

Decentralized Drug Distribution in Liberia: Final Report

Background and Summary

Liberia has a population of about 5 million people and an estimated adult HIV prevalence of 1.1 percent—or 35,000 people living with HIV (PLHIV). As in other West African countries, antiretroviral therapy (ART) coverage remains low, at 53 percent.¹ About 70 percent of those on ART reside in the country's capital, Monrovia, and most access ART from just a few health facilities. With only six health care workers (doctors, nurses, or midwives) per 10,000 population—well short of the critical threshold of 23 per 10,000 recommended by the World Health Organization—Liberian health facilities are typically congested, putting significant pressure on a fragile health system weakened by 14 years of civil war, the deadly Ebola epidemic, and now the COVID-19 pandemic.^{2,3} This context, coupled with pervasive stigma toward PLHIV and key population members, contributes to suboptimal clinical outcomes, including high rates of treatment interruption and poor treatment continuity. To achieve epidemic control, concerted efforts to improve client-centered care and access to ART services and medication refills have become increasingly necessary. To respond to these needs and optimize the benefits of treatment, Liberia adopted the policy of providing differentiated and client-centered delivery of ART to recipients of HIV care and treatment in the right place, at the right time, and for the right people. Some of the differentiated service delivery (DSD) models adopted by the country are drop-in centers for key populations, teen clubs (adolescent ART clinics for adolescents living with HIV), community ART pick-up points facilitated by health care workers, peer-led community ART groups, facility fast-track options, community-based ART delivery by peers, and multimonth dispensing.

¹ UNAIDS. UNAIDS Liberia Fact Sheet 2020. Available at:

<https://www.unaids.org/en/regionscountries/countries/liberia>

² World Health Organization. Global Health Observatory Data Repository. Available at:

https://apps.who.int/gho/data/node.main.HWFGRP_0040?lang=en

³ Ministry of Health and Social Welfare Republic of Liberia. Standards for Health Infrastructure 2013. Available at:

https://pdf.usaid.gov/pdf_docs/PA00KBK4.pdf

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 Gobe Group.



In September 2020, the EpiC project in Liberia, funded by the United States Agency for International Development (USAID) and the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), and the National AIDS/STI Control Program (NACP) agreed to introduce decentralized drug distribution (DDD) to further ease the burden on ART clinics and address some of the barriers that PLHIV face in accessing treatment. DDD, which is an out-of-facility ART delivery model where patients established on treatment access antiretroviral (ARV) medication through the private sector or other alternative pick-up points, is a promising complement to existing DSD models. In Liberia, DDD was implemented through community pharmacies and community-based organization (CBO) offices. Patients established on treatment in high-volume public facilities were devolved to private community pharmacies or CBO offices of their choice for ARV refills and returned to the health facility only for clinical reviews and viral load (VL) tests, or if they had a medical condition. The pharmacy and community distribution models adapted in Liberia include ARV pick-ups free to patients, with the goal of promoting access and sustaining client motivation for enrollment and adherence.

The EpiC and NACP partnership implemented a pilot with three public health facilities (Redemption Hospital, Eternal Love Winning Africa Hospital, and Duport Road Health Center) that devolved clients established on treatment to 25 community pharmacies and two CBOs (Liberia Network of People Living with HIV [LibNeP+] and Lutheran Church of Liberia [LCL]). Through this pilot, EpiC and NACP assessed the feasibility of DDD in Liberia to support decongestion of high-volume facilities and documented the process, outputs, and outcomes to inform further national discourse.

Accomplishments

STAKEHOLDER ENGAGEMENT

To ensure sustainability and local ownership of the DDD model, EpiC engaged key stakeholders for complementary roles in the process of establishing DDD in Liberia, including:

- The Government of Liberia, through the Ministry of Health (MOH) and NACP, provided valuable guidance and leadership for conducting a landscape assessment and engaging, building capacity of, and monitoring community pharmacies and health facilities. At the facility level, HIV care providers and pharmacists helped to raise awareness, enroll eligible clients for devolvement, and ensure ARV drugs were distributed to outlets for clients due for refill.
- LibNeP+, representing the beneficiaries of DDD, provided client perspectives and inputs on the model and helped mobilize peers for enrollment.
- The Liberia Pharmacy Board (LPB), which regulates the activities of public and private pharmacies in the country, was engaged to encourage buy-in of registered pharmacies within Montserrado County and support capacity building of the participating pharmacies

in DDD. The LPB also provided the list of participating registered pharmacies in Montserrado County.

