

NUMAT TECHNICAL BRIEFS

Bringing Antiretroviral Services to the Most Remote Populations

BACKGROUND

Previously heralded as an African success story for its declining HIV rate, Uganda has recently seen a leveling off of the initial success. Currently, 6.4% of the adult population is infected with HIV, the majority of which is spread through sexual contact. More than one million people are living with HIV within the country. While the government is committed to ensuring universal access to antiretroviral drugs (ARVs), only 53% of adults and children clinically eligible for treatment are on antiretroviral therapy (ART).

For nearly 25 years, Northern Uganda was witness to a war marked by extreme violence and human rights violations that resulted in 1.7 million people being displaced. These individuals, who often sought protection in camps for internally displaced people, relied upon humanitarian efforts for basic needs such as housing, water, food, and health services. In 2007, as safety conditions improved within the region, people left the camps and returned to their home villages, where they found government systems, including health care, in a state of disrepair and neglect.

HIV prevalence in Northern Uganda is the highest in the country. Approximately 8.2% of the adult population is infected, and within some districts the rate is much higher. Behavioral indicators such as use of condoms, multiple partners, age of sexual debut, and sex under the influence of alcohol reveal that Northern Uganda falls behind the rest of the country in the practice of HIV preventive behaviors.

ART PROVISION IN NORTHERN UGANDA

Until a few years ago, ART services in Northern Uganda were available in only a few facilities—mainly referral and district hospitals—with myriad problems of accessibility for the majority of people in need. CD4 testing, which is essential for determining ART-eligibility, was only available at major hospitals, requiring patients to incur significant travel costs. When eligible for ART, many people living with HIV & AIDS (PLHIV) found that ARVs were not in stock. Stockouts were caused by weaknesses in the supply chain system including poor forecasting, delivery and supply of requested drugs, and limitations in human resources, including high turnover rates of trained staff and the burden of near constant recruitment and training.

For PLHIVs who missed appointments or scheduled ART pick-up, there was little ability to follow-up. Limited community-based services were available to conduct lost-to-follow-up visits and adherence and counseling support was typically provided only if clients returned to the hospital.

NUMAT'S APPROACH

To address the challenges of initiating and maintaining ART in the region, NUMAT focused its efforts on strengthening the ARV supply chain, decentralizing clinical services to minimize barriers for remote populations, and building the capacity of facility- and community-based providers to support PLHIVs. In response to changes in Ministry of Health (MOH) policy, which allowed health center IIIs (HCIIIs) to conduct CD4 testing and distribute ARVs, NUMAT worked with district health officials and the MOH to development and implement capacity building plans.

INTERVENTION

CD4 Testing:

- NUMAT realized that maintaining laboratory equipment necessary for conducting CD4 testing at HCIIIs was not feasible and therefore contracted a local partner to provide comprehensive CD4 testing services. Samples were collected every two weeks based upon the number of PLHIVs seeking services at the health center. CD4 testing was done centrally and results are provided to the clinic on a pre-determined schedule. This routine service filled a critical program gap and allowed health care providers to initiate ARVs and monitor client response to treatment, based on clinical criteria established by the MOH.

