

This edition of the Phakama Digest examines community-based ART services from the following angles:

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Community-based ART service delivery - bringing lifesaving treatment to people where they are



To accelerate action to end the AIDS pandemic by 2030, the second and third UNAIDS targets aim for 95% of those who know their positive HIV status to be on treatment, and 95% of those on treatment to be virally suppressed.1

service point.

An update on South Africa's HIV Care and Treatment Programme issued in November 2020² highlighted that to close the country's gaps in achievement of the 90-90-90 targets by 2020, the number of adult men on ART must be increased by 565 349, and the number of adult women on ART must be increased by 368 020.

Community-based ART initiation and continuity of care is one of the key interventions planned by the National Department of Health (NDoH) to accomplish the second '90' target.2

Community-based versus health facility-based strategies for the treatment and care of people living with HIV (PLHIV) - specifically, interventions that enhance monitoring of and support for adherence to antiretroviral therapy (ART) regimens towards virologic

suppression through continuity of care – are of increasing value for implementers seeking to achieve HIV epidemic control.

A 2016 systematic review of studies on this approach³ showed that community-based models of ART delivery resulted in at least comparable outcomes for clinically stable HIV-infected patients on treatment in low- and middle-income countries and are likely to be cost-effective.

Background to the DO ART Demonstration Project

The prospective, interventional 'Delivery Optimization for Antiretroviral Therapy' (DO ART) randomised controlled trial (RTC)4 compared three approaches to HIV testing and ART initiation and retention in communities with high HIV prevalence in Uganda and South Africa:

- A standard-of-care arm: clinic-based care
- A community arm: community-based HIV testing and ART start, with communitybased treatment initiated by nurses, and quarterly monitoring and medication refills provided through mobile clinics
- A hybrid arm: ART started at a clinic, with medication refills through mobile units in the community

Published in 2020, the DO ART study findings highlighted that community-based ART dispensing and ongoing care significantly increased viral suppression, and that community-based or hybrid ART service delivery eliminated differences in viral response by gender.

Bottlenecks observed within HIV clinics result in delays in ART initiation, particularly for those with higher CD4 cell counts; in a series of studies conducted by the Human Sciences Research Council (HSRC) and collaborators⁵⁻⁷, only 59% of HIV-positive ART-eligible persons were virally suppressed at 12 months, falling far short of the UNAIDS target of 90% by 2020.1

Such findings suggest that community-based strategies for ART initiation and maintenance can optimise these services by addressing clinic inefficiencies, as well as patients' opportunity costs for and barriers to acceptable, efficient and more prompt ART initiation and management.



The project's mobile clinics are registered by the KZN-DoH as organisation units on the TIER. Net system.

The DO ART model decentralises. streamlines and modifies HIV services to serve the needs of individual PLHIV; this can reinforce and complement clinic-based efforts, thereby decongesting facilities and easing strain on health system resources. Most importantly, scaling up this model can reach people who have limited access to health facilities.

The DO ART Demonstration Project – HST support for community-based ART services in KwaZulu-Natal

A key recommendation of the DO ART trial4 was that community-based ART (CBA) for HIV-positive patients with detectable viral load should be implemented and evaluated in various contexts.

Converting the DO ART trial findings to 'real-world' implementation

Recognising the need to take the findings from the DO ART RCT into a real-world setting, Health Systems Trust (HST) is implementing a DO ART demonstration project through a grant from the Bill & Melinda Gates Foundation that builds on HST's ongoing PEPFAR/CDC-supported activities.

This entails demonstrating community-based ART initiation, delivery and monitoring in two sub-districts of KwaZulu-Natal (KZN) Province in South Africa. covering 40 wards - 20 in Nongoma in Zululand and 20 in Umlazi, eThekwini South.

Using a phased roll-out plan, the work of this demonstration project applies the patient-centred approach of the DO ART study that provides alternatives for access to ART services in communities.

Two DO ART teams focus on delivery of mobile ART services, including repeat ART services, to enable expanded community outreach in eThekwini South and Nongoma. Each team consists of two Nurse Clinicians, two Lay Counsellors, a Campaign Agent and a Data Capturer, with a Driver Mobiliser for each vehicle. Two Community Educator-Engagers based in each sub-district conduct field-work to collect qualitative data from the community beneficiaries and staff members of the DO ART project, which involves visits and telephonic interviews, and facilitation of community dialogues.

