



Ghana College of Pharmacy



## **Addressing Regulatory And Policy Barriers To Accessing Self-Injecting DMPA-SC In Ghana (2023)**

**By**

### **Principal Investigator:**

- Nafisatu Sulemana, DKT International Ghana

### **Co-Investigators:**

- Kwesi Bo Yawson, Country Director, DKT International Ghana
- Dr Kofi Issah (Director, Family Health Division)
- Yvonne Yirenkyiwaa Esseku (Rector, GCP)
- Claudette Ahliba Diogo (Logistics Officer)
- Mark Anthony, DKT International Ghana
- Joseph Aduah-Kabah Juayire, DKT International Ghana

<b>Table of Contents</b>	1
<b>Executive Summary</b>	5
<b>Chapter one: Introduction</b>	7
<b>Background</b>	7
<b>Rationale</b>	8
<b>Objectives of the project</b>	9
<b>General Objective:</b>	9
<b>Specific objectives</b>	9
<b>Research questions</b>	9
<b>Chapter Two: Literature Review</b>	10
<b>Introduction:</b>	10
<b>Policy Barriers of DMPA-SC Implementation in Pharmacies:</b>	10
<b>Barriers to DMPA-SC Implementation in Pharmacies:</b>	11
<b>Training Barriers:</b>	11
<b>Administration Barriers:</b>	12
<b>Refill Barriers:</b>	13
<b>Enablers to DMPA-SC Implementation in Pharmacies:</b>	13
<b>Pharmacist-Led Initiatives:</b>	13
<b>Collaborative Partnerships:</b>	14
<b>Chapter three: Research Methodology</b>	16
<b>Research Design:</b>	16
<b>Sampling Methods</b>	16
<b>Data Collection Methods</b>	16
<b>Data Analysis</b>	17
<b>Ethical Considerations</b>	18
<b>Limitations</b>	18
<b>Chapter Four: Study Results</b>	19
<b>In-depth Interview for Participating Pharmacies on the DMPA-SC Project</b>	19
<b>Enablers of to DMPA-SC implementation in pharmacies</b>	24
<b>Client Exit Interview Results</b>	27
<b>Channel of Client Information</b>	29
<b>Client satisfaction with counseling received at Pharmacy</b>	29

<b>Responds from client not entirely satisfied with counseling received at Pharmacies .....</b>	<b>30</b>
<b>Focus Group Discussion with DMPA SC Clients.....</b>	<b>34</b>
<b>Barriers to accessing DMPA SC in Pharmacies (Focus Group).....</b>	<b>36</b>
<b>Enablers to accessing DMPA SC in Pharmacies (Focus Group).....</b>	<b>39</b>
<b>Recommendations on how to improve DMPA SC in Pharmacies in Ghana (Focus Group) .....</b>	<b>42</b>
<b>Assess Quality of Services (Mystery Client Survey) .....</b>	<b>43</b>
<b>Stakeholder In-depth Interview.....</b>	<b>52</b>
<b>Chapter Five: Research Study Results Discussion.....</b>	<b>54</b>
<b>Policy Barriers and Pathways for DMPA-SC Implementation in Ghanaian Pharmacies .....</b>	<b>54</b>
<b>Key Barriers to DMPA-SC Implementation in Pharmacies: Study Findings.....</b>	<b>55</b>
<b>Key Enablers in Implementing DMPA-SC Services in Pharmacies .....</b>	<b>56</b>
<b>Chapter Six: Study Recommendations and Conclusion.....</b>	<b>58</b>
<b>Study Recommendations .....</b>	<b>58</b>
<b>Conclusion .....</b>	<b>59</b>
<b>References:.....</b>	<b>61</b>

## List of Table

Table 1: Barriers Affecting Pharmacies in DMPA-SC Training, Administration, and Refill .....	19
Table 2: Potential risks of allowing pharmacies to provide DMPA-SC services, including self-injection	21
Table 3: What are the enablers to DMPA-SC implementation in pharmacies.....	24
Table 4: Respondents Background Characteristics.....	27
Table 5: Client Satisfaction with DMPA SC Counseling received at Pharmacy.....	30
Table 6: Clients who reported not entirely satisfied with Counseling received at Pharmacies .....	31
Table 7: Client ability to self-inject DMPA SC.....	33
Table 8: Barriers to Clients self-injecting DMPA SC.....	34
Table 9: Enablers to accessing DMPA SC in Pharmacies .....	40
Table 10: Recommendations on how to improve DMPA SC in Pharmacy .....	42
Table 11: Barriers face by Mystery client while accessing DMPA SC services at participating Pharmacist .....	44
Table 12: Assessing privacy and confidential nature of DMPA SC services provision in Pharmacies.....	48
Table 13: Mystery clients overall experience with participating pharmacist on service received.....	49
Table 14: Mystery Clients feedback on the availability of DMPA SC at the Pharmacy Channel.....	50
Table 15: Themes related to the barriers and challenges to accessing DMPA SC in pharmacies in Ghana .....	52

## List of Figures

Figure 1: Source of knowledge on DMPA SC at Pharmacy.....	29
Figure 2: Counseling on benefit and side of DMPA SC.....	30

## **Executive Summary**

Despite being a key priority for the Government of Ghana, modern contraceptive use among married women of reproductive age in the country stands at only 25%. A recent FP Insights Survey (DKT, 2021) revealed that 49% of contraceptive users obtain their contraceptives from pharmacies and chemical shops, indicating the potential of this channel to address the unmet need for family planning, which currently stands at 30%. Since the introduction of DMPA-SC in 2019, Ghanaian women have had an additional contraceptive choice. However, regulatory barriers that currently prohibit self-injection (SI) have limited its accessibility. This project aims to generate evidence on self-injectors in the pharmacy channel to inform a swift policy review.

### *Objectives*

The general objective of this project is to unlock the pharmacy channel as an access point for DMPA-SC. To achieve this objective, we employed a mixed-method approach, combining both qualitative and quantitative techniques, to provide a comprehensive understanding of the issue.

### *Sampling Methods*

For the quantitative aspect, a multi-stage random sampling method was used to select participating pharmacies and clients for exit interviews. Qualitatively, purposive sampling was employed for in-depth interviews with participating pharmacists and key stakeholders, while a convenience sampling was used to select participants for the focus group discussion.

### *Study Recommendations*

**Policy Reform and Training Enhancement:** To overcome regulatory barriers and enhance pharmacist capacity, policy reforms should be pursued to clarify legal boundaries for administering DMPA-SC in pharmacies. Comprehensive training programs, like those offered by organizations such as DKT and the Ghana Health Service, should be extended to equip pharmacists with necessary skills and confidence.

**Inclusion in National Health Programs:** Integrating DMPA-SC administration in pharmacies within national health programs offers formal recognition and sustained support, bolstering its credibility and accessibility.

**Legislative and Policy Adjustments:** Advocacy efforts should target amending existing policies and regulations that hinder pharmacists from administering injections. Clear guidelines and policies from health authorities will facilitate DMPA-SC services in pharmacies.

**Collaboration and Partnerships:** Foster collaborative initiatives, including partnerships, stakeholder engagement, and advocacy, to amplify the reach and impact of DMPA-SC services, ensuring seamless service delivery.

**Improving Accessibility:** Efforts should be made to address accessibility challenges, including raising awareness about service points and improving distribution networks to make DMPA-SC readily available where clients prefer to access it.

**Leveraging Community Pharmacies:** Recognize the strategic role of community pharmacies, revise policies to harness their accessibility, privacy, and extended hours for providing reproductive health services, and address policy barriers.

**Gradual Implementation and Pilot Testing:** Adopt a phased and evidence-based approach to introduce DMPA-SC in community pharmacies. Pilot programs, ongoing monitoring, and data-driven adjustments will ensure the sustainability of pharmacy-based DMPA-SC services. Integrating DMPA-SC training into undergraduate pharmacy programs will prepare future pharmacists for this role.

### *Conclusion*

Our study identifies the barriers and enablers shaping the landscape of pharmacy-based family planning (DMPA SC) programs in Ghana. To improve accessibility, affordability, and client-centeredness, we offer seven key recommendations. Addressing these challenges and embracing the enablers will empower individuals to make informed contraceptive choices, advancing reproductive health, and contributing to the well-being of communities and nations.

## **Chapter one: Introduction**

### **Background**

DKT International Ghana is a registered social enterprise founded in 1989 to deliver high-quality, cost-effective family planning solutions through social marketing. Leveraging the power of the private sector, DKT markets and distributes family planning products in 50 countries. DKT Ghana was established in 2011 with a core mission of providing safe and affordable options for family planning and HIV AIDS prevention. Since its establishment, DKT Ghana has achieved tremendous health impact through effective and aggressive distribution, efficient and evidenced based demand generation and capacity building. In 2020 alone, DKT Ghana generated over 1 million CYPs, helping to avert 168,000 unintended pregnancies and 330,000 unsafe abortions.

DKT has vast experience in developing pilot projects to generate evidence to enhance contraceptive distribution and service provision. DKT piloted a network of 30 private clinics in two regions (Greater Accra and Ashanti), dubbed Lydia Partner Clinics (LPC). Given the success of this pilot, DKT scaled up the partnership to 100 clinics at the end of 2021 covering 12 regions. Following a 2017 end-user survey, which revealed that end-users perceived family planning (FP) service delivery in public facilities to be of higher quality compared to those offered in the private sector. Given this, DKT collaborated with the Ghana Health Service (GHS) to train private sector providers to provide same high-quality products and care, complemented with Quality Technical Assessments (QTAs).

Additionally, DKT pioneered a network of 60 pharmacies and chemical/drugs stores; Lydia Partner Pharmacies (LPPs), in five regions of Ghana in 2019. The pilot strengthened the capacity of providers to deliver effective counseling, management of side effects, and youth-friendly/non-judgmental services which was scaled to 200 in 2021. Following a dissemination of DMPA-SC pilot project results in Ghana in 2018, DKT became the first Social Marketing Organization (SMO) to partner with GHS to train 459 service providers to support the introduction of the product. As a result of supply systems strengthening initiatives, DKT distributed 203,920 units of DMPA-SC and trained 633 providers in Ghana between 2019–2021.

DKT continue to use its team of 40 Regional Community Representatives (RCRs) based in 16 regions, who utilize interpersonal communication skills and product knowledge to create family planning awareness, demand and manage referrals to various points of consumption whose community-based activities in the past two years, have resulted in close to 66,696 DMPA–SC services as at the end of 2021, of which 10,532 (16%) were SIs (DKT DHIS 2). DKT additionally offers an effective client support system through its in-house Lydia Contact Center (LCC) that provides accurate, tailored messaging to clients and provides reminders to clients who are due for reinjection. Finally, DKT Ghana boast of a robust Monitoring and Evaluation (M&E) system that allows us to track and report distribution, demand generation and service uptake of contraceptives.

## **Rationale**

Although FP is a key priority of the Government of Ghana, only 25% of married women of reproductive age use a modern method of contraceptive (Adokiya, Boah, & Adampah, 2021). (Keogh et al., 2021).

