provided staff and peer educators to advise those in attendance on the availability of HIV testing services. ICAP routinely met with community leaders and elders to discuss pressing health care issues and ways to improve community health. In some of the most rural settings in Eastern Cape, ICAP supported the Department of Health with staffing of and procurement for mobile HIV clinics to bring health care services and HIV testing to communities with poor access to health clinics.

Local Governments

ICAP's has consistently worked in partnership with government at national, provincial, and district levels. Many ICAP staff, while observing that this approach takes more time than the alternative, have found that it pays off in the end by ensuring that activities were implemented and managed with a view to long-term viability and respect for national structures and institutions. As a result, ICAP's assistance and technical advice are seen as objective, professional, and strategic, and taken seriously. Repeatedly, Department of Health representatives noted that ICAP didn't have its own agenda but instead would collaborate with them to identify gaps and develop a joint plan. Department of Health staff also expressed appreciation for ICAP's flexibility and active participation in problem solving.

Peer Educators during their intensive three-week training at St. Patrick's Hospital in the Eastern Cape Province in 2006

Strengthening Local Systems

In South Africa, ICAP's approach to strengthening local health systems involved collaboration with the Department of Health on local health departments' most pressing system-related needs as well as preparing for the transition of many of its activities to local nongovernmental organizations.

ICAP-supported renovations and repairs to health facilities made a dramatic difference for patients and providers in Eastern Cape, Free State, KwaZulu-Natal and Northern Cape Provinces. In response to health department requests, ICAP provided support for other systems. In Free State, for example, the provincial laboratory was struggling to balance its accounts and reconcile them with the records kept by the national laboratory. ICAP seconded a state accountant to the lab to manage this process. In less than a year, the accounts had been reconciled and the Free State Department of Health was saving money after the identification of several duplicative or erroneous charges.

ICAP's active participation in annual Department of Health strategic planning exercises at the provincial, district, and subdistrict levels has helped ensure that its transition activities are aligned with local priorities. With ICAP's support, the University of Fort Hare has assumed management responsibility for the advanced clinical HIV management certificate course for nurses and now supports comprehensive HIV treatment programs at Department of Health facilities in East London. Similarly, ICAP contracted and worked with the Foundation for Professional Development to meet the human resources for health needs in KwaZulu-Natal and Eastern Cape Provinces.

Planning to Remember: Memory Boxes and Family Trees

ICAP professional counselor Cynthia Nthangeni has provided psychosocial support services to people living with HIV, orphans and vulnerable children, and their families in Free State Province since 2009. She noted orphaned children and adolescents who were unable to access government services because they lacked proper documentation (e.g., birth certificates and their parents' identification cards). Other orphaned children bounced from institution to institution for want of a record of any extended familial connections. Cynthia was determined to prevent other children and adolescents from living through similar experiences.

With health department community counselors, Cynthia and ICAP brought together adolescent support group members to create "Memory Boxes," shoe boxes brightly decorated with wrapping paper and ribbon that could be used to store photocopies of vital records and other identifying information, in order to ensure access to education and support services for the children if their parents died. Each Memory Box is kept safe at the health facility where the child is enrolled in care and treatment. Support group leaders visit local hospitals to track down records for children who have none; the documents are then added to the child's Memory Box.

To facilitate future placement of orphans with extended family, Cynthia introduced the Family Tree, a graphical depiction of a child's family network created by tracing an outline of each child on kraft paper and filling in the outline with names, contact information, and other facts about the child's relatives.

Memory Boxes and Family Trees have the additional benefit of preparing children psychologically for the possible death of one or both parents, reminding them of their connections to other loved ones.

Cumulative Heath Care Workers Trained

Health care workers trained in HIV care	10,254
Health care workers trained in ART	8,878
Health care workers trained in PMTCT	3,236
Health care workers trained in TB/HIV integration	856
Health care workers trained in counseling and testing	570

All numbers as of September 30, 2011

Transition

Within South Africa and globally, PEPFAR has emphasized program sustainability and local capacity development. ICAP in South Africa has met this mandate by gradually transferring its management responsibilities to local institutions.

In 2010, ICAP helped establish a new locally registered non-governmental organization—the Institute for Health Programs and Systems (IHPS)—to assume responsibility for elements of its portfolio. IHPS is now operating independently and moving forward with a variety of human capacity development activities and addressing broader health care issues in South Africa.

