# Assessing PrEP Integration and Designing Solutions for PrEP Scale-Up in Zambia

USAID
FROM THE AMERICAN PEOPLE

PEPFAR
U.S. President's Emergency Plan for AIDS Relief

JSI

# ACKNOWLEDGMENTS

This report examines and assesses the integration of Pre-Exposure Prophylaxis (PrEP) into reproductive, maternal, newborn and child health (RMNCH) service delivery at USAID DISCOVER-Health service delivery sites. The authors of the report would like to acknowledge the following individuals and teams (listed alphabetically):

## PRINCIPAL INVESTIGATORS:

Dr. Muka Chikuba-McLeod, Project Director - USAID DISCOVER-Health & Country Representative, JSI/Zambia

Dr. Luigi Cicciò, Deputy Project Director - Strategic Information - USAID DISCOVER-Health, JSI

## CO-INVESTIGATORS:

Disha Ali, Senior Technical Advisor - Research, Monitoring and Evaluation, JSI

Ariella Bock, Senior Technical Advisor - Research, Monitoring and Evaluation, JSI

Mwansa Njelesani-Kaira, Senior Advisor - Prevention and Behavioral Interventions - USAID DISCOVER-Health, JSI

Ladislas Hibusu, Research Manager - USAID DISCOVER-Health, JSI

Mable Chitalu, PrEP Advisor - USAID DISCOVER-Health, JSI

Tanvi Pandit-Rajani – Senior Technical Advisor, JSI

Jessica Posner – Senior Strategic Information Advisor, JSI

Musonda Musonda, Community ART Advisor, Health Office, USAID/Zambia

Alinani Sikanyika – Research Specialist

## RECOMMENDED CITATION

JSI. August 2022. Assessing PrEP Integration and Designing Solutions for PrEP Scale-Up in Zambia. Lusaka, Zambia and Boston, MA: USAID DISCOVER-Health Project, JSI Research & Training Institute, Inc.

This report is made possible by the support of the American People through the United States Agency for International Development (USAID). The contents of this report are the responsibility of JSI Research & Training Institute, Inc. (JSI) and do not necessarily reflect the views of USAID or the United States Government.

Cover Photo Credit: Bridget Siulanda, for JSI.

# TABLE OF CONTENTS

# ACRONYMS

| | |
|---|---|
| AGYW | adolescent girls and young women |
| ANC | antenatal care |
| ARV | antiretroviral |
| ART | antiretroviral therapy |
| DREAMS | Determined, Resilient, Empowered, AIDS-free, Mentored and Safe (PEPFAR program) |
| FGD | focus group discussions |
| FP | family planning |
| HTS | HIV testing services |
| JSI | JSI Research & Training Institute Inc. |
| KII | key informant interviews |
| MOH | Ministry of Health (Government of Zambia) |
| NAC | National AIDS Council |
| OPD | outpatient department |
| PBFW | pregnant and breastfeeding women |
| PNC | postnatal care |
| PrEP | pre-exposure prophylaxis |
| RH | reproductive health |
| RMNCH | reproductive, maternal, newborn and child health |
| USAID | U.S. Agency for International Development |
| WHO | World Health Organization |


AIDS


ZAMBIA
ENDING AIDS

# EXECUTIVE SUMMARY

Pre-exposure prophylaxis (PrEP) is antiretroviral (ARV) medication taken by people who are HIV negative to protect themselves from infection. In Zambia, this is currently in the form of daily oral PrEP. When taken consistently and correctly, PrEP reduces the risk of HIV infection to near-zero. In 2018, The USAID DISCOVER-Health Project rolled out PrEP in its reproductive health (RH) and maternal newborn and child health (RMNCH) service sites. This strategy was intended to reach sexually active women at substantial risk of HIV, including adolescent girls and young women (AGYW), female sex workers, and pregnant and breastfeeding women (PBFW) to capitalize on the availability of RMNCH providers to deliver PrEP. With limited documentation on effective scale-up strategies, this implementation approach presented an opportunity to assess the effect of PrEP integration on RMNCH services, inform program implementation strategies and strengthen PrEP scale-up.

## STUDY OBJECTIVES AND METHODOLOGY

This study aimed to: assess female clients and providers' experiences with PrEP-RMNCH integration; review the impact of PrEP integration on RMNCH services; and provide recommendations to strengthen PrEP services for the USAID DISCOVER-Health Project.

From November 2021 to February 2022, 53 key informant interviews (KIIs) with health facility (HF) managers and service providers and 47 focus group discussions (FGDs) among current and discontinued PrEP clients were conducted at 19 USAID DISCOVER-Health supported HFs and six (DREAMS) sites in Copperbelt and Central provinces. KIIs conducted with HF managers and providers included those employed by the project and the Ministry of Health (MOH) at DISCOVER-Health -supported and DREAMS sites. FGDs included female clients on PrEP and those who had discontinued.

**Key questions included:**

1. How has the integration of PrEP into RMNCH services affected the uptake, continuation, and service delivery of PrEP and other services, including family planning (FP), RH, RMNCH, and HIV testing services (HTS)?
2. How can the integration model be strengthened to improve uptake, continuation, and delivery of PrEP and MNCH services at public sector facilities and DREAMS sites?

**A third question was added to in response to the COVID-19 pandemic:**

3. How has COVID-19 affected uptake, continuation, and delivery of PrEP and RMNCH services at public sector facilities and DREAMS sites?

## FINDINGS AND RECOMMENDATIONS

This study found a strong convergence of provider and client views on the advantages and benefits of an integrated PrEP and RMNCH service delivery model. However some challenges emerged that limited efficiencies in delivering these services and highlighted the need to respond to both provider and client needs. While some of the challenges and barriers may seem related only to PrEP service provision at first glance, addressing these issues will improve the overall PrEP/RMNCH integrated platform.

In the area of service delivery, while the study found an overwhelmingly positive reaction to PrEP service provision within RMNCH services, both providers and clients indicated that services could be more client-centered. They shared recommendations related to expanding service availability, provider training and retraining, and use of person-centered approaches including more extensive rollout of differentiated service delivery (DSD) PrEP. Both providers and clients highlighted a number of health systems limitations and recommended measures to ensure a constant supply of commodities, expand health facility space and increase privacy where possible.

With regard to human resources for health, the study found that integrated services motivated and inspired providers and improved their efficiency in meeting clients' needs while improving service quality. The tasks associated with PrEP such as risk assessment, counseling, laboratory testing, initiation, and drug supply require time and represent additional workload for providers. Increasing the number of trained providers and expanding the network of community health workers are critical to help address this. Respondents identified the need for further community mobilization and engagement, particularly to garner support for segments of the community, such as AGYW, who may have limited agency to make their own decision about PrEP and other RMNCH interventions. Finally, with regard to COVID, respondents identified some time-limited disruptions in care but overall indicated that demand and service provision have returned to pre-COVID levels.

# BACKGROUND

PrEP is an ARV medication taken by people who are HIV negative to protect themselves from infection. In Zambia, only oral PrEP is currently approved for use. When taken consistently and correctly, PrEP reduces the risk of HIV infection to near-zero. In 2015, the World Health Organization (WHO) recommended that people at substantial risk of HIV should be offered oral PrEP as part of comprehensive prevention. In 2019, WHO revised guidance and recommended that "HIV testing and prevention should be included in family planning services…HIV prevention options should be offered to all women, including pre-exposure prophylaxis."