- The community pharmacies, including the owners and dispensers, were asked about their willingness to dispense ARVs at no cost to PLHIV established on treatment who enrolled in DDD.

A team of representatives from each stakeholder group was organized to manage advocacy, collectively introduce DDD to facilities to obtain their approval, and conduct the landscape assessment of the health facilities and community pharmacies in preparation for implementation. Relevant baseline data were collected during the landscape assessment to guide planning and decision-making.

BASELINE ASSESSMENTS

Client survey

Fifty-eight PLHIV from Redemption Hospital were interviewed to assess their interest in DDD through private pharmacies and the barriers they face in accessing routine treatment services at the facility. The client surveys were developed in consultation with NACP and LibNeP+. Health facility staff were sensitized on the DDD model, and concerns and misconceptions were addressed to gain their support for the interviews with their clients. Informed consent was obtained from respondents prior to interviews. The surveys were conducted in-person, and data were collected and saved using Kobo Toolbox. The exercise was conducted for about two weeks. Findings included:

- More women (81 percent) were willing to participate than men (17 percent).
- Thirty-three clients (57 percent) reported they had missed an appointment before, and among those who missed appointments:
 - Twenty-four percent were too unwell to travel.
 - Twenty-five percent were out of town or on a business trip.
 - Twenty percent were unable to travel due to bad road conditions.
- Some clients indicated they went to the facility for their appointments but could not receive services because:
 - The facility was closed (15 percent).
 - ARVs were out of stock (10 percent).
 - Providers were unavailable (5 percent).
- While 79 percent had never heard of DDD, 78 percent were interested in enrolling in DDD after the introductory explanation, and 52 percent remained interested in DDD after learning they would not receive a clinical check-up during the refill visits.

Figures 1 and 2 show the clients' travel times to health facilities and to nearby private pharmacies, with travel times to private pharmacies less than travel times to facilities where clients currently pick up ARVs. This highlights the potential for DDD to reduce the time and cost associated with travel to pick up ARVs.

Figure 1. Travel time to current ARV pick-up location

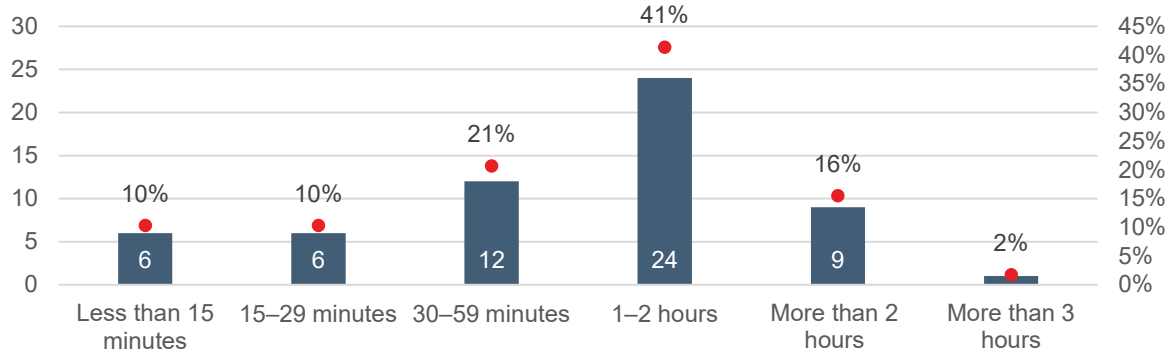
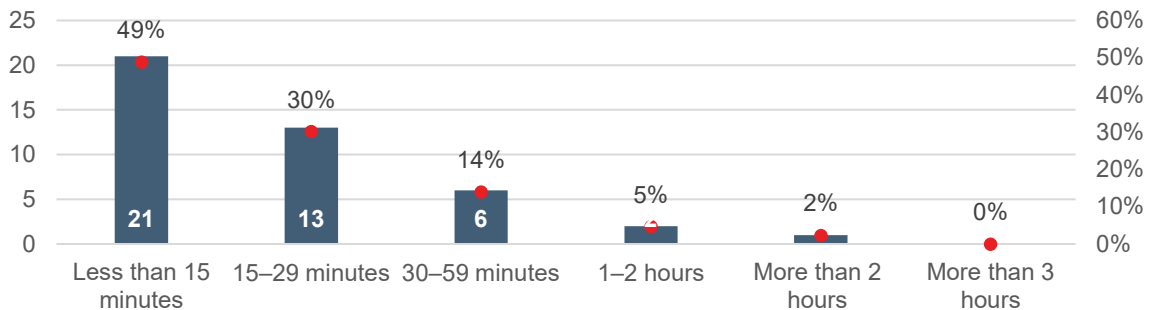


