Outreach Model of Family Planning Service Delivery in India: What Works, for Whom and Why?

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Abbreviations

ANMs: Auxiliary Nurse Midwives

ASHAs: Accredited Social Health Activist

BCC: Behavior Change Communication

CBAs: Controlled Before–After Studies

CHCs: Community Health Centres

CHWs: Community Health Workers

CMOCs: Context-Mechanism-Outcome Configurations

COT: Clinical Outreach Teams

CPR: Contraceptive Prevalence Rate

CYPs: Couple Years of Protection

EAG: Empowered Action Group

FGD: Focus Group Discussion

FP: Family Planning

FP2020: Family Planning 2020

FP2030: Family Planning 2030

GoI: Government of India

ICPD: International Conference on Population and Development

IEC: Information-Education-Communication

IPC: Inter-personal Communicator

ITS: Interrupted Time Series

IUD: Intrauterine device

LAPM: Long-Acting Permanent Methods

LARC: Long-Acting Reversible Contraceptives

LMICs: Low-and-Middle-Income Countries

MII: Method Information Index

MIS: Management Information System

MoHFW: Ministry of Health and Family Welfare

MPWs: Multi-purpose Workers

NFHS: National Family Health Survey

NGOs: Non-Government Organizations

NHM: National Health Mission

NRHM: National Rural Health Mission

NSV: Non-Scalpel Vasectomy

P4P: Pay for Performance

PBIs: Performance-Based Incentives

PHCs: Primary Health Centres

PPIUD: Post-Partum Intrauterine Device

PPP: Public Private Partnership

QoC: Quality of Care

RCTs: Randomized Controlled Trials

RE: Realist Evaluation

SCs: Sub-Health Centres

SDGs: Sustainable Development Goals

TFR: Total Fertility Rate

ToC: Theory-of-Change

UP: Uttar Pradesh

Abstract

Non-Government Organizations (NGOs) have emerged as a key player in the delivery of family planning services in India. However, there is limited research on the approaches adopted by them that needs exploration. The focus of the current study is therefore to explore and explain the development of a new approach- the outreach model, initiated by an NGO to provide family planning services in rural areas of India; and assess the model's effectiveness in delivering its service outcomes. The study used two theoretical approaches. One is utilising the project initiation and planning phase of the project management theory to understand how a new project model was designed, another is adopting theory-based realist evaluation to identify program theories that explain how, for whom, and why the outreach produces the desired outcomes.

The study has highlighted the critical role of contexts and mechanisms while designing a new project and identified how not fully considering the needs of individual, family, and community impact on the project outcomes. In addition, using realist evaluation, four program theories were identified and tested that provided important insights as to 'what works, for whom, to what extent, and how'.

Results suggest that the project model is achieving its intended outcomes of increased availability, awareness, and uptake, and improved quality to only a certain extent. It did not meet the unmet needs of the population that the team failed to identify. The study identified four weaknesses. One, it is only benefitting Hindu women, seeking a permanent method of birth control with limited ability to reach young married women with a latent demand for delaying or spacing childbirth. Two, female clients appreciate the quality of care offered to them, but male clients receive inconsistent care. Three, the targets set for outreach teams and community health workers suggest bias towards promoting a specific method and recruiting a specific group that is easy to target. Lastly, the timing of providing information on various methods and counselling the service users is recognized as critical in their decision making.

In considering the strengths and weaknesses of the project design and implementation process of the new project model as developed by the NGO provider, the study proposes a revised program theory that can guide the design and delivery of family planning services in similar contexts. The study also presents a framework that describes the process for

developing a new service delivery model with a built-in theory-based evaluation supportive in assessing its effectiveness. The insights gained from the study can be valuable to academic researchers, program practitioners, policy makers as well as funding bodies.

Statement of Authorship

Except where reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis accepted for the award of any other degree or diploma. No other person's work has been used without due acknowledgment in the main text of the thesis. This thesis has not been submitted for the award of any degree or diploma in any other tertiary institution.

All research procedures reported in this thesis were approved by the La Trobe University Human Ethics Committee.

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Chapter 1: Introduction

1.1 Background

Rapid population growth and the increasing need for contraception continues to be major concerns in the developing world. Governments across developing countries have developed their national population policies and family planning programs. Evidence confirms that increased access to contraceptives and family planning information and services reduces the risk of maternal and newborn deaths caused due to unintended pregnancies (Tsui et al., 2010; Cleland et al., 2012; Bearak et al., 2018). Countries have witnessed intensified efforts in terms of establishing healthcare infrastructure, promoting small family norms, and providing reproductive, maternal and child healthcare services. All these concerted efforts have led to a sharp increase in the demand for contraceptive services, especially among the poorest segments of the developing countries (Speizer et al., 2014; United Nations, Department of Economic and Social Affairs, Population Division, 2020).

Still, more than 220 million women in developing countries who do not want to get pregnant lack access to family planning services and appropriate contraceptives that meet their needs (Machiyama et al., 2017). Country reports on family planning progress have acknowledged the limitations of the public health sector in adequately reaching and serving their population especially those in regional and rural areas with limited resources (Silumbwe et al., 2018; Ali et al., 2019). To maximise service capacity, many nations now work in partnership with the private sector, including not-for-profit or non-government organizations (NGOs), for improving access to family planning information and services (Grundy et al., 2009; Heard et al., 2011).

These partnerships deploy innovative service delivery models including clinics, mobile outreach, social franchising, community-based distribution and social marketing of products to reach different segments of the population (Bongaarts et al., 2012; Duvall et al., 2014). However, the success of family planning programs depends on a wide range of factors including strong political support, well-designed and implemented programs that are adapted to local needs, availability of a wide range of contraceptive methods, quality of services, and adequate funding sources. It is therefore crucial to have a detailed understanding about how each of these innovative models is designed and the extent of its

success in achieving the outcomes. The current study is a step in this direction and aims to investigate one of these innovative models.

The study intends to critically examine an NGO run mobile outreach model in India. The study aims to add to the existing knowledge of project design and evaluation of a family planning program implemented by an NGO.

1.2 Research Objectives

1. To explore the factors considered by the senior managers of the NGO in assessing the need and the design of a new service delivery model
2. To understand the extent to which the new project model is achieving its project outcomes
3. To develop an explanatory theory around the working of the project model to ascertain 'what works, for whom and under what circumstances'.

1.3 Research Questions

Q 1: How does an NGO choose or design a new service delivery model to address the demands of the underserved populations?

1.1: What contextual factors the NGO takes into consideration to assess the need for a new service delivery model?

1.2: What steps the NGO takes in order to design (or develop) a new service delivery model?

Q 2: Does the newly designed project model achieve the intended service outcomes?

2.1 How does the new project model influence/attract the underserved population to access FP services?

2.2 To what extent does the project model address the need of family planning services among the underserved population?

2.3 For whom and under what circumstances does the project model work best?

Q 3: From user's perspective, what influences their decision of accessing family planning services and what makes the project model acceptable to them?

1.4 The structure of the Thesis

This thesis is composed of ten chapters. The **first chapter** is this introductory chapter which mainly provides a brief background to the rationale of this study, research objectives, research questions, and an overview of the structure of the thesis

Chapter two provides the contextual information about India where the empirical field work was conducted. It provides the historical context of family planning in India, current contraceptive prevalence, service delivery system and the country's commitment to the FP2030 and Sustainable Development Goals (SDGs).

Chapter three provides a detailed literature review on the existing programs, policies, and interventions in low-and-middle-income countries (LMICs) including India. The literature review is divided into five broad categories. Based on the review, gaps are identified followed by the significance of the current study.

Chapter four presents the methodology foundation of the research. It outlines the Realist Evaluation approach that provides the overall guiding framework and justifies the use of case study and mixed methods of data collection. The chapter also provides information on the research setting, study area and population; sampling and recruitment strategy; sample size; methods and stages of data collection and data analysis.

Chapter five presents the findings from the field work addressing the first research question of the study. These findings are presented in two sections. One, using the realist evaluation approach to identify the contexts and mechanisms (resources + reasonings) to recognize the need that resulted in the decision to initiate the outreach model. Two, the steps taken by the senior managers to develop and implement the project model.

Chapter six presents the findings from the field work addressing the second and third research question. These findings are described in three phases as per realist evaluation cycle of developing initial program theories; testing these program theories; and refining these program theories. The program theories are presented in the form of context-mechanism-outcome configurations (CMOCs) and describes what is working, for whom and why.

Chapter seven and eight discusses the findings of the research by linking them to the relevant literature. Chapter seven presents the discussion on the need and conceptualization or design of the new project model, comparing it to the project

initiation stage of the project management theory. Chapter eight discusses the key themes around the extent to which the outreach model addresses the family planning needs of the underserved population.

Chapter nine presents a revised comprehensive program theory of the outreach model based on all the findings and themes discussed in previous chapters. It also presents a new framework to develop a family planning program and evaluate its effectiveness.

Chapter ten provides a summary of the research and suggests program and policy recommendations along with discussing the contribution of the study. The chapter also presents study limitations and challenges before providing recommendations for future research.

Chapter 2: Family Planning Program in India

2.1 Introduction

This chapter provides contextual information about India where the empirical field work for the current study took place. Understanding the country context is important as it provides the necessary theoretical underpinnings and significance of the current study. The first section of the chapter provides a detailed overview of the history of family planning[1] in India. It covers the important policy and programmatic decisions taken by the government since the inception of the country's family planning program and how these decisions shaped the contraceptive usage among states. The second section provides an overview of the family planning service delivery system in the country. It outlines the service delivery points and service providers of the family planning methods and key resource gaps. The last section discusses India's commitment to the global family planning community. This includes the country's commitments to the FP2030, and the Sustainable Development Goals (SDGs) and the strategies adopted by the government to achieve these commitments.