Achieving the implementation goals entails testing 14 400 people for HIV, and same-day initiation treatment for 648 HIV-positive, ART-eligible adults (older than 18) during a four-month period in each of the two sub-districts. Contacts of identified HIV-positive cases are traced and tested, and clinic Index Contact Testing Registers are used to identify index contacts who have not been tested to offer them community-based testing. Patients who are lost to follow-up are traced and re-initiated on ART.

Each patient is allocated a DO ART Case Manager, and treatment adherence plans are discussed with the patient at initiation. Patients receive reminder calls by telephone seven and two days before their appointment dates, and patients who cannot attend the set appointments are rescheduled for their availability. Staff contact details are shared with enrolled patients to enhance communication, and medication is delivered at a community collection point rather than to the household.

Envisaged outcomes of the DO ART demonstration project

Programme Manager Joslyn Walker explains: "By the end of the project's duration, we hope to demonstrate a 30% improvement in viral load suppression after six months among participant patients in the two districts receiving the CBA services, compared to those receiving the clinic-based standard of care."

The project also involves developing an understanding of the experiences and preferences among male and female participants receiving CBA services to inform appropriate service delivery. The perspectives of



Programme Manager, Joslyn Walker

clinical and field-based project staff on the opportunities and challenges of implementing CBA have been documented through focus group discussions, and community dialogues have been hosted to glean input from community members in the project's two sub-districts. The financial and safety implications of applying the CBA model will also be described.



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"This work will contribute a body of knowledge around CBA implementation and its potential to expand the overall capacity of the health system," says HST's DO ART Project Manager, Gugulethu Sokhela. "The outcomes will answer key questions raised by the original RCT, inform rapid and iterative responses to can enhance HIV programming in South Africa, and help to shape related policy and practice for provincial and national roll-out of CBA through the Department of Health (DoH)."

Rolling out DO ART training and implementation



Melinda Gates Foundation visited the eThekwini South DO ART project in Umlazi. From left: Dr Liesl Page-Shipp (Gates Foundation Senior Program Officer: TB & HIV), Gugulethu Sokhela (HST -DO ART Project Manager), and Dr Peter Ehrenkranz (Gates Foundation Deputy Director: HIV)

Protocol revision and development of operating procedures

The DO ART Project team developed data-flow processes to create a standard operating procedure (SOP), and data-flow and data-collection tools were shared and aligned with the standard DoH process steps so as to minimise duplication and maximise efficiency. A library of DO ART protocol SOPs was created for training purposes and approved by Zululand and eThekwini District DoH structures.

M&E Framework development

A Monitoring and Evaluation Framework was designed and the data flow finalised. The DoH data are gathered in paper-based format, and project-specific qualitative and quantitative data are collected electronically using digital tablets.

The clinical workplan was integrated in a Gantt chart, and individual workplans incorporate performance indicators for rigorous monitoring.

The project's mobile clinics are registered by the KZN DoH as organisation units on the TIER.Net system.

Stakeholder consultation

The critical process of consultation with community stakeholders and traditional structures is ongoing through all project phases and milestones to ensure a shared and thorough understanding of the project, respect for the residents, organisations and various forms of local leadership, and their support for team entry and mobilisation.

The project was implemented at a precarious time, as community members had misperceptions, doubts and fears about the value of and necessity for COVID-19 vaccination, and stakeholder consultation helped to clarify this messaging.

Through engagement with community expertise, the DO ART team has been guided on how best to implement the project plan in both urban and rural areas. Municipal officials helped the team to map deep rural and hard-to-reach areas and impoverished wards where services are most needed; this led to adaptation of the programme approach to focus on remote rather than high-transmission areas, and this has produced a high positivity yield.

These interactions have also educated the team on a variety of

community dynamics, as well as poor road infrastructure and hazardous spaces. Izinduna undertook to mobilise their communities so that when the DO ART teams visit, people are ready and willing to receive the services. Local leaders made sure that DO ART staff as well as HST assets were protected, and encouraged male clients to access the mobile services.

