

# STAR-EC Technical Brief

## INTEGRATING TB AND HIV SERVICES

### in East Central Uganda

## Background

Uganda is one of 22 countries identified as having a high burden of tuberculosis (TB) infection. In Uganda, an estimated one half of TB patients are co-infected with HIV<sup>1</sup>. TB is the leading cause of mortality and a common cause of morbidity among HIV patients. In order to eliminate new infections and to prevent deaths from both diseases, strong mechanisms for integrated delivery of TB and HIV services must be in place.

In 2006, Uganda's National TB and Leprosy Program (NTLP) and the National AIDS Control Program (NACP) disseminated the National TB/HIV Policy Guidelines and the Communication Strategy to address the vertical nature of implementation of both TB and HIV services in the country. Nationally, the translation of the policy into practice proved to be a hurdle. The implementation of the policy varied from region to region and district to district due to insufficient planning and a lack of human resources.

The major challenges to integrating TB and HIV services included a lack of service coordination at the district level, insufficient human resources, knowledge gaps at the facility and community levels, and inadequate documentation and record keeping of service delivery. Efforts were further frustrated by logistical issues, such as stock outs of HIV and TB testing and treatment commodities, and a lack of diagnostic laboratories and clinics

accredited to provide antiretroviral treatment (ART) to TB/HIV co-infected patients.

In 2009, when STAR-EC was launched, the nine districts of East Central Uganda had a case detection rate (CDR) and HIV prevalence of 32 percent and 6.5 percent, respectively. The low CDR in the region was attributed to poor service delivery at both the health facility and community levels. High-risk populations in the region, which include prison inmates and migrant populations, also posed unique challenges to service integration.



Inmates at a Mayuge District prison are screened for TB and HIV.

<sup>1</sup>National Policy Guidelines for TB/HIV Collaborative Activities in Uganda, 2009

## Interventions

STAR-EC partnered with the NTL and NACP to strengthen integrated TB and HIV services at the district, community, and facility levels throughout the East Central Region. By building human resource capacity and renovating facilities to improve and extend services to more people—especially those at high risk—the project registered steady improvement of TB and HIV indicators. According to project data, between 2009 and 2016, the percentage of TB/HIV co-infected patients enrolled on ART increased from 18 percent to 96 percent and HIV prevalence among TB patients fell progressively from 37 percent to 31 percent.

### Building capacity at district, community, and facility levels

To address the lack of service coordination and knowledge gaps among health workers, STAR-EC supported the formation of TB/HIV coordination, training, and quality improvement teams (QITs). The existing district coordination teams comprised of district and health sub-district TB and HIV focal persons, as well as representatives of civil society organizations (CSOs), health centers, and laboratories. STAR-EC facilitated quarterly meetings between these teams to help coordinate, plan, and support implementation of TB/HIV services across the East Central Region's nine districts.

STAR-EC also trained teams of clinicians on TB/HIV co-management and TB infection control, who in turn trained health care providers at health facilities (levels III and above). Health care providers were also trained on the logistics information management system (LIMS) to ensure accurate supply forecasting and reduce stockouts of essential TB and HIV commodities. These training teams have trained 875 health care providers throughout the region who also received continued onsite mentorship and support supervision provided by MOH and NTL officials.

To improve data quality, STAR-EC revised tools to capture TB/HIV indicators that were disseminated and distributed to all facilities. With STAR-EC support, the QITs formed at the

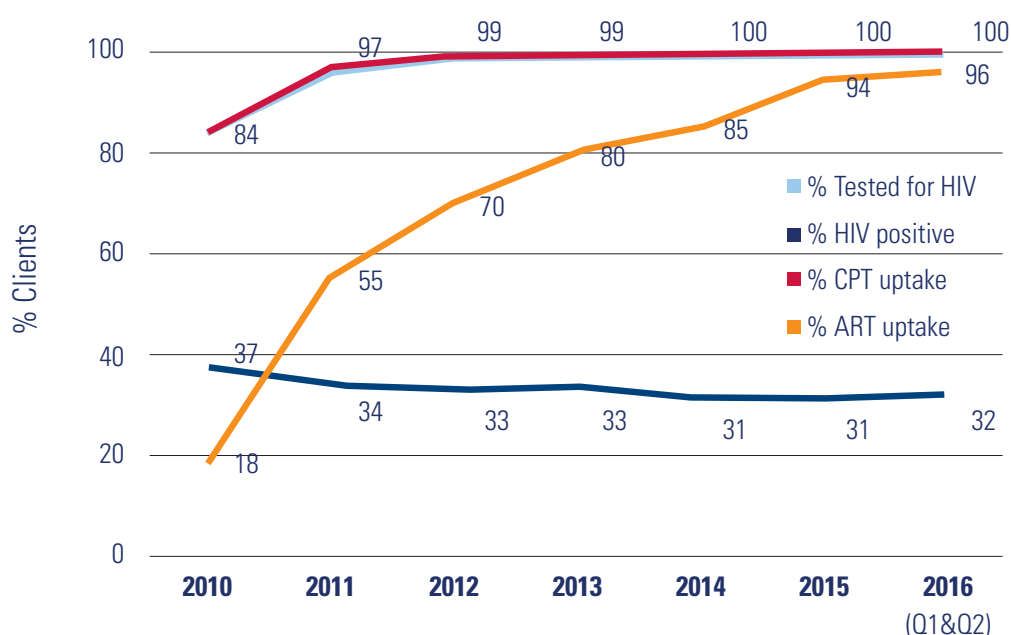
facility level met monthly to review documentation and quality of integrated TB/HIV services. Gaps in TB/HIV service coverage and data quality issues were identified at regularly-held performance review meetings attended by the district TB and leprosy supervisor (DTLS), district and sub-district TB and HIV focal persons, sub-county health workers (SCHW), and laboratory staff. The group compared patient data to identify patients lost to follow up and provide linkages to patients who had not received services. SCHWs, who deliver medicine to communities, followed up with patients identified within their communities.