2.2 Family Planning in India: A historical context

The focus of this section is to present the history of family planning policy and program in India. Recognising that the health behaviours, interventions, and policies arise from social, cultural, and political contexts in which they sit and are sensitive to these contexts, it is important to understand these features or settings. Family planning programs in India are deeply rooted in the wider policy framework and historical background and continue to get influenced by these past conditions. Given that the current study intends to examine the context in which a family planning program is developed and implemented, and its impact on program's effectiveness, it is critical to understand the history of family

[1]**Family Planning: Definition and use in the context of current study**
The World Health Organization and the United Nations broadly define family planning as the information, means, and methods that allow individuals and couples to anticipate, decide and attain their desired number of children, if any, while determining the spacing and timing of their pregnancies (WHO, n.d.; UNFPA, n.d.). Although family planning also includes information about how to become pregnant, pre-conception care and treatment of infertility, it is often used as a synonym for access to and use of contraception. For the current study, family planning would encompass services leading up to the use of contraception.

planning in India and how the program continues to be influenced by its past policies and unique characteristics.

With 1.37 billion people in 2019, India is set to surpass China as the world's most populous nation by 2027 (United Nations, Department of Economic and Social Affairs, Population Division, 2019). Ironically, India was the first country in the world to commence a national family planning program back in 1952 to slow down the population growth (Ledbetter, 1984; Paxman et al., 2005). The program was designed and implemented primarily to meet the demographic goals to lower fertility rates and slow population growth, as a means to propel economic development of the country (Ledbetter, 1984; Jain, 1989; Visaria et al., 1999). However, it has seen numerous extensions of timelines in the wake of not meeting those goals (Jain, 1989).

The program started with the clinic-based approach in urban areas offering contraceptives during the first five-year plan (1952-57). However, the approach was realized to be futile with policymakers understanding that simply opening clinics and waiting for clients was a weak response to control unabated population growth. This led to the recommendation of extension approach, taking family planning services to the village level. Under the 'extension approach' family planning campaign started, and new methods of birth control were introduced including condoms, intrauterine device (IUD) and male and female sterilizations (Harkavy & Roy, 2007; Ledbetter, 1984). Still the country was far from achieving its desired birth rate to control population growth.

By late 60s, the Ministry of Health and Family Planning (later renamed as Ministry of Health and Family Welfare) made significant additions to the program that would continue for decades to come. The central government set demographic goals for each state and annual target were fixed for the number of acceptors of different methods of contraception. These targets were passed on to all the levels of administration down to the subcentres and individual family planning workers and were used to evaluate the performance of the program as well as those implementing it (Visaria & Ved, 2016; Harkavy & Roy, 2007; Srinivasan, 2007). The government further pushed for sterilization since it was a permanent solution and required no further visits or supplies. The targets also came with incentives to individuals who would come forward for sterilization (Ledbetter, 1984).

The 1970s witnessed the 'infamous' emergency period when the government, in a bid to facilitate economic development, indulged in a coercive approach to family planning (Williams, 2014; Maharatna, 2002). The national emergency was the response of the ruling party to a number of political and economic problems facing the nation including reduced food production due to poor weather, surge in petroleum prices, reduced exports, and high rate of inflation. The government released a 20-point program for setting the Indian economy right. Although, family planning was not included in this program, it soon became a central theme in all the public addresses led by the son of the Prime Minister, who was emerging as an apparent heir. He made it clear that the family planning program must be given the utmost attention and importance because all the industrial, economic, and agricultural progress would be of no use if the population continued to rise at the present rate (Gwatkin, 1979). The period saw the highest political will to 'do something' recognising the close relation between population and development and to combat poverty. However, this political will was more driven by the top leadership with lower-level leaders under intense pressure to produce extraordinarily large numbers of sterilization acceptors immediately, with no excuses accepted for failure to comply and with few questions asked about how compliance was achieved (Gwatkin, 1979).

In 1976, the government announced enormously large targets for male sterilizations (i.e. vasectomy), increased monetary incentives for 'acceptors', and disincentives for large families (Ledbetter, 1984). Vasectomy camps, along with substantial incentives both monetary and in-kind, for acceptors as well as promoters and medical personnel performing the services became one of the defining features of the program, lending a coercive element to the process (Williams, 2014; Harkavy & Roy, 2007). The year 1976-77 saw the world's most aggressive and repressive sterilization campaign with an all-time high of 8.26 million sterilizations performed, majority on men (Matthews et al., 2009; Srinivasan, 2007; Ledbetter, 1984). However, as noted by Ledbetter (1984) and Visaria and Ved (2016), the demographic profile of the vasectomy acceptors was overlooked, and the procedure was performed on many persons who would have no impact on birth rate. According to Srinivasan (2006, p. 10) "The program became entrenched in a HITTS model, i.e., Health Department operated, Incentive-based, Target-oriented, Time-bound, and Sterilization-focused programme."

This undue emphasis on sterilization targets, poor service standards, and the incentive-based and coercive nature of the program led to the fall of the ruling party in the 1977

elections. The new government renamed family planning program as ‘family welfare program’ and proposed an entirely voluntary nature of birth control while reiterating the importance of small family (Visaria & Ved, 2016; Maharatna, 2002). However, the focus on sterilization continued with a shift from vasectomy to female sterilization (Srinivasan, 2007).

Another important feature of the program emphasized by the government from the 60s was the ‘cafeteria approach’ i.e. offering the couples a choice of several contraceptive methods and letting them choose the method they think is best for them. However, this approach was only limited to policy papers where in reality the program was visibly skewed in favour of one method with method specific intensive drives being organized from time to time (Visaria & Ved, 2016; Jain, 1989).

During the 80s, the program focussed on promoting reversible methods including IUDs, condoms and pills. Several studies reported discontinuation of IUD by two-third women within 18 months while citing discomfort and side-effects along with poor follow-up and non-addressal of their concerns by the health care providers (Gandotra & Das, 1996; Kanitkar et al., 1988). Notwithstanding the cafeteria approach, health functionaries were continuously being pushed to recommend sterilization to the acceptors of family planning. Undeniably, sterilization was clearly emerging as the backbone of contraceptive use in India (Visaria & Ved, 2016).

Several studies conducted during the period also pointed out that sterilization was the first and the only method of contraception for the majority of couples (Zavier & Padmadas, 2000; Visaria et al., 1994). While vasectomy became unpopular due to earlier backlash and fear of loss of virility, loss of stamina and inability to do hard work, female sterilization slowly but steadily increased despite similar complaints (Visaria & Ved, 2016; Maharatna, 2002). The reason quoted by women was “it freed them from repeated childbearing” (Visaria & Ved, 2016, p. 48).

The next few decades saw several changes and shifts in the program’s approach. The International Conference on Population and Development (ICPD) in 1994 became the landmark event where 179 countries including India adopted a revolutionary program where Sexual and Reproductive Health was affirmed as a fundamental human right. According to ICPD Program of Action, “the aim of family-planning programmes must be to enable couples and individuals to decide freely and responsibly the number and spacing

of their children and to have the information and means to do so and to ensure informed choices and make available a full range of safe and effective methods. Any form of coercion has no part to play. Demographic goals, while legitimately the subject of government development strategies, should not be imposed on family-planning providers in the form of targets or quotas for the recruitment of clients" (UNFPA, 2014, p.64).

This marked a fundamental shift in India's family welfare program and its response to population growth. As a signatory to the ICPD Program of Action, the government abolished the target approach in 1996. The target-free approach meant that the program would no longer be driven by centrally imposed targets, rather, community's needs for contraceptives would be the priority. Thus, the target free approach was renamed as 'community needs assessment approach'. Under this new approach the grassroot workers – auxiliary nurse midwives (ANMs) and multi-purpose workers (MPWs) were supposed to reach out to communities and families to assess their contraceptive needs and preferences that would determine their annual workload. This workload became their expected level of achievement (ELA) instead of targets (Donaldson, 2002; Narayana & Sangwan, 2000).

Many studies have critiqued that the shift was made without adequate planning and directions to the state and district functionaries for smooth transition (Donaldson, 2002; Narayana & Sangwan, 2000). The only guidance was in the form of a manual to orient them on decentralized planning (Narayana & Sangwan, 2000). There were variations among states in the implementation of the new policy as well as complacency in the absence of targets (Donaldson, 2002). Further, no indicators were set to assess the performance of the health personnel or centres and no resource allocation or strategies were modified (Ramachandran, 1999). The implementation therefore suffered due to inadequate planning.

To add to the difficulty of implementing, since health is a state subject, several state governments continued to impose targets and setting goals for sterilization, while remaining oblivious to the spirit behind target-free approach and providing choice (Rai, 2005). Some states even adopted strict measures to promote two-child norm believing that certain incentives and disincentives are necessary for population stabilization. Evidence suggests that these measures were coercive, violating the basic human rights, skewed the sex ratio, increased sex selective abortion and female infanticide, were anti-poor, anti-

women, and anti-weaker segments and targeted rural population (Cole, 2009; Visaria et al., 2006; Rao, 2003).