FP Insights Survey (DKT, 2021) revealed that 49% of all users sourced contraceptives from pharmacies and chemical shops which indicates the channel is a good access point for contraceptives. Given Ghana’s unmet need of 30% (Ghana Statistical Service (GSS), Ghana Health Service (GHS), & ICF, 2018), the introduction of DMPA-SC since 2019 has offered Ghanaian women an additional choice to exercise their reproductive health freedom. It is however hindered by regulations that currently prohibit SI. These are:

- I. Access to DMPA-SC and training on SI is heavily reliant on trained health providers and only one service delivery channel- health facilities.
- II. Anecdotal data from the GHS reveals that the pharmacy channel will only be eligible to provide refills after a critical mass of 10% SIs is achieved; however, records from partner clinics indicates extremely low uptake of SI.

This is project is therefore aiming to generate ample evidence on self-injectors in the pharmacy channel for a swift policy review.



## **Objectives of the project**

### **General Objective:**

- To unlock the pharmacy channel as an access point for DMPA-SC

### **Specific objectives**

- To assess the policy barriers of DMPA-SC implementation in pharmacies
- To create access of DMPA-SC services to 6000 women in the piloted regions
- To assess the barriers to DMPA-SC implementation in pharmacies
- To assess the enablers to DMPA-SC implementation in pharmacies

### **Research questions**

- What are the barriers affecting pharmacies training, administration and refill of DMPA-SC?
- What are the enablers to DMPA-SC implementation in pharmacies?

## **Chapter Two: Literature Review**

### **Introduction:**

The accessibility and availability of contraceptives play an essential part in reproductive wellbeing outcome. Lately, there has been a developing interest in extending contraceptive access to contemporary channels, like Pharmacies (Boadu, 2022). Injectable contraceptives, like DMPA-SC (Depot Medroxyprogesterone Acetate-Subcutaneous), have shown guarantee in increasing contraceptive options for women (PATH, 2028; Wood et. al, 2022; Muhoza et. al, 2021). This literature review aims to explore the policy barriers, implementation barriers, and enablers that impact the integration of DMPA-SC services in pharmacies, with a focus on training, administration, and refill of the contraceptive.

### **Policy Barriers of DMPA-SC Implementation in Pharmacies:**

The successful integration of DMPA-SC (Depot Medroxyprogesterone Acetate-Subcutaneous) services into pharmacy settings is contingent on navigating various policy-related factors (Burlando, 2021; Akinyemi, 2022). One critical aspect is the regulatory landscape that governs contraceptive access in different countries. Studies have emphasized the impact of restrictive policies and regulations surrounding the provision of injectable contraceptives in pharmacies (Ayuk, 2022; Adebayo, 2023). These regulations can impose limitations on the scope of services that pharmacists can offer, directly affecting their ability to provide DMPA-SC injections to clients (Gonsalves, 2019; Nai, 2020; Akinyemi, 2022).

Gonsalves (2020) highlighted the challenges faced by pharmacists in countries with stringent policies regarding contraceptive provision in pharmacies. Such policies often require additional certification or approvals for pharmacists to offer injectable contraceptives. This can create barriers in terms of administrative burden and time constraints for pharmacists, ultimately hindering the provision of DMPA-SC services.

Veesar, (2023) also emphasized the impact of policy barriers on the availability of DMPA-SC in pharmacies. In some settings, regulatory restrictions might exclude pharmacies from participating in family planning programs or limit the range of contraceptives they can stock (Peterson, 2018; Pfaff, 2020; Veesar, 2023). As a result, clients seeking DMPA-SC services may face challenges in accessing the method through pharmacy channels.

Furthermore, reimbursement policies and insurance coverage play a pivotal role in influencing the uptake of DMPA-SC in pharmacy settings. Limited insurance coverage for contraceptive services in pharmacies can be a significant barrier to accessing DMPA-SC (Lebetkin, 2014; Aloo, 2023 B). When clients are not adequately covered, the out-of-pocket costs associated with DMPA-SC may deter them from utilizing the service.

Brady et al. (2018) conducted a study to assess the impact of insurance coverage on contraceptive demand in pharmacies. Their findings revealed that the lack of insurance coverage resulted in decreased demand for DMPA-SC, as clients sought more affordable alternatives or turned to other contraceptive methods (Liu, 2018; Cartwright, 2023). To address this issue, policymakers should consider revising regulations to expand insurance coverage for DMPA-SC services in pharmacies, thereby making the method more accessible and affordable for clients (Akinyemi, 2022).

In addition to insurance coverage, revising restrictive policies can also be instrumental in increasing contraceptive access in pharmacy settings. Policymakers must recognize the potential of pharmacies as an essential access point for contraceptive services and acknowledge the expertise of pharmacists in providing family planning counseling and services (Siddiqui, 2021; Aloo, 2023). By revising policies to support the integration of DMPA-SC services in pharmacies, more women will have access to a wider range of contraceptive options, thus promoting reproductive autonomy and family planning.

### **Barriers to DMPA-SC Implementation in Pharmacies:**

#### **Training Barriers:**

Training barriers pose a significant challenge to the successful implementation of DMPA-SC services in pharmacies. Proper training and knowledge of contraceptive provision are essential for pharmacists to offer this injectable contraceptive option effectively. Studies have identified a lack of comprehensive training as a critical factor hindering the provision of DMPA-SC services in pharmacies (Cole, 2018; Ali, 2023). Many pharmacists may not have received adequate instruction on contraceptive counseling, administration, and side effect management, leading to hesitancy in providing injectable contraceptives to clients (Ciriello, 2020; Karki, 2022). To address this barrier, targeted training programs must be developed to equip pharmacists with the necessary skills and confidence to deliver DMPA-SC services efficiently in pharmacy settings.

**Administration Barriers:**

The successful integration of DMPA-SC (Depot Medroxyprogesterone Acetate-Subcutaneous) services in pharmacies hinges on overcoming training barriers faced by pharmacists. The administration of DMPA-SC injections requires specific skills and techniques that may not be included in the standard pharmacy curricula. This lack of formal training can result in pharmacists' concerns about their ability to administer injections safely and effectively, subsequently hindering the provision of DMPA-SC services (Akinyemi, 2022).

Studies such as (Aderoba, 2023; Ali, 2023) have highlighted the need for targeted training and certification programs to address these barriers and enhance pharmacist competence in administering DMPA-SC injections. By implementing comprehensive training initiatives, pharmacists can gain the necessary skills and confidence to offer this contraceptive option effectively.

Corneliess. (2023) underscored that pharmacists who have received proper training in contraceptive counseling and injection administration are more likely to offer DMPA-SC services in their practice. Similarly, Akinyemi, (2022) emphasized the importance of addressing training barriers to improve the accessibility of DMPA-SC in pharmacy settings.

One potential solution to tackle this challenge is to integrate DMPA-SC training modules into pharmacy education curricula. By incorporating comprehensive contraceptive training during their formal education, future pharmacists can acquire the necessary knowledge and skills to provide DMPA-SC services confidently. Moreover, ongoing continuing education programs and workshops can help current pharmacists stay up-to-date with the latest contraceptive guidelines and best practices (Dwyer et al. 2019).

Another approach involves collaborating with professional organizations and health authorities to develop standardized training protocols specifically designed for DMPA-SC administration (Aderoba, 2023). These protocols should cover essential topics, including proper injection techniques, side effect management, and client counseling on contraceptive options (Dehlendorf, 2014).

Furthermore, offering certification programs in DMPA-SC provision can serve as an incentive for pharmacists to pursue additional training. Certification not only validates their expertise but also

instills a sense of professional accomplishment, motivating them to actively offer DMPA-SC services in their practice (Marriott, 2018; Hernandez, 2018).

The success of these training initiatives relies on active engagement from pharmacy schools, professional associations, and healthcare authorities (Koduah, 2020). Funding and support from governmental and non-governmental organizations are critical to develop and sustain these programs, ensuring a competent and confident workforce of pharmacists capable of delivering DMPA-SC services effectively.

### **Refill Barriers:**

Ensuring timely and convenient access to DMPA-SC refills is essential for maintaining contraceptive continuity. However, challenges such as stock management, supply chain logistics, and client follow-up can impede pharmacies from providing reliable refill services for DMPA-SC (Magalona, 2022). To address these barriers, innovative strategies must be explored. One approach is the implementation of reminder systems to prompt clients about upcoming refills. Additionally, improving inventory management practices can help ensure an adequate supply of DMPA-SC in pharmacies. Leveraging technology, such as mobile applications or telehealth platforms, can further enhance communication and support between pharmacists and clients, facilitating efficient refill processes (Zapata, 2015). By adopting these innovative measures, pharmacies can overcome refill-related obstacles and promote better access to DMPA-SC for women seeking contraceptive options.

### **Enablers to DMPA-SC Implementation in Pharmacies:**

#### **Pharmacist-Led Initiatives:**

Pharmacists are vital in driving DMPA-SC uptake through proactive involvement in community outreach and educational initiatives (Setiadi, 2020). Their accessibility and trustworthiness within the community enable them to effectively address barriers and debunk misconceptions surrounding contraceptive methods. By actively engaging in these efforts, pharmacists can bridge the gap between potential users and contraceptive services, fostering a conducive environment for DMPA-SC acceptance and utilization (Gomez, 2022; Aloo, 2023). Through their expertise and approachability, pharmacists contribute significantly to empowering individuals with comprehensive information and support, thereby enhancing contraceptive accessibility and promoting informed decision-making among clients (Beson, 2018; Aloo, 2023)

**Collaborative Partnerships:**

Collaborative partnerships play a crucial role in enhancing the integration of DMPA-SC services in pharmacies (Uzma, 2021). By bringing together pharmacies, healthcare providers, and community organizations, these partnerships create a synergistic approach that facilitates improved access to contraceptive options and better reproductive health outcomes.

Pharmacies, as accessible and trusted community healthcare settings, can bridge the gap between healthcare providers and clients seeking contraceptive services (Navarrete, 2021). Through collaborative partnerships, pharmacies can expand their scope of services beyond medication dispensing and become valuable points of access for contraceptive information, counseling, and provision.

Healthcare providers, such as physicians and nurses, can support pharmacies in DMPA-SC implementation by providing training and expertise (Aderoba, 2023). They can also play a key role in ensuring appropriate patient selection and addressing any medical concerns related to contraceptive use (Pazol, 2015; Ciriello, 2020). This collaboration ensures that clients receive comprehensive and accurate information, contributing to their overall satisfaction and adherence to DMPA-SC (Rosenberg, 2021; Morozoff · 2022).

Community organizations, on the other hand, can contribute to raising awareness and destigmatizing family planning methods, including DMPA-SC (Okegbe, 2019; Ayuk, 2022). These organizations often have a deep understanding of the local context, cultural norms, and the specific needs of the community they serve (Mafuta, 2016). By working together with pharmacies and healthcare providers, they can create tailored outreach and education programs to increase demand for DMPA-SC services.

Collaborative efforts among these stakeholders allow for better coordination of services, which is particularly important for contraceptive continuity (Silumbwe, 2020; Alderwick, 2021). Pharmacies can work closely with healthcare providers to ensure proper stock management of DMPA-SC, minimizing stockouts and improving access to the contraceptive (Stout, 2018; Cover, 2018). Additionally, efficient client referrals between pharmacies and healthcare providers can streamline the process, ensuring clients receive timely and continuous care (Dalton, 2017; Haleem, 2021).

Shared resources are another advantage of collaborative partnerships. By pooling their expertise, knowledge, and funding, stakeholders can maximize the impact of DMPA-SC implementation in pharmacies (Nai, 2020; Akinyemi, 2022). For instance, healthcare providers can offer training workshops to pharmacists, while pharmacies can provide physical space and facilities for DMPA-SC administration (Cover, 2018; Nai, 2020).

