Decentralized Drug Distribution in Côte d'Ivoire: Final Report

Background and Summary

Côte d'Ivoire's HIV epidemic is one of the largest in the West African region, with the country's HIV prevalence at 1.9 percent at the end of 2021 and an estimated 380,000 people living with HIV (PLHIV).[1] As part of epidemic control efforts, Côte d'Ivoire adopted the "Test and Treat All" policy in February 2017, which integrated a differentiated care model based on the World Health Organization (WHO) 2015 recommendations. Within this framework, Côte d'Ivoire focused its efforts on strengthening the implementation of differentiated care by validating the community antiretroviral therapy (ART) distribution model on February 14, 2020.[2] As an extension of this approach, Côte d'Ivoire initiated a pilot that distributed antiretrovirals (ARVs) through private pharmacies and community outreach to improve the accessibility of HIV treatment.

The Meeting Targets and Maintaining Epidemic Control (EpiC) project in Côte d'Ivoire received Headquarters Bridge Funding (HBF) and Sustainable Financing Initiative (SFI) funds from the United States Agency for International Development (USAID) to support the rollout of decentralized drug distribution (DDD) models in fiscal years 2020 (FY20) through 2022. Under the leadership of Côte d'Ivoire's Programme National de Lutte Contre le Sida (PNLS), and based on past implementation experiences, FHI 360 through the EpiC project supported the introduction, adaptation, and scale-up of the PNLS's three validated decentralized ART delivery models: *Poste de distribution de TARV Communautaire* (PODI), community ART groups (CAGs), and the outreach model. The fourth model, private pharmacies, was introduced and approved by PNLS to test as a pilot. While these four models were planned for implementation initially, EpiC decided to focus on the outreach and private pharmacy models in FY21 and FY22 based on the high level of stigma toward PLHIV and input from PLHIV in urban settings that PODIs and CAGs were stigmatizing.[3]

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[1] UNAIDS. Country Factsheet 2021 Cote d'Ivoire. Available from: https://www.unaids.org/en/regionscountries/countries/ctedivoire
[2] Circular note 120500MSHP/CAB/DGS/PNLS. 2020 Feb 14.
[3] Based on the stigma index 1.0 survey. 2017.

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, and Population Services International (PSI). For more information about EpiC, including the areas in which we offer technical assistance, click here.

The private pharmacy model offers stable clients, 15 years old and above, the option to pick up their three- or six-month ARV supply at a private pharmacy of their choice and return to the health facility annually for their clinical checkups, or as needed. The outreach model gives clients the option to have their ARVs delivered to their homes or a community location of their choice by a community health worker. Both models were implemented in three EpiC-supported health facilities in Abidjan. The private pharmacy model was implemented in three additional health facilities in Abidjan supported by implementing partners. This brief summarizes the key achievements of the EpiC project's DDD initiative in Côte d'Ivoire.

Accomplishments

STAKEHOLDER ENGAGEMENT

Strong engagement of all key stakeholders is critical in the implementation of innovative projects. Each partner and stakeholder contributed to the implementation of the outreach and private pharmacy models.

- **The Ministry of Health**, through PNLS, the Directorate de l'Activité Pharmaceutique (DAP), the district health officers, and the district health facilities, was a key partner in coordinating and leading the DDD implementation process.
- **The U.S. Centers for Disease Control and Prevention (CDC) and USAID implementing partners** (Fondation Ariel Glaser [ARIEL], Elizabeth Glaser Pediatric AIDS Foundation [EGPAF], Cote d'Ivoire Resources Towards Elimination of Child Vulnerability [REVE], and Breakthrough Action [BTA]), implemented DDD at their respective facilities and sites.
- **Conseil de l'ordre national des pharmaciens and Union National des pharmaciens privees de CI (UNPPCI)** supported the coordination of private pharmacies to dispense ARVs.
- **Réseau Ivoirien des organisations de personnes vivant avec le VIH-sida (RIP+) and Reseau des organisations des populations cles de Cote d'Ivoire (ROPCI)** — PLHIV associations — represented the beneficiaries, provided guidance on implementation, and promoted the sensitization and mobilization of their members for enrollment in DDD models.
- **USAID Côte d'Ivoire** provided guidance and orientation on site selection and the engagement of CDC IPs

BASELINE ASSESSMENTS

Prior to implementation, EpiC conducted landscape assessments from September to October 2020 with health facilities (77), ART clients (114), and private pharmacies (104) to understand their interest and willingness to participate in the DDD models and the feasibility of implementing the DDD models in Côte d'Ivoire, and to collect information on stakeholder expectations for this innovative approach.