In 2005, with the launch of the National Rural Health Mission (NRHM), the eight states that were socio-economically backward and were lagging in their demographic transition and health goals were grouped as 'Empowered Action Group' (EAG) states. Under the NRHM, these EAG states were given special focus. Guidelines were set to deliver quality family planning services while meeting the unmet need of couples (NRHM, n.d.).

In 2013, MoHFW adopted a new strategic approach that repositioned family planning to not only achieve population stabilization but also to reduce maternal mortality as well as infant and child mortality. A target-free approach based on unmet needs for contraception; equal emphasis on spacing and limiting methods; and promoting "children by choice" in the context of reproductive health were the key approaches to promote family planning and improve reproductive health (MoHFW, 2013, p. 29).

The above discussion demonstrates that it is undeniable that the FP program of India has had a long and turbulent history marked more with controversies than achievements. It is also evident that the program has witnessed and sustained several transformations both at policy and implementation level. As mentioned earlier, the devolution of policy making to the states resulted in diverse policies and programs. This coupled with a combination of other factors including socio-political and economic changes, has resulted in variations in fertility decline and contraceptive usage among states.

State-wide variations in Total Fertility Rate (TFR)[2] and contraceptive prevalence rate (CPR)[3] - The pace of fertility decline is not uniform throughout the country. Dividing the Indian states and union territories into six regions: Northern, Central, Eastern, North-eastern, Western and Southern, Southern region is performing better than other regions. Even within the regions, there are disparities. In the Northern region, while Punjab has a TFR of 1.7, Rajasthan is at 2.7. Similarly, in the Eastern region, West Bengal has TFR of

[2] Total Fertility Rate (TFR) is defined as the expected number of children a women who survives to the end of the reproductive age span will have during her lifetime if she experiences the given age-specific rates (United Nations, n.d.).
[3]Contraceptive Prevalence Rate is the proportion of women who are currently using, or whose sexual partner is currently using, at least one method of contraception, regardless of the method being used (United Nations, n.d.).

1.6 as compared to 3.3 in Bihar respectively (National Health Mission, Annual Report 2017-18).

Overall, 24 states/union territories have achieved TFR of 2.1 (replacement level) or less; nine states still have a TFR between 2.2 – 3.0 while three states – Bihar, Uttar Pradesh (UP) and Meghalaya, have much higher TFR of 3.3, 3.1 and 3.0 respectively (National Health Mission, Annual Report 2017-18). Government of India has categorized states as per the TFR level into very high focus (more than or equal to 3.0), high focus (more than 2.1 and less than 3.0) and non-high focus (less than or equal to 2.1). There is also disparity in fertility levels and trends in urban and rural areas of each state. TFRs are higher in rural areas in all states.

The CPR for currently married women in India is 54 percent (NFHS-4, 2015-16). Female sterilization remains the most popular method with 36% married women using it, followed by male condoms (6%), pills (4%) and IUD/PPIUD (1.5%). CPR also varies substantially across the states, from a low of 24 percent in Bihar and Meghalaya to a high of 76 percent in Punjab.

Demand and unmet need for family planning -The NFHS-4 (2015-16) data highlights that only one in four currently married women and men aged 15-49 years want to have another child. Also, around 23 percent women and 25 percent men want to wait at least two years or more before having another child. Further, 32 percent women and 64 percent men do not want any more children. This indicates the demand for family planning. Demand for family planning among currently married women include two categories. One is the women who are currently using a method (and likely to continue) and second is women who are fecund and sexually active but are not using any method of contraception and want to delay or do not want any more children. The second category is defined as the unmet need for family planning.

Unmet need for family planning is an important indicator for assessing the potential demand for family planning services. It provides an estimate of women who want to plan their childbirth but are not using any method. It further points to the gap between women's reproductive intentions and their contraceptive behaviour. A total of 13 percent of currently married women in India have an unmet need for family planning. The unmet need for limiting (7.2 percent) is slightly higher than the unmet need for spacing (5.6 percent). Younger women (age 15-24) have a greater unmet need for spacing than for

limiting. Rural women have a higher unmet need than urban women for spacing as well as limiting. This shows that women have varied preferences when it comes to planning their families.

The above review of the history of family planning and current status establishes the importance of the issue of family planning and provides the necessary conceptual and contextual background for the current study. The next section will provide a snapshot of the FP service delivery system and gaps in infrastructure and manpower.

2.3 Family Planning Service Delivery System in India

Family planning services are delivered through the government health care delivery network which is different in rural and urban areas of the country. In the rural areas, it is a multi-tier system comprising community health centres (CHCs), primary health centres (PHCs) and sub-health centres (SCs) which have been created on a population-based norm (Table 2.1). In the urban areas, these services are confined to urban family welfare clinics which are attached to the civil and district hospitals. Family planning services are also provided by private hospitals and clinics and NGOs.

As per NFHS-4 (2015-16), the government health sector is the source of modern methods for 69 percent of current users. The remaining one-quarter of users obtained their method through private sector (which also includes NGO or trust hospitals/clinics), and six percent received their method through other sources. A higher proportion of users in rural areas (76 percent) than in urban areas (58 percent) approach public sector for their contraceptive methods. The public sector is by far the most used source for both female and male sterilizations (82 and 90 percent respectively) as well as IUD/PPIUD (59 percent). For short term methods including pills, injectables and condoms, private sector is approached.

Table 2.1 FP services provided by different service providers at different government service locations

FP Method	Service Provider	Service location
Spacing Methods		
IUD – interval	Trained & certified ANMs, LHVs, SNs and doctors	Subcentre & higher levels
IUD – post-partum	Trained & certified nurses and doctors	Currently PHC and higher levels
OCPs	Trained ASHAs, ANMs, LHVs,	Village level, Subcentre &

	SNs and doctors	higher levels
Condoms	Trained ASHAs, ANMs, LHVs, SNs and doctors	Village level Subcentre & higher levels
Injectable	Trained doctors, SNs, LHVs and ANMs	Medical Colleges and District Hospital (in Phase I)
Limiting Methods		
Minilap	Trained & certified MBBS doctors & Specialist Doctors	PHC & higher levels
Laparoscopic Sterilization	Trained & certified MBBS doctors & Specialist Doctors	Usually CHC & higher Levels
NSV	Trained & certified MBBS doctors & Specialist Doctors	PHC & higher levels
Emergency Contraception		
ECPs	Trained ASHAs, ANMs, LHVs, SNs and doctors	Village level, Subcentre & higher levels

Source: National Health Mission, Annual Report 2017-18 (p.90)

Although family planning service delivery systems are in place, there is a shortage of both infrastructure and skilled health workers. There is a shortfall of SCs, PHCs, and CHCs by 20, 23, and 32 percent respectively (Mehta, 2018). The country also has a severe shortage of qualified health workers that are unevenly distributed. Bringing them to rural, remote and underserved areas is another challenge in itself (Rao et al., 2012). There are wide inter-State differences in both manpower and infrastructure (Mehta, 2018). Then there are supply issues like consistent availability of family planning services in the District Hospitals, CHCs, and PHCs is a concern. For example, a study conducted by India Health Action Trust found that in all the 75 districts of Uttar Pradesh, only 25% of the facilities provide female sterilization while male sterilization services are only available in 11% of the facilities (Halli et al., 2019).

These persistent gaps and shortfalls raise concerns since the Government of India is a signatory to some of the global commitments including FP2030 and Sustainable Development Goals. The next section will briefly discuss these commitments and the country's efforts to achieve their commitments.

2.4 FP2030 and Sustainable Development Goals (SDGs)

FP2030 is the extension to FP2020, an outcome of the 2012 London Summit on Family Planning, that aimed to expand access to family planning information, services, and supplies to an additional 120 million women and girls in 69 of the world's poorest countries by 2020 (Family Planning 2020). Sustainable Development Goals (SDGs) are a

framework of 17 goals and 169 targets across social, economic, and environmental areas of sustainable development, which United Nations (UN) Member States have committed to making a reality by 2030 (IPPF, 2016).

The SDGs make specific references to family planning in Goal 3 Target 3.7 and Goal 5 Target 5.6 and make special mention of ICPD Program of Action 1994. The two most relevant indicators to family planning include indicator 3.7.1 on 'Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern method' and indicator 5.6.1 on 'Proportion of women aged 15-49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care' (IPPF, 2016).

India is a signatory to both FP2020 and SDGs. As per the country's commitment to FP2020, which is now transitioning to FP2030, India aimed to provide FP services to 48 million additional women and sustain current coverage of over 100 million users by 2020 (MoHFW, 2014). The program envisaged that 74% of the demand for modern contraceptives will be satisfied by 2020. To achieve this, the government proposed a shift in strategy from limiting to spacing methods, expanding range and reach of contraceptives by introducing injectable contraceptive in the public health service delivery system, delivering quality services to the hardest-to-reach areas, strengthening the network of community health workers, known as ASHAs (Accredited Social Health Activist), and expanding role of the non-governmental and private sector to ensure family planning services (FP2020, n.d.; MoHFW, 2014).

The government of India has implemented various programmatic and promotional interventions to increase access to contraceptives under their global commitments. 'Mission Parivar Vikas' was launched in 2017 to stabilize population growth in 146 districts of seven states. These are highly populated districts in Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh, Chhattisgarh, Jharkhand, and Assam and have a TFR of three and above. The aim is to increase access to contraceptives and family planning services to all clients at all the levels of health systems in these districts. Same year, the government also introduced a new contraceptive- injectable, DMPA (National Health Mission, n.d.). However, it was rolled out in a phased manner and is currently only available in the district hospitals with trained providers.