IHPS was formally registered in October 2010 with ICAP support. Building on its core values and experience, ICAP assisted IHPS with the early stages of organizational development, from forming a board to developing funding proposals. ICAP has mentored IHPS in project management and program development and has guided the organization as it provided technical support and assistance to the Department of Health.

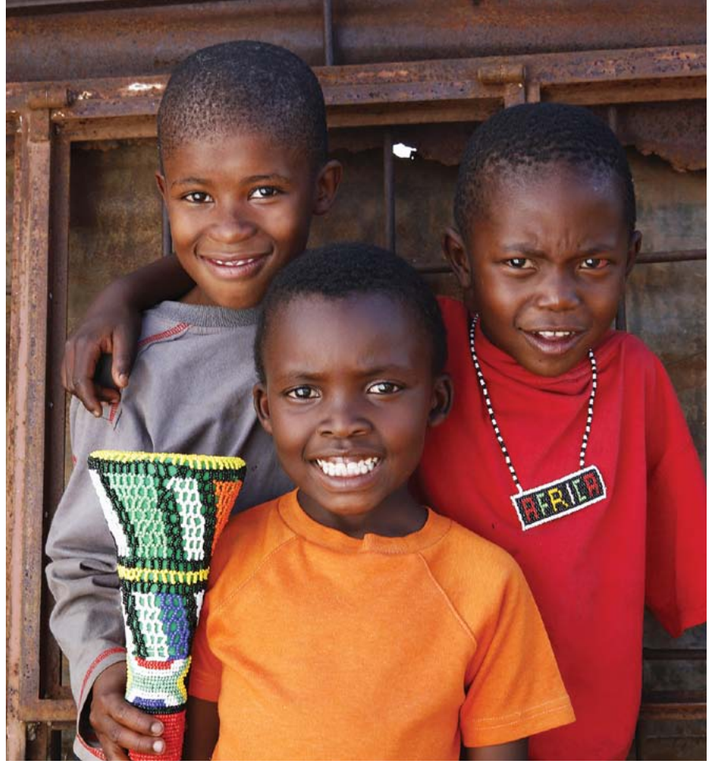
Strengthening the Capacity of the Free State Department of Health

When ICAP initiated support to Free State in 2008, it immediately met with the provincial Department of Health to discuss the most pressing needs in Lejweleputsa and Fezile Dabi districts and determine needed support. The agency was having trouble distributing medicine and meeting the audit and record-keeping requirements of the national department of health. The capacity building strategy that emerged from these discussions involved support for a series of targeted, temporary staff secondments that the Department of Health would absorb within two years.

Particularly careful planning by ICAP and the Free State Department of Health was required to arrange for the secondment of staff—a state accountant for the provincial laboratory (which was experiencing serious challenges with the monitoring and reconciliation of its accounts); district-level quality improvement officers; and staff nurses at NIMART facilities as well as the training and placement 20 pharmacist assistants at ART posts; the recruitment and placement of 10 pharmacist assistants to staff the medical depot. ICAP and the Free State Department of Health developed memorandums of understanding to guide the secondments and to ensure that they were sustainable and achieved their intended purpose.

Together the province and ICAP developed and implemented standards of care and other quality improvement measures; ICAP provided mentoring of professional nurses in compliance with NIMART and performed infrastructure improvements at three clinics.

Several factors contributed to success of ICAP's capacity building collaboration in Free State. The department welcomed the partnership and in 2007 became the first provincial health department in South Africa to establish a partnership directorate. The two partners discussed priorities and gaps early in the project, as well as the scope and substance of ICAP support. ICAP staff participated actively in Department of Health planning meetings in the context of South Africa's national strategic plan for HIV/AIDS, and developed an understanding of local strategies and how ICAP could assist. When strategies changed or a new need was identified, ICAP consistently demonstrated willingness to adapt.