Client surveys

A total of 114 stable clients, as defined in Box 1, were interviewed, and among them, 73 percent were willing to enroll in a community-based ARV distribution model, and 60 percent indicated preference for the private pharmacy model.

Box 1. Criteria for defining stable clients according to national guidance

- On treatment for at least one year
- Has two consecutive viral load results under 1,000 cp/ml
- No opportunistic infections
- No treatment-related adverse reactions
- For women, not pregnant or breastfeeding

Pharmacy survey

A total of 104 private pharmacies located in the health districts targeted by the DDD project in Abidjan and its suburbs were assessed to identify those that were willing and able to dispense ARVs (Figure 1, Table 1).

The EpiC team developed a pharmacy assessment questionnaire in collaboration with the PNLS; 74 percent (77) of the private pharmacies were interviewed by data collectors, and 26 percent (27) responded to the online form sent by e-mail. Most of the pharmacies evaluated (98%) belonged to the National Order of Pharmacists of Cote d'Ivoire, and all had storage racks and a private room for confidentiality during consultations and dispensing of ARVs. Among private pharmacies, 77 (74%) agreed to implement the model in their pharmacies. Of those, 24 were willing to dispense ARVs without compensation, while the rest required some type of compensation (e.g., lower taxes, pay a flat fee per PLHIV received). Based on the geographical distribution of stable HIV clients wishing to be served through the DDD models, 20 private pharmacies located in 12 health districts were selected for the initial rollout.

Figure 1. Distribution of the 104 private pharmacies surveyed

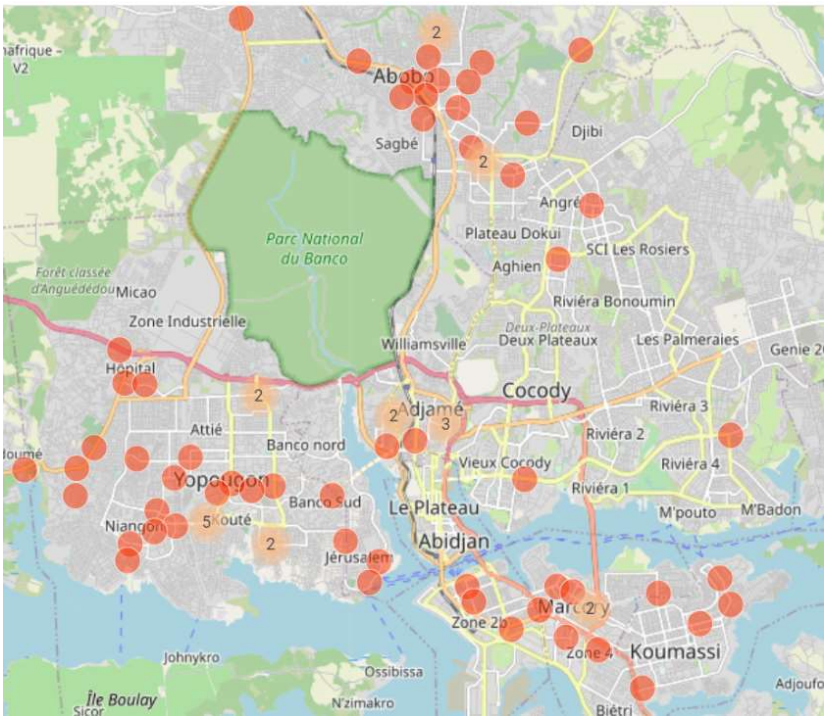


Table 1. Distribution of private pharmacies surveyed across the 12 health districts

Health District of PPs		Private pharmacies (n)	%
1.	Yopougon-Ouest Songon	31	30%
2.	Treichville-Marcory	17	16%
3.	Adjame-Plateau-Attecoube	15	14%
4.	Abobo-Ouest	14	13%
5.	Cocody-Bingerville	8	8%
6.	Koumassi	6	6%
7.	Abobo-Est	6	6%
8.	Yopougon-Est	2	2%
9.	Port Bouet-Vridi	2	2%
10.	Anyama	1	1%
11.	Grand-Lahou	1	1%
12.	Dabou	1	1%
Total		**104**	**100%**

Health facility survey

EpiC conducted a rapid assessment of 77 health facilities with a high volume of stable clients to document the burden of ART provision on facilities and prioritize health facilities for decongestion.