Implementation operations and reporting

Facility Operational Managers and Sub-district Managers were engaged in developing strategies for integrated reporting to synergise clinic-based activities, DoH mobile services, and DO ART community-based services. Teams are assigned to individual buses and other vehicles, and route-mapping and identification of service points is conducted in partnership with facility-based teams and DoH management.

Recruitment and training

Once the posts for team members had been filled, the various categories of project staff received three days of training on the DO ART project protocol during July 2021. The interactive format of the virtual and in-person programme entailed role-play, group feedback, and building on existing clinical knowledge to enhance narratives for project participant recruitment and treatment.



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The training covered the background and contextual issues of the originating DO ART study, and then focused on the data-collection processes and clinical interventions required for implementation, as well as participant eligibility criteria, marketing strategies, recruitment approaches, and plans for community engagement.

Additional training on assisted HIV self-screening and index contact testing has been provided. In-service training and monitoring is conducted to fine-tune processes for recruitment, enrolment, and implementation of performance management.

Implementation progress

HIV testing and diagnosis

From July 2021 to March 2022, 718 participant patients were enrolled in the project, 46% of whom were male. This represents a yield average of 10%.



The DO ART approach differs from the standard of care in that the patient accesses all services for clinical management in the community.

The project's success in testing and diagnosis arises from a revised model of community engagement that focuses on taking time for proper screening and counselling, rather than on testing targets, as well as a guided planning process on where, when and who to test is based on index contacts elicited in the clinic, and clustered case analysis. It is a data-driven model that has resulted in a 12% yield, compared to standard community

testing which has an average vield of 2%.

Treatment and care

From July 2021 to March 2022, 758 people were initiated on ART by the DO ART teams (40 of these being non-project participants).

The DO ART approach of in-depth engagement with clients has yielded further contacts for follow-up through a strengthened relationship of trust between tester and client. Provision of enhanced adherence counselling has also resulted in 100% of appointments being kept.

The person-centred CBA model makes access to HIV services convenient for patients, with flexi-time availability offering them consultation options when and where it suits them. Patients are attended to in small clusters. which eliminates long waiting times.

Assessing experiences of community-based care

Focus group sessions have been conducted with staff and enrolment questionnaires have been completed with participant patients. This element of the project will provide detailed analysis of barriers to care, which is critical to the feasibility of upscaling this model. Presentations on the DO ART results to date and the approach for community engagement have been delivered for knowledgesharing with other implementing partners in KZN.



In settings with high and medium HIV prevalence, CBA services significantly increase viral suppression compared with clinic-based ART services, particularly among men.



Challenges encountered during roll-out of the project

- There are concerns for staff safety in certain areas, following an attempted hijacking in November and theft from teams in the field.
- Severe weather conditions. vehicle breakdowns, and illness among staff disrupt services and require mitigation strategies to sustain reliable and consistent services for the project.
- Growing interest in the CBA model among patients serviced at fixed clinics leads some of them to re-test for HIV in the hope that they will be considered as new patients for enrolment in the DO ART programme. This has required that teams explain to them why this is not possible, as all HIV testing and diagnosis is checked against data on the National Health Laboratory Services (NHLS) LabTrak system. and those found to be already on ART have, in effect, generated additional and unnecessary testing service provision.

Voices from the ground: Five implementers share their experiences



"Before joining HST's DO ART project in July 2021, I worked at a facility. This is an exciting and challenging job that has given me new opportunities for learning and to know different people. Working in the community is rewarding because people appreciate our work, and some who are already on ART also want to participate; unfortunately, this is not possible because the DO ART project enrols only those who are not already registered for ART care at a clinic.

This journey has taught me that some people really want to check their HIV status but they are not comfortable at the clinic; so when we work in the community, we must be warm-hearted, know how to treat people well, and try to identify with them so that they will find it easier to refer someone they know who is scared to go to the clinic. Even one client will recognise you, so it's up to you whether they associate you with bad or good things.

People are very happy with our services, and those who are about to exit the project are not keen to do so; they even say: "So nifuna sife vele ngoba senisishiya" (so you want us to die, as you are now leaving us), but we trust that these patients will not interrupt their treatment.

Travelling around Nongoma, I've realised that we have to visit some places repeatedly, because the more people see us, the more they recognise the good service that we're providing.

