



HIV TEST AND TREAT PILOT PROJECT YAMBIO: BRIDGING THE GAP BETWEEN TREATMENT AND COMMUNITY

**Médecins Sans Frontières
(MSF OCBA), Spain**
April 2018



OBJECTIVES OF THE STUDY



ASSESS ACCEPTANCE OF A COMMUNITY-BASED APPROACH TO HIV TEST AND TREAT



DESCRIBE THE DEMOGRAPHIC AND CLINICAL CHARACTERISTICS OF THE PARTICIPATING POPULATION



ASSESS ADHERENCE OF PATIENTS STARTING ART AT COMMUNITY LEVEL



ASSESS PATIENT RETENTION IN CARE AT 3, 6 AND 12 MONTHS



DESCRIBE THE CLINICAL AND IMMUNOLOGICAL STATUS OF THE PATIENTS AT THE MOMENT OF HIV DIAGNOSIS



DESCRIBE ADVERSE EVENTS PRESENTED BY PATIENTS STARTING ART



ASSESS VIROLOGICAL OUTCOMES OF PATIENTS WHO STARTED ART UNDER THE PROGRAMME



DESCRIBE THE PRIMARY REASONS FOR REFERRAL TO A HEALTH CENTRE OR YAMBIO STATE HOSPITAL



CAPITALISE ON THE MODEL TO SHOW HOW IT COULD BE REPLICATED IN SIMILAR SETTINGS

INTRODUCING TEST AND TREAT

In June 2015 MSF, in co-operation with the Ministry of Health (MoH) and the World Health Organization (WHO), launched a pilot HIV test and treat project in rural locations in Yambio county, a conflict-affected region of South Sudan.

The project tested an innovative model of taking a "Treat All" approach into the community, using mobile clinics to test for HIV and initiate same day antiretroviral (ARV) treatment.

The pilot project tested the feasibility and acceptability of using a community-based approach to reach to people living in rural and isolated areas with limited access to health services.

By bringing HIV testing and treatment closer to patients' homes, with simplified protocols and less specialised health staff, coverage of HIV testing and treatment was increased, resulting in comparable treatment outcomes to those of facility-based care.

"Ten years ago I was diagnosed with HIV and began treatment shortly afterwards. From then on, I had to go to Yambio on foot or by bicycle to collect my drugs. The round trip took two full days to complete. Sometimes I would have to spend the night in Yambio. This meant I was away from my family for a long time. Now that MSF gives support directly in Bodo, it is a short walk to the clinic to receive my treatment. I don't want to leave my children again."

Patient one



ONLY 10% OF SOUTH SUDANESE PEOPLE AND JUST 5% OF CHILDREN LIVING WITH HIV HAVE ACCESS TO ART, GIVING SOUTH SUDAN ONE OF THE LOWEST ART COVERAGE RATIOS IN THE WORLD.



WHY YAMBIO? WHY SOUTH SUDAN?

Yambio county lies in South Sudan's Western Equatoria region, on the border with the Democratic Republic of the Congo. Yambio is a rural and conflict-affected area with the highest prevalence of HIV in South Sudan (6.8 percent for people aged between 15 and 49).

MSF has been working in the Western Equatoria region since 2004. Before the Test and Treat pilot commenced, MSF provided HIV testing and treatment services in Yambio State Hospital.

South Sudan has a generalised HIV epidemic with an estimated national HIV prevalence of 2.7 percent. The country has one of the lowest rates of antiretroviral (ARV) treatment (ART) coverage in the world, with only 10 percent of adults and 5 percent of children living with HIV accessing ARV treatment.

The '90-90-90' UNAIDS strategy for 2020 aims to have 90 percent of people living with HIV (PLWHA) diagnosed, 90 percent of those diagnosed receiving ART and 90 percent of people on ART with an undetectable viral load. In order to reach these targets in South Sudan, new and innovative models are needed to accelerate progress.

