According to the Global Tuberculosis Report 2013, Uganda is one of the seven out of 22 high tuberculosis (TB) burden countries that have met all Millennium Development targets for TB. In January 2014, the Uganda Ministry of Health (MOH) reported that the number of Ugandans estimated to have TB infection declined from 88,560 to 64,000. However, the MOH noted that significant challenges remain, such as the emergence of drug-resistant TB (DR-TB), a very high TB/HIV co-infection rate, sub-optimal ART coverage for co-infected patients and the need for improved access to TB diagnostic facilities, including the use of WHO-approved rapid diagnostic tools such as Gene Xpert machines.

The USAID Strengthening Uganda’s Systems for Treating AIDS Nationally (SUSTAIN) is a 5-year (2010-2015) project implemented by University Research Co., LLC (URC). USAID/SUSTAIN’s objectives include supporting selected regional referral and general hospitals to deliver comprehensive, quality HIV and TB care services and strengthening the capacity of hospitals to manage DR-TB.

The USAID Strengthening Uganda’s Systems for Treating AIDS Nationally (SUSTAIN) project supports the Uganda Ministry of Health to strengthen sustainable and innovative approaches for HIV and TB service delivery at selected healthcare facilities. This project is made possible by the support of the American people through the United States Agency for International Development (USAID). The content of this publication does not necessarily reflect the views of USAID or the United States Government.
TB/HIV INTERVENTIONS

Improving TB/HIV service delivery systems

In collaboration with the Ministry of Health and the National TB and Leprosy Programme, USAID/SUSTAIN supports:

- Healthcare provider knowledge and skills strengthening through training and on-site mentorship
- Application of Quality Improvement approaches to improve TB care processes and outcomes
- Establishment of effective inter- and intra-facility linkages for patient care and support, including referral networks and collaboration with the respective Zonal and District TB and Leprosy Supervisors
- Improvement of documentation of routine care TB care activities and records management

Management of drug-resistant tuberculosis

In April 2013, the project began supporting the MOH National TB and Leprosy Programme, to roll out decentralisation of DR-TB care services starting with four regional referral hospitals (Fort Portal, Gulu, Masaka and Mbale). Three more RRHs will be supported to begin providing these services in 2014.

Key strategic activities include:

- Provider skills strengthening for DR-TB care teams
- Strengthening TB infection control, including various infection control practices, infrastructure improvement and provision of TB infection control materials
- Logistical and technical support for coordination of the ambulatory model of DR-TB care

Achievements and Progress

Healthcare service provider skills strengthening

TB care teams have been trained and mentored in the following areas:

- Basic TB/HIV co-infection management, and application of quality improvement (QI) methods in routine service delivery (124)
- Advanced TB/HIV co-infection management (16)
- Management of drug-resistant TB (89)
- Programmatic management of DR-TB (15)

TB care teams from all project-supported hospitals receive quarterly on-site mentorship and QI coaching.

Improved TB infection control activities

Hospital nurse teams are supported to design and implement TB infection control improvement projects aimed at enhancing implementation of administrative TB infection control measures (triage, fast tracking, patient separation and patient education) at patient care points. National TB infection control guidelines have been distributed, hospital committees established and TB care teams provided with personnel protective equipment (N95 respirators and masks) to enhance TB infection control measures.

Figure 1: Steady improvement of TB/HIV Collaborative results and treatment success rate at the supported hospitals
TB/HIV INTERVENTIONS

Strengthening the use of Health Management Information Systems (HMIS) for TB activities

USAID/SUSTAIN ensures availability and use of MOH HMIS by providing the required tools and registers when needed and by working with and supporting care teams to improve recording, reporting and routine utilisation of data.

Supply chain management systems

Through on-site training, USAID/SUSTAIN enhances provider skills in TB logistics management, including use of the Ministry’s supply chain management information systems, to ensure availability of TB related medicines and supplies.

Building laboratory capacity for TB/HIV related services

The project facilitates procurement and installation of new equipment—including fluorescent microscopes and their spare parts and safety hoods for TB microscopy—and improving human resource capacity (skills and numbers) for laboratory services.

USAID/SUSTAIN project introduced the concept of Quality Improvement which has helped us to appreciate and use our data. Together with my colleagues at the TB unit, we are able to track our performance and determine where we are, where we want to be and how to get there by designing improvement projects.

Damalie Namuyodi, TB Unit In-charge, Mbale Regional Referral Hospital

<table>
<thead>
<tr>
<th>Hospital</th>
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<td>5</td>
<td>11</td>
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<tr>
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<td>10</td>
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<td>Mbale</td>
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<td>Total</td>
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</table>

Table 1: Number of MDR-TB patients enrolled on treatment at four USAID/SUSTAIN–supported hospitals

Health worker wellness

USAID/SUSTAIN supports holding of annual Wellness Clinics at DR-TB treatment centres. During these clinics, free, confidential and voluntary HIV and TB screening services are provided to the DR-TB and other healthcare service providers.

Improved space and infrastructure for DR-TB activities

In collaboration with MOH Infrastructure Division, the project has conducted an assessment of existing DR-TB management physical infrastructure at seven RRHs, as an initial step in a process for remodelling/renovating the structures to improve TB infection control. In the short term, seven specially designed tents have been provided (one to each hospital) as temporary shelter for isolation of DR-TB patients from other TB patients during routine service delivery.

Upgrading laboratory services to effectively support quality TB services

The project has so far supported the MOH to renovate and equip 17 hospital laboratories. In addition these and other hospital laboratories are facilitated to:

- Participate in a National TB Reference Laboratory External Quality Assurance scheme for TB microscopy
- Effectively quantify, order for, report and manage laboratory reagents

As a result, patients with susceptible or DR-TB are able to access quality baseline and treatment monitoring laboratory tests.
Lessons Learned

- Significant improvements in TB control elements can be achieved through low-cost, hospital-based interventions identified and implemented using Quality Improvement approaches.
- Front-line service provider involvement in performance measurement enhances ownership and motivation for implementation of improvement changes.
- The uptake of use of Quality Improvement methods in routine service delivery is gradual, variable and requires consistent technical support.
- Integration of DR-TB and TB/HIV support to hospital teams through mentorship is feasible and is an effective way of strengthening the entire cascade of TB services, including prevention of DR-TB cases, case detection and linkage to second line treatment, as well as the quality of DR-TB care.
- Coordination of DR-TB activities is resource-intensive that calls for close collaboration and partnership with all stakeholders. Primary service provider teams require ongoing virtual and on-site support to adhere to the National DR-TB management protocol and guidelines.