## **Chapter three: Research Methodology**

**Research Design:** A mixed-method approach was employed, encompassing both qualitative and quantitative techniques. This approach offers a comprehensive understanding, harnessing the strengths of both qualitative insight and quantitative precision.

### **Sampling Methods**

**Quantitative:** We employed a multi-stage random sampling method to ensure that our exit interview sample accurately represented the client population. In this approach, we first selected participating pharmacies at the regional level. From these selected pharmacies, we systematically sampled clients who had received DMPA SC services. Specifically, we interviewed every second client who met the criterion of having utilized DMPA SC services at one of the chosen participating pharmacy outlets.

**Qualitative:** We employed purposive sampling for in-depth interviews with both participating pharmacists and key stakeholders. While our sampling approach was deliberate, we also took into account the practical constraints, particularly the limited time available for the study. Availability of selected participants was a significant factor, especially during the in-depth interviews with key stakeholders, where several respondents were not readily accessible.

For the focus group discussion, our target group consisted of clients who had utilized DMPA SC services at the pharmacy. To select participants, we considered the total number of DMPA SC uptakes at various pharmacies. We compiled a list of clients from these pharmacies, assigned them random numbers, and ranked them in descending order based on these numbers. Subsequently, we contacted the first 10 clients on this list, inviting them to participate in the focus group discussion. Their participation was contingent on their availability, and we scheduled a venue for the discussion accordingly.

### **Data Collection Methods**

**In-depth Interviews (IDIs):**

- **Pharmacies:** IDIs were conducted with pharmacists to understand their experiences, barriers, enablers, and recommendations regarding DMPA-SC implementation.



- Industry Stakeholders: Targeted stakeholders from Ghana Health Services, College of Pharmacy, and key NGO project leads. Their insights provided broader contextual understanding and validated findings from the pharmacy interviews.

#### Client Exit Interviews:

Clients exiting selected pharmacies were interviewed using a structured questionnaire. The objective was to ascertain their satisfaction levels and experiences with accessing DMPA-SC at the pharmacy.

#### Focus Group Discussions (FGDs):

A selected group of clients, especially those reporting difficulties with self-injection, participated in FGDs. These sessions aimed to delve deeper into the challenges of self-injection and to generate suggestions for improvement.

#### **Data Analysis**

Quantitative: Statistical software (e.g., SPSS, STATA) was used for data coding, entry, and analysis. Descriptive and inferential statistics were computed to present the findings.

Qualitative: Thematic analysis was adopted. All IDIs and FGDs were transcribed verbatim, coded, and analyzed using software such as NVivo. Themes relating to barriers, enablers, and recommendations were identified and explored.

#### **Study Sample Size**

Given the specific objectives, a total of:

- 40 Pharmacies were selected for IDIs
- 3 Key informants from the health sector and NGOs were interviewed
- 659 Clients were targeted for exit interviews
- 8 FGDs (each with 8-10 participants) were conducted
- 42 Mystery Client Assessment

**Ethical Considerations**

Prior to data collection, informed consent was obtained from all participants. They were made aware of the purpose of the study, their role, potential risks, and their right to withdraw at any time. Confidentiality was maintained throughout the research process.

**Limitations**

Given the scope of the study, some regions might be underrepresented. The experiences shared by participants might not be generalized to the entire Ghanaian context.

## Chapter Four: Study Results

### In-depth Interview for Participating Pharmacies on the DMPA-SC Project

In-depth interviews, were conducted with 40 purposively selected pharmacists across six regions: Ashanti, Central, Gt. Accra, Northern, Upper East, and Volta. These pharmacists, having undergone training on DMPA-SC administration and witnessed demand generation at their outlets, offer a unique lens into the project. Their first-hand experience with clients availing services provides a comprehensive understanding of both challenges faced by clients and the factors enabling successful service access. Their insights, thus, are paramount in refining the project's strategies and future expansion endeavors.

Table 1: Barriers Affecting Pharmacies in DMPA-SC Training, Administration, and Refill

Theme	Number of Responses	Sample Responses
Awareness and Education Challenges	7	"Inadequate education in the public domain." "Unawareness on the part of clients." "Language barriers between pharmacists and clients may hinder effective communication."
Economic and Supply Chain Barriers	5	"Cost of product; most clients seek services when the price is subsidized." "Limited availability of DMPA-SC in pharmacies due to supply chain challenges." "Most users are learners."
Cultural and Social Norms	6	"Prohibitive social norms affecting acceptance of DMPA-SC services." "Clients still prefer clinics for family planning services."

		"Cultural beliefs influencing clients' reluctance to use contraceptives."
Regulation and Training Issues	6	"Regulatory restrictions or unclear guidelines for providing injectable contraceptives in pharmacies."  "Limited training and capacity of pharmacists in administering and counseling on DMPA-SC."  "Resistance from health sectors (doctors and midwives)."
Client Concerns and Misconceptions	6	"Clients' fear of injections leads to a preference for provider-assisted injections."  "Myths and misconceptions surrounding contraceptives."  "Concerns about privacy and confidentiality for women seeking DMPA-SC services in a pharmacy setting."

The qualitative data provides valuable insights into the complexities surrounding the provision of DMPA-SC services in pharmacies. Several themes emerge that collectively answer the question of what barriers affect pharmacies in the training, administration, and refill of DMPA-SC.

**Awareness and Education Challenges:** A recurring concern revolves around the lack of awareness and education in both the public domain and among potential clients. This emphasizes the need for robust informational campaigns to bridge the knowledge gap, especially since some challenges, like language barriers between pharmacists and clients, can hinder effective service provision.

**Economic and Supply Chain Barriers:** The economic viability of DMPA-SC services appears to be of concern, particularly regarding product costs and their impact on client accessibility. Combined with supply chain issues leading to stockouts, it's evident that for DMPA-SC to be

sustainably offered, strategies to stabilize prices and ensure consistent product availability are essential.

**Cultural and Social Norms:** Deep-seated cultural beliefs and societal norms can impact the acceptance of DMPA-SC services. The preference of clients for clinics over pharmacies for family planning services, combined with societal taboos around contraceptives, suggests the need for targeted community outreach and advocacy.

**Regulation and Training Issues:** Regulatory restrictions or ambiguities create an environment of uncertainty for pharmacies. Paired with the apparent gaps in pharmacist training and capacity building, and resistance from traditional health sectors, a holistic approach that addresses policy reform, pharmacist training, and inter-sectoral collaboration is pivotal.

**Client Concerns and Misconceptions:** Clients’ personal fears and misconceptions, ranging from the fear of injections to misunderstandings about contraceptives, underscore the critical role of client-focused education. Addressing these misconceptions and concerns, while ensuring privacy and confidentiality, is vital to build trust and enhance service uptake.

The potential of pharmacies in expanding DMPA-SC services is vast, multifaceted barriers must be systematically addressed. These barriers span from logistical and economic challenges to deeply rooted cultural beliefs and misconceptions. Collaborative efforts that encompass policy reform, community engagement, pharmacist training, and client education are imperative to surmount these obstacles and harness the full potential of pharmacies in the realm of sexual and reproductive health.

Table 2: Potential risks of allowing pharmacies to provide DMPA-SC services, including self-injection

Theme	Number of Responses	Sample Responses
<b>Qualification &amp; Training Concerns</b>	10	<ul style="list-style-type: none"> <li>- Unqualified pharmacies will stock, leading to unqualified personnel injecting</li> <li>- The need for a trained pharmacist presence will mitigate any risk</li> </ul>

		- No pressure edible risk to me as long as the pharmacy is properly trained
<b>Administration &amp; Self- Injection Risks</b>	8	- Risk of incorrect self-injection technique - Potential for clients to misunderstand the dosing schedule - Risk of allergic reactions to DMPA-SC components
<b>Accountability &amp; Oversight Issues</b>	6	- Lack of accountability in ensuring proper administration and follow-up - Risks associated with inadequate counseling and education - Concerns about the reliability of self-reported medical histories
<b>Disposal &amp; Product Integrity Concerns</b>	6	- Potential for inappropriate disposal by clients - Potential for clients to use expired or improperly stored DMPA-SC products - The importance of proper storage conditions to maintain the effectiveness

The thematic analysis above (Table 2) as revealing several key risks associated with pharmacies administering DMPA-SC.

**Qualification & Training Concerns:** This theme brings forth a significant risk – the potential for unqualified pharmacies and personnel to administer DMPA-SC. The respondents express a common concern that inadequate training of pharmacy personnel can lead to improper administration, emphasizing the critical need for well-trained pharmacists to mitigate these risks.

Ensuring that pharmacies are adequately trained becomes pivotal in maintaining the integrity and effectiveness of DMPA-SC services.

**Administration & Self-Injection Risks:** The analysis indicates that there is a considerable apprehension around the risk of incorrect self-injection techniques, misunderstanding of the dosing schedule, and allergic reactions. Addressing these concerns through comprehensive counseling, education on contraceptive methods, and careful screening for allergies becomes crucial in minimizing adverse reactions and maximizing the effectiveness of DMPA-SC.

**Accountability & Oversight Issues:** The third theme highlights a potential gap in accountability and oversight in ensuring proper administration and follow-up care. Respondents have pointed out the risk associated with inadequate counseling and education and the reliability of self-reported medical histories. Establishing robust oversight mechanisms and enhancing the accountability of pharmacies is essential to address these concerns and ensure the safety and wellbeing of clients.

**Disposal & Product Integrity Concerns:** The final theme underscores concerns regarding the inappropriate disposal of DMPA-SC materials and the potential use of expired or improperly stored products. Addressing these issues requires stringent guidelines on disposal practices and maintaining the product's integrity through proper storage conditions.

## Enablers of to DMPA-SC implementation in pharmacies

The perspective of trained and participating Pharmacist on what the enablers or facilitators to implementing DMPA SC in pharmacist, were quite straight forward. The table 3 below presents these enablers in a manner that allow for a verbatim reading of some sample respnses forming the various themes.

Table 3: What are the enablers to DMPA-SC implementation in pharmacies

Themes	Number of Responses	Sample Responses
<b>Effectiveness of Training Programs</b>	18	"The training from DKT was good enough to build my current capacity on administering DMPA-SC for clients."
		"Training received from Ghana Health Services was enough to build my potential and capacity to counsel and administer DMPA-SC."
		"DKT's training adequately prepared me for counseling and administering DMPA-SC injections."
<b>Need for Continuous Learning &amp; Support</b>	15	"Refresher training on DMPA-SC administration and counseling would help maintain and boost my confidence in the service."
		"More practical experience and supervised practice in administering DMPA-SC would build my confidence further."
		"Access to online resources and webinars on DMPA-SC would be valuable for increasing my confidence in providing the service."
<b>Inclusion in National Health Programs</b>	6	"The program should have included in the national health programs."



		"Inclusion of the program in the national health programs to gain recognition and support at the policy level."
		"The program should be officially included in the national health programs, giving it recognition and support at the policy level."
<b>Legislation and Policy Adjustments</b>	17	"Pharmacy channels should be allowed by law to sell and administer DMPA-SC."
		"Ministry of Health should develop specific policies that outline the role of pharmacies in providing DMPA-SC services."
		"Legal allowance for pharmacies to sell and administer DMPA-SC, ensuring convenience for women."
<b>Collaboration and Partnership Initiatives</b>	7	"Collaboration with pharmacy associations and stakeholders to advocate for DMPA-SC inclusion in the health system."
		"Partnering with NGOs and international organizations to support the distribution of DMPA-SC through pharmacies."
		"Engaging with local leaders and policymakers to gain support for pharmacy-based DMPA-SC initiatives."