There is limited documentation on effective PrEP scale-up strategies in African countries, as early PrEP introductions primarily focused on taking clinical trials and demonstration projects to scale. In 2018, Kenya became the first African country to rollout PrEP as a national program in the public sector. However, as noted by authors documenting the process, significant structural issues such as long wait times, frequent visits, stigma, and gender-based violence hindered HIV prevention services and PrEP retention. Subsequent pilot projects in Kenya demonstrated the feasibility of integrating PrEP service provision within routine reproductive and MNCH care. This includes effective platforms such as FP clinics that reach AGYW and pregnant and breastfeeding women (PBFW). Research and implementation experience also suggested that decades of FP and MNCH service integration offered a frame of reference, including understanding the barriers and drivers related to PrEP uptake and using DSD models to reach populations most at risk for HIV.

## ZAMBIA HIV OVERVIEW AND RESPONSE

Zambia has an overall HIV prevalence of 11.1 percent (among people 15 to 49 years of age), with HIV prevalence substantially higher among women (14.2 percent) than men (7.5 percent). The Government of the Republic of Zambia (GRZ) is well on its way to realizing the 95-95-95 targets. According to March 2020 data, 95 percent of the estimated 1,240,262 people living with HIV (PLHIV) were aware of their status, 85 percent were on antiretroviral therapy treatment (ART), and 77 percent were virally suppressed. The country was poised to reach HIV epidemic control in 2020, and maintains the goal of ending AIDS by 2030.


*USAID DISCOVER-Health PrEP Mentor addresses her fellow young people at a HIV prevention and treatment summit in Lusaka*

Zambia established a PrEP Taskforce in 2016 and developed the National PrEP Framework to guide PrEP implementation under the leadership of the Ministry of Health (MOH) and the National AIDS Council in 2017–18. Taskforce members include government entities, funders, WHO, the Joint United Nations Programme on HIV/AIDS (UNAIDS), U.S. President's Emergency Plan for AIDS Relief (PEPFAR), and implementing partners including JSI Research & Training Institute, Inc. (JSI) and civil society organizations (CSO).

## USAID DISCOVER-HEALTH AND PREP IMPLEMENTATION

The USAID DISCOVER-Health Project provides high-quality health services to under-served communities and populations to fill critical gaps in access and equity and to achieve defined public health goals and outcomes including HIV epidemic control in Zambia. USAID DISCOVER-Health services (i.e., RMNCH and HIV prevention, care, and treatment) are provided primarily through an outreach model of service delivery at the health post, the lowest level of the Zambian health system. The Project directly employs key technical staff including ART and RMNCH providers, who work with MOH providers to deliver a package of integrated HIV, FP/RH, and RMNCH, and where feasible and appropriate, general clinic services.

Following the development of the National PrEP Framework, GRZ requested USAID DISCOVER-Health and other implementing partners (IPs) rolled out PrEP nationally. USAID DISCOVER-Health rolled out PrEP in 255 health project-supported facilities and in collaboration with the USAID Zambia Community HIV Prevention Project (ZCHPP) and the PEPFAR DREAMS program, in 40 DREAMS sites. Additionally, the team trained 51 project-supported RMNCH providers and offered onsite mentorship and supervision as providers began delivering PrEP to individuals in the FP and MNCH service platforms both on-site and off-site.

As the first implementing partner in Zambia to rollout PrEP within existing MNCH services, USAID DISCOVER-Health aimed to reach sexually active women at substantial risk of HIV, including AGYW, female sex workers, and PBFW and to capitalize on the availability of RMNCH providers to deliver PrEP. With limited documentation on effective scale-up strategies, this was an opportunity to assess the effect of PrEP integration on RMNCH services and make adjustments to strengthen and inform PrEP scale-up.

### RESEARCH QUESTIONS

The overall aim of the study was to assess female client and provider experiences with PrEP-RMNCH integration, review the impact of PrEP integration on RMNCH services, and provide recommendations to strengthen PrEP services within the context of the USAID DISCOVER-Health Project.

**Key questions included:**

1. How has the integration of PrEP into RMNCH services affected the uptake, continuation, and delivery of PrEP and other services (e.g., FP, RH, RMNCH, and HTS)?
2. How can the PrEP-RMNCH integration model be strengthened to improve uptake, continuation, and delivery of PrEP and RMNCH services at public sector facilities and DREAMS sites?

**With the onset of the COVID-19 pandemic, the project added a third question:**

3. How has COVID-19 affected uptake, continuation, and delivery of PrEP and RMNCH services at public sector facilities and DREAMS sites?

# STUDY METHODOLOGY

## STUDY DESIGN

The study applied traditional qualitative methods, key informant interviews (KIIs) and focus group discussions (FDGs) to capture client and provider perspectives. The Project selected facilities using the study selection criteria from a list of USAID DISCOVER-Health Project-supported sites in Copperbelt and Central Provinces. USAID DISCOVER-Health providers and counselors randomly selected clients from these facilities based on a set criteria and process using the facility PrEP registers, and invited them to the FDGs. (See Annex 1 for selection criteria)

## STUDY SITES AND PARTICIPANTS

Key informant interviews with health facility (HF) managers, service providers, and FGDs among current and discontinued PrEP clients were conducted at 19 USAID DISCOVER-Health supported HFs and six DREAMS sites in Copperbelt and Central provinces. HF managers and provider KIIs included those employed directly by the project and MOH staff. Clients currently on PrEP as well as those who had discontinued took part in FGDs.

KIIs focused on their assessment of PrEP integration on RMNCH service delivery and uptake, and effect on other services offered through the system. FGDs focused on clients' experience accessing services.

The study team conducted 53 KIIs and 47 FGDs. Each FGD included five to eight women, for a total 273 clients who were either current PrEP clients or discontinued PrEP clients. Study selection criteria required clients to have used PrEP for at least three months. To collect the broadest perspectives at each location, each FDG included a mix of age and marital status. Table 1 provides the type of respondents by location.

### STUDY DEFINITIONS

Integration (referring to PrEP and RMNCH services): When the same RMNCH provider offers HIV counseling and PrEP to a patient on the same day of visit. For the patient, integration means receiving coordinated services from the same provider during the same appointment. For providers and HFs, integration refers to the ability to offer/ provide typically separate technical services to a patient during a single and continuous interaction.

**PrEP use:** The uptake or continuation of PrEP; does not exclusively focus one or the other.

**Current PrEP user:** A female who has been taking PrEP continuously for at least three months prior to the interview date.

**Discontinued PrEP user:** A female who has taken PrEP for at least one month but has stopped within the previous 12 months.