Most of the health facilities surveyed were public (31%) or community-based (30%), and 95 percent had an in-house pharmacy. Many (61%) expressed that the implementation of community-based distribution models, especially the distribution of ARVs in private pharmacies, may be challenging because it could increase stigma.

For the pilot phase of the private pharmacy model, six health facilities were selected for implementation, three of which were supported by the EpiC project and three of which were supported by CDC-funded implementing partners, EGPAF and ARIEL (Table 2).

BUSINESS CASE DEVELOPMENT

Memorandums of Understanding (MOUs) were signed between EpiC and each of the implementing partners to outline the roles and responsibilities of each party as well as procedures for data collection and dissemination. The EpiC project supported the staff training, provision of tools, and meetings coordination. Each implementing partner supported the rollout of both models at respective health sites and facilities. Supervision and monitoring of activities was supported by each partner according to set procedures.

Table 2. List of sites involved in DDD

No.	IP	District	DDD selected site	DDD models implemented
1	EPIC	Abobo-Ouest	CSU Com Anonkoua 3	Private pharmacy Outreach
2	EPIC	Anyama	Clinique Espace Confiance Anyama	Private pharmacy Outreach
3	EPIC	Yopougon-Ouest-Songon	DIC Espace Confiance Yopougon	Private pharmacy Outreach
4	ARIEL	Adjamé-Plateau-Attécoubé	Centre Antituberculeux de Adjamé	Outreach*
5	ARIEL	Adjamé-Plateau-Attécoubé	CSU Abobodoumé Mofaitai	Outreach*
6	ARIEL	Adjamé-Plateau-Attécoubé	Institut National de la Santé Publique Adjamé	Outreach*
7	ARIEL	Treichville-Marcory	Clinique Espace de Confiance Bietry	Private pharmacy
8	EGPAF	Abobo-Est	CHR de Abobo-Nord Houphouët Boigny	Private pharmacy
9	EGPAF	Abobo-Ouest	Centre Médico Social El Rapha	Outreach*
10	EGPAF	Koumassi	CSU Pangolin	Outreach*
11	EGPAF	Port-Bouet-Vridi	Hôpital Général de Port Bouet	Private pharmacy
12	EGPAF	Yopougon-Ouest-Songon	CEPREF Yopougon	Outreach*
13	EGPAF	Yopougon-Ouest-Songon	Clinique AIBEF Yopougon Attié	Outreach*

** The data from these models are not included within this report.*

Outreach model

The outreach model was implemented in 10 health facilities and sites supported by various implementing partners, including EGPAF and ARIEL. The model built on the existing support provided by the sites in those communities, including communication and transportation fees and community incentives. The peer navigators who are supported by EpiC and other implementing partners and are involved with these health facilities distribute the ARVs through this model.

After sensitizing clients on the two DDD models and their advantages, the health care providers documented the clients' chosen model in the register for community-based ARV service delivery offers for stable clients. For clients who wished to be served in the outreach model, an appointment card with their next ARV refill date was provided, and the process was explained to them, including the name of the community member who would deliver the ARVs. The provider (social worker or community counselor at health facility) contacted the client 48 hours before the

appointment to confirm the appointment and their availability. The kits, including ARVs, Isoniazid, and condoms, are prepared the day before the client's appointment by the social worker. The peer navigator goes to the client's home to provide the prepared kit, makes a clinical assessment of the client based on a checklist, and evaluates the client's adherence to treatment. A form is then completed by the peer navigator to confirm the client's ARV collection. Figure 3 shows the cumulative number of clients who received ARVs through this model by month.