I'm proud to be part of this project because it is showing us how much people need our help. Many are not receiving life-saving treatment because of stigma."



Zanele Nyawo - Nurse Clinician, eThekwini South

"Having worked in the DO ART project in eThekwini since July 2021. I've observed several positive aspects of the model.

The patient-centred approach in a community setting is effective because we're approaching them where they are, so people are more receptive. We go around in the neighbourhood with a loudhailer to call them, instead of waiting for people in one spot.

Being polite, having a good attitude, respecting all clients, and treating them with dignity attracts a lot of people to the project, because many complain of negative experiences at the facilities. Our constant follow-up of patients allows them to feel involved; they are able to ask questions and we respond promptly.

Also, informing them of their blood results motivates them to keep adhering to their treatment. Offering patients flexibility by having them lead the scheduling of appointment dates according to their availability makes attendance easier for them.

Our challenges have included issues of safety in some communities, as we are vulnerable to being attacked. This can be improved by working in a secure area or having a security guard on site, as is the practice at the municipal healthcare points.

Another challenge is that of patients constantly changing their phone numbers, so that we can't reach them when we call to confirm their appointments, and physical tracing is needed when this happens."



Nongoma

"I was very excited to start this new journey with the DO ART project in July 2021. The work has been challenging and exciting at the same time.

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Driving on gravel roads in all kinds of weather can be demanding. The worst scenario so far was the van getting stuck in mud during heavy rain and having to wait for help, which arrived only in the evening. Also, on the days when the vehicle is being serviced or repaired, our services are disrupted and meeting daily targets becomes more difficult.

We work with different stakeholders in the Zululand area such as izinduna, Ward Councillors and caregivers – who help us with mobilising community members for our visits on specific dates. Our team also uses loudhailers to announce our services, although the message doesn't always reach the primary audience in this way. We always make sure to engage with all izinduna and other community leadership to ensure that our team is professionally introduced to the community.

The DO ART project has been an eve-opener for me in various ways. and I'm grateful for this chance to gain experience in working as a team in different communities.



"I have been serving the DO ART project since November 2021, and have noted the following good practices:

Having the team working flexible hours (10h00-18h00 instead of the standard 08h00-16h00) has proved to be a success strategy, as the team can reach people who leave home for work early in the morning and return late in the afternoon.

Working on weekends, especially on Sundays, yields good results, as the team is able to test a large number of people and find newly diagnosed clients who can be enrolled in the project.

Accommodating patients' needs means that people feel free to let the team know when they cannot honour their appointments for any reason, and would like to reschedule. Supporting them in this way results in the patients' continuity of care.

Enabling patients to choose where they prefer to meet is also helpful for them, and is much appreciated, which builds good relationships.

Creating good relationships with patients is crucial for supporting their adherence to treatment. Patients are given the staff member's cell-phone number so that they can send WhatsApp texts when they need to reach out.

Word of mouth is another positive aspect, as patients who are taking part in the project and valuing our services tend to refer their friends and partners to us as a team that can be trusted to provide good care.

Index contact testing is routinely offered to all our clients, which boosts our case-finding.

Identifying and focusing on hotspot areas enables us to offer HIV testing in a targeted manner.

Among our challenges is that we may have to avoid certain areas for safety reasons; our DoH colleagues often warn us that they have been robbed of their cell-phones, jewellery and purses. Another obstacle to following up with patients is that those who are

renting accommodation move to new places, and don't inform our staff of their change of address."



"So far, working for the DO ART project has been a great learning journey, and I enjoy being part of this hard-working team.

What I see as working well with this model is that we are able to fulfil the goal of implementing and evaluating comprehensive community-based ART services to increase the number of HIV-positive, ART-eligible people being started on treatment and continuing their care so that they can reach viral suppression within six months. Many of our participant patients who were diagnosed and enrolled in August and September 2021 are now exiting the project, because they are virally suppressed and adhering to their medication.

Working in Nongoma's rural communities has made me realise how difficult it is for people in deep rural areas to reach healthcare services, but through the DO ART project, we are able to serve them where they live and work."

