Decentralized Drug Distribution of Antiretroviral Therapy in Eswatini: Final Report

Background

In January 2020, the Meeting Targets and Maintaining Epidemic Control (EpiC) project in Eswatini received Headquarters Bridge Funding (HBF) to support decentralized distribution of antiretroviral therapy (ART) in Eswatini within the national Community Health Commodity Distribution (CHCD) framework. CHCD consists of community-based differentiated service delivery (DSD) models including community ART groups and other ART outreach models. This activity was implemented under the leadership of the Eswatini Ministry of Health (MOH) and the Eswatini National AIDS Program (ENAP) and in coordination with other implementing partners (IPs)—Breakthrough ACTION/HC4 project, Pact, Procurement and Supply Management (PSM), Population Services International (PSI), Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), International Center for AIDS Care and Treatment Program (ICAP), Médecins Sans Frontières (MSF), The Luke Commission (TLC), and University Research Co., LLC (URC). The decentralized delivery of ART focused on community-based models and supported continuity of services during the COVID-19 pandemic. This work was designed to leverage the existing CHCD models, data systems, and IPs to address gaps in treatment access and prepare for the introduction of other models such as the private pharmacy model.

Key Accomplishments

Between June 2020 and March 2021, EpiC supported the following activities and produced the following key deliverables:

- Expanded decentralized drug distribution (DDD) to 303 community distribution points (CDPs), which enabled 2,522 clients from 29 health care facilities to receive their refills safely. A total of 8,189 ARV packs were dispensed.
- Recruited three short-term CHCD nurses (two nurses from July to September 2020 and one nurse from October to December 2020) to support ARV distribution in CDPs.

EpiC is a global cooperative agreement dedicated to achieving and maintaining HIV epidemic control. It is led by FHI 360 with core partners Right to Care, Palladium International, Population Services International (PSI), and Gobee Group. For more information about EpiC, including the areas in which we offer technical assistance, click here.

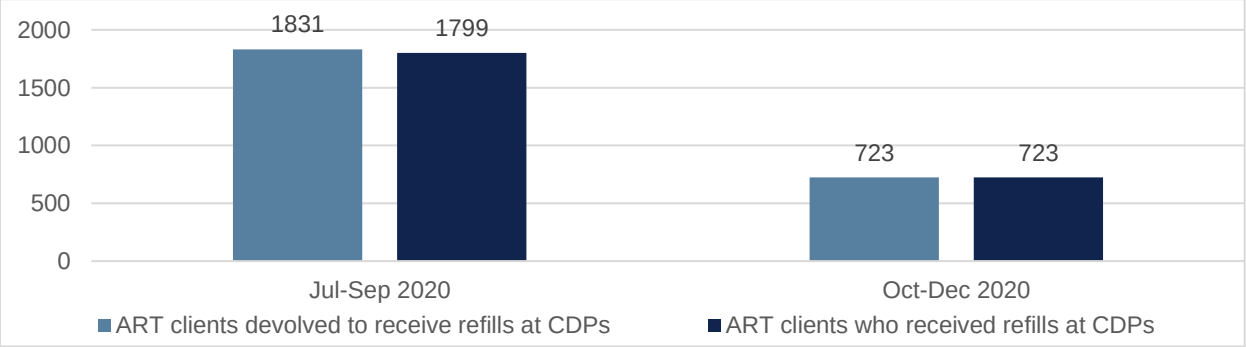
- Engaged eight data clerks from August to September 2020 to support EGPAF to enter DDD-related data into the national electronic medical record (EMR) system
- Completed 79 supportive visits to CDPs
- Conducted online surveys with 24 private pharmacies to determine their readiness and interest in distributing ARVs
- Received endorsement from the MOH to design and introduce the private pharmacy DDD model
- Used HIV treatment data (TX_CURR) and the GPS locations of private pharmacies and other health facilities to develop maps that informed the placement of CDPs
- Engaged stakeholders, including the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) IPs and the MOH, to provide site-level data to determine the costs associated with DDD services
- Provided technical assistance (TA) to the MOH to develop a DDD training curriculum, finalize the protocol and tools for assessing client preferences for DDD models, conduct the health care workers and stakeholder engagement assessment, and develop monitoring and evaluation (M&E) tools and a national-level DDD dashboard

From July to September 2020, 1,831 eligible ART clients were devolved to the CHCD model, of whom 1,799 (98%) received an ART refill through the model (Figure 1). From October to December 2020, all 723 (100%) eligible ART clients who were devolved received an ART refill through the CHCD model. The eligibility criteria are listed in Box 1.