Private pharmacy model

The detailed MOU established the roles and responsibilities of each party and the modalities of collaboration between the UNPPCI and PNLS for the implementation of the private pharmacy model. ARVs are delivered to private pharmacies by the health facility pharmacy staff. Commodities delivered to each pharmacy are documented on a paper-based tool, and the stock level at each private pharmacy is accounted for based on the number of ARVs provided to each private pharmacy and the number of clients who refilled their ARVs at each private pharmacy. The MOU outlines the following compensation package for the private pharmacies:

a) US$2 per client supplied with ARVs per year to support the costs of packaging and ARV drug storage space
b) A smartphone with internet connection to support electronic tracking of client and drug management
c) A communication package that includes communication fees and internet data to keep in touch with the clients' referring health structures

These clauses were negotiated with the private pharmacists. The review of the MOU by the PNLS is in progress.

The MOU serves as the agreement between the private pharmacies and the Ministry of Health, Public Hygiene and Universal Health Coverage.

Credit: EpiC Cote d'Ivoire

Clients accessing services at a private pharmacy

CAPACITY BUILDING

EpiC, in collaboration with the PNLS, developed standardized DDD procedures (e.g., clinical, pharmacy supply management, supply transport and storage, ARV dispensing in private pharmacies), training materials, and data collection and reporting tools for the implementation of the outreach and private pharmacy DDD models. EpiC provided technical and financial support to the PNLS to train stakeholders involved in the pilot phase. Under the leadership of PNLS and in collaboration with implementing partners EGPAF, ARIEL, REVE, BTA, and UNPPCI, a total of 55 people were trained on the private pharmacy model, including 39 private pharmacists, and 75 people on the outreach model (Tables 3 and 4). The following key topics were included in the training:

community-based distribution procedures, basic HIV knowledge, pharmacist procedures, clinical procedures, ART dispensation, stigma and discrimination, confidentiality, adherence to treatment, and reporting tools including the DDD Mobile Application (DDD App). EpiC also provided coaching and supervision to PEPFAR implementing partners on the implementation of the DDD models.

Table 3. Staff trained on outreach model	n
Peer navigators	47
Social workers	16
Health district staff	4
PLHIV association staff	2
USAID IP staff	3
CDC IP staff	3
TOTAL	**75**

Table 4. Staff trained on pharmacy model	n
Private pharmacist	21
Assistant private pharmacist	18
Health facility staff	7
CDC IP staff	2
Health facility pharmacist	7
TOTAL	**55**

The DDD App was developed by EpiC to support real-time exchange of data and reporting and monitoring of ARV dispensation between the health facilities and the community ARV pickup points and was presented to PNLS and the implementing partners as a tool to optimize DDD. An additional one-day training was conducted for private pharmacy staff on the use of the DDD App for DDD data reporting and follow-up of clients using the provided internet-enabled, toll-free tablets. Seven data managers from seven health facilities (CSU ASAPSU Anonkoua 3, Espace Confiance Anyama, DIC Espace Confiance de Yopougon, CHR Abobo Nord Houphouet Boigny, CSU Abobo Doume Mofaitai, HG Port Bouet, Espace Confiance Bietry) and one monitoring and evaluation staff member each from ARIEL and EGPAF also received this training.