### Scaling up laboratory services

STAR-EC provided equipment and trained health workers in laboratories, thus increasing the number of facilities able to perform TB-detecting sputum smears from 75 (69 percent) in 2009 to 87 (100 percent) by 2014. Laboratories were continuously monitored via external quality assurance (EQA) by the National Reference Laboratory (NTRL) and lab staff received regular mentorship by NTRL.



A traditional healer and a VHT support a TB patient take his treatment. He is one of the healers trained by STAR-EC in TB case finding and referrals

**Figure 1:** Uptake of integrated TB and HIV services

## Reaching communities and high-risk populations with integrated services

STAR-EC targeted high-risk populations, including prison inmates, migratory populations and fishing communities in the islands of Namayingo, Buyende, and Mayuge, and communities identified as having high TB prevalence, with integrated TB/HIV outreach services. Services included TB screening, HIV testing and counseling (HTC), linkage to treatment, and information sessions on TB and HIV.

To raise awareness and increase demand for services among general and high-risk populations, the project used radio talk shows, community sensitization meetings, drama shows, and international advocacy days (e.g., World TB Day) to spread TB prevention and treatment messaging. At the community level, village health team (VHT) members, people living with HIV (PLHIV), drug shop attendants, and traditional healers/herbalists were given basic facts on TB, including its relationship with HIV, to help reinforce TB and HIV prevention and treatment messaging.

## Results

Since STAR-EC began in 2009, TB indicators have improved significantly throughout the region. The number of laboratories able to perform TB-detecting sputum smear testing has increased from 75 to 87 (100 percent of laboratories in the region), which has led to improved access to TB screening. As of 2016, ninety-nine percent of HIV-positive patients seen at clinics now receive TB screening, 100 percent of TB patients are tested for HIV, and 100 percent of confirmed HIV/TB co-infected patients are started on CPT. Access to ART for TB/HIV co-infected patients has increased from 18 percent (2009) to ninety-six percent (2016).

As a result, the TB cure rate in East Central Uganda has increased from 30 percent (2009) to 74 percent (2016), treatment success rate has increased from 67 to 90 percent, and the HIV prevalence among TB patients has fallen from 37 percent to 31 percent over the same time period.

## Conclusion

STAR-EC's work to integrate TB and HIV services at all levels of the health system has had a dramatic impact on the number of patients who are screened and treated for both infections in the East Central Region of Uganda. Because of project intervention, TB patients are more likely to be identified, enrolled and retained on treatment, and cured of the infection; TB/HIV co-infected patients are more likely to be identified, cured of TB, and enrolled on ART.

The project faced implementation challenges, including challenges in consistently reaching and following up with patients within the migratory fishing populations in the districts of Mayuge, Namayingo, and Buyende. Integrated service outreach to the islands in these districts and increased engagement of VHTs in following up with patients helped mitigate this issue. Stock outs of HIV testing kits were a persistent issue that affected timely HTC and enrollment on ART for TB patients.

Focused efforts to train health providers in use of the LMIS sought to address these stock outs.

Building the capacity of health care providers at all levels through joint mentorship with NTLP and NACP officials was a cost-effective, sustainable strategy for improving integrated TB and HIV services in the region. The stratified supervisory team system has enabled fast and efficient dissemination of TB/HIV co-management information down to the community level. Improved capacity of facilities and laboratories to provide TB/HIV services paired with increased public awareness and demand for these services has led to an increase in the number of patients screened and enrolled in treatment. Further efforts to increase the number of accredited ART sites will yield continued improvements to TB/HIV treatment outcomes.

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### STAR-EC Headquarters

Plot 10 Kiira Lane, Mpumudde Division, P.O Box 829, Jinja  
Tel: +256 434 120225, +256 434 120277, +256 332 260182, +256 332 260183  
Fax: +256 434 120232 • [www.starecuganda.jsi.com](http://www.starecuganda.jsi.com)