Box 1. DDD eligibility criteria

- Ages 18 years and older
- Stable clients (on ART for at least 12 months with two undetectable viral load tests)
- On a first-line ARV regimen
- Not pregnant
- Good adherence to ART (taking >95% of prescribed medication in the right way and at the right time)
- No opportunistic infections
- No other co-morbidities
- Agree and consent to participate

Figure 1. Clients who received ART refills through the community delivery model, July–September 2020 and October–December 2020

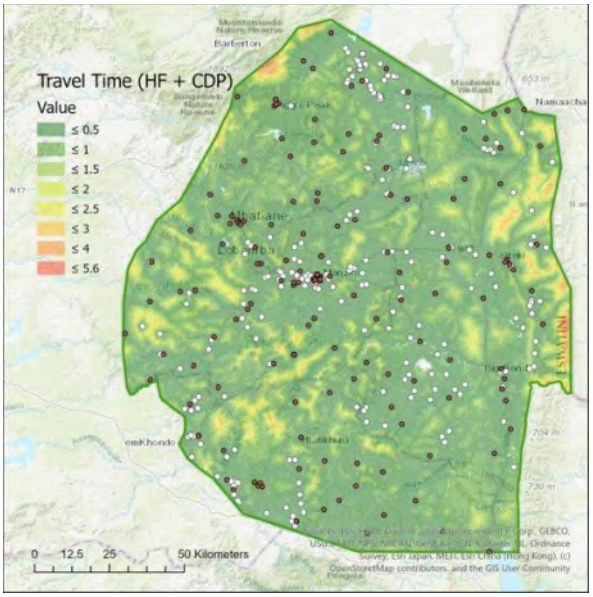


STAKEHOLDER ENGAGEMENT

Stakeholders, including IPs, ENAP, the MOH, and USAID, were engaged throughout the DDD initiative. The EpiC team conducted the following activities:

- Regularly communicated with the ENAP M&E specialist about the CHCD monitoring system and provided TA on the selection of the key CHCD indicators
- Provided suggestions to USAID on how to collect data from CDPs reporting relevant custom DDD indicators
- Engaged IPs to collect information on the geographic coordinates of the CDPs and on the costs related to planning and rollout of the CHCD service for a costing analysis

Image 1. Map of geolocations of health facilities and CDPs and travel time needed to reach the closest facility or CDP



- Regularly communicated with the ENAP treatment optimization advisor (also known as the pharmacy advisor) to sensitize the MOH's regional pharmacists, health facility pharmacists, and PSM, and the commodities management system IP about the private pharmacy model (PPM)
- Conducted a planning meeting with ENAP and the deputy director of pharmaceutical services regarding the PPM to identify private pharmacies to pilot the service, agree on the steps to finalize the PPM standard operating procedures (SOP), and identify an M&E system
- Held multiple meetings with the ENAP/MOH team to discuss the implementation of the PPM
    - ENAP/MOH issued a letter to 53 selected private pharmacies to request their participation in a rapid assessment. Twenty-four private pharmacies participated, and the findings were presented at the MOH Care and Treatment Technical Working Group. Within this context, the EpiC team also conducted a survey, in collaboration with the MOH, to assess the acceptability of the model with ART clients. The findings were presented to the MOH deputy director of pharmaceutical services.

ASSESSMENTS

Stakeholders and health care worker interviews on CHCD implementation

Interviews were conducted with stakeholders from the MOH, USAID, EGPAF, and FHI 360, as well as health care workers (HCWs), to solicit feedback on the strengths and challenges of implementing CHCD and recommendations on implementing decentralized distribution of ARVs, including through private pharmacies, to inform scale-up.