"HIV is a big challenge for the community. If a person is positive or doesn't get tested, that person will die. I believe that many people are positive, but they do not know it."

People are not afraid to come for testing since test and treat began. People with HIV need to be tested and those who are positive should be treated. People who are negative should continue to learn about HIV and get tested regularly. I usually speak at community gatherings about MSF and the importance of getting tested. Fighting has caused people to flee their homes. When they leave, many cannot continue their treatment."

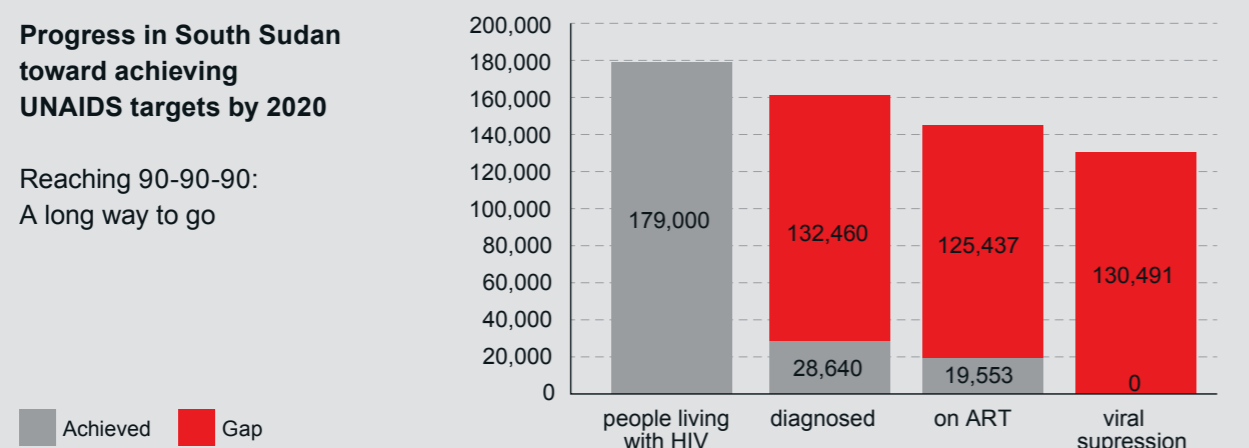
Arkangelo Ruben, Community leader, Bodo



ACCORDING TO UNAIDS, THE HIV PREVALENCE RATE WAS 2.7 PERCENT IN 2016 IN SOUTH SUDAN FOR THOSE BETWEEN THE AGES OF 15 AND 49

Progress in South Sudan toward achieving UNAIDS targets by 2020

Reaching 90-90-90:
A long way to go



CRITERIA FOR CREATING A COMMUNITY ANTIRETROVIRAL THERAPY GROUP



PATIENTS STABLE ON ART WITH VL SUPPRESSION FOR AT LEAST 3 MONTHS



A MINIMUM OF THREE AND A MAXIMUM OF SIX PATIENTS



PEOPLE LIVING IN THE SAME BOMA/LOCATION



AT LEAST ONE PERSON ABLE TO READ AND WRITE



ONE PERSON WITH A PHONE

"I was tested for HIV two years ago and found out I was positive. My children were also tested and thankfully they are not infected. I began anti-retroviral treatment (ART) immediately. I collect my drugs every month near the market."

My husband was tested and is HIV-negative. When I told my husband I was HIV-positive, he was not angry with me. We are both living well together and I feel there is no stigma that comes with being HIV-positive."

Patient two

PUTTING MSF'S TEST AND TREAT PROGRAMME INTO PRACTICE

The pilot programme used a two-phase observational study approach:

1. In the first phase, participating communities were offered free HIV testing and counselling until December 2016. Patient enrolment continued after.
2. The second phase monitored treatment acceptability, adherence and programme retention for 18 months, in an all-inclusive cohort of people who tested positive for HIV.