*Table 1. FGDs and KIIs, by Participant and Location*

| | Copperbelt | Central | Total |
|---|---|---|---|
| | **33** | **19** | **53** |
| HFs: Facility managers | 12 | 6 | 18 |
| HFs: Providers | 18 | 10 | 28 |
| DREAMS sites: Providers | 3 | 3 | 6 |
| **FGDs** | **29** | **18** | **47** |
| Current PrEP users: HFs | 12 | 7 | 19 |
| Current PrEP users: DREAMS sites | 3 | 3 | 6 |
| Discontinued PrEP users: HFs | 11 | 5 | 16 |
| Discontinued PrEP users: DREAMS sites: | 3 | 3 | 6 |
| **Total FGD participants** | **163** | **110** | **273** |

## DATA COLLECTION

The Project conducted interviews between November 21 and December 4, 2021 and a round of KIIs between February 4 through 10, 2022 with providers whose primary role was offering FP and RMNCH services. A team of two or more researchers conducted the FGDs and KIIs using respondent-specific interview guides. USAID DISCOVER-Health conducted the FDGs primarily in Bemba to ensure comprehension and participation, and took notes and audio-recorded the interviews with participants' permission. The Project translated and transcribed the recordings into English and the research coordinator and PrEP advisor verified them in accordance with the audio records.

USAID DISCOVER-Health's monitoring and evaluation (M&E) team monitored and supervised the overall process and held regular debrief sessions with the research assistants to refine the study guides and accommodate emerging issues.

Prior to fieldwork, the Project recruited and trained seven research assistants on the tools and qualitative techniques. The four-day training included an overview of oral PrEP, research ethics and informed consent, probing techniques, use of audio recorders, data safety, note taking, recording observations, quality control, safety measures, field plans, and reporting requirements. USAID DISCOVER-Health translated interview guides for clients and providers into local languages and reviewed them to ensure comprehension of the questions.


*USAID DISCOVER-Health PrEP Mentor and DREAMS PrEP Client work together on a project, highlighting the skills and mentoring on offer at DREAMS Centres.*

## DATA ANALYSIS

The research team applied NVivo qualitative software for coding and analyzing the interview and used a thematic approach to code the transcripts following interview guide topics, identified emerging and nuanced themes, and described the findings.

The Project addressed each research question by exploring perspectives from both the health services delivery (provider) side and the service access (client) side. Following pre-identified coding schemes per the research questions and interview guides, the Project applied a number of sub-themes and codes to the KIIs among providers and FGDs among PrEP service recipients. These codes and sub-themes indicated the most common findings and complemented more nuanced, less common findings, which were nonetheless important from the program's perspectives.

## LIMITATIONS

Several limitations were identified during the course of the study. The Project purposely selected participants from USAID DISCOVER-Health Project-supported facilities, primarily health posts, and DREAMS sites. The learnings can be valuable for implementing PrEP integration at scale the service access (client) side. The study applied only qualitative approaches, which generated in-depth understandings of integration of PrEP/RMNCH from the providers' and clients' perspectives. However, the perspectives were drawn from individual experiences and observations.

Initially, the Project's monitoring and evaluation team randomly selected participants using the Program Implementation Process Assessment Tool system. The Project discovered, however, that some facilities had not updated their data due to poor network in their areas and that the facility PrEP registers were more reliable. Therefore, providers and counselors were tasked with selecting clients based on certain criteria. While most clients were selected according to the criteria, it is possible that the providers selected respondents with better access. Such "bias" may also include clients more likely to have a positive attitude toward the health system.

The initial plan of complementing the study with project monitoring data, including service statistics, could not be executed due to the limitation of data in terms of triangulating results. As a result, it was not possible to understand the extent (i.e., coverage) of concurrent PrEP and FP use in the catchment area.

While most clients discussed their experiences seeking FP/MNCH services, the interviews lacked insights from primary FP/MNCH clients who may not be PrEP clients. Finally, though the FDGs yielded many interesting findings, participants sometimes expressed similar views that were influenced by others. However, the high number of FGDs offset this shortcoming and provided multifaceted aspects.

# FINDINGS

## PROFILES OF PROVIDERS AND CLIENTS

USAID DISCOVER-Health drew service delivery perspectives from facility managers and providers responsible for PrEP and MNCH/FP services. Facility managers' interviews offered insights into the overall aspects of integrated services. The providers had in-depth insights on the PrEP process including benefits and disadvantages of its provision as part of an integrated service. While providers' profiles included multiple responsibilities within the health post (i.e., providing ART/Tuberculosis [TB], HTS, PrEP, MNCH, FP services), most said that their primary positions focused on ART/TB while delivering PrEP services. The majority of the facility managers and service providers reported receiving formal training on PrEP. Lastly, a few of the providers who had not received structured training said that they had been trained on the job and mentored by other trained colleagues.

While each FGD had participants of various ages and marital status, they tended to be younger and unmarried. Unmarried female participants slightly outnumbered others who participated in the FDGs at HFs and were primarily between the ages of 26 and 49. At DREAMS sites, the FDGs skewed towards unmarried women and between the ages of 18 and 25.

## INTEGRATION

### Definition of PrEP Integration

PrEP integration, especially within RMNCH at the HFs, did not follow a fixed or a strict definition. The same or different providers could initiate and deliver PrEP the same day or on different day with other services. The modality often varied day to day depending on the availability of trained staff and their workload, facility size, and clients' readiness to start PrEP as some needed further permission from partners. Most providers mentioned that they primarily administered services on the same day. However, the same providers did not conduct all the services in a single day because of the training and time required to conduct initial counseling, service delivery, and adherence counseling.

*"[PrEP] should be initiated the same day provided the provider is free…and the complete orientation should be done, but sometimes when I am not around and my other colleague [PrEP provider] is also not around, others are not very competent to handle such issues…When clients ask certain questions and health workers are unable to answer, they tend to send away the clients and ask them to come back on another day."* Provider, Central

The Project also considered integration of the various steps in PrEP service delivery, from promotion and raising awareness to actual PrEP initiation.

> *"When the clinician in the ART/PrEP department assesses the client and finds out that she needs family planning, they will refer that person to [the] MNCH department. Even those that come for [outpatient department (OPD)], they are referred to the FP/MNCH department when we get to tell them about PrEP and even initiate them."* Provider, Central

*"In summary, if the woman comes for family planning, we want to counsel them and see what their needs are. We test them to check for their status and if they are discordant and HIV negative, we link them to PrEP. If it's a woman who is non-reactive and is at substantial risk of HIV, we link the woman also to PrEP and we also tell them the family planning methods which they can use on their side. We also talk about cervical cancer screening though we do this more with HIV reactive mothers because those are more prone to having cervical cancer."* Provider, Copperbelt

Within the integrated platform, services could be multi-directional for both PrEP and FP. For example, if HTS was the entry point for PrEP, then the clients could be encouraged to seek FP service after being motivated for PrEP. Conversely, HFs integrated PrEP into their multi-service platform and leveraged other RMNCH services, such as antenatal care (ANC), postnatal care (PNC), and cervical cancer screening. When a client sought ANC/PNC services, the provider also counseled about PrEP, making integration bi-directional. The providers considered these services as ideal for initiating and promoting PrEP because the clients seeking these services were sexually active and at risk of acquiring HIV. The strongest motivation for an integrated PrEP service delivery system was to reduce the risk of HIV and seroconversion in communities and the country.