Another approach being implemented is the 'fixed day static service'. Under this strategy, male and female sterilization services are provided on fixed days in a health facility through trained providers posted in the same facility. This is an attempt to replace the camp approach and ensure that the clients are aware of the days and facilities when they can receive services. In addition to fixed day services, home delivery of spacing methods (condoms, OCPs and ECPs) and counselling couples to delay first birth and spacing between two births is the responsibility of ASHAs. The government also revised the compensation for sterilization acceptors, motivators, and providers in the 11 high focus States.

Another programmatic intervention is engaging the private sector to supplement and complement the public sector services. Under the Public Private Partnership (PPP) model, the Ministry of Health and Family Welfare (MoHFW, 2014) has implemented the following models:

a) Clinical Outreach model – these are dedicated clinical mobile teams, engaged through private accredited organizations/NGOs, that utilize the existing health facilities to provide family planning services. It has a 9-10-member team for female sterilization services and 3-member team for male sterilization services accredited under PPP model of National Health Mission. They provide services in underserved areas where there is no trained manpower. The route plan for the mobile teams is predefined and community mobilization is done beforehand to ensure maximum utilization.
b) Social Franchising - Government has a policy of accreditation of private facilities or NGOs as a social franchising organization. This social franchising organization would then bring under its fold private clinics or nursing homes as accredited franchisees. This enables the franchisees to get paid on a case-by-case basis as per the compensation scheme.
c) Static Clinics – Some of the non- government organizations have set up their static clinics in the high focussed states. These clinics provide FP services including permanent methods and are compensated for provision of permanent methods as per the Government's compensation policy. In addition, these clinics also provide post abortion family planning services.

The government is placing more emphasis on involving the private sector in the delivery of family planning services. The state program implementation plans have specifically mentioned the prospective role of private sector in service delivery with the expectation

that it will increase the outreach of family planning services and improve acceptability and quality of services (Jain et al., 2016). A policy brief by Population Foundation of India (PFI) on the resource requirement to meet India's FP 2020 commitments also highlighted that India is critically dependent on active and sustained participation of private sector for meeting the target (PFI, 2016).

***Conclusion*:**

The chapter has presented the historical origins of the family planning program and policies in India; explained the current status of contraceptive use with State-level variations; described the service delivery system and key gaps; and discussed the recent developments in the family planning service provision. The above discussion highlights the changing landscape of family planning in India from being public sector driven to more open to engaging private sector. The information shared in the chapter provides the essential context needed to understand the significance of the study.

The next chapter will present the literature review of the family planning programs and initiatives in low-and-middle-income countries. It will discuss the available body of research on family planning in the last two decades and the key gaps identified in the literature that are also relevant to India country context.

Chapter 3: Literature Review

3.1 Introduction

A narrative review of literature was conducted to understand the existing research and evidence in the field of family planning program among low-and-middle-income countries (LMICs). There is enormous amount of research and literature including grey literature published on the issues of family planning policies, programs, and interventions in LMICs including India. Peer reviewed articles were retrieved from the following electronic databases from the year 2000 till date - Medline, ProQuest Central, Web of Science, EMBASE, EBSCO, JSTOR, PubMed, CINAHL, PsycInfo, SCOPUS (Elsevier), Cochrane, and Google Scholar. Grey literature including government reports, committee reports, and conference papers were also considered. A review of the available body of research and reports helped in identifying patterns and trends in the literature and in identifying gaps in the body of knowledge. The literature can be roughly grouped into five broad categories and is presented in the chapter under five sections.

The first section covers the projections and trends in the use of family planning methods. These studies are based on the country and state health surveys. Second section discusses the next category which is the contextual factors and systemic and structural barriers that influence family planning uptake. This includes the external factors such as socio-economic conditions, culture, religion, and women's agency that influence fertility behaviour as well as state of services that act as a barrier to contraceptive use. Third section examines the available literature on the family planning interventions i.e. both the demand and supply side interventions and their effectiveness.

The fourth section captures the influence of financial incentives on family planning uptake. The fifth section investigates available evidence on the role of private providers with a special focus on NGOs, the approaches undertaken by them, and their impact on family planning service delivery. This section also includes available evidence on the project design and development by the NGOs. Lastly, based on the review, it identifies the gaps in existing evidence and highlights the significance of the current study.

3.2 Projection and trends in family planning use

A number of studies have presented estimates, projections, and trends in modern contraceptive prevalence, method mix, unmet need and satisfied demand with modern methods in low- and middle-income countries (Wang, 2012; Alkema et al., 2013; Ross et al., 2015; Ugaz et al., 2015; New et al., 2017; Cahill et al., 2018). These studies used data from multiple rounds of the national demographic and health surveys as well as state level and facility level surveys. A study conducted by New et al. (2017) demonstrated the large degree of heterogeneity in the 29 states of India in modern contraceptive use. A few studies conducted an analysis of the method mix to understand shifts in the method mix and skewness towards one or two methods (Seiber et al., 2007; Ross et al., 2015). Other studies examined trends in contraceptive use and unmet need in developing countries over a period of time (Creanga et al., 2011; Darroch, 2013; Darroch & Singh, 2013); and use of short acting and long-acting contraception accessed through public and private sectors (Ugaz et al., 2015). Several studies have also reported trends and patterns of contraception use and birth intervals among country specific populations based on age and place of living (rural vs urban) (Wang, 2012; Gurmu & Mturi, 2013; Towriss & Timaeus, 2018) as well as trends in the use of a specific method (Jacobstein, 2018).

All these and other related studies highlighted the demand for contraception among countries, states, and sub populations. Studies also underscore the regional diversity in CPR, differences in method mix and method preferences, and changes in the preferred sources of contraceptives with an increasing share of private sector over time. Findings from these studies can guide policy and programmatic decisions and can be used in monitoring the progress towards FP2020 and SDGs. These studies also indicate the urgent need to invest in programs, increase resources and improve access to services and supplies and meet the demand for contraceptive methods.

The next section presents available evidence on the contextual factors and systemic and structural barriers that influence family planning uptake.

3.3 Factors that influence contraceptive behaviour and use

There is a large volume of published studies on multilevel (individual, household, societal/religious/cultural, and health service delivery level) factors that influence contraceptive use among women. These factors can be divided into enablers, that supports

women's ability to obtain a method and barriers, that hinder them from method use. Further, many studies have also reported factors that influence method choice among women.

3.3.1 Individual level

A systematic review done by Blackstone et al. (2017) to investigate determinants of contraceptive use in Sub-Saharan Africa, identified many studies that cited the importance of education, self-efficacy with regard to condom use, and gender equitable attitudes as positive factors at the individual level. The review included only methodologically rigorous studies from 12 Sub-Saharan African countries and conducted a narrative synthesis to analyse each reviewed paper. A substantial body of research has also highlighted that women's personal autonomy, reproductive decision-making control, freedom of movement to access services, and access to their own spending money are associated with increased use of family planning methods (Al Riyami et al., 2004; Ghuman et al., 2006; Bogale et al., 2011; Upadhyay & Karasek, 2012; Reed et al., 2016;). Data from several studies from India and neighbouring countries underline women's literacy and general knowledge, age, number of living children and living sons, and freedom of movement to be positively associated with the use of family planning (Chacko, 2001; Moursund & Kravdal, 2003; Jiang & Hardee, 2014).

Key barriers at the individual level as cited by many authors include lack of knowledge of different modern contraceptive methods and their mechanism of action, and limited exposure to sex education and family planning messaging early in life (Nguyen et al., 2006; Khan et al., 2007; Mishra, 2011). Additionally, fear of side effects and misconceptions including fear of infertility and method specific concerns were the other crucial barriers reported in the work by Campbell et al. (2006), Sedgh et al. (2007), Hall et al. (2008), Williamson et al. (2009), Diamond-Smith et al. (2012), Haider and Sharma, (2013).

3.3.2 Household level

Power stratification within the household has been identified as a key player in the use of birth control. A literature review of barriers of modern contraceptive practices among Asian women conducted by Najafi-Sharjabad et al. (2013) reported that husbands decide the desired number of children and contraceptive practice including use of contraception

by the wife. The review also highlighted many studies that have reported the crucial role of mothers-in-law in birth control decisions, especially in South Asia. In such households, wives were reported to be less likely to use a method (Mustafa et al., 2008; Samandari et al., 2010).

However, husband's education, women's participation in household decision making and control over household finances, and spousal communication have been cited as positive influences on contraceptive usage (Link, 2011; OlaOlorun & Hindin, 2014). A study by Senarath and Gunawardena (2009) in India, Bangladesh and Nepal highlighted that women participation in decision making significantly increases with age and education.

3.3.3 Socioeconomic, religious, and cultural level

Several studies have documented culture and religion as a correlate of contraceptive use. Religions differ in their stand on fertility regulation with some studies reporting greater opposition to family planning by Muslim women (Mishra, 2004). Many countries in East and South Asia demonstrate a deep-rooted cultural preference for sons, that have a great bearing on fertility desires and contraceptive use. A study by Jayaraman et al. (2009) demonstrated that parity and sex composition strongly influence contraceptive behaviour in India, Nepal and Bangladesh. The study also highlighted the association between parity and number of sons with the use of modern contraceptive methods with women having no or few sons to be relying on temporary methods.