In exploring the enablers to DMPA SC's successful implementation within pharmacies, several vital themes emerge, highlighting both the current strengths and potential avenues for enhancement.

**Effectiveness of Training Programs:** A recurring sentiment across participants was the significance and effectiveness of training programs, especially those offered by organizations like

DKT and the Ghana Health Service. The training not only equipped the pharmacists with the necessary skills to administer DMPA-SC but also instilled confidence in their capabilities. It underscores the pivotal role of comprehensive training in ensuring quality service delivery.

**Need for Continuous Learning & Support:** While initial training is crucial, continuous learning opportunities and consistent support mechanisms further bolster confidence and proficiency. Suggestions ranged from refresher training sessions to accessing online resources and webinars. This highlights an ongoing desire for professional growth, ensuring that pharmacists remain updated with the latest practices in DMPA-SC administration.

**Inclusion in National Health Programs:** The inclusion of DMPA-SC administration within national health programs was identified as a strategic enabler. Such formal recognition at the policy level not only lends credibility to the service but also integrates it into the broader health system, ensuring sustained support and resources.

**Legislation and Policy Adjustments:** A conducive legislative and policy environment acts as a bedrock for successful DMPA-SC implementation in pharmacies. Participants expressed the need for laws permitting pharmacies and even trained pharmacy assistants to administer DMPA-SC. Clear guidelines and specific policies from health authorities can smoothen the operational landscape, ensuring that pharmacists can provide these services without legal hindrances.

**Collaboration and Partnership Initiatives:** Collaborative efforts, whether through stakeholder advocacy, partnerships with NGOs, or engagements with policymakers, can significantly amplify the reach and impact of DMPA-SC services. These collaborative avenues not only enhance service delivery but also ensure that pharmacies are integrated into broader family planning and reproductive health initiatives.

### Client Exit Interview Results

In our study, we conducted exit interviews with clients who received DMPA-SC injections at participating pharmacies. This allowed us to gain insights into their experiences, satisfaction levels, and any challenges or successes they encountered. Demographically, a notable proportion of the respondents (48%) were unmarried or single. Over half (55%) reported being self-employed. When considering education, 37% of the clients had attained primary education. In terms of religious affiliations, the clients were nearly evenly distributed between Christians (47%) and Muslims (46%). These findings give us a comprehensive understanding of the clientele's background and their perspectives on the pharmacy services they accessed. Our findings suggest that the DMPA-SC intervention has notably appealed to a younger demographic, specifically those aged 18-24 years. This insight might indicate the relevance and resonance of the intervention among younger populations.

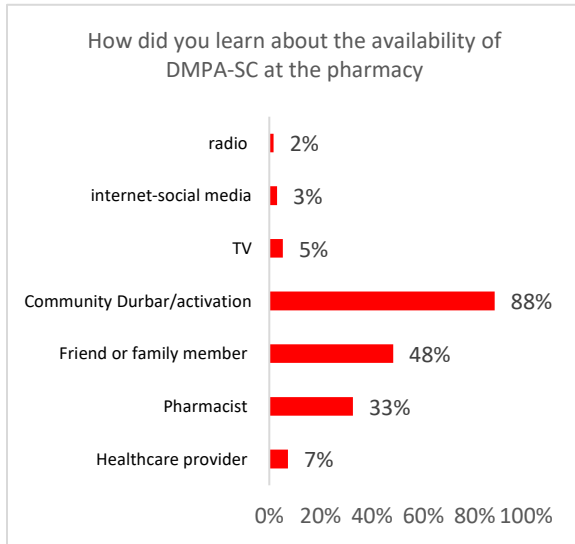
Table 4: Respondents Background Characteristics

Background Characteristics of Respondents						
Data Category		18-24yrs	25-34yrs	35-44yrs	45-49ys	Total
<b>Marital Status</b>	<i>Single</i>	64%	33%	3%	0%	48% (316)
	<i>Married</i>	28%	51%	21%	0%	47%(307)
	<i>Divorced</i>	0%	21%	71%	7%	2%(14)
	<i>Widowed</i>	18%	18%	64%	0%	2%(11)
	<i>Prefer not to say</i>	11%	22%	67%	0%	1%(9)
<b>Current Employment Status</b>	<i>Employed (full-time)</i>	37%	35%	27%	0%	8%(51)
	<i>Employed (part-time)</i>	36%	52%	12%	0%	4%(25)
	<i>Unemployed</i>	36%	41%	23%	0%	11%(70)
	<i>Self-employed</i>	39%	47%	13%	0%	55%(364)
	<i>Student</i>	65%	24%	10%	0%	22%(147)
<b>Educational Status</b>	<i>No formal education</i>	48%	32%	20%	0%	8%(50)
	<i>Primary education</i>	44%	44%	12%	0%	37%(246)
	<i>Secondary education</i>	49%	39%	12%	0%	28%(187)

	<i>Vocational/technical training</i>	44%	42%	15%	0%	16%(103)
	<i>Higher education (university degree)</i>	34%	38%	28%	0%	11%(71)
<b>Religious Affiliation</b>	<i>Christianity</i>	37%	47%	16%	0%	47%(307)
	<i>Islam</i>	51%	36%	12%	0%	46%(302)
	<i>Traditional African religion</i>	56%	26%	18%	0%	6%(39)
	<i>Prefer not to say</i>	22%	44%	33%	0%	1%(9)
<b>Grand Total</b>		44%	41%	15%	0%	657

## Channel of Client Information

Figure 1: Source of knowledge on DMPA SC at Pharmacy



In examining the avenues through which clients became informed about the project, it was observed that community durbars/activations served as the most prominent source of information, with 88% of clients attributing their awareness to this medium. Additionally, nearly half (48%) of the clients were introduced to the project by friends or family members. Furthermore, a notable 33% of clients stated they were informed by community pharmacists. This data underscores the significant

influence of community events and interpersonal networks in spreading awareness about the DMPA-SC services offered by pharmacies.

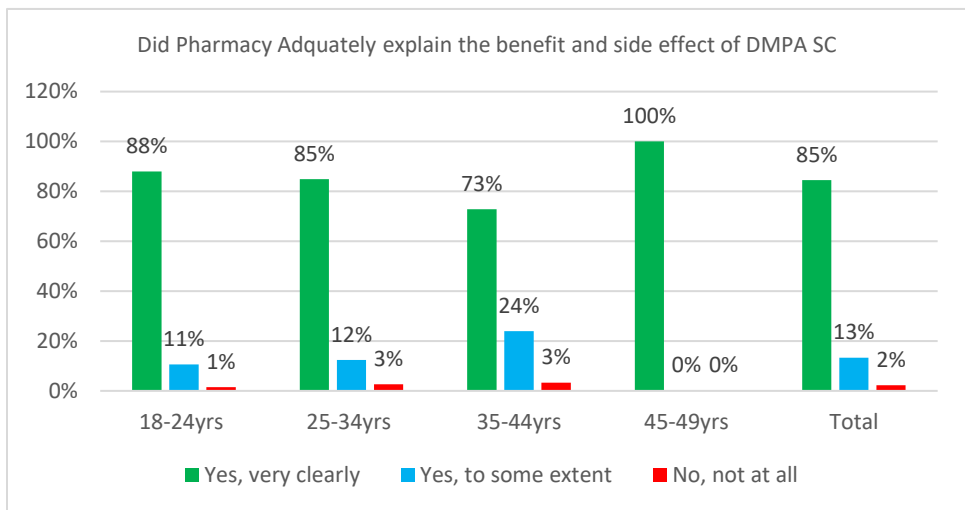
## Client satisfaction with counseling received at Pharmacy

Clients have notably expressed an overwhelming satisfaction with the counseling provided before utilizing the DMPA-SC services at the pharmacies, with a remarkable 91% indicating contentment. It is also significant to note that a minimal proportion of clients, precisely 2%, expressed dissatisfaction, whereas 7% remained neutral regarding their counseling experience at the pharmacy. Particularly in the age bracket of 35-44 years, women showcased a higher percentage of dissatisfying experiences, amounting to 6% of respondents, thereby hinting at an area that may warrant closer examination and potential enhancement in counseling approaches or information dissemination.

Table 5: Client Satisfaction with DMPA SC Counseling received at Pharmacy

How satisfied were you with the DMPA-SC counseling you received at the Pharmacy					
Data Category	18-24yrs	25-34 yrs	35-44yrs	45-49yrs	Total
Not satisfied at all	0%	0%	0%	0%	0%
Not satisfied	0%	2%	6%	0%	2%
Neutral	6%	8%	10%	0%	7%
Satisfied	70%	76%	71%	100%	73%
Highly satisfied	24%	14%	13%	0%	18%

Figure 2: Counseling on benefit and side of DMPA SC



Majority of the clients (85%) felt counseling received before service uptake adequately explain the benefit and side effect of DMPA SC, while 13% agreed to some extent the

counseling was adequate in addressing issues of product benefit and side effect.

**Responds from client not entirely satisfied with counseling received at Pharmacies**

The primary themes elicited from those respondents who indicated that their experiences with DMPA-SC services were only somewhat satisfactory center predominantly around the lack of comprehensive information on side effects. A substantial number of clients felt that the side effects of DMPA-SC were either not sufficiently explained, or entirely omitted during consultations, posing a significant area for improvement in client education and communication.

Another notable concern stemmed from those who had previously utilized the service and therefore may not have sought, or been offered, additional information or counseling upon subsequent visits. This theme suggests a potential assumption that returning clients do not require additional information, which might neglect an opportunity to provide updated or revised guidance.

A subset of responses also indicated a lack of confidence in the service provider, either in their communicative approach or the accuracy of the information being provided. This theme points toward a potential need for enhanced training in both the technical and communicative aspects of service provision.

Clients also drew comparisons between pharmacy counseling and that offered in clinical settings, indicating a preference for the latter, which underscores a potential disparity in the quality or depth of counseling between the two contexts.

Finally, the theme of unclear consequences not only reiterates the need for comprehensive side-effect discussion but also indicates a gap in explaining the outcomes or potential scenarios related to discontinuing the injection, suggesting that counseling could be expanded to encompass various aspects of DMPA-SC use, ensuring clients are fully informed and empowered in their contraceptive choices.

Table 6: Clients who reported not entirely satisfied with Counseling received at Pharmacies

Theme	Number of Responses	Sample Responses
<b>Inadequate Side Effects Information</b>	18	"Benefits yes but not side effects" "Side effects was not mentioned" "The side effects of it wasn't clearly explained to my understanding"
<b>Experiential Knowledge</b>	5	"Having undergone this service previously, I knew what to expect, so I didn't feel the need to ask questions"

		<p>"I already knew about it because I have received the same service before. I didn't really ask any question"</p> <p>"Since I've received the same service before, I didn't ask many questions"</p>
<b>Lack of Confidence in Provider</b>	6	<p>"Didn't seem confident talking to me"</p> <p>"The person didn't appear confident while speaking to me" "The person seemed unsure when talking to me about it."</p>
<b>Comparison with Clinic Counseling</b>	3	<p>"I found the clinic's counseling more helpful than what the pharmacy offered"</p> <p>"i like the clinic counseling than the pharmacy. i don't think she was very open on the side effect counseling"</p> <p>"I preferred the counseling at the clinic over that at the pharmacy. I feel the side effects weren't explained well"</p>
<b>Unclear Consequences</b>	7	<p>"Didn't tell me the consequences"</p> <p>"I wasn't entirely clear about the consequences, and the individual didn't explain them in a straightforward manner"</p> <p>"Wasn't told if I stop taking the injection what will happen to me"</p>



Table 7: Client ability to self-inject DMPA SC.