Findings

The HCWs recommended: rapid scale-up of the DDD models; resource investment to ensure full coverage and training of the staff; prioritization of community services to increase accessibility, adherence, and viral load suppression; and for the MOH to issue guidelines on how to engage the private sector in DDD. Stakeholders, including the MOH and EGPAF, recommended that strategic investments be directed toward early quantification and timely and accurate procurement of ARVs, DDD data infrastructure, M&E (using the electronic tools at the CDPs), human resources, and scale-up of DDD, including in the private sector. Stakeholders also suggested that private sector involvement would need the support of the pharmacy directorate of the MOH and that guidelines on accountability, reporting, and commodities must be clear.

Baseline PPM Client surveys/interviews

Surveys were conducted with 325 clients on ART to assess their perceptions on the acceptability, barriers, and enablers of the PPM. Surveys were either self-administered online or completed via an interviewer.

Findings

Forty percent of the respondents were very interested in picking up ARVs at the private pharmacy. Most of the ART clients reported already using private pharmacies because they offer faster services, more convenient hours, and better-quality services. Almost half of the respondents reported spending an hour or more to travel to their current ARV pick-up location and an hour or more waiting at the clinic for the pick-up, while more than half reported spending 30 minutes or less to travel to the nearest pharmacy.

Baseline PPM pharmacy survey

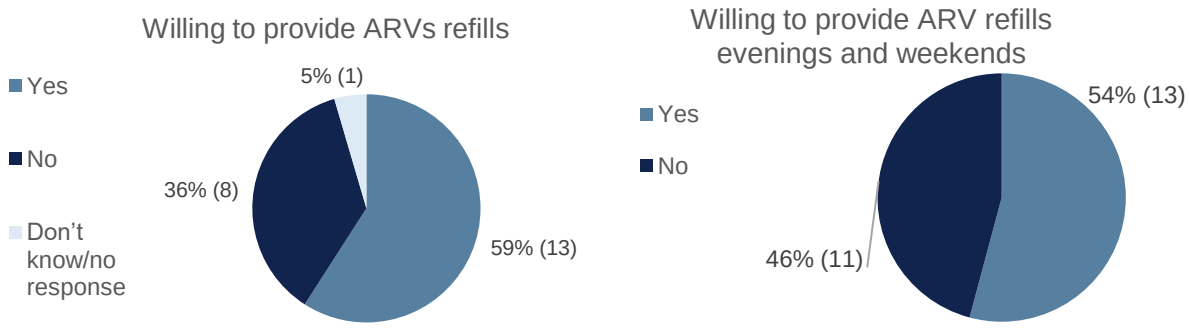
Online surveys were completed by 24 pharmacies to determine their readiness and interest in dispensing ARVs and to identify gaps in capacity and training.

Findings

Interest in ARV provision was modest among private pharmacies, with 54 percent expressing willingness to participate (Figure 2). However, the majority had the relevant infrastructure and systems to support DDD; 92 percent had physical security, 83 percent had adequate counseling

space, 65 percent had adequate storage space, 88 percent had computers, 83 percent had Internet access, and 58 percent had dispensing software. While not a requirement, computer and Internet access and relevant software are critical for ordering stock and timely reporting. Additional training on case management and documentation would be required to roll out DDD at pharmacies. More than 50 percent of the pharmacies were willing to operate—and some already did operate—outside of traditional working hours (27% open before 8 a.m. and 67% remaining open after 5 p.m.), including weekends and holidays (80–90%).