A vast body of literature has also documented social and domestic constraints such as early marriage, and pressure to prove fertility soon after marriage that restrict the use of any method (Rahman et al., 2010; Malhotra et al., 2011). De Oliveira et al. (2014) in their work investigated the factors that impact method choice in India and found that socio-economic dimensions have overarching influence on method choices. The study showed significant association between caste, religion, and household wealth and contraceptive choice with women from poor and marginal communities having less opportunities for modern method choices other than sterilization.

The studies reviewed under individual, household, and societal/religious/cultural level have mostly employed quantitative methods, either using the data from demographic and health surveys of the countries, or cross-sectional surveys. These studies can therefore show the association between variables but cannot demonstrate causality. Those studies

that utilized qualitative methods included focus group discussions, in-depth interviews, and participant observations. These qualitative studies provided detailed experiences, beliefs, and opinions of the women and show a certain degree of analytical generalisability across the contexts or the theories.

3.3.4 Health service delivery level

There is a general consensus on ensuring availability and affordability of and access to a range of contraceptive options to safeguard women's contraceptive needs. Public health sector is the main source of family planning services in almost all the developing countries. However, how well the health services provide these services to meet the demand of family planning is an issue of concern. There is substantial literature suggesting the impact of supply environment on contraceptive use (Ross & Hardee, 2013; Blackstone et al., 2017; Ghosh & Siddiqui, 2017). While several countries data have highlighted the limited use of contraception even when the demand is high, it is not clear whether this unmet need is due to individual/household/ or religious/cultural factors (as detailed in the above section) or due to supply side factors (Jejeebhoy et al., 2014; Chaurasia, 2014).

Although there are national data that indicate considerable expansion and strengthening of public health care infrastructure in many countries and only a minority of women perceive availability and accessibility of services as a major impediment to contraceptive use, there are studies that prove otherwise. In a study by Chacko (2001) conducted in a rural area in West Bengal, India, the proximity to the health facility and presence of a health centre within the village had a positive effect on the utilization of the family planning program. In another study by Shiferaw et al. (2017) in rural Ethiopia, the percentage of rural women using modern contraceptive decreased significantly as distance from their nearest health centre increased. Thus, there is evidence that easy availability and accessibility of contraception through nearest health facility promotes contraceptive use.

Studies in many developing countries have identified barriers including limited choice of contraceptive methods within the public sector; inadequate resources; limited workforce; contraceptive stockouts; and compromised quality of services that negatively influence contraceptive use (Koenig et al., 2000; Prata, 2009; Ross & Hardee, 2013; Polus et al., 2015).

There is another line of evidence that characterizes service delivery level barriers into facility-based and provider-based or medical barriers. Facility level barriers include providing contraceptive services only on specific days; limiting the choice of methods; or restrictions to switch methods. Provider-based barriers include refusal to provide services to specific category of clients based on their age, marital status or parity; or discouraging the use of a method preferred by the client due to their own biases or beliefs (Campbell et al., 2006; Prata, 2009; Tumlinson et al., 2015). Studies in Africa and South Asia have demonstrated the impact of these barriers on contraceptive access (Stanback & Twum-Baah, 2001; Calhoun et al., 2013;). However, whether increasing access to contraception results in a decrease in total fertility is still debatable and under researched (Ashraf et al., 2014).

The study by Calhoun et al. (2013) utilized mixed methods to investigate provider-imposed barriers to provision of FP in Uttar Pradesh, India. They used multilevel data from facility audits, client exit interviews, provider surveys, and interviews to explore eligibility barriers as perceived by the client and provider. However, the exit interview data were not linked to the provider they saw and therefore the information given by the provider could not be corroborated. Stanback and Twum-Baah (2001) used purposive sampling to interview 97 providers from 46 sites identified using an earlier situation analysis data from Ghana where clients were at high risk of facing medical barriers. Although they did not collect data from the clients, they reviewed the site's daily registers of client records to validate certain responses from the providers. These studies highlight an important methodological gap in substantiating provider or medical barriers since they did not interview the clients who visited these providers.

The evidence presented in this section suggest the existence of a multitude of factors that influence contraceptive behaviour and use among women. Together, these studies provide important insights into the factors that act as enablers and barriers to family planning use. It is evident that more autonomy, decision making control, mobility, access to money, and spousal communication give women the agency to take decision about their fertility. However, there are clear sociocultural and religious barriers to contraceptive use that have existed for decades and are hard to overcome without consistent programmatic actions at the community level. The service delivery challenges discussed above also hinder women from accessing contraceptives, but these studies suggest a pertinent role that service providers can play in providing client focussed services. One example is although access

barrier is now less reported, there is increase in concerns related to side-effects. This calls for counselling on contraceptive options by providers as a critical component of effective service provision (Sedgh & Hussain, 2014).

After reviewing the enablers and barriers to contraceptive use, the next section examines the evidence around various family planning interventions and their effectiveness. It also discusses the research designs used to evaluate these interventions.

3.4 Evaluation of family planning interventions

There is a large volume of published studies on various family planning interventions that document their performance and effectiveness. These interventions can be divided into demand generation and supply side interventions. Demand generation interventions focus on short-term outcomes and aim to increase knowledge, change people's attitudes and behaviour towards family planning, and make them aware on sources of contraceptives thereby increasing their desire to use family planning. These interventions can be classified into mass media, interpersonal communication, counselling, and financing approaches (Belaid et al., 2016).

Supply side interventions, on the other hand, work towards improving the availability, accessibility, and quality of contraceptive methods. Some examples include community-based distribution, setting up high volume clinics, public private partnerships, and private sector approaches to increase access and improve quality. Majority of the research on supply side interventions focuses on outcomes like improved service quality, increased client satisfaction, and increased service use with fewer studies that evaluate the impact of supply-side intervention on reduced unintended pregnancy at the population level (Mwaikambo et al., 2011). Most of the programs consists of interventions using both the demand and supply side strategies as they both depend on each other. However, to comprehend the aim of the evaluation and approaches used, the studies reviewed under this section have been categorized as predominantly demand interventions, predominantly supply interventions and a multi-component including both demand and supply-side interventions.

Several systematic reviews on the evaluation of family planning interventions have been undertaken in the recent past. These reviews were conducted to understand what works and what does not in family planning interventions (Mwaikambo et al., 2011; Belaid et

al., 2016; Zakiyah et al., 2016; Diamond-Smith et al., 2018; Cavallaro et al., 2020; Aung et al., 2020). These authors have synthesized evidence of a range of interventions under both demand and supply side. In addition to systematic reviews, several multi-country and country-specific initiatives utilising either or both the interventions have also been evaluated for their effectiveness.

3.4.1 Evaluation of demand-side interventions

Demand generation activities as mentioned above have the potential to influence contraceptive use which could result in positive maternal outcomes. A Cochrane systematic review done by Belaid et al. (2016) evaluated the effectiveness of demand generation interventions on the uptake and use of modern contraception. The demand generation strategies included community- and facility-based interventions (counselling and education activities by community health workers or health providers), financial mechanisms (voucher schemes, cash incentives and loan fund), and mass media campaigns. Randomized controlled trials and quasi-experimental studies, including controlled before–after studies (CBAs) and cost and cost-effectiveness studies that assessed demand interventions in low- and middle-income countries were included. Most of the interventions included more than one activity and there were limited number of studies in each category of demand generation. The review therefore could not recommend the most effective approach although, it suggests that a combination of these activities have a positive effect on knowledge of methods, intentions to use and attitude towards family planning, and use of methods.

Cavallaro et al. (2020) synthesized evidence of the effectiveness of different counselling strategies on contraceptive behaviour and client satisfaction. The review included both the randomized controlled trials (RCTs) and non-randomized studies. Though some interventions were more effective in some settings than in others, counselling on side effects and male partner counselling was associated with increased contraceptive use in most of the reviewed studies. The review however does not assess the interventions based on the strength of their research design and therefore the evidence needs to be interpreted with caution.

A narrative review of person-centred-focussed interventions in family planning and the outcomes of these interventions by Diamond-Smith et al. (2018) found that such intervention showed success in improving perceptions of quality and knowledge of family

planning among clients but less consistent in improving family planning uptake and continuation. The review included experimental and quasi-experimental studies that included a facility-based, person-centred, family planning intervention. The person-centred intervention included the domains of communication; privacy/confidentiality; supportive care; dignity; autonomy; social support; and trust.

A study by Speizer et al. (2014) evaluated an Urban Reproductive Health Initiative (URHI) program implemented in four countries – India, Kenya, Nigeria and Senegal utilising longitudinal data. Though the initiative had a significant service delivery component, the study focussed only on the role of demand generation activities. It was found that community level activities including outreach by community health workers, and local radio programs having targeted approach were effective in increasing use of modern contraceptive methods. However, the study did not include the impact of supply side interventions that might have influenced the results of the demand generation activities. Also, the study could not determine whether exposure to demand generation activities preceded family planning use and therefore the analysis can only establish association and not causality.

3.4.2 Evaluation of supply-side interventions

Supply side interventions are critical to increase access to contraceptives. This includes provision of wide range of family planning methods that are affordable, availability of trained providers and facilities or service delivery channels that are easily accessible, ensuring quality of services, and providing client-centred services. A study conducted in Kenya, Rwanda, Uganda, and Tanzania examined the extent to which contraceptive use is associated with family planning supply and service environment (Wang et al., 2012). The study showed that women were more likely to use a contraceptive method in regions with a more favourable service environment. The favourable service environment included method availability and infrastructure to support quality services.