*"In the MNCH/FP Department, we receive a lot of women who come to access various services. A mother comes for antenatal…brings her child, or needs family planning. So, when the mothers come, we educate them on the importance of PrEP and HIV prevention. When we explain to them, they will definitely explain to their family and friends, and in the end, we increase our number of clients on family planning and PrEP services at the same time. So, it is nice to incorporate family planning and PrEP together so that we don't miss any mother who comes to the facility who is at risk of HIV."* MNCH/FP Provider, Copperbelt

*"As for what made me start; at this time I came for family planning and they advised me that there is something like PrEP. We knew about it [for the first time] that day."* Client, Central

> *"[We] want a situation where our clients… identified at possible risk of contracting HIV… benefit from the service...That is the reason why we have integrated PrEP into all these service areas, so that we are able to capture that population at risk at the quickest possible time before they can get infected [to] reduce the number of [HIV cases]."* Facility Manager, Central

Current and discontinued PrEP clients confirm this "flexible" definition of integration. Along with PrEP, women sought other services such as FP, HTS, ANC, under-five care, and cervical cancer screening. While a few of them learned about PrEP in their communities through family and friends, PrEP campaigns, and some time and other services (e.g., malaria care and other out-patient services). Most women also reported receiving FP services at the time of PrEP. Respondents indicated that the integrated health service delivery platform increased interaction among women seeking various services and fostered peer encouragement and communication while promoting PrEP use.

## ADVANTAGES OF INTEGRATED SERVICES

Providers said that the benefits outweigh the disadvantages of integrating PrEP with other services. Most did not perceive any drawbacks to integrated service delivery.

**One-stop service for clients.** According to providers, offering multiple services during a single visit saves clients from multiple trips, time, and resources. Many said that failure to offer clients related services would be a missed opportunity. Entry points such as ANC, under-five care, and PNC were vital avenues to give PBFW PrEP-related information and initiate services.

*"The clients are very busy looking for money and providing for their families. So you make sure that when the client comes, you don't take long and explain the cardinal things that they need to know about integrating services that same day. You do not need to refer the client on the other day to do certain things, such as if the child is due for vaccines and just that same day you do it together."* Provider, Copperbelt

> *"We remove the burden from the client of going and coming back. So when the client comes for one service, for example, family planning and we see the need for PrEP, and the client agrees, the client should not be told to come on a different day. Everything is done on the same day; If the client comes for ANC, she is already tired. We will not ask them to come on a different day and that reduces the stress on the client."* Provider, Copperbelt

Likewise, respondents that are both current and discontinued PrEP users had positive views of PrEP and other services received from HFs. Some compared the service delivery time and shorter lines to access various services with other HFs they also visited. The women were grateful to be able to receive multiple services under RMNCH. Many expressed satisfaction with the staff's friendly demeanor, commitment to services, and willingness to answer questions.

*"When I came for family planning they are able to help me well…they also ask how am doing with PrEP how I am feeling, on issues of weight, side effects…I gain knowledge on my health status, family planning…child spacing."* Client, Copperbelt

**Efficient use of health workers' time for service provision.** Integrated services, when managed properly, reduced the number of times the providers see the same clients, making visits efficient. Additionally, integrated services through ANC and under-five platforms for PBFW and children services facilitated efficient use of providers' time. Providers strategically aligned dates for services such as antenatal and immunization check-ups and PrEP refill. Several providers mentioned that an integrated service visit was another opportunity to check on PrEP clients and reinforce adherence counseling and motivation. Providers also viewed this aspect of an integrated platform as critical for PrEP client retention.

*"The integrated service has reduced our workload because we don't have to provide services at different times; we get to offer all services under one roof and on the same day…When we integrate, we are reducing the number of times this client has to visit the clinic to access services."* Provider, Central

*"Someone on PrEP and also accessing family planning or any other service can easily be tracked and maintained on PrEP…Since they are not sick, so they don't view PrEP as an urgent drug. When they come for other services, they also pass through this room to say, 'I came for PrEP,' or, 'I want to discontinue PrEP.' Others would just stop in the field because they feel they are not sick so it is easy to stop at any time. With integration, because they are here every after three months or every monthly basis, they will seek help from us."* Provider, Central

**Workload management and improved service quality.** Service providers indicated that integration has a positive impact on efficiency and quality. First, providers were motivated and inspired to excel in their responsibilities. Second, when the same providers offered multiple services, their experience and exposure enriched service quality. Third, there was understanding among providers that task-sharing lessened their workloads.

> *"Integration is like a supermarket where they get multiple services on the same day… Sometimes the number of clients goes up and sometimes it goes down, but in terms of workload, at our health facility, we work as a team. When I am overwhelmed with clients under family planning, colleagues from ART get to help and if the ART personnel isn't there, I take up the responsibility to counsel the clients that come for HIV testing and even test them."* Provider, Copperbelt

*"The quality has been maintained. If anything, it has even become better because due to integration, I think we still strive to make sure that at the end of the day the client goes home happy without wasting too much of their time."* Facility Manager, Central

Clients confirmed the positive experiences resulting from the integrated service provision:

*"The people who are here are very caring, even when you ask for your BP [blood pressure] to be checked, any other thing you want to be checked. They will still pay attention to you even if it doesn't relate to PrEP. They will still attend to you. They will advise you on what to do."* Client, Copperbelt

*"We don't even wait so much.When you reach, they see you. When you are seen and they find that you are okay, if you are collecting PrEP, you collect. If you are testing you test…They don't delay or take time. In a short period of time a client is gone."* Client, Central

**Reaching more people.** Providers said that an integrated platform captured a wider range of clients, especially for PrEP and FP. Different entry points for PrEP and integration platforms provided multi-pronged avenues to disseminate information on PrEP, increasing clients' exposure and sensitization to PrEP. This led to a higher uptake of and increased awareness of PrEP in the communities.

*"[Clients are] encouraging one another. You know, pregnant women encouraging pregnant women, since they are together seeking the same services. If they are coming for family planning, they would discuss PrEP with their friends. In most cases, they would link their friends to PrEP services even when if they are going for family planning."* Provider, Central

Providers also said that peer-spread information and encouragement not only increased acceptance of PrEP but also of FP. Providers saw opportunities to promote FP services to clients, especially younger women, when they came mainly for PrEP.

*"People have myths concerning family planning which make them not use family planning…But at PrEP service point, we also explain to them about family planning and correct their myths, and we have seen them accepting and accessing family planning services too."* Provider, Central

Some providers said that the major result of PrEP integration with ANC were fewer HIV-positive cases and less seroconversion among discordant couples, including PBFW and HTS clients.

*"Advantages are that for PrEP, especially in antenatal and breastfeeding women, it is reducing the chances of transmission to the unborn children. Then there is also a reduction in the recent HIV infection rate (as shown by HIV recency testing data)."* Facility Manager, Copperbelt

**Discreet service access to reduce stigma.** Most providers acknowledged that some level of stigma attached to PrEP still exists. Some providers said that perceptions that PrEP clients as promiscuous or belonging to a certain high-risk group (i.e., sex workers) still exist. As such, integrated service provided a relatively safe and anonymous space for those seeking the service, and in the process, protected an individual's privacy. It also resulted in less judgment by peers, family, and partners.