MOVING FORWARD IN SOUTH AFRICA

As ICAP transitions program management responsibilities to IHPS and other local partners, its focus is on consolidating the gains its work has accomplished in South Africa, and identifying specific technical areas that ICAP can continue to contribute to in the increasingly robust response to HIV in South Africa. ICAP has established itself as a respected source of HIV technical expertise and has earned a reputation for collaboration and innovation. Several lessons learned during implementation of MCAP, ICAP's largest program in South Africa, will inform future work by ICAP and IHPS:

- In order to break down barriers to access, programs must focus both on strengthening health services and on creating supportive, community-based systems.
- Forging improvements in service quality that are sustainable requires structured, collaborative mechanisms for analyzing and responding to challenges, in which all team members have a voice.
- Mentoring health care workers is an effective way to reinforce knowledge and skills that have been acquired during group training. At the same time, mentoring empowers individuals to become actively involved in their own performance and professional development.
- Peer education and support group services improve care and treatment outcomes in two ways: first by educating people living with HIV about what they can do to maximize their clinical and psychosocial outcomes, and second by reducing the stigma associated with HIV, which in turn increases uptake of counseling and testing services.
- Supporting longer-term training initiatives (such as the two-year pharmacist-assistant apprenticeship course) requires considerable investment but also leads to longer-lasting, systemwide improvements that benefit future care and treatment patients.
- Collaboration with local health departments during all phases of planning and program implementation requires substantial time, but contributes to making those programs more strategic, more sophisticated, and more sustainable over the long term.

References

1. Joint United Nations Programme on HIV/AIDS (UNAIDS). *AIDS at 30. Nations at the Crossroads.* Geneva, Switzerland: UNAIDS; 2011. Available at: http://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2011/june/20110603praids30/.

2. United Nations General Assembly. *Political Declaration on HIV/AIDS: Intensifying Our Efforts to Eliminate HIV/AIDS. Resolution Adopted by the General Assembly on 10 June 2011.* A/RES/65/277. Geneva, Switzerland: UNAIDS; 2011. Available at: http://www.unaids.org/en/media/unaids/contentassets/documents/document/2011/06/20110610_UN_A-RES-65-277_en.pdf.

3. Joint United Nations Programme on HIV/AIDS (UNAIDS). *Global HIV/AIDS Response. Epidemic Update and Health Sector Progress Towards Universal Access. Progress Report 2011.* Geneva, Switzerland: UNAIDS; 2011. Available at: http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2011/20111130_UA_Report_en.pdf.

4. UNAIDS. *World AIDS Day Report 2011.* Geneva, Switzerland: UNAIDS; 2010:7. Available at: http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2011/JC2216_WorldAIDSday_report_2011_en.pdf.

5. United States President's Emergency Plan for AIDS Relief. Washington, DC: US Agency of the Global AIDS Coordinator, Bureau of Public Affairs, US State Department. Using science to save lives: latest PEPFAR results. Available at: http://www.pepfar.gov/results/index.htm.

6. UNAIDS. *UNAIDS Report on the Global AIDS Epidemic 2010.* Geneva, Switzerland: UNAIDS; 2010. Available at: http://www.unaids.org/globalreport/Global_report.htm.

7. The World Bank . Washington, DC: The World Bank. South Africa: Country Brief; September 2010. Available at: http://go.worldbank.org/GSBYF92330.

8. Eastern Cape Department of Social Development. *Socio-Economic and Demographic Profile.* 2010. Available at: http://www.socdev.ecprov.gov.za/documentscentre/Eastern%20Cape%20Demographics/Eastern%20Cape.pdf.

9. Peters AC. WHO Three I's Meeting: Infection Control [PowerPoint presentation]. Pretoria, South Africa: CDC South Africa; 2010. Available at: http://www.stoptb.org/wg/tb_hiv/assets/documents/MeetingDocs4/A_Peters_Implementing_IC_in_South_Africa.pdf

10. World Health Organization (WHO) and UNAIDS. Towards Universal Access: Scaling Up Priority HIV/AIDS Interventions in the Health Sector. Geneva, Switzerland: UNAIDS; 2008. Available at: http://www.who.int/hiv/pub/towards_universal_access_report_2008.pdf.

11. WHO and UNAIDS. Towards Universal Access: Scaling Up Priority HIV/AIDS Interventions In The Health Sector. Geneva, Switzerland: UNAIDS; 2010. Available at: http://whqlibdoc.who.int/publications/2010/9789241500395_eng.pdf.

12. Consequently, ICAP chose to convert its East London office into a regional office, start a central office in Johannesburg, and establish additional regional offices in Port Elizabeth, Port Edward, Kimberley, and Bloemfontein.

REPORT DESIGN by ERIN DOWLING DESIGN