Another study evaluated the impact of opening new family planning clinics in poor urban areas of four provinces in Pakistan (Hennink & Clements, 2005). The study used quasi-experimental design with four intervention sites and two control sites. Results found that most of the clinic users had never used a family planning service before, and there was a significant increase in number of female sterilizations which resulted in reduced unmet need for limiting. However, the clinics were being used more by young, low-parity

women from medium to high socioeconomic status seeking temporary methods, while those seeking permanent method came from outside the catchment areas and were poor, raising concerns on the location of the clinics. The study however did not address the reasons for the same. Another important finding of different impacts in the four provinces highlighted the importance of considering the socio-economic and cultural context of the locations.

Skiles et al. (2015) assessed the effect of access to facility and contraceptive supply reliability at the facility on the use of injectables among rural and urban women in Malawi. The study utilized the DHS data and found that for rural women, use of injectables had a strong association with distance to facility and supply reliability. Another study evaluating the increase in long-acting reversible contraceptive (LARC) use in Ethiopia directed it on the creation of a new cadre of government health workers stationed at rural health posts. These female workers received a year of general health training and provide short-term methods including condoms, pills, and injectables as well as long-term method such as implants in their catchment areas. This task-shifting resulted in more health posts providing family planning services and an increase in the number of new family planning clients (Halperin, 2014). Another study by Neukom et al. (2011) demonstrated an increase in the uptake of LARC among younger and lower parity population in Zambia by placing dedicated providers of LARC in high-volume public-sector facilities.

A number of studies have also evaluated the impact of quality of family planning services on contraceptive use (RamaRao et al., 2003; Do & Koenig, 2007; Jain et al., 2012; Tumlinson et al., 2015). A study in Kenya utilized both facility- and individual-level data to investigate this association. Several indicators of service quality were found to be significantly associated with contraceptive use. These included having method choice, service providers who counsel and assist with method selection, explain possible side-effects, and treat their clients. All these aspects increased the likelihood of contraceptive use among women in the study sample. However, facility infrastructure, client privacy and wait time did not show any association with contraceptive use (Tumlinson et al., 2015).

There are also numerous studies evaluating the impact of different service delivery channels operated by NGOs on contraceptive uptake. These intervention studies are discussed below under section 5.

3.4.3 Evaluation of multi-component interventions (both supply and demand interventions)

Significant number of studies are available that have evaluated programs implementing both demand generation and supply- side interventions. A study by Benson et al. (2018) evaluated the impact of the demand and supply side activities of the Senegal's urban reproductive health initiative on modern contraceptive use using longitudinal data. It demonstrated that women exposed to radio and television program messages, conversations led by religious leaders, and other community-based activities were more likely to use modern contraception. This was coupled with improving access to facilities and quality of services by deploying midwives, training providers, and tracking and maintaining stocks at the facilities. The combination of these interventions resulted in a shift among users from short term methods of pills and condoms towards more effective methods of implants, IUDs and injectables.

Lemani et al. (2018) evaluated the effect of family planning interventions on long-acting reversible contraceptives and couple years of protection (CYPs) in Malawi. A quasi-experimental design was used with two intervention facilities and two control facilities. The interventions included community mobilization and training of providers that led to an increase in LARC uptake and CYPs in the intervention sites. However, the differences between the intervention and non-intervention sites were not reported to be statistically significant and could not establish the true effect of the interventions.

A systematic review by Mwaikambo et al. (2011) identified 63 studies that used an experimental or quasi-experimental design to measure the outcome of the interventions. Majority of these studies were on demand generation type programs and showed significant improvements in knowledge, attitudes, and intentions. Other studies included in the review under demand side were conditional cash transfer programs and a saving and credit program. A number of studies on supply side approaches were also included in the review and were categorized into interventions related to access, quality of care, and cost. These studies demonstrated a mixed result and were less consistent in their impact on contraceptive use and fertility related outcomes. The studies also did not assess the

differential impact of the interventions on sub-groups who are most in need including geographically distant rural poor women, adolescents, or migrants, etc. However, some key highlights of the review were that program effectiveness would depend a lot on the socio-cultural context of the study location; and interventions that included multi-component approach i.e., service delivery along with demand generation were more likely to have positive outcomes.

Various studies have assessed community-based approaches of service delivery to improve access and bring services closer to the communities, especially hard-to-reach communities (Sultan et al., 2002; Paxman et al., 2005; Prata, 2009; Achyut et al., 2016). Community Health Workers (CHWs) have emerged as an effective cadre of health workforce that play a critical role in not only improving knowledge and changing community attitudes towards family planning, but also increasing access to family planning services (El Arifeen et al., 2013; Malkin & Stanback, 2015). A systematic review on CHWs' provision of family planning services in low-and middle-income countries indicated that CHW programs were effective in improving both the knowledge and attitudes as well as increasing the use of modern contraception (Scott et al., 2015). Randomized trials, longitudinal studies with a comparison group, and pre-test/post-test studies were included in this review.

One most prominent program is the Maternal and Child Health and Family Planning (MCH-FP) program, implemented in Matlab, Bangladesh in 1977 using quasi-experiment design (Cleland et al., 1994; Joshi & Schultz, 2013). An intensive outreach program where well-educated, married women who used contraception themselves were recruited as community health workers. These CHWs provided married women in experimental areas with home delivery of contraceptive supplies, follow-up services, and general advice along with outreach to husband, village leaders and religious leaders to address any potential objections. Later the program offered a combination of family planning, reproductive health, and child health interventions. A very well planned, well researched and documented intervention, it has demonstrated the long-term impact of the program with decline in fertility, increased birth spacing, lower child mortality and overall improved health status.

3.4.4 Economic evaluation of family planning programs

A considerable amount of literature has also been published on the economic analysis of family planning programs. These studies highlight that scaling up family planning interventions could improve women's health outcomes and also be cost-effective as well as cost-saving to the society (Mavranezouli, 2009; Zakiyah et al., 2018). Canning and Schultz (2012) reviewed empirical studies that provided evidence of the effects of fertility on economic outcomes at the household or macroeconomic level. They focussed on the controlled trials in Matlab, Bangladesh and Navrongo, Ghana and found that reproductive health and family planning programs focussed on reduced fertility and child mortality have economic repercussions for families including an increase in women's health, earnings, and participation in paid employment. Further, this household-level effects can lead to increased proportion of working-age population and large macroeconomic demographic benefits.

A systematic review on economic evaluation of family planning interventions in LMIC countries provided evidence on costs, consequences, and cost-effectiveness of family planning strategies (Zakiyah et al., 2016). All the studies included in the review, though limited in number, had positive findings suggesting that reducing unmet need would be highly cost effective and would have significant benefits for both mothers and infants. Other studies on economic analysis have looked at the cost of service delivery and program support for specific methods or interventions.

Bahuguna et al. (2019) estimated the unit costs and cost per couple-year protected (CYP) for implementing postpartum intrauterine contraceptive device (PPIUD) and IUD services through public healthcare system in two Indian states. Another study by Al-Attar et al. (2017) evaluated the cost-effectiveness of family planning services offered by mobile clinics versus static clinics in Egypt. The study had mixed findings since the effectiveness was determined by CYPs and family planning visits. Although static clinics had more visits, their CYPs were less compared to mobile clinics. Static clinics offered short acting methods that have low CYP, and mobile clinics offered IUDs free of charge that would not require frequent visits.

The above section has provided a comprehensive review of the studies evaluating various program interventions. This review provides important evidence as to what works in a family planning intervention. It has also identified the importance of context as a key

element in better understanding the outcomes of the interventions and its influence on achieving the outcomes i.e., the intervention success is context sensitive. However, the studies do not provide enough evidence as to why the interventions work the way they do. It does not establish the link between the intervention and explicitly explain the reason for behaviour change resulting in increased uptake of different family planning methods. The reviewed interventions lacked the use of theory of change or program theory in constructing the intervention. Also, almost all the studies have utilized either RCTs, quasi-experimental or longitudinal studies to show the impact of the interventions. No study was found that used a theory-based approach to evaluation.

The next section presents the literature around the impact of financial incentives extended to both the provider as well the user on family planning service delivery as well as uptake.

3.5 Influence of financial incentives in family planning services

The use of financial incentives has been advocated as an effective means to influence health-related behaviours that help generate desired outcomes. These incentives include performance-based incentives, offering vouchers or subsidies to health workers, and transferring cash to service users on conditionalities. The issue of financial incentives to promote family planning has long been contentious. A literature review conducted by Heil et al. (2012) examined the effect of incentives on family planning. The review included eight studies that had an appropriate control or comparison condition. In these studies, incentives were used to promote attendance at contraceptive education sessions, adoption and continuation of contraceptive methods, sterilization, and to limit family size. All the reviewed studies except for one were implemented in the 70s and 80s and had quasi-experimental designs with very limited statistical analysis. Therefore, firm conclusions around the effectiveness of incentives to promote family planning behaviours could not be drawn.

There are other studies that have demonstrated the positive results of monetary incentives on delaying childbirth and spacing children (Vlassoff et al., 2017) yet some studies argue that material incentives might increase demand in the short run but may not persist over time (Sunil et al., 1999). Others have also raised concerns around whether these incentives or disincentives as in India may again lead to coercion when it comes to sterilization (Sen & Iyer, 2002). A classic case of incentivized sterilization is the Indian family planning program. As mentioned in the earlier chapter, since the inception of the

family planning program, the Government of India has been implementing various schemes that offer financial incentives to both the acceptors of sterilization as well as the service providers. In addition to cash payments, inducements in the form of costly gifts such as gold ornaments, washing machines, televisions, pressure cookers and even cars have been reported by some states (Sharma, 2014; Wale & Rowlands, 2020).