*"If you offer PrEP as a standalone service and with the high level of stigma in the community, the client numbers can drop off. But with integration, people will think the client is there to access family planning but in the actual sense, the client is also accessing PrEP services."* Provider, Copperbelt

## DISADVANTAGES OF INTEGRATED SERVICES

While respondents expressed overwhelming support for providing PrEP through an integrated service platform, there were some disadvantages identified, including from clients' partners. The key concerns raised included waiting time and service quality, although these issues were not major complaints among clients.

**Time-consuming.** A few providers indicated that offering PrEP can be time-consuming because the service requires several steps before initiation. These include risk assessment, screening through HIV testing, and counseling. The whole process, when incorporated with other services, becomes time-consuming. Clients seeking services in the integrated platform also acknowledged this, but those who were motivated and agreed to initiate PrEP realized that the process required more time than usual at the HF.

*"The workload on the side of the provider is too much and also time-consuming because as a provider, you have to wait for them [clients] to go and get tested in the HTS room and then they come back for family planning and PrEP service. The queues become too much if you are the only provider on that particular day."* Provider, Central

*"One provider is providing family planning as well as providing PrEP; if you are providing PrEP, you need a bit of time to engage the client; you're counseling on PrEP and on FP; so if you have a lot of clients that are waiting, it takes longer for the clients to be attended to especially for those that are waiting."* Facility Manager, Central

After probing, some providers said that additional time spent promoting PrEP might discourage FP clients from returning to access FP services. FP services are generally straightforward because clients come for pills or injectables. Providers believed that some clients had limited visiting time and when they came for one service and were encouraged to get counseling for PrEP and directed to another service outside their plan, they were unlikely to have time for FP care.

> *"Women find it inconvenient, especially family planning clients, because they don't want to stay long at the clinic. They just want to get the injection and leave. So if you start giving them information on PrEP, as you are trying to integrate the service, it becomes a bit difficult. So they may not even seek their next family planning service at your facility because they will say, 'We had our time wasted. They involve things we were not interested in.'"* Provider, Copperbelt

**Quality of care diminished due to additional workload and understaffing.** The demand to provide multiple services for a large volume of clients on the PrEP-RMNCH integrated platform overwhelmed providers where the workforce is limited. Some HFs faced staff shortages and insufficient staff trained PrEP.

*"As much as we appreciate the integration approach, we also have to consider the labor involved. The workload is too much for the provider. You provide services to all women who come to access various services at once; the quality can be compromised in the end."* Provider, Copperbelt

*"I have 30 girls to attend to. I won't be able to offer quality care, information, and everything I am supposed to offer to my client."* Provider, Central

Providers' increased workload had a bearing on the quality of services, mainly PrEP, due to limited time to see each client.

When providers were inundated with clients in an integrated platform they sometimes prioritized services such as ANC and opted out of offering PrEP.

*"Quality would be negatively affected especially on a busy day. You will find that instead of getting all the time with the client, you will rush…because you would want to clear the queues. Hence quality will be compromised. You will not even be able to give full information about what the client needs to know."* Provider, Central

In some cases, counseling for women was not optimal, especially when providers had high workload pressure. A provider gave an example of one ANC client understood PrEP to be a compulsory component of ANC so agreed to initiate PrEP. However, after realizing that PrEP was optional, Providers felt that clients can misunderstand and feel pressured to initiate PrEP, if not properly counselled. *"I did not even understand because the information provided to me was not adequate, I was just screened in a room then asked if I would be willing to start taking PrEP. Then I also accepted. So I did collect PrEP, but I have never used it."* Discontinued PrEP Client, Copperbelt

*A CHW and RMNCH provider discuss community mobilization and sensitization for PrEP and other services.*

**Client discomfort, misconceptions, and refusal.** Many providers indicated that some clients felt uncomfortable accepting PrEP within the platform of other services. Clients who took PrEP feared stigmatization when receiving the medication at ART clinics. HFs with limited space lacked dispensing privacy, which increased clients' discomfort. Though an uncommon perspective, some providers mentioned that when they provided PrEP in the same space as FP or other MNCH services, non-PrEP clients could inadvertently be identified as PrEP clients, which would discourage them from seeking services there.

*"The people on PrEP are frequenting the facility to get the drugs and going through tests, so during that process people see them. In most cases, these services are offered in the ART clinic, so as long as they are seen coming to the ART clinic, people will think they are on ART. Those are the views found in the community."* Manager, Central

*"Our facility is quite small, so actually ART is shared with labor ward. So there is really no privacy as at now. The way it is now, they even know that there they are getting ARVS, and they even know the dates. I can say right now there is no privacy whatsoever, so I think that [offering PrEP as a standalone] could be a very good starting point."* Provider, Copperbelt

Some clients reflected similar views, especially with regard to privacy. They indicated that community members assumed that people attending services at integrated health facilities were living with HIV. They perceived that the current structure of PrEP delivery compromised their privacy. However, while clients mentioned privacy problems and feeling uncomfortable while attending health facilities for PrEP services, they did not highlight it as a reason for discontinuing PrEP.

> *"The negative experience I have is that they have set up one day for us PrEP clients and for ARV drug collection. We come on the same day and collect medicine from the same room which, to me, feels bad because now it looks like we are all here for the same and some people don't understand that some of us are here for something different."* Client, Copperbelt

**Lack of Partner involvement and therefore sub-optimal counseling.** This view, though not expressed by many providers, is an important concern. Lack of partner engagement in PrEP services through the RMNCH platform could lead to mistrust and discontinuation of PrEP was unclear from the interviews how it's providers engaged clients' partners.

*"We actually had cases where people have brought back the drugs because their partners did not agree or they did not give a consent to go ahead to be getting those services. So you will find that if we had a lot of men as well who would be coming together with their wives, perhaps that would work to our advantage. But in most cases, you will find that you are just dealing with women themselves. Once you give that information, they might agree to take PrEP. But when they reach home, it will be a different story."* Provider, Central

*"If a pregnant mother comes to me, we emphasize partner involvement because for PrEP, if the partner is not involved, we tend to have a lot of problems, but if the husband is involved, the process moves quite smoothly."* Provider, Copperbelt

## SYSTEM-RELATED CHALLENGES TO SCALING UP PREP SERVICES

**Clinical care guidelines and service delivery sequencing.** At visits following PrEP initiation, providers did not necessarily dispense PrEP on the same day as RMNCH services; HFs did not provide all services every day of the week at all sites, and client follow-up visits had varying timelines, especially if PrEP supply did not allow for dispensing synchronization with FP and other RMNCH commodities. In addition, some clients said that they would like the HFs to offer services beyond RMNCH and provide care for other common illnesses.

*"Family planning and PrEP dates are normally different. We normally come for PrEP after tablets are finished, but for family planning, they indicate the date…For example, [for] injection, we come after 3 months."* Client, Central

*"We are happy that there is a clinic where we get PrEP, we receive injections, family planning. So the big thing we would like them to help us with is to turn it into a clinic so that even when I am unwell, I can come to get medicine, services for malaria, I have a headache, I get services."* Client, Copperbelt

*"There is nothing. If you are sick and come here to register, there is nothing. Here they just offer PrEP, ARVs, under 5, family planning and screening of cervical cancer."* Client, Central

Some clients raised concerns about shorter-than-desired refill windows. The timing of refills appeared to vary based on facility, number of clients served, and availability of supplies.