The community Test and Treat model had a number of different components:

Awareness raising by community health workers: Community health workers (CHWs) were recruited to help lay down essential groundwork for the Test and Treat pilot. CHWs performed health promotion activities, extensive awareness raising and health information dissemination, before counselling and voluntary testing began.

Test and Treat: HIV counselling and testing (HCT) with same day ARV treatment initiation (termed 'Treat All' in 2016 WHO guidelines).

Decentralised approach: The use of five mobile clinics operated by seven staff each, enabled the expansion of HIV testing and ART to rural and underserved areas.


Community antiretroviral therapy groups (CAGs): Groups of patients who rotated clinic visits to obtain drug refills, dispense drugs to their peers in the community and ensure peers received information from medical staff.

Delegating tasks to less specialised health staff: clinical officers or nurses could commence treatment independently, without a doctor present.

Drop-in centres: Mobile clinics in fixed locations in the community provide a place for people to receive HIV testing, ARV treatment and follow-up care.

Contingency plan: A contingency plan is essential for providing ART in unstable settings. In case of active insecurity, the CHWs working in the area provide patients with a 'runaway' bag containing three months of additional ARV treatment as well as their regular stock.

Viral load (VL) capacity: Performing ribonucleic acid-based VL tests is essential to monitor the medical success of ART programmes, because therapeutic benefit stems from the suppression of VL in patients.



UNAIDS ESTIMATES THAT THERE ARE 200,000 PEOPLE LIVING WITH HIV IN SOUTH SUDAN

Outcomes of the test and treat project:

- **The MSF pilot shows that a 'treat-all' approach can be successfully implemented through a community-based model.**
- **The pilot shows that community-based test and treat approaches can increase HIV diagnosis and treatment coverage in challenging contexts; in rural and hard-to-reach populations, areas with limited health services and in unstable settings.** By using simplified protocols and tools to bring HIV testing and treatment closer to patients' homes, increased ART coverage and comparable treatment outcomes to facility-based care can be achieved through:
 - **Increasing the number of people living with HIV (PLHIV) who know of their HIV status:** The mobile approach was popular with the community. There was a high turnout for testing, resulting in more people knowing of their HIV status. MSF tested 14,800 people - 49 percent of the target adult population - and 504 people tested positive (3.4 percent prevalence).
 - **Increasing the number of PLHIV on treatment:** There was a high take-up of ART initiation in the project, with 401 people (80 percent) who tested positive starting ARV treatment. Of these 401

patients, 39 percent of those whose CD4 was recorded at the start of the project (378 patients) would not have started treatment under previous WHO guidelines. This demonstrates the benefit of the 'treat-all' approach in scaling up treatment coverage.

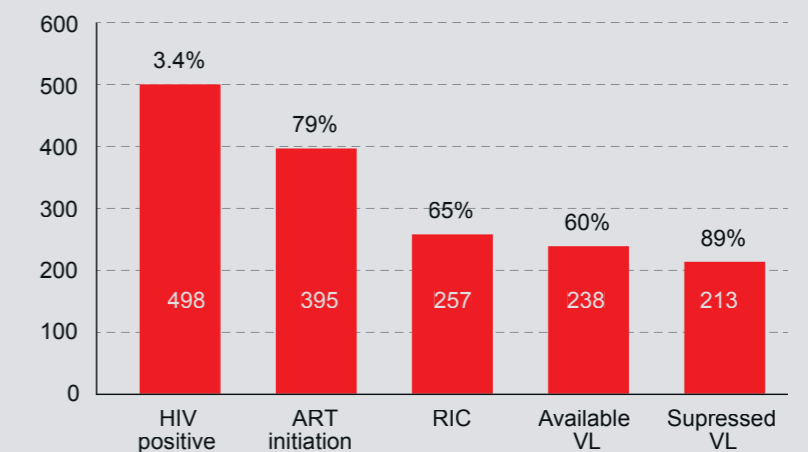
- **Increasing the number of people on treatment with viral load suppression:** At the end of 12 months, 89 percent of patients¹ had viral load suppression. This is comparable to facility-based models of care.