Figure 2. Travel time to private pharmacy*



*Among the 43 (74%) who indicated having accessed a private pharmacy

Pharmacy assessment

The pharmacy assessment was conducted among 198 of the 209 pharmacies registered with the LPB. The 198 pharmacies are in the six health districts of Montserrat County. An SOP and tools for this assessment were adapted from the EpiC-developed generic tools, with inputs from the NACP and the LPB. Both bodies formally approved the tools. Data collectors selected from DDD stakeholders, including LibNeP+, the LPB, and NACP, were orientated on DDD and the pharmacy assessment process. The assessment was conducted using the online survey tool Kobo Toolbox. Key findings included:

- Ninety-seven percent were willing to participate in DDD before learning the full details of DDD.
- Seventy-five percent were willing to participate in DDD after learning the full details of DDD.

- Pharmacies had one to seven staff members.
- Pharmacies received an average of 155 customers per day.
- Fourteen percent of staff members had received HIV training.
- Seventy-five percent were open after 5 p.m. Monday through Friday.
- Ninety-five percent were open on Saturdays.
- Thirty percent were open on Sundays.
- Eighty-five percent had sufficient security measures (e.g., secure windows, doors, locked storage spaces).
- Seventy-nine percent had sufficient storage space for ARVs.
- Sixty percent had a private room for counseling.

Box 1. Pharmacy eligibility criteria

- Willingness to participate in the program
- Have a valid trading license
- Have a registered dispenser who is trained (or willing to be trained) in HIV-related aspects of service
- Willingness to access and use relevant DDD job aids (e.g., country ART guidelines, essential knowledge of ARVs, confidential adherence counseling, ARV storage, and DDD supply chain)
- Meet infrastructure requirements (e.g., store, seats, good ventilation, etc.)

Based on a list of eligibility criteria (Box 1), 25 community pharmacies were selected to engage in the DDD model.

BUSINESS CASE DEVELOPMENT

EpiC led the process of negotiating a service fee (dispensing fee) with community pharmacies. Community pharmacies agreed to provide services at no cost but would receive a token of 200 Liberian dollars (~US\$1.50) per month per client (Lrd600 for 3-MMD) from the EpiC project for expenses and time spent making appointments and sending medication adherence reminders.

A memorandum of understanding (MOU) was signed between NACP, proprietors of the selected pharmacies, and the management of the three pilot health facilities. The MOU defined the roles of stakeholders and provided the structure for collaboration to ensure the smooth implementation of DDD.

CAPACITY BUILDING

EpiC's DDD training materials, job aids, and reporting tools were adapted to the Liberian context. NACP and the LPB supported the DDD trainings and capacity building for 15 providers from nine public health facilities, 25 community pharmacy staff, and five LibNep+ representatives. Three phases of DDD trainings were conducted.

- Phase one (March 2021) focused on basics of ART services for community pharmacy dispensers and DDD for community pharmacy dispensers and health facility staff.

- Phase two (June 2021) provided hands-on training for community pharmacists at the public health facility ART clinic on ART dispensation and team-building exercises between the community pharmacists and public health facility staff. The community pharmacists and the public health facility staff jointly determined the clients eligible for devolvement to DDD.
- Phase three (August 2021) was a refresher training on DDD for community pharmacists and public health facility staff. Participants were introduced to the DDD mobile application (DDD App), which 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 pick-up points (private pharmacies and CBO offices). EpiC also provided internet-able and toll-free tablets with the DDD App to the community pharmacies and health facilities. These tablets were used to support client devolvement and follow-up, track missed appointments, and ensure accurate reporting of data in real-time to the records of the ART hub facility.

TECHNICAL ASSISTANCE AND DEMAND CREATION

EpiC provided technical assistance across the layers of DDD design and program implementation in Liberia, with the goal of ensuring effectiveness, efficiency, and sustainability. At the policy level, EpiC engaged with NACP management, the LPB, health facilities, and LibNep+ to provide technical updates on the implementation process and share lessons, including strategies to address challenges.