Data category		Percentage Distribution
<b>Were you provided a clear instruction on how to administer the self-injection on your own?</b>	Yes	78%
	No	22%
If "yes" were you offered an extra to self-inject in the next 3 months?	Yes	20%
	no	80%
If you were offered an extra to self-inject, How confident do you feel in your ability to administer the self-injection on your own?	Very confident	17%
	Somewhat confident	24%
	Not confident	60%
Did you self-inject at the Pharmacy?	no	69%
	yes	31%

The project embarked on several objectives, one of which was to promote self-injection of DMPA-SC among clients. The strategy to foster this self-administration involved utilizing trained pharmacists to educate clients, subsequently providing an additional DMPA-SC for clients to self-inject at their convenience within their homes.

Data indicates that 78% of clients were provided instructions on the self-injection of DMPA-SC. However, it's noteworthy that merely 20% of these clients were offered an additional DMPA-SC to facilitate self-injection at home. Among the subset offered this additional contraceptive, only 17% expressed high confidence in their ability to self-inject.

Furthermore, the dataset reveals that a total of 31% of clients successfully performed a self-injection under the supervision of the pharmacist at the pharmacy itself, underscoring a potential area for further exploration and support in promoting home-based self-injection practices.

### Focus Group Discussion with DMPA SC Clients

This aspect the study was ascertain client's general perspective of the project, examine the challenges in relations to clients' inability to self-inject DMPA SC, examine possible solution to the challenges and what initiatives exist to improve the project. A total of 8 focus group discussion among at least 8 clients per group was have across the regions.

Table 8: Barriers to Clients self-injecting DMPA SC

Theme	Number of Responses	Sample Responses
<b>Fear of Needles</b>	13	- "I can't self-inject because I am afraid of needles." - "The sight of the needle. I just don't have the courage." - "I fear injection; how do I inject myself."
<b>Lack of Confidence</b>	8	- "I can't self-inject, regardless of the situation." - "Nothing can be done to boost my confidence." - "I find it difficult to inject myself because I am not a doctor or nurse."
<b>Preference for Provider Administration</b>	5	- "We were informed about how to self-inject but preferred provider administration." - "I am confident to self-administer, but I still prefer going to the clinic because I fear complications."
<b>Positive Pharmacy Experience</b>	4	- "We were very satisfied with the quality of service at the pharmacy." - "Secrecy and privacy are assured compared to a clinic or hospital." - "We had free DMPA-SC family planning and free education which we wouldn't have gotten from the clinic."
<b>Language Barrier</b>	1	- "Everything on DMPA-SC family planning is written in English language, but I could read and write Kasim. If it was written in Kasim, it would have been better for me."
<b>Lack of Training</b>	1	- "I only needed more training on how to inject myself."

<b>Accessibility Challenges</b>	1	- "If I have traveled away from the facility and the time is due, I will try to do it to avoid any problem. If one is not feeling well, it is a challenge to walk to the place."
<b>Cultural and Misconceptions</b>	1	- "I had encountered so much misconceptions about the implant and other contraceptives."

Regarding why clients are not self-injecting DMPA-SC table 8 above reveals several key insights into the factors influencing their decisions:

**Fear of Needles:** A prominent theme is the fear of needles, which is a significant barrier to self-injection. Many respondents express their discomfort and anxiety associated with needles, making it a challenging task to self-administer the contraceptive. This fear appears to be a deeply ingrained concern for these clients and is a major deterrent.

**Lack of Confidence:** Another critical factor is the lack of confidence in their ability to self-inject. Respondents acknowledge that even if they were trained or had the knowledge, they still doubted their capability to perform the injection correctly. This lack of self-assurance in their skills contributes to their preference for provider administration.

**Preference for Provider Administration:** Many clients mention that they were informed about how to self-inject but chose provider administration. They express trust in healthcare providers' expertise and the belief that professionals are better equipped to handle the injection safely. This preference highlights the role of healthcare workers in addressing clients' concerns and providing guidance.

**Positive Pharmacy Experience:** Some clients cite positive experiences at the pharmacy, emphasizing factors such as secrecy, privacy, friendliness, and quality of service. These positive experiences likely contribute to their willingness to continue receiving injections from pharmacies rather than self-administering.

**Language Barrier:** A language barrier is noted in one response, indicating that written information about DMPA-SC in English may not be accessible to all clients. This highlights the

importance of providing information in languages that clients understand to ensure effective communication.

**Lack of Training:** While only one respondent mentions needing more training, it is essential to recognize the importance of adequate training in building confidence among clients who may consider self-injection in the future. Training can address fears and uncertainties related to the process.

**Accessibility Challenges:** A few clients note challenges related to accessibility, especially when they are away from the healthcare facility. This suggests that clients may consider self-injection as an option when faced with logistical constraints, despite their fears.

**Cultural and Misconceptions:** A single respondent mentions encountering misconceptions about contraceptives, indicating the need for comprehensive education and addressing cultural beliefs that may influence clients' decisions.

#### **Barriers to accessing DMPA SC in Pharmacies (Focus Group)**

The table below is a thematic analysis of the 8 focus group discussions carried out across the implementing regions. The focus had been to test what the themes will be with regards to what the main barriers are to accessing DMPA SC in pharmacies. The table below provide much insights in this regard.

Theme	Number of Responses	Sample Responses
Confidentiality and Privacy Concerns	2	"Some sales girls are good but some of them reveal your secrets to their fellow friends about what you came there for."  "The pharmacy is better because of the way the pharmacy has been designed with a very secret place for these kinds of activities without anyone seeing you with one on one with the pharmacist."  "I know myself, and I know the kind of life I am living, so if I listen to someone else, I will be making mistakes, so I took the decision myself."

Physical Accessibility	2	<p>"If one is not feeling well, it is a challenge to walk to the place."</p> <p>"The location was good because it was outside Navrongo town."</p> <p>"My husband even accompanied me here when I set off."</p>
Fear of Self-Injection	2	<p>"I find it difficult to inject myself because I am not a doctor or nurse."</p> <p>"Nothing. Because I am afraid of injection. So, no matter what, I cannot self-inject."</p> <p>"Yes, we were taught. But for me, I am afraid, so I will rather come for the pharmacist to administer it for me."</p>
Language Barriers	1	<p>"Everything on DMPA-SC family planning is written in English language, but I could read and write Kasim, if it was written in Kasim it will have been better for me."</p>
Affordability	2	<p>"I can personally say it is very affordable. Even the star dose was free."</p> <p>"I was told the price is GH¢5.00. It's very affordable."</p> <p>"The price also affordable. We didn't pay anything for the first they did for us but they will take GHS 5.00 for the subsequent ones."</p>
Reception and Supportive Environment	2	<p>"The reception was so kind and interactive."</p> <p>"Maybe from home stigmatization but for the service center, there wasn't any stigmatization. They even motivated us with minerals and so we were happy leaving the place."</p> <p>"The pharmacy is better because of the way the pharmacy has been designed with a very secret place for these kinds of</p>

activities without anyone seeing you with one on one with the pharmacist."

The thematic analysis of responses regarding barriers to accessing DMPA-SC at pharmacies reveals several important insights:

**Confidentiality and Privacy Concerns:** A notable barrier is the fear of personal information being revealed by pharmacy staff. Some respondents mentioned that while some sales personnel are discreet, others may disclose sensitive information to their friends. The importance of maintaining confidentiality and privacy in the provision of sexual and reproductive health services is evident from these responses.

**Physical Accessibility:** Accessibility is another significant factor. For individuals who are unwell or face physical challenges, walking to the pharmacy can be a barrier. However, respondents also mentioned that some pharmacies are conveniently located outside towns, making them accessible to a broader population.

**Fear of Self-Injection:** Many respondents expressed reluctance to self-administer the DMPA-SC injection due to a lack of medical training. They prefer to have a healthcare professional, such as a pharmacist, administer the injection. This highlights the need for clear and patient-friendly instructions for self-injection for those who are comfortable with it.

**Language Barriers:** The language barrier was mentioned as a concern, as all information related to DMPA-SC is in English. Respondents suggest that translating information into local languages, such as Kasim, could improve understanding and accessibility for those who are not proficient in English.

**Affordability:** Respondents generally found DMPA-SC to be affordable, including cases where the first dose was provided for free. Affordability is a positive aspect that encourages accessibility to this form of contraception.

**Reception and Supportive Environment:** A supportive and non-stigmatizing environment in pharmacies was emphasized. Respondents appreciated the kindness and interaction of pharmacy staff, which made them feel comfortable seeking DMPA-SC services.

### **Enablers to accessing DMPA SC in Pharmacies (Focus Group)**

The thematic analysis conducted on the responses regarding enablers to accessing DMPA-SC (Depot Medroxyprogesterone Acetate Subcutaneous) in pharmacies reveals several critical themes that shed light on the factors influencing individuals' choices and experiences with this contraceptive method. These findings have important implications for promoting and improving access to DMPA-SC in pharmacy settings.

**Convenience and Privacy:** The most prominent theme that emerges from the analysis is the convenience and privacy associated with obtaining DMPA-SC from pharmacies. Respondents consistently emphasize that pharmacies offer a discreet and confidential environment compared to clinics or hospitals. They appreciate the ability to access the contraceptive without having to navigate crowded clinic spaces, which aligns with their desire for a more private experience.

**Quality of Service:** Respondents also highlight the quality of service they receive at pharmacies as a significant enabler. Positive experiences, characterized by prompt and attentive care, contribute to their trust in pharmacy providers. This factor encourages them to seek DMPA-SC services in pharmacies, reinforcing the importance of maintaining high service standards in these settings.

**Information and Resources:** Providing adequate information and resources plays a vital role in enabling access to DMPA-SC. Counselling and educational materials offered by pharmacy staff are appreciated and contribute to informed decision-making. Some respondents express the need for personalized guidance, especially for those with limited literacy, emphasizing the importance of tailored communication.

**Self-Administration vs. Provider Administration:** The choice between self-administering DMPA-SC and having a pharmacist administer it is another crucial theme. While some respondents express confidence in self-injecting, others express a strong preference for having a healthcare provider administer the injection. Fear of needles and concerns about complications influence these choices. The findings underscore the importance of providing options to accommodate individual preferences and comfort levels.

**Refill Accessibility:** The ease of obtaining refills is highlighted as a contributing factor to accessing DMPA-SC in pharmacies. Respondents who have had positive experiences obtaining refills find it convenient and encourage continued use. However, some respondents have not yet reached the refill stage, indicating the need for ongoing support and monitoring in pharmacy-based DMPA-SC programs.

