

# Increasing access to CD4 testing services using a specimen referral network for rural settings: A Model from East Central Uganda

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## Issue

CD4 cells count is an essential laboratory test recommended by WHO for antiretroviral therapy (ART) initiation and monitoring of immune response for persons living with HIV (PLHIV). East Central Uganda has an estimated population of 3 million people and an HIV prevalence of 6.5%. Prior to commencement of the STAR-EC project in March 2009, access to CD4 services by PLHIV from rural was very poor due to the high establishment costs and operational complexities associated with this service.

At that time, Health Centers (HCs) offering ART services in the region referred PLHIV to private laboratories in the capital city, Kampala or Jinja a neighboring major town where a round trip distance 150–250 kilometres to get a CD4 test done. Under such circumstances:

- The cost of transport and the test itself were prohibitive for the PLHIV to access this service
- Many PLHIV would not be initiated on ART in time to benefit from this life saving treatment
- Quality of patient care was compromised since clinicians based on only clinical staging to manage these needy patients

## Description

In collaboration with the Ministry of Health, JSI Research & Training Institute Inc. with funding from USAID is implementing the STAR-EC program in nine districts of East Central Uganda. It has a focus on health systems strengthening aimed at increasing access to comprehensive quality TB and HIV&AIDS services. In September 2009, STAR-EC initiated patients' blood specimen referral network from rural HCs to a private testing laboratory in Jinja. For these services, STAR-EC paid an average of \$6.5 per test. However, though access to the service improved, paying for the test was not sustainable in a long term.

In order to strengthen the capacity of public facilities to conduct CD4 testing, ensure sustainability and reduce on costs paid for the tests, the program supported procurement and installation of CD4 machines at 3 public general hospitals in the districts of Bugiri, Kamuli and Iganga. Health workers from rural 60 HCs were facilitated to use public transport to safely deliver blood samples bi-weekly to the testing laboratories. They would then pick up and return with the patients results for the previous batch during their next trip. Using this model, PLHIV were relieved of any costs for the service, the 3 testing laboratories received reagents free of charge from the National Medical Stores provided by Ministry of Health.

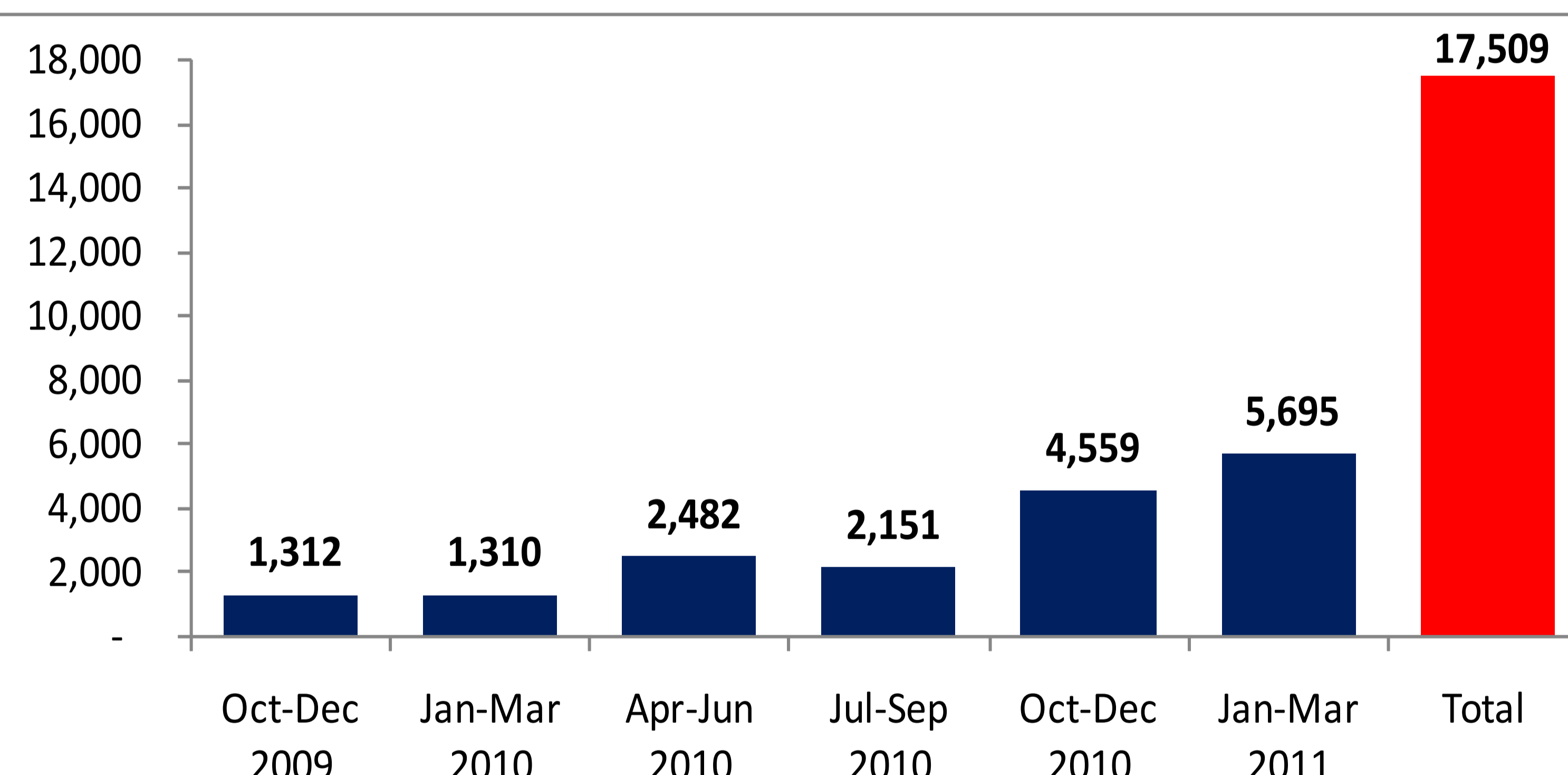


A laboratory staff processing blood samples for CD4 testing on a CD4 machine donated by STAR-EC

### Results (October 2009 to March 2011)

- 17,509 CD4 tests performed
- Number of patients enrolled on ART increased from 61 to 3,898 during this period

CD4 tests performed (October 2009-March 2011)



## Lessons learned

Despite the initial seemingly high costs incurred to procure and install CD4 machines, it is a more cost effective and sustainable investment since diagnostics and human resources are provided by MoH compared to paying for the service at private laboratories where majority of the patients would otherwise not afford.

## Next Steps

Phased installation of additional CD4 machines at more public health facilities in the region and elsewhere is recommended as this will decongest the current service points and make, CD4 monitoring services more accessible.