



Improving Tuberculosis Treatment Completion Rates: Experience from Gulu Regional Referral Hospital, Uganda

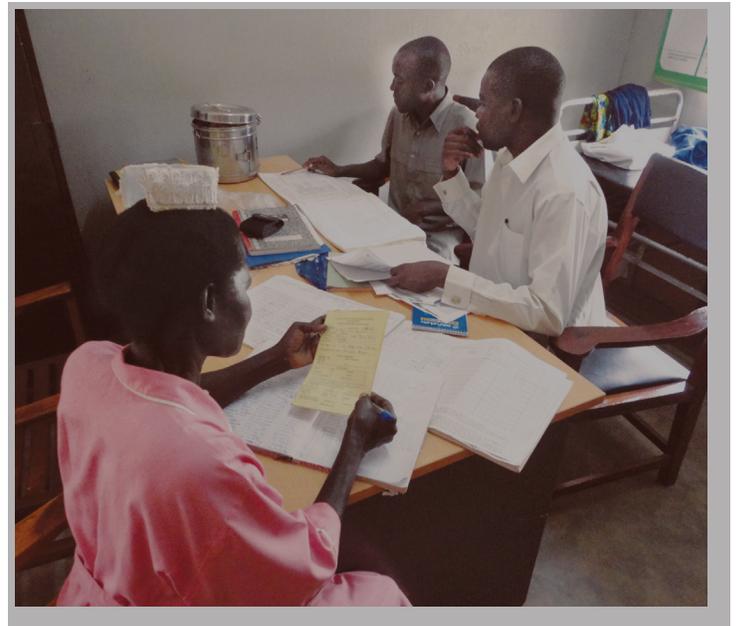
Background

Uganda is among 22 countries identified by the World Health Organization (WHO) as having a high burden of tuberculosis (TB). At Gulu Regional Referral Hospital (RRH) in Northern Uganda, an average of 80 patients every quarter are diagnosed with active TB. These clients are then initiated on an eight-month TB treatment course, as per Uganda national guidelines. Although the national target for completion of TB treatment is 85%, quarterly completion rates from January to September 2011 at Gulu RRH ranged from 18.3% to 27.7%.

Several factors contributed to the poor outcomes in reaching the national target for completion of TB treatment. The TB clinic, staffed primarily by nurses and nursing assistants, was operating as a stand-alone unit within the hospital and had minimal clinical-decision support. There was no linkage between the TB clinic and the Infectious Disease Clinic (IDC) that provides chronic care services to HIV-positive clients. Links to the District Health Team and the hospital medical in-patients ward were limited to drug supply and occasional supportive supervision. In addition to the human resource limitations, client information recorded in the Ministry of Health (MOH) patient management information system, including the TB registers and patient-held cards, was often inaccurate or incomplete. Patient information systems also lacked contact information for supporting proactive client follow-up, and the clinic had no mechanisms in place for tracking clients who failed to return for routine clinical review and prescription refills of anti-TB drugs.

Intervention

With support from the Strengthening Uganda's Systems for Treating AIDS Nationally (SUSTAIN) project, the health workers at Gulu RRH identified and initiated a package of



A TB clinic nurse, data officer, and member of the Community Health Department review the TB register to identify clients requiring proactive follow-up.

the following interventions in October 2011 to improve the quality of care for clients with TB and increase treatment completion rates:

Established a focal TB care team: Clinicians from the IDC and the TB clinic (predominately nurses and nursing assistants) agreed to work together to enhance decision support for TB care and management of TB-HIV coinfecting patients. Clinicians from IDC rotated to the TB clinic and in-patient medical wards to routinely review TB clients and provide mentoring and supportive supervision to the TB clinic team.

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Improved Data Management and Review: The TB clinic team participated in monthly reviews of TB data and reported TB indices during the performance review meetings.

Established Proactive Client Follow-up and Transfer: Mechanisms were established for active client follow-up, including: introduction of patient mapping and appointment registers; recording of client contact information when available; and follow-up by phone and home visits. The hospital Community Health Department (CHD) and TB care teams are jointly responsible for coordinating follow-up efforts. To increase accessibility of services, TB clients whose conditions have stabilized are transferred to lower-level healthcare facilities for follow-up appointments and prescription refills.

Strengthened Service Provider Skills: Hospital-based Continuing Medical Education sessions, as well as training in Integrated Management of Adult and Adolescent Illness (IMAI) and TB-HIV co-management, were carried out to enhance service provider skills.

Improved Collaboration for HIV and TB Services: Appointments were coordinated for clients with TB and HIV coinfection. The hospital management is in the process of merging the HIV and TB clinics (including improved infrastructure and space remodelling to promote infection control) to further improve linkages between the HIV and TB services.

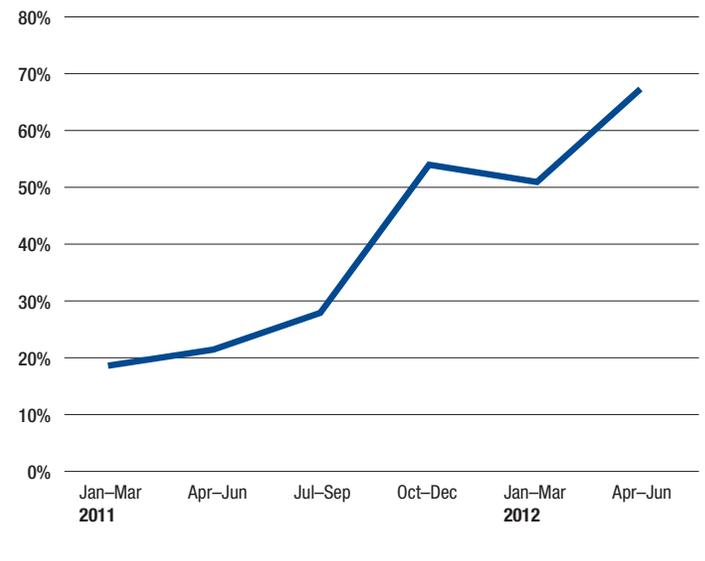
Results

TB treatment completion rates improved from 27.7% in the July–September 2011 quarter, to 54.3% in the October–December 2011 quarter, following the interventions. Despite national stock-outs of TB medicines, a completion rate of 51% was maintained during the January–March 2012 period. Further improvements were noted in April–June 2012 quarter, with a treatment completion rate of 64%.

Lessons Learned

- Establishment of a focal TB care team, that includes clinicians and nurses, greatly improved documentation and quality of care and provides a foundation for future TB-HIV collaborative activities.
- Monthly review of patient management data not only informs quality improvement efforts but also improves quality of documentation.

Figure 1. Quarterly TB Treatment Completion Rates at Gulu Regional Referral Hospital, January 2011 – June 2012



- Training of service providers enhanced implementation of other interventions, ensuring that the providers had the required skills to provide quality services.
- Formal integration of TB-HIV activities strengthens all TB-HIV collaborative interventions.
- Community linkages efforts play a central role in attaining desired TB treatment success targets.

Overall, the provision of decision support for TB care, proactive TB patient follow up, and improved documentation significantly improves TB treatment completion rates.