*"They can give us more medicine so that we don't have to come every after one month maybe come after four or five months. At times one might have gone for business and then stay for a month or so and you have to go to a different clinic and explain yourself and some clinics don't offer PrEP services."* Discontinued PrEP Client, Central

**Supply of drugs and other commodities.** The majority of providers voiced a key challenge to seamless service provision due to irregular supply of PrEP medicines, FP products, and other essential commodities such as HIV test kits and condoms. Irregular and interrupted supplies prevented providers from promoting and initiating PrEP, because potential clients would be discouraged and not return if they encountered PrEP stockouts. To ensure supply, providers sometimes rationed commodities (i.e., PrEP medication), which required clients to return more frequently and/or even discontinue PrEP.

*"[The] major issue with not offering PrEP integration service is the lack of the constant supply of PrEP drugs to our facility. Because I might counsel and explain PrEP to mothers and if the women asks for it after counseling and I say we are out of drugs, that already is a problem. So only when we have a steady supply of drugs, we will also implement the integration but without the drugs, we can't and even right now, we can't even provide PrEP to the lactating mothers because there are no drugs right now."* Provider, Central

Stockout of products other than PrEP concerned clients, who expressed their dissatisfaction with the HFs overall for the unavailability of medication for other issues.

*"We don't want to have shortages in supplying PrEP to a point where we start complaining. Like previously, we had huge PrEP shortages. It is not good. Supply for PrEP needs to be continuous."* Client, Copperbelt

*"Sometimes when you bring children at under-five, you find there are no injections or medication…Maybe you are sick you have malaria and there is a shortage of drugs. They asked us to go elsewhere."* Client, Copperbelt

*"There was no problem but when I came to collect I had found a stock out again. I was told there was nothing in stock then I started feeling lazy."* Discontinued PrEP Client, Copperbelt

**Expanding access beyond current sites.** Respondents said that irregular access to PrEP services outside facilities was a challenge that often resulted in interruption of use. Some traveled or temporarily relocated to other places and failed to get PrEP from HFs in those areas. In some cases, when access became a challenge, women did not want to continue or at least wanted to take a break even after establishing access, indicating that PrEP was not always considered essential.

*"The reason I stopped taking PrEP is that I had left… Kabwe and where I went, there was no facility I could access PrEP at. And again, I can't continue because I am no longer interested in relationships for now."* Discontinued PrEP Client, Central

**Need for PrEP-trained providers and counselors to facilitate integration.** Providers expressed the need for more trained colleagues to reduce workload and improve service provision efficiency. Some said that to make the system more functional, all providers, including those focused on RMNCH, should get PrEP service training. Some respondents pointed to a lack of MOH staff in some facilities, which could be a sustainability challenge. In addition, while most providers were trained on or oriented to PrEP delivery, many wanted further and/or regular refresher training.

*"I recommend that all the staff in OPD, ART, and RMNCH be well trained on how to provide the PrEP integration mechanism. That way, they won't depend solely on one provider to provide the services."* Provider, Central

*"We do have the infrastructure but the training of MOH staff is needed so that in case we are not there in some facilities offer PrEP and family planning. Constant supply of drugs should be at the center of focus because that's the only key in integration."* Provider, Central

*"Knowledge is changing every now and then, so there is always need to have some refresher training as well. I think it can also be rolled down to the grassroots…the front liners…the community health workers. Some of them find it very difficult to sell the message."* Provider, Central

PrEP service delivery worked well at sites where trained a USAID DISCOVER-Health provider was available to provide both PrEP and RMNCH services. USAID DISCOVER-Health providers highlighted the need to train more MOH staff at the same facility. Project providers said that as project-supported staff, they had received the necessary training to offer PrEP, but not all MOH staff had been trained. Training more MOH staff would evenly distribute workloads and improve the quality of care.

*USAID DISCOVER-Health PrEP Client, Ruth Mutampuka, is a mother of four who took PrEP during her most recent pregnancy and continues to do so as she breastfeeds.*

Staff noted that as Project staff, they would not be available to offer PrEP after Project closeout. They emphasized the importance of having trained MOH staff as a sustainability measure to ensure continued PrEP service delivery for the clients.

*"The challenge is that when we are giving PrEP to lactating mothers or antenatal mothers, it's only us, DISCOVER health providers, who are involved and not the MOH providers, because they are not yet trained. But if they can also be trained, the challenge will be addressed because they will feel part and parcel of the program."* Provider, Central

**PrEP awareness in the community.** While the Project has implemented outreach services and mobilization efforts to inform and encourage communities about PrEP uptake, some respondents said that further effort was needed. They highlighted that sensitizing communities is critical to minimize stigma and misinformation, thereby increasing uptake at HFs.

Some providers mentioned the need to increase the number of trained frontline workers such as community health workers, mentors, and PrEP champions.

*"We need to ensure, to serve our community, that they have readily accessibility information about PrEP. We still have quite a good number of people in the community who are still ignorant about what PrEP is."* Provider, Central

*"We should come up with projects like the same way we did with HIV. You know people had a lot of stigma about HIV but because of sensitization…today they are demanding that you test them. Whatever results will come, they are fine with it. Even with PrEP it should be the same so that people are aware."* Provider, Copperbelt

**Provider perceptions of PrEP training.** Providers reported receiving training with a variable duration between five days and two weeks, primarily offered in bigger cities such as Lusaka, Ndola, and Kitwe. However, a few providers said that they received orientation on the job. Some received PrEP orientation as part of ART training. On occasions, during the interviews, respondents used 'training' and 'orientation' interchangeably. A few said that they received certification as providers after attending some kind of training/orientation.

*"I received orientation when I was in Lusaka…After the training, we were tested to ensure that we had gotten the right information, so I think the training was adequate. The training was for 2 weeks and the facilitators were quite good."* Provider, Copperbelt

> *"I underwent a PrEP orientation for 5 days at Kitwe. We were taught how to screen a PrEP client, what are the do's and dont's of offering PrEP, and the investigations you are supposed to do before initiating a client on PrEP, when a PrEP client is supposed to be stopped, what do you look at. Are they no longer at risk, or if the client herself or himself says, 'I am tired, I don't want to continue,' those can be stopped."* Manager, Central

The USAID DISCOVER-Health Project provided the training and orientation. Sometimes the training was not specifically only on PrEP but on ART, with a section on PrEP. The trainings/orientations offered by the Project included MOH staff. Given the relatively large number of MOH staff, training was still being rolled out.

*"We did have the orientation with one of the facilitators from DISCOVER Health. It was conducted twice. One was in Kitwe and another one here in Mufulira…It was for 2 days and then the one for Kitwe was for 5-days. We were doing ART and PrEP was also incorporated in the training."* Provider, Central

Most providers who received the training said they would benefit from refresher training to improve their knowledge and skills and be up-to-date on service delivery protocols.