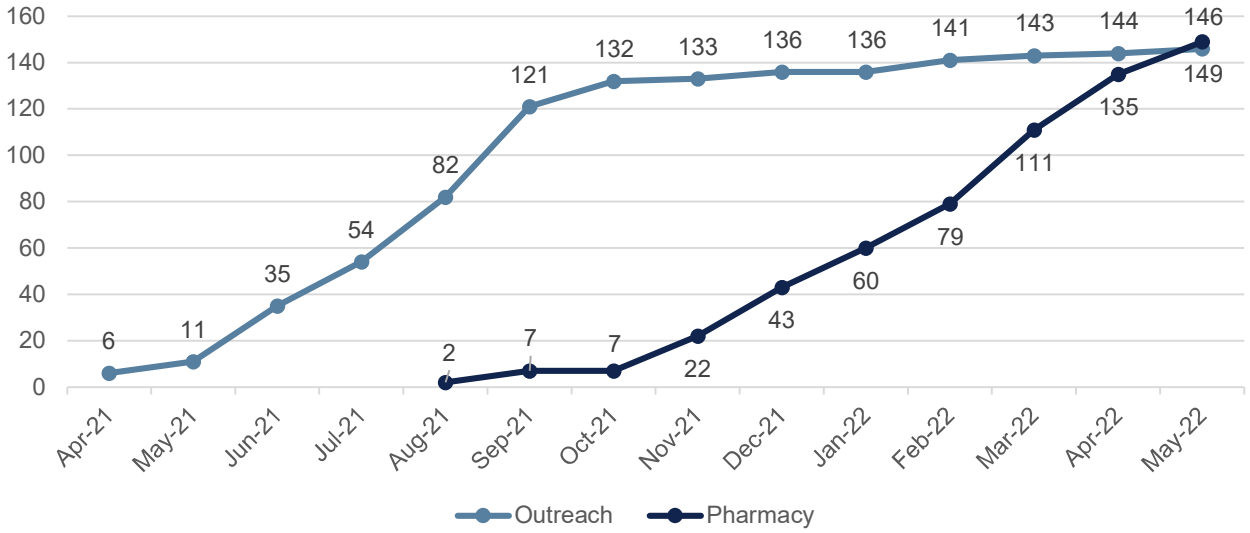
DEMAND CREATION

Demand creation activities were conducted in collaboration with BTA, which is PEPFAR's national lead partner for communication materials development. Technical assistance from BTA included interviewing pharmacists and conducting focus groups with PLHIV for their perceptions and beliefs around DDD, developing targeted messages and materials, and establishing a small technical working group (TWG), under the coordination of the PNLS Communication and Social Mobilization Department. The TWG included representatives of PLHIV, health care providers, community-based organizations, and private pharmacists. The core working group met once a week to discuss and define the key messages for each DDD model. Five meetings were held to finalize the key messages. The flyers and posters ensure continuous promotion of the two DDD models implemented in Cote d'Ivoire among health providers and PLHIV.

ACHIEVEMENTS

EpiC enrolled 198 clients on the outreach model and 167 clients in the private pharmacy model, of whom 146 and 149, respectively, had received ARV refills through the two models as of May 2022 (Figure 3).

Figure 3. Number of clients who accessed ART by DDD model, April 2021 to May 2022



Challenges

While having PNLS lead DDD activities and engaging all stakeholders from the beginning were instrumental for ensuring the quality of the implementation process and facilitating the acceptance of DDD across stakeholders, challenges in the coordination of the various parties and scheduling of meetings impeded smooth implementation. Given the COVID-19 pandemic, PNLS had competing priorities taking focus away from DDD, and the signing of the MOU with implementing partners was delayed. Below are examples of additional challenges faced and strategies employed in response:

Challenges	Strategies
Reluctance of health providers to offer the private pharmacy model to stable clients	Negotiated for PNLS staff to conduct DDD awareness-raising activities to encourage health provider buy-in
Reluctance of CDC implementing partners to implement the private pharmacy model because of fear of negative effect on continuity	Conducted continuous advocacy with CDC partners for their buy-in Integrated DDD SOPs into the national differentiated service delivery guidelines as one approach to increase access to ART for stable clients

Challenges	Strategies
Reduction in the number of private pharmacies and sites involved in the initial pilot phase due to budget restrictions	Prioritized pharmacies around sites with high volume of stable PLHIV (20 pharmacies)
Low uptake of the private pharmacy model	Raised awareness among health care providers of DDD services offered through continuous coaching visits to the implementation sites
Many missed opportunities	Conducted regular follow-up of clients' appointments with constant SMS reminders and follow-up phone calls Designated and trained an additional person within the pharmacy who can take over DDD services if the trained staff is unavailable to ensure continuity of DDD services at all times
Funding for DDD activities	Advocated with USAID to integrate funding for DDD activities into the overall budget by considering DDD as a strategy of the EpiC project, which is being considered during COP discussions

Next steps

Multiple milestones were reached during this period, but continued efforts are needed for further scale-up of DDD models, including:

- Advocate for the approval of DDD App use by the PNLS after pilot results are available for decision-making
- Update DDD App with the integration of SMS reminder module and improvement of reporting module
- Advocate for the expansion of the private pharmacy model into additional health facilities and private pharmacies, including those outside of Abidjan
- Conduct a DDD client satisfaction survey to gather client feedback on experiences with the private pharmacy model to identify gaps and inform improvement and scale-up
- Continue to enroll and serve ART clients in the private pharmacy and outreach models
- Extend the outreach model from three to eleven clinics supported by EpiC Cote d'Ivoire
- Develop and implement the transition plan of DDD activities to CDC implementing partners for respective sites through continuous engagement and advocacy with EGPAF and ARIEL

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