"The conflict has disrupted everyday life. Many people who previously lived close to the roads have moved deeper into the forest to escape the fighting. If the test and treat teams cannot reach them, I bring medicine to isolated communities.

Every two months, the ART group comes together to discuss our general health. One of us will then speak with MSF and get the drugs to distribute in our communities."

Focal point for community ART groups

HIV cascade in Yambio Test and Treat project



1. This represents 128 out of 144 available patients, rather than the whole cohort of 401 patients who started on ART

COMPOSITION EXPERIENCE REQUIREMENTS AND TRAINING OF EACH MOBILE TEAM

CLINICAL OFFICER / TEAM LEADER (1)



2 TO 3.5 YEARS' MEDICAL TRAINING and 4 weeks of MSF HIV training
Weekly training over 9 months with study coordinator

LAB ASSISTANTS (1)



NO FORMAL EDUCATION
4 weeks of MSF training

NURSE (1)



3 YEARS' EDUCATION and 4 weeks of MSF HIV training
Weekly training over 9 months with study coordinator

HTC COUNSELLORS (1)



MSF TRAINING OR NURSES WITH MSF TRAINING FOR HTC

COMMUNITY HEALTH WORKERS (3)



3 WEEKS' MSF TRAINING

“The prevention of mother to child transmission of HIV (PMTCT) is also a huge challenge in conflict settings. It's important for women to deliver their babies in clean health facilities, but because of conflict many women still deliver at home. This puts them at risk of cross infection.

We trained community health workers to administer prophylaxis drugs to women immediately after giving birth. From the start of the project until November 2017, we delivered 42 HIV-exposed babies with three confirmed HIV-positive (as their mothers were tested HIV positive while breastfeeding, these three babies were also found to be HIV positive). The rest (39) were negative. This was a big success for the PMTCT part of the programme; it proved the program really does work.”

Beatriz Alonso, MSF doctor in Yambio

KEY FINDINGS

- **A mobile test and treat approach can be implemented with less qualified health staff. This is particularly relevant in areas with limited health facilities or trained personnel.** Using simplified protocols, clinical officers or nurses can commence HIV treatment independently, without a doctor present.
- **Community-based contingency plans help to keep patients on ART treatment, especially in volatile settings.** Health workers were able to provide patients with a 'run-away' bag containing an additional three months of ARV treatment. These plans were activated at least eight times for 90 patients. Of those, 79 percent resumed treatment successfully.
- **Community antiretroviral therapy groups (CAGs) are effective in insecure contexts and remote areas.** While CAGs are often used in more stable settings, the MSF pilot shows the value of using CAGs in remote and insecure areas. The project's 24 CAGs were set up with patients providing peer support, rotating their clinic visits and obtaining drug refills at the clinic to dispense to their peers. Of the 98 patients who participated in a CAG, 84 percent had a suppressed viral load over a 12 month period.
- **Recruiting community health workers (CHWs) within patient communities helped to improve defaulter follow-up and implement contingency plans.** CHWs lived in different test and treat communities, allowing them to quickly follow up with anyone who missed an appointment and to support the implementation of contingency plans by providing drugs. They were also able to ensure the early provision of infant prophylaxis if a pregnant woman with HIV delivers at home.
- **Mobile teams are flexible, can adapt to volatile settings and respond to displaced populations.** In locations without an ART site, or where the provision or scale-up of services is disrupted by insecurity, mobile clinics are flexible and can reach populations wherever they are.