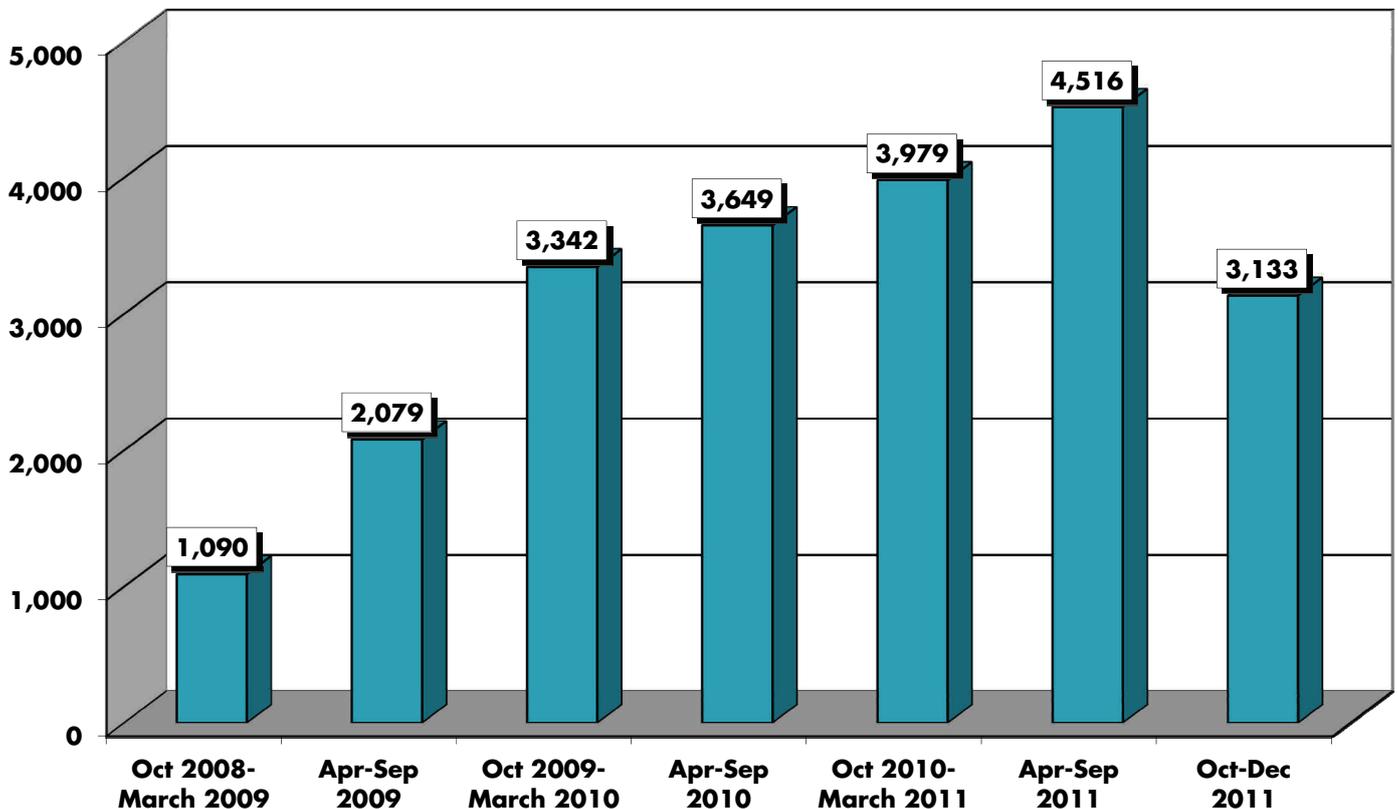
ART Supply:

- Starting in early 2008, NUMAT assisted selected HCIIIs to receive government accreditation for ARV distribution through on-site visits and assessment conducted by MOH officials.
- To ensure a consistent supply of ARVs, NUMAT currently supplies ARV drugs to health centers directly. Since the beginning of this program, there have been no reported stockouts. ARVs are completely free of charge for the patients, irrespective of drug regimen and combination.
- Health workers at the facilities were trained on clinical management of HIV patients, including ART initiation and follow-up. NUMAT also trained health care workers on ARV supply chain logistics. For all activities, NUMAT used government training materials and reporting to guarantee consistency and sustainability for when the government will eventually take over ARV provision to these facilities.
- NUMAT furnished the facilities and supplied needed equipment and materials to properly store ARVs and keep appropriate records.
- To create demand for HIV treatment, NUMAT worked with local partners to implement community awareness campaigns. These events provided comprehensive information on HIV prevention, testing, and referral services using a variety of strategies, including local musicians.

Human Resource Support:

- Quarterly staff meetings were held to provide supportive supervision to HCIIIs and facilitate smooth integration of HIV treatment services. The clinician in charge of the health center used these meetings as a way to improve patient care and as a management tool to address staff performance issues. The team meetings involved all personnel active in patient care to carry out patient audits, in which staff discussed the details of cases and brainstormed for solutions. Through the meetings, the staff learned to communicate effectively and work in harmony, thereby contributing to a better quality of care.
- To guarantee ARV adherence after leaving the health facility, volunteer PLHIVs were trained in supportive counseling and charged with follow-up of patients in the community. Support was focused on treatment adherence and addressing client concerns regarding ARVs—including adverse effects. Assistance was provided in real-time by someone with firsthand experience, and patients who needed additional support could be referred to clinicians. Selected volunteer PLHIVs were given a lunch allowance and bicycle to help them reach their clients, and basic training to enhance links between the health center and the community.