EpiC set up a monthly review meeting with stakeholders, including NACP, health facility staff, community pharmacists, LibNep+ representatives, and PLHIV who have picked up ARVs at a community pharmacy. This serves as a platform for stakeholders to share implementation experiences, resolve challenges together, and continue to address concerns around DDD, as well as for DDD clients to provide feedback on their experience to strengthen stakeholder buy-in and assure and improve service quality. At the August review meeting, PLHIV shared excitement about their new refill experience. They reported waiting times were generally less than five minutes, and they pledged to share this feedback with their peers.

Key results

The first client was devolved to a private pharmacy for ARV pick-ups in May 2021. Between May and September 2021, 56 clients were devolved from the Redemption Hospital to 11 pharmacies, and 33 of those clients have picked up their ARVs. Eight missed their appointments and are being followed up; the remaining are scheduled for pick-up. Four DDD indicators were tracked throughout implementation, and the achievements against targets are shown in the table below.

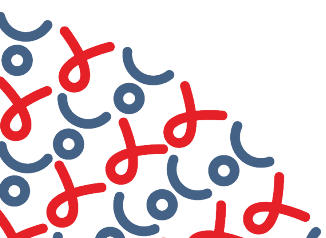
Indicators		Targets	Achievements to date	% Achievement to date
DDD_HF: Number of health facilities/stand-alone sites from which clients are devolved to DDD CPs or other DDD pick-up points		3	1	33.3
Number of DDD CPs and other DDD pick-up points to which clients are devolved from health facilities		25	11	44
TX_CURR_DDD: Number of clients currently accessing ARVs through DDD CPs or other DDD pick-up points	Pharmacy	-	56	-
Number of people trained/retrained in DDD		56	59	105

Challenges and lessons learned

The initial lack of understanding of DDD by some facility management led to delays in implementation. These challenges have been largely overcome through EpiC’s consultative and ongoing technical assistance process. Concerns over commodity security and integrity are also being addressed through this continuous engagement and collaboration. Additionally, through EpiC’s regional and global capacity-building and lesson-sharing webinars and virtual meetings, knowledge gained from DDD implementation in other countries and settings is continuously shared with the implementing agencies.

Challenges and strategies to address them

Challenge	Strategies used to overcome the challenge
Reluctance or refusal of some high-burden health facilities to accept DDD, largely due to uncertainty about commodity security and risk of treatment interruption	EpiC addressed this through the introduction of the DDD App, a mobile electronic monitoring tool to support follow-up of patients and tracking of commodities.
Additional compensation requests by some community pharmacies and CBOs	EpiC continues to work in collaboration with NACP and the LPB to address this concern. For example, EpiC has highlighted that devolving clients on ART to community pharmacies increases foot traffic to these locations. Clients may take the opportunity to pick up other fee-for-service medication or buy items sold at the pharmacy, increasing business. EpiC continues to support the negotiation between NACP, LPB, and CBOs to ensure CBOs are staffed with sufficiently trained dispensers.



Higher percentage of women than men have enrolled in DDD thus far, which may reflect health-seeking behavior in Liberia more generally	DDD provides greater convenience for male clients, just as it does for female clients, and the project expects to enroll more men as the program grows.
Slow enrollment into DDD, possibly due to poor understanding of DDD as an ART differentiated service delivery approach and the fear that confidentiality could be breached	EpiC worked with health service providers on how to explain and offer DDD to clients and address clients' common concerns.

Next steps

While enrollment was slow in this early phase of implementation, it is expected to increase quickly as the first participating clients discuss the convenience, confidentiality, and safety of DDD with other PLHIV and LibNep+ members. EpiC will continue to support the rollout of DDD in fiscal year 2022 (FY22) while documenting challenges encountered and lessons learned. Specifically, the project will support the following activities:

- Pick-up points at LibNep+ and LCL will be activated for refill for clients who are not comfortable with the private pharmacy and other models.
- Supportive supervision and monitoring of community pharmacies and health facilities will continue to ensure proper documentation.
- Oral PrEP inclusion will be proposed as a combination prevention approach for people at substantial risk of HIV acquisition.
- Ongoing implementation and scale-up of the DDD community pharmacy model will be transitioned to NACP in FY22. EpiC and NACP will jointly develop a transition plan at the end of FY22.

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