*"We only tell [if a training has] less adequacy if we still had gaps here and there, but we never had gaps because all the questions were cleared from there, so we just came and started implementing. Then we had to follow the guidelines, so whenever we are stuck we still have to go back. But I think it was adequate."* Manager, Copperbelt

*"It was a one-week training though we covered everything but we need some refresher courses because some things change. At the time we were training, there was a reservation for pregnant women only but now [PrEP is] offered to everyone. So it's important that we get some refresher courses to just stay updated. For a start, it was adequate because I was given the required basics to offer PrEP but the time frame wasn't enough to grasp all the important elements."* Provider, Central

A handful of providers said that they never received PrEP training or orientation. A number of providers who received the training thought they received adequate knowledge and skills to deliver PrEP services. However, some felt that they lacked confidence when conducting their responsibilities, including counseling, because the training was too short.

*"Actually, [the training] managed to cover a lot in PrEP but I feel it was too short…because it was a two days program…I feel PrEP is too wide it needs sufficient amount of time. So with regards to that training I attended, I think it was not sufficient. We are trying to meet our targets through the same training and self…study, and getting ourselves acquainted the latest happenings."* Provider, Copperbelt

*"If I am being completely honest, [the training was] not really adequate. Only that I was able to grasp some principles, I knew how to go about it. It wasn't really like an orientation, it was, 'You don't do this. You don't do that. You can't do that.' When you put it out to your clients, considering our age ranges 15 to 19, not everyone will agree. They bring out questions like, 'I am not sick, why are you getting my blood, in that case then I will stop taking."* Provider, Copperbelt

*Pregnant women gather for an antenatal clinic, where they will also be counseled on a variety of HIV prevention and treatment options, such as PrEP.*

## UPTAKE, CONTINUATION, AND DELIVERY OF PREP AND RMNCH SERVICES DURING COVID-19

COVID-19 appeared to have some effects on PrEP and RMNCH service delivery due to lockdown, providers' absence, reduction of gatherings, etc. However, this regular service interruption was temporary and by the time this study was conducted, service use had returned to the pre-COVID level. Overall, COVID-19 appears to have had a lesser effect on more established FP services as compared to PrEP. Providers and clients had mixed perspectives on RMNCH service use during the pandemic.

**Health care provider perspectives.** The common perception among most providers was that PrEP uptake went down during the lockdown and returned to pre-COVID-19 levels after the introduction of MOH COVID-19 guidelines. Providers noted minimal impact on established FP services.

*"The COVID-19 effects are quite minimal here at our facility. We only experienced the drop in numbers when COVID-19 was at its highest pick. But because of the vaccinations and the enforcements on the COVID-19 guidelines, we have seen things coming to normal."* FP Provider, Central

*"You know the women we work with in family planning are [more] afraid of getting pregnant than being infected by COVID-19, that I can assure you. I would rather go to the facility to get my depo injection without a mask. That's what these women do. So family planning hasn't been affected so much."* FP Provider, Copperbelt

*"The RMNCH the services have been affected…Our services are offered in crowded settings, especially like family planning, and under five [clinic]. We have seen a reduction in the number of mothers coming for their services...When [the clients] are told to wear masks, some of them did not like that idea. So you would find some even stayed home, and gave the reason, 'I can't go to the clinic because I don't have a mask.' So you will find that a child who is supposed to receive a DPT at 3 months will receive it may be at 6 months, yes…it has affected our services somehow."*Manager, Central

**Reduced HF work hours.** HFs were required to reduce their working hours and the number of staff and clients at a given time. This was inconvenient for clients and contributed to low use in some facilities.

*"Here at the DREAMS center, it was closed for about two weeks. So for two weeks, we didn't access any service, so if I tell you that your date of refill is on that day falling under the two weeks it means you won't access the services."* Client, Central

**Reduced number of providers available to offer services.** Some providers, or their family members, contracted COVID-19, forcing them to be away from work, which resulted in an increased workload for the remaining providers. Once HFs started functioning more regularly, many providers were involved in COVID-19 vaccination, which also affected regular RMNCH service delivery.

*"Because you find that not everyone will report for work, we started the rationing. Maybe two people will just come on a particular day…others will come after three days, things like that."* Facility Manager, Copperbelt

*USAID DISCOVER-Health PrEP Client, Ireene Chooye, initiated PrEP during her current pregnancy.*

**Suspended community activities.** COVID-19 caused the suspension of all community activities including campaigns, mobilization, and outreach services that included PrEP promotion. According to providers, this had a short-lived negative effect on service demand and provision.

*"COVID-19 has affected how we meet to share information because we are unable to meet. And on the drugs, they deliver at our homes so we are not abreast with some information related to PrEP."* Client, Copperbelt

*"With no large gatherings including at facilities as well as the community, there was a time when community work was on hold because of the risk that was associated with it. So definitely what it meant was that a number of programs suffered – not just PrEP but ART as well…The risk of losing many clients was very much there."* Facility Manager, Central

**Client-level concerns.** Providers said that clients were not very comfortable coming to HFs because they were avoiding crowded places. Other clients were unwilling to follow the mask requirement and were initially resistant to consider vaccination.

*"Some mothers didn't follow the COVID-19 guidelines and were forced at times to send them back so they can come with masks. Others get to use their clothes to cover their mouth and nose just to get family planning. Those that go home, in many circumstances, never return and as a result, our numbers dropped a bit due to COVID-19 sometime last year."* FP Provider, Central

*"Clients who were supposed to be coming for PrEP [were] not coming because of the fear to go and mingle with others, to find others in the building, to move up and down. The issues of COVID…has reduced the numbers coming to seek the services of PrEP. COVID also coupled with vaccination. Some say, 'When I go they will tell me about vaccination issues. I don't want to hear it, no, probably they will tell me to get vaccinated, such things,' They would prefer they stay away until the COVID issues tend to be silent."* Provider, Central

**Client perspectives.** Most clients, including current and discontinued PrEP clients, mentioned that COVID-19 did not affect their PrEP use. Unlike the providers' view that many women did not want to put on masks, clients said that they made the effort and followed protocols to receive services.

According to clients, HFs appeared to be closed for a period, and some clients avoided HFs to prevent close contact with others. Some clients, primarily from DREAMS sites, said that counselors and providers cared for clients at their homes and refilled their medicines during the lockdown. However, others said that they had to wait for two weeks for PrEP refills while centers were closed. Some clients noticed suspension of community programs.

*"It was a bit hard, but we were trying with all our strength, putting on a face mask and we were finding hand sanitizer there and hand washes, we would wash our hands...We were entering one by one…no taking long hours, you quickly get, then leave."* Client, Central

Though FP providers mentioned that service uptake was not affected, some clients thought that the counseling was compromised. For example, a few mentioned that when they came for both PrEP and FP services, it was quick without "much talking."

*"In family planning, we were not taking much time to talk to the providers because they wanted to make sure that we [were] all cleared at the shortest possible time in order to decongest the facility. Even if you have a question to ask, you don't need to take your time."*Client, Central

A few women avoided coming to HFs to avoid COVID-19 vaccination. However, it was not clear from the FGDs how widespread vaccine resistance/ fear was among women.