Figure 1: Number of CD4 count tests in NUMAT-supported ART-providing HCIIIs, 2008-2011



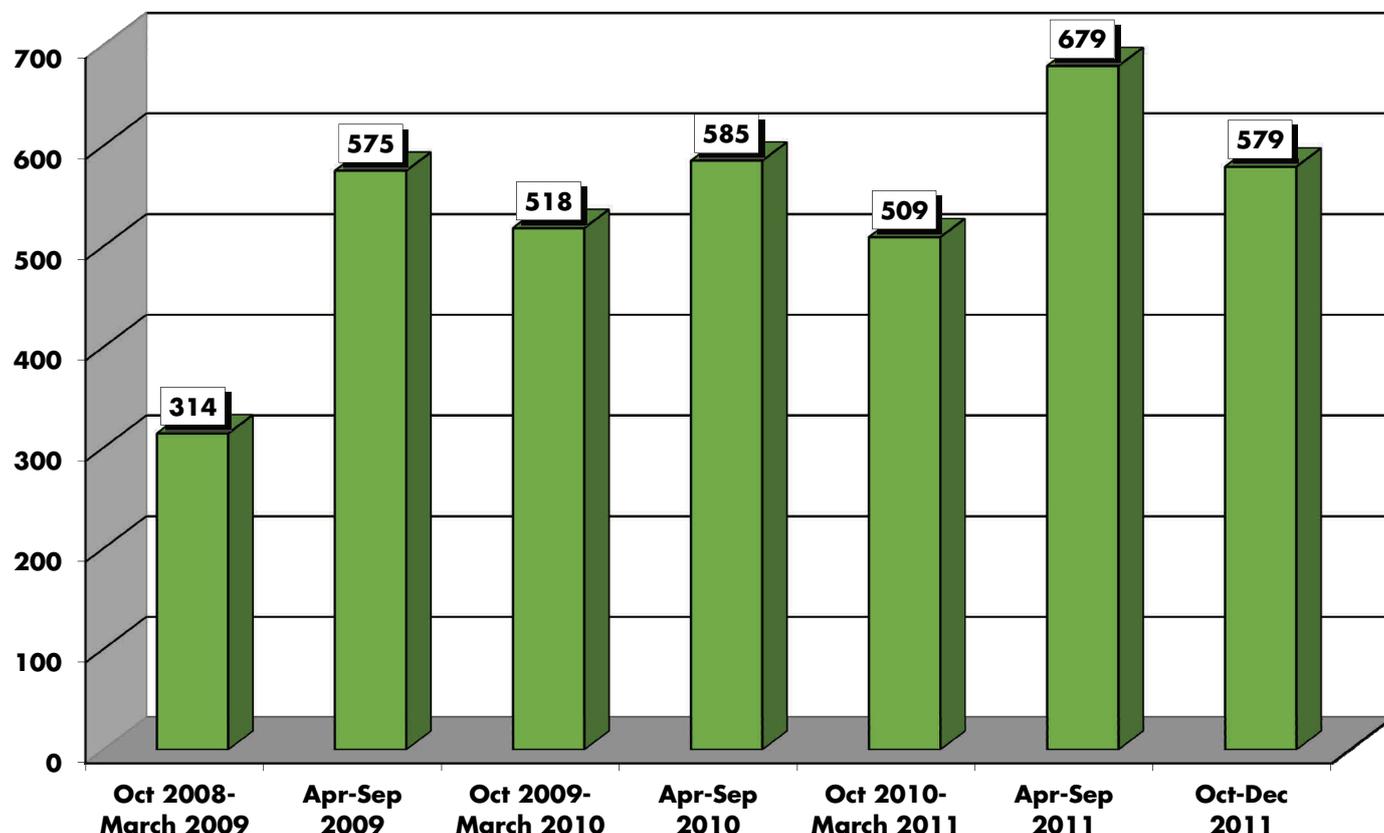
RESULTS

- Between October 2008 and December 2011, more than 21,000 CD4 tests were conducted across the HCIIIs in the region (Figure 1). CD4 tests are done at the local level, resulting in increased uptake of testing, improved clinical care, and initiation of ARVs in-line with MOH guidelines.
- From October 2008 to December 2011, the 14 HCIIIs in the region supported by NUMAT enrolled 3,180 ARV clients (Figure 2), of which 225 were pregnant women and 296 children below 14 years of age, representing 6% and 8% of all newly-enrolled clients, respectively.
- Both ARV enrolment and CD4 testing numbers indicate that the clinics at HCIII level steadily increase service provision. At the same time, through staff training, health workers feel more relevant, knowledgeable, useful, and better equipped to address the needs of their community.
- Patients can access services and lifesaving medication within their community, reducing their travel and waiting time, and the financial burden. Also, health care workers responsible for providing ART services provide other vital and related services (e.g. prevention of mother-to-child transmission of HIV, HIV counseling and testing, and inpatient care). This promotes service integration and higher demand for and utilization of available services by the community.
- ARV adherence is maximized as patients receive medications easily and efficiently. Without needing additional time and money, patients can obtain ARVs locally, thereby increasing the likelihood they will adhere to the regimen. With a steady supply of ARVs, there were no drug stockouts to cause disruption in adherence or frustration among patients, both causes for discontinuing treatment.
- PLHIV volunteers were a significant factor to the success of the initiatives. Their ability to provide responsive, on-time support to PLHIVs contributed to increased adherence and retention in the ART program. By the end of September 2011, the cohort of patients enrolled 12 months earlier by HCIIIs had registered a treatment retention rate of 88%, compared with only 75% of those enrolled by hospitals and HCIVs.
- By September 2011, with support from NUMAT, Northern Uganda increased ARV coverage at a greater percentage of HCIIIs than the national rate (17% vs. 4%).

CHALLENGES

- Samples for CD4 tests are collected every two weeks, requiring most patients to return to the health center after their initial visit. Some clients, however, will not make this return visit, do not receive their CD4 test results, and therefore do not begin treatment.

Figure 2: Newly-enrolled ARV clients in NUMAT-supported ART-providing HC IIIs, 2008-2011



- Human resource shortages remain a serious challenge. As the number of patients on ART increases, the ability of the clinical staff and PLHIV volunteers to properly meet demand is limited. This is particularly true for the volunteers who rely on bicycles to cover the vast, remote geographic areas in which their clients live. Challenges at facilities include the frequent transfer of trained staff to sites that do not provide ART. This creates a continuous need to hire and train staff in ARV provision and supply chain management. Finally, because the health center is remote, most professionals do not wish to be placed within clinics, making it hard to find people willing to work there.