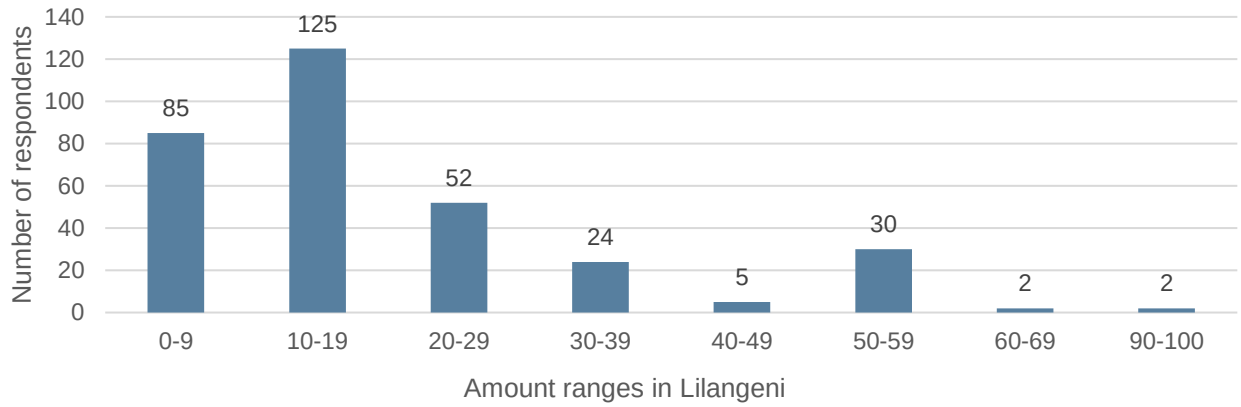
Figure 2. Willingness to provide ARVs and schedule flexibility



BUSINESS CASE DEVELOPMENT FOR PRIVATE PHARMACY MODEL

The survey among pharmacy proprietors and clients helped to provide the context for developing a business case for private sector engagement in ART distribution. Thirteen (54%) of the responding pharmacies said they would not charge a service fee for ART pick-up, and eight pharmacies (33%) said they would charge a service fee. Among those who would charge a fee, the average expected fee was 15.23 Emalangeni (E) (range 10–50), or a little over US$1, per refill. Most of the clients interviewed said they would be willing to pay a refill fee at the private pharmacy, if required. Among those willing to pay, the average fee considered acceptable was E16.5, which is higher than the average expected fee among pharmacies., The close alignment of the expected fee demonstrates the possibility for a sustainable PPM model.

Figure 3. Refill fee client is willing to pay



COSTING OF RESOURCES REQUIRED TO ESTABLISH AND SUPPORT DDD OF ART IN ESWATINI

A costing analysis of the CHCD model was conducted to document: (a) the resources required to set up the CDPs, (b) the resources required to support the delivery of services through the CDPs, (c) how the CDP approach affected the source of the resources being used, and (d) how the CDP approach affected the cost to clients receiving services. Resources included both financial costs and opportunity costs, which is the value of the time the client spends traveling to and from the CDP and receiving services.

Key Findings

- Financial costs during start-up and ongoing service provision were mostly incurred by donor-funded IPs.
- During start-up, for every US$1 of financial cost incurred, approximately US$2.50 in opportunity costs incurred as existing resources are redeployed to support the design and planning of the system. About 25 percent of the opportunity costs during start-up are incurred by the MOH as senior staff spend time on design and planning of the system.
- During service provision, for every US$1 of financial cost incurred, approximately US$2.80 in opportunity costs incurred as existing resources are redeployed to support service provision through the CDPs. These opportunity costs are almost equally divided between the MOH (45%) and donor-funded IPs (55%).
- For clients, there is a small financial cost savings (~US$0.25 per refill) and substantial opportunity cost savings (~US$4.90 per refill) when accessing services through the CDPs compared to going to existing health facilities because of reduced time spent seeking, waiting for, and receiving services. Savings to the clients largely offset the additional costs associated with the DDD model of ARV refills through CDPs, as shown in Table 1.

Table 1. Financial and opportunity costs of DDD per month and per refill for stakeholders

	Donor		MOH		Clients	
	Total per month	Per refill*	Total per month	Per refill	Total per month	Per refill
Financial	$ 27,261	$3.16	-	-	-$ 1,972	-$ 0.25
Opportunity	$ 9,085	$1.14	$ 11,282	$1.41	-$ 39,250	-$ 4.90
Total	**$ 36,346**	**$4.30**	**$ 11,282**	**$1.41**	**-$ 41,222**	**-$ 5.15**

* Based on 8,000 refills per month (17.7% of all ART refills)

Above-Site Technical Assistance

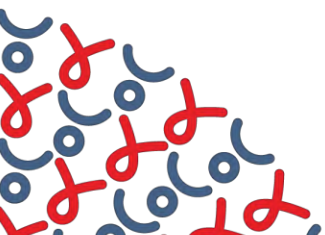
The EpiC DDD initiative also provided TA to the MOH to expand the enabling policy environment for rollout of the CHCD and PP models, including:

- Providing input into the development of the national CHCD framework
- Developing PPM standard operating procedures (SOPs) and relevant training curricula for pharmacists
- Supporting the adaptation of the PPM guidelines and training materials based on regionally vetted tools and aligning and integrating the materials with the in-country training curricula, including DSD, Integrated Management of Adolescent and Adult Illness, and Nurse-Led ART Initiation trainings
- Presenting the following completed training materials to the MOH:
    - PPM guidelines
    - PPM training, which is a four-day training with modules on HIV pathogenesis, national ART regimen and clinical management, pharmacovigilance, supply chain management, and M&E. Each module can also be used independently, and the package has a pre- and post-test and a training evaluation.

The EpiC team also supported the development of a national protocol to interview ART clients about their perceptions of and experience with the CHCD service. ENAP submitted the protocol to the ethical committee as a non-research study, and ethical committee approval is still pending.

Lessons Learned

- The very high refill rate at the CDPs calls for a scale-up of the model to increase coverage among the eligible (stable) ART clients, which should decongest facilities, improve access, and maintain viral suppression among this population group.
- The mapping activity demonstrated that the provision of ART through CDPs at appropriate locations mapped to client residences has the potential to reduce client travel time.
- In terms of the cost of DDD, stable clients are the clear beneficiaries as services are easier to access, and clients spend less time in transit and waiting in facilities for their refills.
- Using existing M&E systems at both the IP and national levels without adapting them to incorporate DDD creates several limitations in data reporting and analysis.
- Private pharmacy readiness to join the PPM and ART client acceptance of the PPM call for a demonstration pilot followed by scaling up to other urban areas where this model would have the highest impact.



Next Steps and Transition Plan

The EpiC-supported DDD work is expected to be continued by the clinical IPs, including EGPAF, Georgetown Global Health LLC, The Luke Commission, and MSF, under the leadership of the MOH. Survey findings from both the ART clients and the pharmacies are supportive of PPM implementation, and the MOH care-and-treatment lead has recommended that EpiC roll out the model in two to three private pharmacies (LinkMed Pharmacy, Genesis Pharmacy, or Sound Health Pharmacy—Moneni/Malkerns/Matsapha). Formal approval of the rollout is pending with the MOH's senior management team. This approach would provide an opportunity to the MOH to develop a proof of concept, based on their willingness to expand to these pharmacies and provide mentorship and monitoring as the PPM is rolled out. The results of the pilot would determine the way forward and provide opportunities for further expansion.

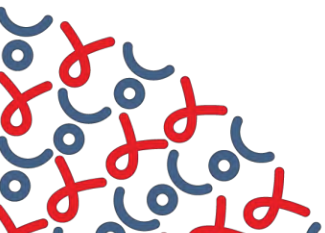
The following key activities are required for full and successful implementation of the PPM:

- Adopt the draft PPM framework.
- Adopt the draft PPM guidelines, trainings, and tools.
- Establish a DDD monitoring system through the client management information system (CMIS).
- Establish a supply chain management system, leveraging the existing systems for CHCD.
- Update the existing PPM rollout plan, which includes an initial demonstration pilot before going to scale.
- Finalize the selection of private pharmacies and establish a memorandum of understanding between the pharmacies and key stakeholders (e.g., the MOH, health facility, and clinical IP).
- Build the capacity of the pharmacy staff based on the findings from the pharmacy assessment, as well as the experience of providers from the reference health facilities.
- Conduct supportive supervision and mentoring activities at PPM sites.
- Regularly review the progress of the PPM.

Recommendations

Based on learnings, the following are recommended for the MOH, USAID, or the next IP to lead this work:

- Leverage the developed CHCD and PPM materials and the lessons learned under this DDD initiative to support improved national-level programming.



- Support the use of CMIS “lite” for monitoring and reporting the community delivery model and the PPM. This simplified version of the CMIS would support real-time documentation and reporting of decentralized services.
- Conduct quality assurance activities at community delivery sites and PPM sites.
- Negotiate a dispensation fee within the range indicated by ART clients to be acceptable and within the range proposed by private pharmacies to establish a sustainable PPM.

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