> *"People just fear that when I go to the clinic they will require me to wear a mask…My friends said that coming to the clinic [means they will] get COVID injection vaccine. That's what I am fearing."* Client, Copperbelt

# RECOMMENDATIONS

In a resource-limited and relatively high-HIV prevalence setting like Zambia, building on a strong MNCH service platform to prioritize HIV prevention is critical to epidemic control. This study found a strong convergence of provider and client views regarding the benefits of integrated PrEP and RMNCH service delivery. However, challenges also emerged, which if overcome would increase efficiencies in to client needs. It will therefore be important for the Zambian MOH and key country stakeholders to consider both these advantages and challenges as they strengthen and scale up PrEP through services integration. It should also be noted that while at the surface some challenges may seem to relate to PrEP use only, overcoming them is critical for improving the overall health system, to better position it for integrated service delivery integrated platform.

## SERVICE DELIVERY

The study found an overwhelmingly positive reaction to PrEP service provision within the RMNCH space. However, both respondent groups indicated that services could be more client-centered and that further support is needed for providers to deliver effective and quality services. The following are recommendations for improving service delivery:

- Build on successful PrEP work thus far, scale up and implement provision of PrEP at all HFs countrywide, while avoiding service disruptions for mobile clients.
- Apply DSD for PrEP including providing health services outside the facility to reduce crowding, provide one-on-one counseling to reduce stigma, and serve the client where she is to drive down access costs and time for traveling to facilities. Other DSD examples are community delivery of PrEP services and medicine, multi-month dispensing, and delivery through private sector channels.
- Adopt the established appointment reminder system so that providers can remind clients of PrEP, FP, and ART appointments.
- Maintain client-centeredness and tailor counseling to meet individual needs. Offering PrEP through the RMNCH platform should be routinized as an important component of providing high-quality sexual and reproductive health care to women.
- Ensure availability of PrEP and RMNCH services from the same provider (i.e., one-stop shop) for all clients who opt for these services.
- Identify a PrEP integration champion at the facility level. This person may be a PrEP provider, counselor, or community health worker who will serve as a team motivator and remain focused on integration.

## HEALTH SYSTEM STRENGTHENING

While the study found an overwhelmingly positive reaction to PrEP, both providers and clients said that irregular supply of PrEP, FP, and RMNCH commodities had service delivery and quality of care consequences. An integrated platform functions better with a steady supply of commodities for consistent, effective, and high-quality provision of all supported services. Further investments in the supply chain system to ensure that stock outs do not occur, are needed to ensure uninterrupted supply of commodities for services offered in HFs including PrEP and RMNCH services.

The study also found that space limitations in HFs compromise the provision of high-quality services due to overcrowding and lack of privacy. To mitigate this, it's necessary to:

- Strengthen government commitment to procuring PrEP and RMNCH commodities per the national forecasting and quantification activities. Integration fails in practice and fails clients when commodities stock out.
- Ensure storage facilities are adequate, including buffer stocks to avoid HF-level stockouts.
- Provide technical supportive supervision to HFs to optimize intra-facility patient-flow to reduce overcrowding and time taken to provide services.
- Improve infrastructure by constructing more wings/blocks at HFs and providing temporal structures such as tents to increase space and improve privacy.

## HUMAN RESOURCE FOR HEALTH

Well-trained doctors, nurses, midwives, and other skilled workers are critical to high-quality service provision. This study found that integrated services have motivated and inspired providers and improved their efficiency in meeting clients' needs while improving service quality. However, PrEP requires risk assessment, counseling, laboratory testing, initiation, and supply. This means that it is time-consuming and represents additional workload for providers. The study identified the following recommendations to overcome these challenges:

- Deploy adequate numbers of qualified staff to service delivery points to manage the additional workload as PrEP integration is undertaken.
- Continue to provide in-service training, orientation, refresher updates, mentorship, and technical supportive supervision in risk assessment and PrEP provision for RMNCH providers.
- Routinize or imbed PrEP training and orientations within existing national training packages such as FP and safe motherhood guidelines.
- Advocate for integrating PrEP training into nursing and medical pre-service curricula to minimize training and orientation costs.

## COMMUNITY EFFORTS

When a community rallies behind an intervention, it provides a safe environment for uptake and continued use and adherence. This is especially important for some sections of the community, such as AGYW, who may have limited ability to make their own decisions about PrEP and other RMNCH interventions and services, yet who are the majority of the attendants in RMNCH service platforms in Zambia. The study produced the following recommendations to engage communities:

- Train and deploy community health workers and intensify community sensitization and mobilization to counter PrEP misinformation and stigma. These efforts can also increase awareness of services availability.
- Engage key influencers and gatekeepers to amplify support for PrEP uptake.
- Continue to iterate innovative person-centered approaches such as community dispensing. This supports a resilient and responsive health care system, particularly in the wake of the COVID-19 pandemic.

## CONCLUSION

In conclusion, the study found that providers and clients preferred an integrated PrEP/RMNCH service delivery platform over stand-alone approaches. The one-stop service proved an efficient use of everyone's time and improved service quality, as well as increasing peer-to-peer communication/support, as women interacted and recommended services to each other. The research did not identify any major negative effects on the demand for, or use of, RMNCH services due to PrEP integration. In fact, the study found that platform integration increased the likelihood of women seeking out more than one service, either RMNCH-based or PrEP, during their visit.

However, there are a number of outstanding challenges that must be addressed to improve the overall PrEP/RMNCH integrated platform, including strengthening the supply chain, as both providers and clients cited the irregular supply of commodities as a constraint. Another key area for development is improving provider training, building their capacity to deliver PrEP services and introducing regular provider refresher updates. The study found that well-trained, informed and non-judgmental staff were integral to improving the uptake of both PrEP and RMNCH services. Further client consultation and research will be important to strengthen the PrEP/RMNCH integration model.

## ANNEX 1: STUDY SELECTION CRITERIA

### Health facilities:

- Cater to a medium- to high-volume of ART clients.
- Started providing PrEP earlier than June 2019.

### DREAMS sites:

- Collaborated with USAID DISCOVER-Health for at least 12 months (including PrEP provision).

### FGD participants (see steps below):

- Women ages 18–49.
- Initiated PrEP at the selected HFs.
- Initiated PrEP before June 30, 2021.
- On PrEP for at least three months before discontinuing use.

### Steps:

1. Select 6–8 women who are 18-49 years old from the list of the active clients who were PrEP initiated April 30, 2020–June 30 2021.

2. Select 6–8 women who are 18-49 years old from the list of the inactive clients who were on PrEP for at least 3 months and discontinued April 30, 2020–June 30 2021.

3. Using the list of participants (active or inactive), divide the total number by 6. Use the result to select the participants. For instance, if the total number of the active participants is 42, then 42 is divided by 6 and the answer is 7.

> *When you start counting, you select every 7th person on the list. Meaning from a list of 42, you will come up with 6 participants.*

4. Check for the phone number in the register.

5. Contact the person to ask for their availability for the PrEP study.

**Note:** If a selected participant is unavailable (or her phone is not available or reachable), pick the next person on this list. If she is not available, go to the next until you find the one who is, then proceed with the usual counting technique picking every 7th person..


USAID
FROM THE AMERICAN PEOPLE

PEPFAR
U.S. President's Emergency Plan for AIDS Relief

JSI