CONCLUSIONS

- **By scaling up the mobile approach, test and treat in the community could help to accelerate the diagnosis and treatment of HIV in hard to reach populations across South Sudan.** By using mobile teams to reach communities, adopting simplified protocols that can be implemented by less qualified health staff and through supporting contingency planning, ART coverage can be increased. This is particularly relevant in areas that are difficult to reach, such as rural and remote areas, dispersed and displaced populations, conflict-affected areas and areas with limited health services and validated ART sites.
- **Bringing services closer to the population could also be adapted to reach key mobile populations, such as sex workers, boda-boda drivers and armed groups.** Adapting the strategy of mobile clinics, in terms of location and working hours, could also be applied when providing care to key mobile populations.
- **Focusing only on facility-based services risks overlooking hard-to-reach populations where there is still significant HIV transmission.** Ongoing conflict and insecurity, a lack of trained medical staff, limited ART sites and poor infrastructure prevent many people from accessing testing and treatment services.
- **Community-based approaches are compatible with the necessary increase of ART sites in South Sudan.** Accelerating the scale-up is essential. Where ART sites are not yet validated, or HIV testing and treatment services are not available, drop in centres should be considered.

QUESTIONS AND ANSWERS

80% patients started ART treatment in the study. What happened with the 20% of people tested and not initiated on ART?

Stigma around HIV is still a big issue in South Sudan. Some people who tested positive put off treatment as they feared disclosure. In many cases, the patient's fear was that disclosure would affect their relationship with their partner. Other patients were already on treatment and only wanted to be re-tested. We consider this 80% of initiation as successful for this context.

Is a decentralised model cost-effective?

A mobile approach has different start-up costs to facility-based approaches as it requires vehicles for outreach activities and fuel costs over the lifetime of the project. Many of the other costs, such as staff salaries and lab equipment, such as CD4 and VL tests, and training, would occur in the

implementation of any "Treat All" approach. The benefits of a decentralised model are that mobile clinics are flexible and can be easily adapted to a shifting context, making the model cost-effective in the sense that it can respond to insecurity and population movement in a way that fixed facilities cannot.

Can this approach facilitate high-yield testing?

Community outreach approaches are appropriate for both general and targeted testing. For example, mobile clinics can be adapted for use in areas with armed groups or to reach other key populations, such as sex workers. At the same time, general community outreach is still important in South Sudan, especially in areas with a low rate of PLHIV diagnosis and low ART coverage.

Should we not focus on increasing the number of ART sites, rather than investing in outreach approaches?

The reality of the situation in South Sudan is that both approaches are needed. Given the limited number of validated ART sites in the country, accelerating the scale-up is essential. Community-based approaches are compatible with this needed scale-up as they provide a flexible response in areas where ART sites are not yet in place. Focusing

only on facility-based service delivery alone risks overlooking harder to reach populations where there is still significant HIV transmission. Efforts to increase HIV diagnosis and treatment continue to be hampered by the on-going conflict and insecurity, lack of trained health staff, limited numbers of ART sites, and poor infrastructure to allow patients to travel to sites outside of their catchment area.

THE RUNAWAY BAG



CONTINGENCY PLAN: A contingency plan is essential for providing ART in unstable settings. In case of any active insecurity, the community health workers of the area provide patients with a 'runaway' bag.



CONTAINING THREE MONTHS OF ADDITIONAL ARV AS WELL AS REGULAR STOCK



COMMUNITY HEALTH WORKERS, AND SOMETIMES PEER PATIENTS OR CAG MEMBERS, ACTED AS FOCAL POINTS TO DISTRIBUTE THE ARVS AMONG PATIENTS.



FOR MORE INFORMATION

For more information please contact:
MSFE-Juba-HOM@barcelona.msf.org
MSFE-Juba-MEDCO@barcelona.msf.org

To download the full report go to:
www.msf.org/en/yambiotestandtreat

Photos:

Cover: Briefing of community antiretroviral therapy group © Anna Kerber.

Page 3: Counsel-ling of those being tested and found to be HIV positive is a key part of the Test and Treat strategy © Anna Kerber.

Page 9: Every morning the mobile team meets and distributes the orders of the day before departing for the field © Anna Kerber.

Back: The patient is briefed on his or her condition by a counselor. It is important that he or she recognizes the effects of both the condition and the treatment © Anna Kerber.