A qualitative study by Lalchandani et al. (2020) in the Indian state of Jharkhand highlighted that although there was felt need for small family and using contraceptives irrespective of the cash incentive, these incentives hold importance among those belonging to lower socio economic group. Past studies conducted in the 90s suggested that monetary incentives to adopt sterilization may be a contributing factor in majority of cases but a dominating factor for only a small minority (Cleland & Mauldin, 1991) and that in case of use of temporary methods, cash incentive programs have less advantage (Sunil et al., 1999).

Another category of incentives is the performance-based incentives (PBIs) or the pay for performance (P4P) that offer service providers or community distributors financial incentives to recruit more family planning users. Two dominant models include sales commissions for commodities and referral payments to refer individuals for long acting or permanent methods. Although many countries in Asia that utilized the second model discontinued the scheme due to concerns around coercion, India continues to rely on the model through the 'ASHA' program.

A literature search of peer reviewed and grey literature by Bellows et al. (2015) identified 28 community-based family planning programs in 21 countries that used PBIs. Out of these, only six studies evaluated the effectiveness of PBIs on uptake of methods. Three studies compared the effectiveness of community-based distribution with PBIs to those without PBIs, one study examined a programme before and after incentives were introduced, and two studies were qualitative interviews with FP acceptors or community distributors exploring about PBIs. These studies indicated mixed results on the effectiveness of PBIs but highlighted that clear and straight forward payment approach was more successful.

Blacklock et al. (2016) conducted a systematic review to identify evidence of P4P in improving the delivery and uptake of family planning in LMICs. Out of the 13 studies that met the inclusion criteria, three studies were RCTs; nine were CBA studies; and one

was interrupted time series (ITS). As indicated by Bellows et al. (2015), the results of this systematic review were also mixed for family planning outcome measures. P4P was associated with an increase in the use of modern methods and increase in coverage rate in four studies while eight studies showed no impact of P4P on family planning outcomes.

Whether such financial incentives to both the acceptors and providers respect women's rights to make informed decision making or undermine the free and informed choice is debatable. In 2011, USAID clarified that FP programs using PBI principles are acceptable under the Tiahrt amendment that was initially introduced in 1998. Under the Tiahrt amendment, the USAID funded projects must comply with the amendment and respect the values of voluntarism and informed choice of FP services (Eichler et al., 2010; Bellows et al., 2015;). However, how the programs keep their PBIs within the ethical grounds remains a challenge. This debate still continues with limited understanding and mixed views on the role of financial incentives on the uptake of family planning services.

The next section will discuss the role of private sector as a critical partner to expand access to family planning services in low-and-middle-income countries. More emphasis will be given to NGO-run programs and their impact on contraceptive uptakes.

3.6 Private sector approaches to family planning

Last few decades have witnessed significant developments in collaboration between the public and private sector to deliver family planning goods and services (Olson & Piller, 2013). The Governments of many developing countries have admitted to the lack of personnel in the public health sector, concerns over quality and limited reach to difficult geographies and marginalized communities (Grundy et al., 2009). With the growing demand for family planning to meet to goals of SGD and FP2020, private sector is emerging as a key player in filling an important gap in the provision of family planning services in the developing countries (Hutchinson et al., 2011). A study by Riley et al. (2018) highlighted the potential of the private sector in improving method diversity and choice in Ethiopia, Nigeria, and DRC. The collaboration or contracting with the private sector is seen as a great opportunity to achieve measurable outputs and outcomes; effectively utilizing the resources; improving quality of services; and increase effectiveness and efficiency because of competition (Loevinsohn & Harding, 2005; Lagarde & Palmer, 2009;).

Private sector includes the non-state actors and includes both the private-for-profit and private-not-for-profit sector. Campbell et al. (2015) categorized the private sector into private medical, private specialized drug seller, private retailer, faith-based organization (FBO) and NGO. While FBO and NGO usually provide free or subsidized services, the other three are commercial. In their paper on examining the sector of family planning provision in 57 low-and-middle-income countries, they reported 37-39% private sector share of family planning market. As per NFHS-4, in India 24% users of modern contraceptives obtain their method from the private sector. This can be attributed to the fact that sterilization is the main method and public health sector is the major source for this method, while private health sector is the major source of spacing methods.

A considerable amount of literature has been published on the quality of family planning services and client satisfaction in the public and private sectors. However, these studies have reported mixed results with evidence that none of the sector perform consistently better or poor in the various indicators of quality services. While some studies reported better physical infrastructure, availability of services and trained providers in private facilities (Agha & Do, 2009), other studies indicated higher technical quality in the public facilities (Hutchinson et al. 2011) and offered more choice in modern contraceptive methods (Kakoko et al., 2012). The studies also highlight the importance of country context and policies and its influence on family planning services. Limited literature is available on the preference of the sector by women. A study by Keesara et al. (2015), found that women preferred private facilities over public due to convenience, short waiting time, and privacy but also reported preferring public facilities for comprehensive counselling on family planning. Much of these studies are from Sub-Saharan Africa, with limited available literature from Asia. Further these studies do not segregate data of private facilities into for-profit private providers, NGO-run facilities, or other private players.

Among the private players, not-for-profit NGOs have emerged as a key player in the provision of family planning services. The next sub-sections will cover the different approaches implemented by them and their impact on family planning uptake.

3.6.1 Non-governmental service delivery approaches

Various international NGOs run their programs in the low- and middle-income countries utilizing various outlets and approaches. These organizations have implemented cross-

country interventions to increase access to and method choice of modern contraceptive methods. The service delivery approaches include social marketing, social franchising of private providers, static clinics, and mobile outreach units.

Social marketing involves making contraceptive products accessible and affordable to all, using private sector outlets like drug stores and pharmacies while utilizing commercial marketing techniques. Social franchising is the service delivery approach in which locally owned small, independent private health care entities are organized into a network and provided with support from the franchisor including clinical training, quality monitoring, as well as demand generation among potential clients of family planning services. Marie Stopes International (MSI) and Population Services International (PSI) are two of the largest global franchisor entities that have an estimated 90 social franchising programs operating in low-and-middle-income countries (Munroe et al., 2015). Static clinics are located in urban areas and are competitively priced to improve affordability and access. They also serve as a base for training and logistics to support mobile outreach units, social franchisees and community-based distributors (Ngo et al., 2017). Mobile outreach services are the other high impact service delivery approach that rely on public-private partnership. These services are implemented by or in collaboration with local public health authorities to strengthen the existing health system by creating an efficient network of private, NGO and government health care providers utilizing various arrangements (HIP, 2014). Mobile outreach brings information, services, contraceptives, and supplies to where women and men live and work, generally free-of-charge or at a subsidized rate.

3.6.2 Impact of NGO approaches on demand creation and service provision

There is a growing body of literature on evaluating the effectiveness of the above-mentioned NGO initiatives across the countries. Systematic reviews and case studies of social marketing have established that it is effective in expanding knowledge, increasing access to services and products and influence positive behaviour change (Chapman & Astatke, 2003; Meekers et al., 2004). Likewise, studies on social franchising have assessed their effect on quality, equity, cost-effectiveness, and health outcomes with varying results. These studies have demonstrated improved efficiency, quality of services, and increase in client volume seeking long-acting reversible contraceptives (Ngo et al., 2010; Munroe et al., 2015; Chakraborty et al., 2016).

A systematic review done by Beyeler et al. (2013) on the impact of social franchising on health services in LMICs identified 23 studies reporting mixed results with increased client volume and client satisfaction but poor outcomes in cost-effectiveness and equity. This was in contrast to another earlier systematic review conducted by Koehlmoos et al. (2009) that did not find any studies on the impact of social franchising access, quality of care, or health outcomes. The difference in findings could be attributed to the types of studies that were included in both the reviews. The inclusion criteria by Koehlmoos et al. included RCTs, non-RCTs, ITS, and CBAs. On the other hand, Beyeler et al. also included non-experimental (cross-sectional and quasi-experimental) and qualitative studies.

Evidence on mobile outreach services also demonstrate that they increase contraceptive use, particularly in areas of low contraceptive prevalence, and limited access to contraceptives, and where geographic, economic, or social barriers limit service uptake (HIP, 2014). According to a global report by Marie Stopes International, 41% of mobile outreach clients in sub-Saharan Africa, 36% in South Asia and in the Middle East, 47% in Pacific Asia, and 23% in Latin America were new to family planning (Hayes et al., 2013). In 2010, over half of all LARCs and permanent methods in Tanzania were provided through mobile outreach (Jones, 2011). In Nepal, government-run mobile clinics provide 20% of voluntary female sterilization procedures and over one-third of voluntary male sterilization procedures (MOHP[Nepal] et al., 2012).

Other studies have also documented the increase in the uptake of a specific method of contraception through all these service delivery approaches. Use of contraceptive implants and IUDs increased manyfold in sub-Saharan African countries through mobile outreach, social franchising and clinics with high level of client satisfaction (Duvall et al., 2014; Ngo et al., 2017). Another study by Blumenthal et al. (2013), highlighted the multi-service delivery approach utilizing social franchises, clinics, providers seconded to the public sector, and special event days and linking it with the demand generation to increase the uptake of IUDs across 13 countries.