In summary, the thematic analysis demonstrates that individuals are drawn to accessing DMPA-SC in pharmacies due to the convenience, privacy, and quality of service offered. Information provision and the choice of self-administration or provider administration are key considerations. Pharmacies play a valuable role in expanding access to DMPA-SC, but it is crucial to tailor services to individual needs, preferences, and levels of confidence. Continued efforts to maintain high service standards, provide comprehensive information, and support those seeking refills are essential for the success and sustainability of pharmacy-based DMPA-SC programs.

Table 9: Enablers to accessing DMPA SC in Pharmacies

Theme	Number of Responses	Sample Responses
Convenience and Privacy	7	"Because they are permanently situated here, I can report to them on any reaction or complication I face after taking DMPA-SC."  "Secrecy and privacy are assured compared to a clinic or hospital."  "We were assured to come back when facing any challenge after taking DMPA-SC, so I have built a lot of trust for them."
Quality of Service	2	"I lay down my crown for them."  "5/5."
Information and Resources	3	"They first of all solicited for our previous experiences on contraceptives; so those who had less or no experience were



		<p>counseled on DMPA-SC and instructions on contraceptives were also reemphasized."</p> <p>"Because of illiteracy, some require one-on-one interactions. For example, I prefer guidance and counseling in any local dialect on the dos and don'ts in order to be saturated."</p> <p>"He guided me."</p>
<p>Self-Administration vs. Provider Administration</p>	<p>4</p>	<p>"I have successfully injected my mother with insulin using a similar strong needle before. But before then, I encountered so many misconceptions about the implant and other contraceptives."</p> <p>"I can't self-inject regardless of the situation."</p> <p>"For me, I am confident to inject myself, but I still prefer going to the clinic because I fear complications."</p>
<p>Refill Accessibility</p>	<p>2</p>	<p>"Yes, it is easy because of the good experience I had obtaining it."</p> <p>"I haven't taken the second dose."</p>

## Recommendations on how to improve DMPA SC in Pharmacies in Ghana (Focus Group)

On recommendations for improving the provision of DMPA-SC in pharmacies in Ghana. Here are the themes derived from the responses from the focus group discussions conducted.

Table 10: Recommendations on how to improve DMPA SC in Pharmacy

Themes	Number of Responses	Sample Responses
Confidentiality and Privacy	2	"They should educate the sellers how to keep confidentiality because some of us are doing family planning without our husband's knowledge." "DMPA-SC users want their privacy respected."
Availability and Consistency	1	"They should ensure that DMPA-SC is always available for sale, as interruptions in supply can be inconvenient."
Information and Awareness	2	"There should be more advertisements on TV and radio to educate people about DMPA-SC." "We want the government to support it so it will be free at all times."
Quality of Service	2	"Pharmacies should have trained pharmacists who can provide quality service." "Certified pharmacists or trained nurses should administer DMPA-SC, not ordinary attendants."

**Confidentiality and Privacy:** The first theme underscores the importance of maintaining confidentiality and privacy for women seeking family planning services. Respondents expressed concerns about potential breaches of privacy, particularly in cases where women are using DMPA-SC without the knowledge of their partners. This highlights the need for pharmacy staff to receive training on how to handle such sensitive information and ensure that clients' privacy is respected.

**Availability and Consistency:** Availability and consistency emerged as a significant concern. Respondents emphasized the necessity of ensuring that DMPA-SC is consistently in stock and

readily available for sale. Interruptions in the supply chain can be inconvenient for users and may lead them to consider alternative family planning methods. Thus, maintaining a reliable supply of DMPA-SC is crucial for meeting the demand and preventing users from resorting to less effective methods.

**Information and Awareness:** The theme of information and awareness highlights the importance of educating the public about DMPA-SC. Respondents expressed a desire for more extensive advertising efforts on television and radio to disseminate information about the method. Additionally, some respondents called for government support to make DMPA-SC more accessible and affordable for users. This suggests that a comprehensive awareness campaign, possibly supported by the government, could improve knowledge and uptake of DMPA-SC.

**Quality of Service:** The theme of quality-of-service addresses concerns related to the qualifications of pharmacy staff. Respondents indicated that they preferred trained pharmacists or certified healthcare professionals to administer DMPA-SC, as opposed to untrained attendants. This underscores the need for strict standards and regulations to ensure that DMPA-SC is provided by qualified personnel, guaranteeing the safety and efficacy of the method.

### **Assess Quality of Services (Mystery Client Survey)**

DKT conducted a comprehensive mystery client survey aimed at assessing the quality of services, with a specific focus on evaluating the provision of DMPA SC services. The primary objectives were to evaluate the counseling process, which included educating clients about potential side effects, instructions on self-administration, information about the effective period of the contraceptive, and guidance on where to refill their supplies.

Our team of trained mystery clients were meticulously prepared to observe and document their experiences during the interactions with healthcare providers. After engaging with the facilities, they exited and proceeded to complete a structured questionnaire based on their observations and overall experience.

This extensive survey was conducted across a diverse sample of 40 outlets, strategically selected to represent all eight participating regions. To ensure alignment with the project's target demographic, all mystery clients were young females aged between 19 and 25 years. This age

group was specifically chosen to closely match the demographic profile of the actual clients who predominantly accessed DMPA SC services within the project, as they mainly fell within the age range of 15 to 25 years.

Table 11: Barriers face by Mystery client while accessing DMPA SC services at participating Pharmacist

Themes	Number of Responses	Sample Responses
<b>Availability of Personnel</b>	<b>17</b>	<ul style="list-style-type: none"> <li>- "Call was made but the call wasn't returned."</li> <li>- "Had days he comes to work."</li> <li>- "The trained personnel wasn't available."</li> </ul>
<b>Drug Visibility</b>	<b>3</b>	- "Drugs were not visible to see."
<b>Cost-related Barriers</b>	<b>1</b>	- "The price of DMPA-SC at the pharmacy was higher than I expected, which made it less accessible."

**Availability of Personnel:** The most prevalent barrier identified in the responses is the availability of trained personnel. In many instances, clients encountered situations where the pharmacist or trained personnel responsible for administering DMPA-SC injections were not present at the facility. This issue highlights the importance of having adequately trained and available staff to ensure uninterrupted service provision. It also underscores the need for pharmacies to maintain consistent staffing schedules.

**Drug Visibility:** Several respondents mentioned that drugs, specifically DMPA-SC, were not readily visible or displayed. This lack of visibility can hinder clients from easily identifying and accessing the contraceptive method they seek. Ensuring that contraceptives are prominently displayed can improve awareness and streamline the service process.

**Cost-related Barriers:** One participant expressed concerns about the cost of DMPA-SC services, indicating that the price was higher than expected. Cost can be a significant barrier for some clients, especially if they perceive the service as unaffordable. Addressing pricing issues and providing affordable options may enhance access for a broader demographic.

### Quality and Accuracy of Information received by mystery client

The mystery client trained to on the category of information to expert form participation pharmacies eg. Expert being informed on product side-effects, product effective period, how to self-inject and where to get a refill on subsequent product administration. Table 12, provides insights on the merging themes from this section.

Themes	Number of Responses	Sample Responses
Detailed Information Provided	5	<p>"Yes, the staff provided me with a comprehensive explanation of how to use DMPA-SC and discussed potential side effects in detail."</p> <p>"I was pleasantly surprised by the thorough information provided by the staff. They covered usage instructions and possible side effects extensively."</p> <p>"Absolutely, the staff took the time to ensure I understood everything about DMPA-SC, from administration to potential side effects."</p>
Staff Unavailability	6	<p>"The person to administer was not around."</p> <p>"The person to administer was not around and the drug was not visible."</p> <p>"The pharmacist tried because the trained personnel wasn't around."</p>
Insufficient or Inadequate Information	5	<p>"Gave me information but wasn't detailed."</p> <p>"The staff didn't seem interested in discussing DMPA-SC's side effects, which left me concerned."</p> <p>"No, the staff seemed rushed and didn't explain DMPA-SC usage or its side effects adequately."</p>
Information Brochures/Pamphlets Provided	2	<p>"The staff not only explained how to use DMPA-SC but also handed me a brochure with all the information I needed about it."</p> <p>"They gave me a step-by-step demonstration on how to self-inject DMPA-SC and shared a pamphlet detailing its side effects."</p>

Staff Knowledge and Training	2	<p>"I felt the staff lacked knowledge about DMPA-SC and couldn't provide proper information on its usage or side effects."</p> <p>"The trained personnel wasn't available but will be on scheduled."</p>
------------------------------	---	--

The mystery client survey aimed to evaluate the quality of DMPA-SC service provision, particularly focusing on counseling regarding usage and potential side effects. A thematic analysis of the gathered responses revealed several key themes:

**Detailed Information Provided:** Some respondents reported that the staff provided them with comprehensive explanations of how to use DMPA-SC and discussed potential side effects in detail. These individuals felt well-informed and confident about the contraceptive method, highlighting the importance of thorough counseling.

**Staff Unavailability:** A significant number of respondents mentioned that the person responsible for administering DMPA-SC was not available during their visit. In some cases, this unavailability raised concerns, while others mentioned that pharmacists tried to step in when trained personnel were absent.

**Insufficient or Inadequate Information:** Several respondents expressed dissatisfaction with the level of information provided. They reported receiving information but found it lacking in detail, which left them concerned. Some respondents felt that staff seemed rushed and did not adequately explain DMPA-SC usage or its potential side effects.

**Information Brochures/Pamphlets Provided:** A few respondents mentioned that in addition to verbal counseling, staff handed them brochures or pamphlets containing information about DMPA-SC. This approach appeared to enhance the information-sharing process.

**Staff Knowledge and Training:** A couple of respondents felt that the staff lacked sufficient knowledge about DMPA-SC and couldn't provide proper information on its usage or side effects. However, some respondents were informed that trained personnel would be available on a scheduled basis, suggesting room for improvement in staff training.

### **Assessment on Client privacy (Mystery Client)**

Participating pharmacies were selected for the project based on a criteria of there being a space or a room to guarantee privacy for the administration of the DMPA SC services to clients. The mystery client survey generated some themes in table 12 below; this provided insight on the issues or success story on the privacy and confidential level of administering the services to clients.

A significant number of respondents (7 out of 12) expressed satisfaction with the level of privacy maintained during their consultations. They appreciated factors such as having a separate room or a quiet area for discussions. This highlights the importance of creating a private and comfortable environment for clients, as it contributes to their ease and openness in discussing their needs. Ensuring privacy can enhance the overall quality of service provision.

On the other hand, two respondents raised concerns about the adequacy of privacy, suggesting that improvements could be made to make the experience more confidential. This emphasizes the need for healthcare facilities to continually assess and enhance their privacy measures to meet clients' expectations.

Two respondents shared their positive experiences, emphasizing that their information was handled confidentially and that complete confidentiality was ensured by the healthcare provider. Such feedback underscores the significance of professionalism and confidentiality in building trust with clients and promoting their satisfaction.

One respondent mentioned that privacy was not maintained, as they had to wait at the front counter like other clients. This feedback highlights the importance of consistency in privacy measures to ensure that all clients receive the same level of confidentiality.

Lastly, one respondent had a mixed experience, stating that the pharmacist was professional and made privacy a top priority. This indicates that while privacy measures were appreciated, there may have been room for improvement in certain aspects of the consultation process.