Synergies between the DO ART project and the SA SURE project

The achievements of the DO ART patient management intervention have resulted in all SA SURE teams receiving training in the community mapping, index contact testing, and patient-centred approach. This transfer of knowledge is aimed at improving access to services in communities where low levels of health-seeking behaviour and facility attendance prevail.

The DO ART model also reflects and builds on a number of successes generated by the SA SURE Project's Nurse-managed

pick-up points (PuPs). Endorsed by the Department of Health, this innovative outreach solution was introduced in January 2020 to provide facility-based patients with community-based access to clinical appointments for ART collection and script renewal, viral load management, and index contact testing, among other health services. Related lessons for good practice have been integrated into the DO ART model, and DO ART teams are communicating improvements to the Nursemanaged PuPs through a feedback loop mechanism.

The advances in continuity of care demonstrated in the DO ART Demonstration Project - with 100% of patient appointments being kept - are critical to the ongoing success of the SA SURE Project. To enable rapid learning and scaleup, SA SURE teams in Zululand and eThekwini have benchmarked their activities against the retention and adherence strategies implemented by the DO ART teams, and will no doubt reap the benefits of this catalytic intervention funded by the Bill & Melinda Gates Foundation.

A view from CDC

Among the CDC's key objectives for supporting countries to provide patient-centred and differentiated models of care is to ensure sustained access to HIV services. A major barrier for patients in adhering to their treatment is having to spend time and money on travelling to and from the closest clinic and waiting for hours in the queue for clinical consultations, counselling, and ART refills.

Models for ART scale-up that strengthen patient empowerment and community capacity are essential for the drive to achieve HIV epidemic control by 2030. For example, since 2010, CDC and partners have led a PEPFARfunded programme of community ART support groups (CASGs) in five countries as a pioneering HIV service-delivery model that brings treatment and related health education to patients through monthly meetings held near their homes.

Every year, we collaborate with Ministries of Health, civil society and implementation partners in CDC-supported countries to explore new approaches that serve people who have not yet been reached for HIV diagnosis, treatment and care, so that we build on successful and promising models and innovate to be even more effective in improving ART coverage.

The aims and objectives of the DO ART Demonstration Project are perfectly aligned with the PEPFAR/ CDC-funded SA SURE Project's core provision of a tactical mix of community- and facility-based services. HST's communitybased services entail strategic partnerships with community structures to facilitate entry and mobilisation for delivery of HIV testing, treatment and care services, and providing access to chronic medicine, with support to all external pick-up points.



by Jonathan Grund **Branch Chief: Quality Improvement, Centers** for Disease Control and Prevention (CDC) South Africa

Beyond the practical advantages of saving patients' time, costs, and travel burdens, the continuity of care rendered by the DO ART Demonstration Project's CBA model should yield improved rates of viral load suppression through case management for adherence support and reliable access to medication, so that patients can live longer and healthier lives.

A perspective from the Bill & Melinda Gates Foundation

A core principle of the Gates Foundation HIV testing and treatment strategy is to ensure robust linkages between HIV testing, ART initiation and continuity of treatment. In addition, we support the need for differentiated service delivery using decentralised models to provide patient-centred care.

Since the start of the DO ART Randomised Controlled Trial (RCT) in 2016, the concept of community-based HIV care has gained traction in South Africa, with many partners implementing decentralised testing and medication collection. Implementation and refinement of these models was accelerated during the COVID-19 pandemic.

The important learnings from the DO ART RCT, coupled with a receptive environment, enabled a meaningful investment from the Gates Foundation for HST to implement the DO ART demonstration project in a realworld context in KZN. We value the support of the Provincial Department of Health, the close collaboration with district health management, and the partnership with CDC, which have enabled the success of this project.

The HST team members, under the leadership of Joslyn Walker and Gugulethu Sokhela, have done superb work in translating research into practice and innovatively improving HIV diagnosis and treatment continuity in the community.

We are optimistic that these learnings can be used to optimise community-based HIV care and inform integrated patient-centred care in the future.



by Dr Liesl Page-Shipp **Gates Foundation Senior** Program Officer: TB & HIV

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you have been in contact with a person who has been confirmed as having COVID-19, or if you are experiencing any symptoms, CALL YOUR DOCTOR or any of the numbers BELOW. Stay home - save South Africa.

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