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# A low-cost patient appointment and tracking system for ART at reproductive and child health clinics in Tanzania

In 2013, Tanzania adopted Option B+ for pregnant women in all reproductive and child health (RCH) clinics. This provided lifetime access to HIV treatment and facilitated administration of antiretroviral therapy (ART) outside of specialized HIV clinics. However, the Ministry of Health and Social Welfare reported that adherence to ART and retention in treatment were problematic under the program.

RCH Option B+ clinics lacked efficient appointment systems and could not identify patients who had not arrived when expected. The ministry distributed patient appointment books and tracking systems to the clinics. However, without formal orientation on their use, staff could not understand how to use the system and promote consistent clinic attendance by HIV-positive patients.

## Evaluating a new appointment and tracking system

3ie funded an impact evaluation to assess whether orienting RCH Option B+ staff on the use of a patient appointment and tracking system could improve the consistency of clinic attendance. The researchers randomized 24 matched pairs of clinics located in urban and rural areas in the Mbeya region. They interviewed key district health officials and clinic staff, and surveyed women receiving ART about their views on clinic efficiency, patient engagement, and barriers to treatment adherence and retention.

Staff members from the Option B+ clinic and the ART clinic for each intervention facility received training, followed by four rounds of monthly supportive supervision visits. Supervisors ensured that staff understood the processes for scheduling appointments, recording clinic visits, rapidly following up on missing patients and calculating monthly attendance indicators.

## Main findings

- The new appointment and follow-up system of patient tracing significantly improved rates of keeping appointments and refilling medication;
- Clinic staff noticed improvements in timeliness of care, treatment confidentiality and patient-provider interaction. They could control their workload better, rapidly identify missing patients and work with community organizations to bring missing patients back into care;
- Patients noted that they could choose convenient days for appointments and wasted less time in clinics; and
- Researchers recommend scaling up the intervention to all ART and RCH Option B+ clinics in Tanzania.

## Findings

Six months after the intervention, there was a significant reduction in the rate of missed visits, and a significant increase in patients attaining at least 95 per cent of days covered by dispensed medicines, relative to patients not attending the intervention clinics. However, the relative difference between rates of patients lost to follow-up, as measured by missing visits by more than 60 days, was minimal.

Qualitative interviews highlighted multiple improvements. Clinic staff

gave high priority to treatment adherence after the intervention, especially because of support from community outreach programs. They were correctly using registers to arrange appointments, and to identify and follow up on missing patients. Additionally, staff could monitor their own performance and engage in continuous quality improvement by analyzing monthly appointment-keeping indicator values.

The researchers observed that many volunteers and staff were not

comfortable with English. Additionally, rapid staff turnover and a more transient population in larger (urban) clinics made continuity of the intervention challenging.

Supervision visits showed that many intervention clinics required several visits before they could fully implement the recommended changes. Adequate follow-up supervision to ensure retention and application of training must be a part of any effort to scale up the intervention.



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## Recommendations for policy and programming

The program was low cost and relatively simple to implement, consisting of two days' training and four subsequent supervision visits. The program may be able to achieve additional savings, as greater adherence could lead to fewer women needing to switch to second-line ART. The staff were familiar with maternal healthcare records, but the additional information requirements of an ART program were very new to them. For the long-term success of the Option B+ program, staff must be trained on the process of reliably collecting and recording both maternal and HIV data.

An electronic appointment system could be more appropriate for larger clinics, where a high volume of patients makes it harder to maintain a paper-based system. Furthermore, appointment registers from ART clinics should be translated into Kiswahili, as clinic staff are usually more fluent in this language.

Lessons learned from this evaluated intervention, about using appointment systems, may be applicable to a broader chronic illness care model.

## About this impact evaluation

This brief is based on an impact evaluation report published in 2017, *Improving ART adherence at reproductive and child health clinics integrating Option B+ in Tanzania*, 3ie Impact Evaluation Report 59, by John Chalker.



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