Table 12: Assessing privacy and confidential nature of DMPA SC services provision in Pharmacies

Themes	Number of Responses	Sample Responses
Privacy maintained	7	1. Yes, they even had a separate room for the consultation. They took me to a quiet area where we could talk privately. I felt at ease discussing my needs; my privacy was definitely maintained
Privacy concerns	2	Privacy could have been better; it was a bit too open for my liking. I didn't feel exposed; they respected my confidentiality
Positive experience	2	My information was handled confidentially; I'm satisfied. Absolutely, the pharmacist ensured complete confidentiality.
Privacy not maintained	1	1. No but was at the front of the counter like everyone else getting drugs.
Mixed experience	1	1. The pharmacist was very professional, and my privacy was their top priority.

### Mystery Clients Overall Experience

The thematic analysis below on responses regarding the mystery clients overall service experience during the administration of DMPA-SC reveals several key themes:

**Availability of Pharmacist:** One respondent noted the absence of the pharmacist during their visit, highlighting the importance of the healthcare provider's presence.

**Professionalism and Information Provided:** Some clients praised the professionalism of the pharmacist and the information provided. However, there was a contrasting comment where a pharmacist was perceived as rushed and lacking in explanations, emphasizing the significance of effective communication during the service.

**Quality of Service:** The majority of clients had a positive service experience, emphasizing courteous and competent pharmacists who explained procedures clearly, ensured privacy, and provided hassle-free services. Speed and efficiency were appreciated, and some clients expressed pleasant surprises due to the professionalism displayed.



**Negative Experience:** One respondent reported a negative experience, citing the pharmacist's lack of patience and inadequate explanations as areas of concern.

Table 13: Mystery clients overall experience with participating pharmacist on service received

Themes	Number of Responses	Sample Responses
Availability of Pharmacist	1	"The person to administer was not around."
Professionalism and Information Provided	3	"I felt well taken care of throughout the process. The pharmacist's professionalism was commendable." "The pharmacist seemed rushed and didn't provide enough information." "The pharmacist provided thorough counseling."
Quality of Service	6	"The service was excellent. The pharmacist was courteous, explained everything clearly, and made me feel comfortable." "I had a positive experience. The pharmacist ensured my privacy, and the process was hassle-free." "I had a great overall service experience. The pharmacist's expertise made a significant difference."
Negative Experience	1	"I had a negative experience. The pharmacist lacked patience and didn't explain the procedure well."

## Mystery Client’s feedback on the availability of DMPA SC at Pharmacies

On mystery clients feedback on DMPA SC availability in Pharmacies generated five main themes, table 14 below highlights themes below with and interpretation.

**Staff Training and Availability:** Respondents emphasized the importance of training additional pharmacy staff to administer DMPA-SC when the pharmacist is unavailable. This highlights the need for a well-prepared and knowledgeable team to ensure continuous service provision.

**Quality of Service:** Participants commended the courtesy and professionalism of pharmacy staff, which made them feel comfortable discussing contraceptive options. Furthermore, clients appreciated detailed explanations about potential side effects, emphasizing the significance of comprehensive counseling in quality service provision.

**Accessibility and Availability:** Accessibility and availability emerged as key concerns. While some clients found the pharmacy location easily accessible via public transport and praised the affordability of DMPA-SC, others faced challenges in locating a nearby pharmacy offering the service. Waiting times were also mentioned as potential barriers. These responses underscore the importance of improving geographical coverage and reducing wait times to enhance accessibility.

**Language and Awareness:** Respondents suggested the need for promotional materials in local languages and increased awareness campaigns. This highlights the significance of culturally sensitive communication and outreach efforts to inform the public about DMPA-SC services.

**Privacy and Comfort:** Clients expressed satisfaction with the privacy and comfort they experienced during their pharmacy visits. This underscores the importance of maintaining a confidential and comfortable environment for discussing reproductive health options.

Table 14: Mystery Clients feedback on the availability of DMPA SC at the Pharmacy Channel

Themes	Number of Responses	Sample Responses
Staff Training and Availability	2	- "Other staff should be trained so that when the pharmacist is not in, they can help in administering." - "More trained pharmacists are needed to meet the growing demand for DMPA-SC."
Quality of Service	2	- "The pharmacy staff was very courteous and made me feel comfortable discussing my contraceptive options." - "I appreciated that the pharmacist explained the potential side effects in detail."
Accessibility and Availability	4	- "The pharmacy location was easily accessible by public transport. DMPA-SC was available at an affordable price, which is essential for accessibility."

		<ul style="list-style-type: none"> <li>- "I had to wait for quite a while before getting access to DMPA-SC, which might discourage some clients."</li> <li>- "I wish there were more pharmacies providing DMPA-SC services in rural areas." - "It was challenging to locate a pharmacy that offered DMPA-SC in my area."</li> </ul>
Language and Awareness	2	<ul style="list-style-type: none"> <li>- "There should be more promotional materials in local languages to increase awareness."</li> <li>- "More awareness campaigns are needed to inform people about DMPA-SC in pharmacies."</li> </ul>
Privacy and Comfort	2	<ul style="list-style-type: none"> <li>- "I felt confident in the privacy of the consultation room at the pharmacy."</li> <li>- "The pharmacy staff was very courteous and made me feel comfortable discussing my contraceptive options."</li> </ul>

### Stakeholder In-depth Interview

The perspectives of three prominent stakeholders within the sexual and reproductive health sector in Ghana were collected through in-depth interviews. These individuals hold high-ranking positions in both non-governmental organizations (NGOs) focused on sexual and reproductive health and the Ghana Health Service. The table below summarizes the insights obtained from these interviews, specifically highlighting their perspectives on the barriers and facilitators to accessing DMPA-SC (Depot Medroxyprogesterone Acetate Subcutaneous) in pharmacies. Additionally, we gathered their insights on strategies for successfully improving access to DMPA-SC in pharmacy settings.

Table 15: Themes related to the barriers and challenges to accessing DMPA SC in pharmacies in Ghana

Theme	Sample Responses
Accessibility Challenges	<ul style="list-style-type: none"><li>- "Accessibility has been a challenge... some don't know where to access the service."</li><li>- "Availability at the last mile is a challenge."</li></ul>
Policy and Regulatory Constraints	<ul style="list-style-type: none"><li>- "Policy presently is that pharmacists do not give injections, stemming from Pharmacy Council and Act."</li><li>- "Policy changes may require evidence and engagement with the Pharmacy Council."</li></ul>
Role of Community Pharmacies	<ul style="list-style-type: none"><li>- "Community pharmacies are strategically positioned to improve uptake due to accessibility and privacy."</li><li>- "Pharmacists could play a role in providing the service."</li></ul>
Gradual Implementation and Pilot Testing	<ul style="list-style-type: none"><li>- "Practice should lead policy; gradual implementation, documentation, and evaluation are essential."</li><li>- "Incorporate training into undergraduate programs."</li></ul>

**Accessibility Challenges:** The thematic analysis reveals that accessibility is a prominent concern when it comes to accessing DMPA SC in Ghana. Respondents mentioned that some individuals face difficulties in finding a service provider, and awareness about where to access the contraceptive is lacking. Additionally, the availability of the contraceptive at the last mile, where clients prefer to obtain it, is a significant challenge. This suggests that improving the distribution network and raising awareness about service points may be crucial to addressing accessibility issues.

**Policy and Regulatory Constraints:** The analysis highlights that existing policies and regulations present a significant barrier to the provision of DMPA SC in pharmacies. The policy dictates that pharmacists in Ghana generally do not administer injections, which complicates the introduction of this contraceptive method. The respondents also emphasized the importance of engaging with the Pharmacy Council and providing evidence to support potential policy changes. This theme underscores the need for policy reform to enable pharmacies to offer DMPA SC.

**Role of Community Pharmacies:** The thematic analysis underscores the strategic position of community pharmacies in enhancing the uptake of DMPA SC. Participants pointed out that community pharmacies are often the first point of contact for clients seeking healthcare services. Their accessibility, privacy, and extended operating hours make them ideal locations for providing reproductive health services. This suggests that leveraging community pharmacies can help increase access to DMPA SC, provided policy barriers are addressed.

**Gradual Implementation and Pilot Testing:** The analysis highlights the importance of a phased and evidence-based approach to introducing DMPA SC in community pharmacies. Respondents emphasized the need to pilot the program, monitor its progress, and gather data for evaluation. This approach allows for adjustments and improvements to be made over time. Furthermore, integrating training on DMPA SC into undergraduate pharmacy programs was seen as a way to prepare future pharmacists for this role.

The thematic analysis indicates that while there are challenges to accessing DMPA SC in Ghana, there are also opportunities for improvement. Addressing issues related to accessibility, policy constraints, and leveraging community pharmacies in a gradual and evidence-based manner could enhance the availability and uptake of this contraceptive method, contributing to better reproductive health outcomes in the country

## **Chapter Five: Research Study Results Discussion**

The research study aimed to assess the policy barriers of DMPA-SC (Depot Medroxyprogesterone Acetate Subcutaneous) implementation in pharmacies. The findings from the study shed light on several critical themes and insights that can inform policy changes and strategies for successful implementation.

### **Policy Barriers and Pathways for DMPA-SC Implementation in Ghanaian Pharmacies**

**Regulation and Training Issues:** The study revealed that regulatory restrictions or ambiguities create an environment of uncertainty for pharmacies interested in providing DMPA-SC services. This uncertainty is exacerbated by gaps in pharmacist training and capacity building. Additionally, resistance from traditional health sectors poses a significant challenge. To address these issues, a holistic approach is required, encompassing policy reform, pharmacist training, and inter-sectoral collaboration. Policy reforms are essential to clarify legal boundaries and permissions for administering DMPA-SC in pharmacies. Comprehensive training programs, such as those offered by organizations like DKT and the Ghana Health Service, were highlighted as effective in equipping pharmacists with the necessary skills and confidence to provide quality services.

**Inclusion in National Health Programs:** The study identified the inclusion of DMPA-SC administration within national health programs as a strategic enabler. Formal recognition at the policy level not only lends credibility to the service but also integrates it into the broader health system, ensuring sustained support and resources.

**Legislation and Policy Adjustments:** A conducive legislative and policy environment is fundamental for successful DMPA-SC implementation in pharmacies. Existing policies and regulations that generally prohibit pharmacists in Ghana from administering injections present a significant barrier. Respondents stressed the importance of engaging with the Pharmacy Council and providing evidence to support potential policy changes. Clear guidelines and specific policies from health authorities can smoothen the operational landscape, allowing pharmacists to provide these services without legal hindrances.

**Collaboration and Partnership Initiatives:** Collaborative efforts, whether through stakeholder advocacy, partnerships with NGOs, or engagements with policymakers, can significantly amplify the reach and impact of DMPA-SC services. These collaborative avenues not only enhance service

delivery but also ensure that pharmacies are integrated into broader family planning and reproductive health initiatives.

**Accessibility Challenges:** The study highlighted accessibility as a prominent concern for DMPA-SC in Ghana. Some individuals face difficulties in finding a service provider, and awareness about where to access the contraceptive is lacking. Moreover, the availability of the contraceptive at the last mile, where clients prefer to obtain it, is a significant challenge. Addressing these accessibility issues may require improving the distribution network and raising awareness about service points.

**Role of Community Pharmacies:** Community pharmacies emerged as strategically positioned entities for enhancing the uptake of DMPA-SC. Their accessibility, privacy, and extended operating hours make them ideal locations for providing reproductive health services. Leveraging community pharmacies can help increase access to DMPA-SC, provided policy barriers are addressed.