- Sustainability remains an important concern since ARVs are provided directly by NUMAT. Health center staff worry that when the project ends, clients may have to go to distant hospitals to receive ARVs and clinical care. Given the vast distance and cost associated with travel, it is expected that many clients will be lost to follow-up if this should occur. An additional concern is how long the spirit of volunteerism can be sustained among PLHIV volunteers.

LESSONS LEARNED

- Our experience showed that, in spite of initial reservations about the capacity of lower level facilities to handle ART services, it was worth expanding its provision to them, to improve service uptake and access for patients, and better distribute the increasing case load across more facilities.
- By strengthening the ability of lower level health centers to provide comprehensive HIV treatment services, PLHIVs can be served within their own communities and increase adherence to care. Additional results include a greater sense of ownership and participation by PLHIVs and the community at large.
- Although most staff at the health centers are not highly qualified, this experience showed that less technically skilled staff can be trained, mentored, and continually supervised to deliver high quality ART services. Additionally, health workers provid-

ed with the necessary skills, supplies, and equipment to address the needs of their community found motivation to remain at the facility despite poor remuneration and its remote location.

- By using PLHIV volunteers in conjunction with health center staff, stigma and discrimination are reduced. As a result, people are more likely to access HIV services. The volunteers have been a vital resource in addressing this challenge by making follow-up visits with clients, to ensure their return to receive care following the CD4 test.
- The coordinated participation of health workers, their administrators, PLHIV volunteers, and the clients themselves, positively enhances the quality of care at the health facility as well its continuation.

CONCLUSION

PLHIVs living in this remote area of Northern Uganda historically did not have access to CD4 testing and ARV provision—two services that can prolong and improve their lives. The traditional approach wherein patients received services at regional hospitals presented numerous challenges for the people of this region. NUMAT addressed the problem through a unique combination of decentralizing services directly, outsourcing CD4 testing, and providing community-based patient follow-up. This approach created an efficient and cost-effective method for PLHIVs to access HIV treatment services. As a result, a steady increase was observed in the utilization of services, quality of clinical care, adherence to medication, retention in care, and, ultimately, satisfaction of both clinicians and patients.

NUMAT is a six-year, USAID-funded project designed to expand access to and utilization of HIV, tuberculosis, and malaria prevention, treatment, and care, and support activities in conflict-affected districts of Northern Uganda.

Over the course of the project, NUMAT has expanded the geographic coverage and populations served through strengthening local government responses, expanding the role of communities in planning implementation and monitoring activities, and building upon existing networks.

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