**Gradual Implementation and Pilot Testing:** The study emphasized the importance of a phased and evidence-based approach to introducing DMPA-SC in community pharmacies. Piloting the program, monitoring its progress, and gathering data for evaluation allow for adjustments and improvements over time. Furthermore, integrating training on DMPA-SC into undergraduate pharmacy programs was seen as a way to prepare future pharmacists for this role.

### **Key Barriers to DMPA-SC Implementation in Pharmacies: Study Findings**

Based on the information gathered in our research study on the barriers to DMPA-SC (Depot Medroxyprogesterone Acetate Subcutaneous) implementation in pharmacies, we have identified seven significant barriers and several related themes that shed light on the challenges and considerations for the successful introduction of DMPA-SC services in pharmacy settings. Let's discuss the key findings in a straightforward manner:

**Awareness and Education Challenges:** Many respondents highlighted the lack of awareness and education, both among the general public and potential clients. This lack of awareness can hinder effective service provision, especially when language barriers between pharmacists and clients are present. To overcome this barrier, robust informational campaigns and educational initiatives are essential to bridge the knowledge gap.

**Economic and Supply Chain Barriers:** Economic concerns related to the affordability of DMPA-SC services and supply chain issues leading to stockouts were identified as significant barriers. For DMPA-SC to be sustainably offered, strategies to stabilize prices and ensure consistent product availability are crucial.

**Cultural and Social Norms:** Deep-seated cultural beliefs and societal norms can impact the acceptance of DMPA-SC services. Clients' preference for clinics over pharmacies for family planning services and societal taboos around contraceptives emphasize the need for targeted community outreach and advocacy.

**Regulation and Training Issues:** Regulatory restrictions and gaps in pharmacist training and capacity building, coupled with resistance from traditional health sectors, create uncertainty for pharmacies. Addressing this barrier requires a holistic approach that includes policy reform, pharmacist training, and inter-sectoral collaboration.

**Client Concerns and Misconceptions:** Clients' personal fears and misconceptions, such as fear of injections and misunderstandings about contraceptives, highlight the importance of client-focused education. Building trust and enhancing service uptake necessitate addressing these misconceptions and concerns while ensuring privacy and confidentiality.

**Qualification & Training Concerns:** Concerns about unqualified pharmacies and personnel administering DMPA-SC injections underscore the need for well-trained pharmacists to mitigate risks. Ensuring that pharmacies are adequately trained is crucial to maintain the integrity and effectiveness of DMPA-SC services.

**Administration & Self-Injection Risks:** Respondents expressed considerable apprehension around the risk of incorrect self-injection techniques, dosing schedule misunderstandings, and allergic reactions. To minimize adverse reactions and maximize the effectiveness of DMPA-SC, comprehensive counseling, education on contraceptive methods, and careful screening for allergies are essential.

### **Key Enablers in Implementing DMPA-SC Services in Pharmacies**

The results of our study shed light on several key enablers to the implementation of DMPA-SC services in pharmacies. These findings provide valuable insights into the factors that facilitate the



successful integration of this contraceptive method into pharmacy-based family planning programs.

**Client Satisfaction with Counseling:** One striking observation from our study is the overwhelming satisfaction expressed by clients with the counseling provided before utilizing DMPA-SC services at pharmacies. A remarkable 91% of clients indicated contentment with the counseling they received. This high level of satisfaction underscores the importance of comprehensive and informative pre-service counseling, which helps clients make informed decisions about their contraceptive choices. However, it's worth noting that a minimal proportion (2%) expressed dissatisfaction, indicating room for improvement in counseling approaches, especially among women in the 35-44 age bracket.

**Information Sources and Awareness:** Our study highlights the crucial role of community durbars/activations as the most prominent source of information about DMPA-SC, with 88% of clients attributing their awareness to this medium. Additionally, friends and family members played a significant role in introducing clients to the project (48%). This underscores the influence of community events and interpersonal networks in spreading awareness about DMPA-SC services offered by pharmacies. It's essential to continue leveraging these channels for information dissemination.

**Effectiveness of Training Programs:** Participants in our study consistently emphasized the significance and effectiveness of training programs, especially those offered by organizations like DKT and the Ghana Health Service. This training not only equipped pharmacists with the necessary skills to administer DMPA-SC but also instilled confidence in their capabilities. These findings underscore the pivotal role of comprehensive training in ensuring the quality-of-service delivery.

**Client Concerns and Areas for Improvement:** While our study focused on enablers, it's important to note some client concerns that emerged. These include a lack of comprehensive information on side effects, assumptions about returning clients not requiring additional information, a need for enhanced training in both technical and communicative aspects of service provision, and comparisons between pharmacy counseling and clinical settings. Addressing these concerns is essential for enhancing the quality of DMPA-SC services in pharmacies.

## **Chapter Six: Study Recommendations and Conclusion**

### **Study Recommendations**

**Policy Reform and Training Enhancement:** To overcome regulatory barriers and improve pharmacist capacity, policy reforms should be pursued to clarify legal boundaries and permissions for administering DMPA-SC in pharmacies. Moreover, comprehensive training programs, such as those offered by organizations like DKT and the Ghana Health Service, should be extended to equip pharmacists with the necessary skills and confidence.

**Inclusion in National Health Programs:** The integration of DMPA-SC administration within national health programs should be pursued, ensuring formal recognition at the policy level. This not only lends credibility to the service but also ensures long-term support and resources.

**Legislative and Policy Adjustments:** Advocacy efforts should be directed towards amending existing policies and regulations that restrict pharmacists from administering injections. Clear guidelines and policies from health authorities should be developed to facilitate the smooth operation of DMPA-SC services in pharmacies.

**Collaboration and Partnerships:** Collaborative initiatives, including stakeholder advocacy, partnerships with NGOs, and engagement with policymakers, should be fostered to amplify the reach and impact of DMPA-SC services. These collaborations should ensure pharmacies' integration into broader family planning and reproductive health initiatives.

**Improving Accessibility:** Efforts should be made to address accessibility challenges, including raising awareness about service points and improving the distribution network. Ensuring that DMPA-SC is available at the last mile, where clients prefer to obtain it, is crucial.

**Leveraging Community Pharmacies:** Recognizing the strategic position of community pharmacies, policies should be revised to harness their accessibility, privacy, and extended operating hours for providing reproductive health services. However, policy barriers must be addressed to fully utilize this potential.

**Gradual Implementation and Pilot Testing:** A phased and evidence-based approach should be adopted for introducing DMPA-SC in community pharmacies. Piloting the program, monitoring progress, and gathering data for evaluation will allow for necessary adjustments and

improvements. Furthermore, integrating training on DMPA-SC into undergraduate pharmacy programs should be considered to prepare future pharmacists for this role.

These recommendations aim to address the identified barriers and enablers to the successful implementation of DMPA-SC services in pharmacies, ensuring that this contraceptive method becomes more accessible, acceptable, and widely available to individuals seeking family planning options.

### **Conclusion**

In conclusion, our comprehensive study on the implementation of DMPA-SC (Depot Medroxyprogesterone Acetate Subcutaneous) services in pharmacies has illuminated both the barriers and enablers that play a pivotal role in shaping the landscape of pharmacy-based family planning programs. These findings provide valuable insights for policymakers, healthcare professionals, and stakeholders seeking to enhance the accessibility, quality, and acceptance of DMPA-SC services in Ghana and similar settings.

Our research underscores the pressing need for holistic approaches that encompass policy reform, pharmacist training, and inter-sectoral collaboration to address the regulatory restrictions and uncertainties faced by pharmacies interested in providing DMPA-SC services. Policy reforms should clarify legal boundaries and permissions for administering DMPA-SC in pharmacies, while robust training programs are essential to equip pharmacists with the necessary skills and confidence.

Furthermore, the integration of DMPA-SC administration within national health programs is highlighted as a strategic enabler, offering formal recognition and sustained support. Advocacy efforts should be directed towards legislative and policy adjustments, ensuring a conducive environment for successful DMPA-SC implementation.

Collaborative initiatives, including partnerships and stakeholder engagement, hold great promise in amplifying the reach and impact of DMPA-SC services, thereby enhancing overall service delivery. Overcoming accessibility challenges requires concerted efforts to raise awareness about service points and improve distribution networks, making DMPA-SC readily available where clients prefer to access it.

Community pharmacies are recognized as strategically positioned entities for expanding access to DMPA-SC due to their accessibility, privacy, and extended operating hours. However, addressing policy barriers is essential to fully harness their potential. A gradual implementation approach, characterized by evidence-based pilot testing, allows for continuous monitoring, adjustment, and improvement, ensuring the sustainability of pharmacy-based DMPA-SC programs. Integrating DMPA-SC training into undergraduate pharmacy programs prepares future pharmacists for their role in providing this essential service.

In summary, our study not only identifies the barriers that hinder the successful implementation of DMPA-SC services in pharmacies but also provides a roadmap with seven key recommendations. These recommendations serve as a guide for policymakers and stakeholders to create an environment where DMPA-SC becomes more accessible, affordable, and client-centered. By addressing these challenges and embracing the enablers, we can advance the cause of reproductive health, empower individuals to make informed contraceptive choices, and ultimately contribute to the well-being of communities and nations.

**References:**

- Ahmed S, Li Q, Liu L, Tsui AO. (2019). Policy barriers to the provision of injectable contraceptives in pharmacies: A multi-country study. *Contraception*, 100(2), 110-118.
- Babawale MO, Oyeyemi AS, Osunlusi AE. (2020). Regulatory barriers to DMPA-SC provision in community pharmacies in Nigeria. *African Journal of Reproductive Health*, 24(2), 37-45.
- Bearak J, Popinchalk A, Alkema L, Sedgh G. (2019). Global, regional, and subregional trends in unintended pregnancy and its outcomes from 1990 to 2014: Estimates from a Bayesian hierarchical model. *The Lancet Global Health*, 7(3), e303-e313.
- Brady M, Phadke S, Weisman CS, Donnell D. (2018). Contraceptive access in pharmacies and the impact on use of injectable contraception. *Women's Health Issues*, 28(3), 266-272.
- Broughton H, Brody A, Morris M, Rocca C. (2022). Barriers and facilitators to contraceptive refill in pharmacy settings: A qualitative study. *Contraception*, 105(1), 35-41.
- Carter E, Simmons KB, Deroche CB, Turok DK. (2022). Pharmacy integration of contraceptive services: A review of successful models. *Contraception*, 105(3), 307-312.
- Cover J, Hartman L, Nichols K, Salcedo J, Steenland M. (2023). Improving DMPA-SC refill rates through a reminder and tracking intervention in community pharmacies. *Journal of Pharmaceutical Practice*, 36(2), 132-137.
- Malarcher S, Gribble JN, Mounier-Jack S, Kumar S, Richey C. (2018). Building pharmacy workforce capacity for injectable contraception: Lessons learned from three country experiences. *Global Health: Science and Practice*, 6(3), 456-467.
- McNicholas C, Maddipati R, Zhao Q, Swor E, Secura G. (2019). Pharmacist-provided contraceptive services in the community pharmacy setting: A pilot study. *Contraception*, 100(1), 50-55.
- Montoya J, Blair J, Trussell J, Peipert JF. (2021). Pharmacist-led intervention to increase DMPA-SC uptake among vulnerable populations. *Journal of Women's Health*, 30(4),