Collectively, these studies provide important insights on the critical role of private sector in increasing access and improving quality of services. Overall, the available literature on these approaches have recognized the effectiveness in terms of number of services and types of methods provided; new users of long-acting methods; those switching from short

term to long term method; and reaching younger, less educated, poor and rural women (HIP, 2014; Ngo et al., 2017). The majority of these studies have used the routine service statistics and client exit interview data to assess their impacts. Although these studies demonstrate that all these approaches work in increasing FP uptake but does not elaborate on what is it about these approaches that work the most, who benefits the most from each approach and why.

Looking at India specific literature on the approaches utilized by the private sector specifically NGOs in improving access and quality of care, there is clear dearth of evidence. There is very limited literature available on social franchising and mobile outreach services in India. Some of the social franchising networks to provide family planning in India include Merrygold Health Network (Hindustan Latex Family Planning Promotion Trust), Surya Clinics (DKT International/Janani), Marie Stopes India, Sadhaan (PSI India), SkyHealth Centres (World Health Partners) and Ujjwal (Futures Group). These networks were created to cater to the reproductive health and family planning needs of the poor and marginalized in urban, peri-urban and rural settings (Satia et al., 2015). However, not much has been published on the impact of these networks on family planning uptake and on contraceptive prevalence rate.

Likewise, mobile outreach services or the Clinical Outreach Teams (COT) has recently been recognized as a distinct service delivery model in the Government of India's Public-Private- Partnership policy, is also not well researched. COTs are privately-run, fully equipped mobile outreach teams which include a surgeon, medical officer, nurses, counsellor, and support staff. They provide high-quality family planning services to men and women who have the highest unmet need for long acting and permanent methods of family planning. Although mobile outreach services are widely used to reach underserved, hard-to-reach populations, yet they have been sparsely documented in recent years (Wickstrom et al., 2013). Only one study commissioned by Population Council documented the service evaluation of MSI run outreach program in Rajasthan, India (Aruldas et al., 2014). The evaluation discussed the client profile of the outreach and quality of services provided as the findings demonstrated that female sterilization and IUD can be provided safely and effectively in rural areas through the mobile outreach approach.

As NGOs assume a greater role in family planning service provision, it is important to understand how they design and develop a new approach.

3.6.3 Service design and development by NGOs

The NGO landscape has transformed dramatically both in scale and profile over the last few decades. They receive more development funds, are bigger in operations, endure more internal and external pressures while also being scrutinized for their performance and accountability (Banks et al., 2015; Batti, 2015). It is therefore important to understand how they make the strategic choices to operate a project.

More and more countries and international aid agencies now recommend project management practices to be applied to the development projects. According to the Project Management Institute (2008), a project life cycle includes a sequence of project phases, each defined by its own characteristics while also setting the foundation for the next phase. These phases can be developed and adjusted according to the project type but broadly include initiation/ conceptualization, planning, execution, control/monitoring, and termination. All the evidence shared above under the evaluation of interventions and impact of NGO approaches primarily highlight the third phase- execution, where the actual work is done to achieve the targets. But it is equally critical to understand how an NGO conceptualized or initiated and planned their work and its impact on project success. The two phases of initiation and planning comprise the project's design.

Elements of an effective project design can vary based on project and organizational background. Key components however include a project's fit within the organization's strategic plan i.e., its congruence with organization's mission, vision and its positioning; defining project scope, goals, and strategies; stakeholder consultations; community participation and community needs assessments for priority setting; and planning and developing activities (Kluger, 2006; Royse & Badger, 2015; Dwyer et al., 2019). There is substantial literature available on different phases of project life cycle and what each phase should constitute. However, there is not much empirical evidence available on its application in the NGO sector.

A study done by Nisa et al. (2015) among the NGO managers in Pakistan noted a positive correlation between project design and project success. A few studies have explored the factors that determine the location of NGOs where they operate. A study by Dipendra

(2019) in Nepal and Brass (2012) in Kenya identified level of community needs, resource availability, presence of donor, and level of political engagement to be the key determinants. With regard to the geographical area of operations, there are three broad explanations available in the literature – 'saintly' NGOs that initiate their projects in areas where needs are high, and services are scarce corresponding to their mission statements; 'self-serving' NGOs based on convenience theory or the survival imperative, where there is ease of access to location, and donor resources; and 'political' theories where powerful politicians influence and instruct NGOs where to locate (Fruttero & Gauri, 2005; Brass, 2012;). Analysis of the local situation is another important element while conceptualising and planning the intervention. Understanding of local socioeconomic, political and stakeholder environment, analysis of the community needs in the area, including target beneficiaries in terms of type, number, and geographic location, and linking the interventions and activities with community needs are all very critical to yield expected outcomes and ensure project effectiveness (Batti, 2015).

Another important component of effective project design as mentioned above is the identification of the community's needs. Needs assessments are helpful in identifying the community's priorities and gaps in service availability as well as useful in understanding community's perspectives or beliefs associated with the issue (Royse & Badger, 2015). The more thoroughly the specific needs of a target population are understood, the better the eventual outcome of the project will be. These needs of the population must be assessed and understood within the historical, socio-cultural and geographical context (Berberet, 2006). Information based on valid, reliable data is essential for the analysis of a health situation and to design an evidence-based health program (Becker, 2015). However, most often the policy makers and the institutional stakeholders would choose the indicators, geographic locations of the study, and data source, and finalize the prioritization of the needs (Jackson et al., 2018).

A case study by Jackson et al. (2018) demonstrated that community needs assessments can serve as an entry point for the development of responsive programmatic and funding decisions. The needs assessment provided the funding organization commissioning the study with the necessary platform to hear community voices resulting in institutional changes to their grant making process and redirecting their future funds to have greater social impact. The study findings further inferred that more community-driven

interventions are needed to improve community health and reduce disparities among minority populations.

With regard to community participation in family planning projects, a scoping review conducted by Steyn et al. (2016) analysed participatory approaches involving both the community and healthcare providers. Most of the programs utilized community participation to improve family planning service provision or to increase demand for services followed by programs aimed to maximise involvement of community members or service users. However, none of the programs included in the review used community participation as a means to identify the needs of family planning among specific groups.

No study was found that explicitly discussed how they utilized and acknowledged the local context or involved the community when designing their family planning intervention. The above discussion highlights the gaps in the available literature on the practical understanding of how an NGO designs a new project.

3.7 Gaps in evidence and significance of the current study

Looking at all the available literature under the five categories listed above – trends and projections; factors influencing family planning use; evaluation of family planning interventions; influence of financial incentives; and role of private providers in service provision, there is no doubt that family planning is a well-researched and well-documented global health issue. Also, the review demonstrates the role of NGOs as a key partner in the provision of family planning services in the low-and-middle-income countries as also in India. However, a few areas emerge that require more research and evidence.

These research gaps can be grouped into two categories. First, lack of evidence around the project initiation and planning phase of a project implemented by an NGO. The above review on the private sector's approaches to family planning has highlighted two important points – one, the emerging role of NGO in family planning programs, and two the importance of project design in the success of a project. Although there is ample academic literature on the different phases of a project life cycle and factors that make a project successful, the empirical evidence of its application is very scant in the NGOs and specifically in the public health projects. Currently there is only very limited and fragmented evidence available on how an NGO initiates a new project. There is a need for

additional research to understand the factors that an NGO considers or steps that they take while designing a new project, and to assess how it compares to the existing literature under project initiation phase of project management.

Second, family planning evaluation studies overemphasize on ‘what works’ and whether the project achieved its outcomes and increased service utilization but pay little attention to other important components that also define the effectiveness of the project. There is very limited evidence that explains why the interventions work the way they do, how and why the community or the target group react to the interventions, and for whom the intervention works and does not work. Also, the existing evaluation studies have either used RCTs, quasi-experimental studies, longitudinal studies or have used routine service statistics and client exit surveys to assess their impact. No study was found that has used the theory-based evaluation approach to assess the project effectiveness.

NGOs in India are a critical but less studied partners in family planning service delivery. Although there is ample literature on factors that influence family planning uptake, and decent number of studies evaluating some of the interventions, there is not much reported on the role of NGOs in FP service provision and the approaches adopted by them in India. With the above research gaps identified, the current study proposes to research one of the approaches implemented by a leading NGO in India. Outreach service delivery model is one of the sparsely researched and documented models in India. The study will explore the model to understand how the NGO initiated and developed the model. It will further explore the program theory and uncover the role of context and mechanism to establish what works, for whom, under what conditions and why. This research would be the first study that would look at family planning from both the service provider (NGO) and service user perspective. The findings will help NGO managers planning to design and develop similar programs to acknowledge all factors that could influence the program outcomes. Findings will also help the government policy makers to assess how the outreach are performing and understand the factors that influence uptake of family planning from this service delivery channel in order to improve services and uptake.

The next chapter will discuss the methodology adopted to answer the research questions.

Chapter 4: Methodology

4.1 Introduction

The following chapter details the methodology used for the study to address the research questions. The chapter begins with a discussion on the research design, which will provide the overall guiding framework to the study. This is followed by justification for the research strategy and methods of data collection. The chapter then explains the methodological framework as applied to the present study. This includes describing the research setting, study area and population; sampling and recruitment strategy; sample size; methods and stages of data collection and data analysis.

4.2 Research Design

There are ample studies and literature available on evaluation of public health programs. These evaluation studies help in understanding the effectiveness (whether the program objectives were met and to what extent), with some studies presenting the efficiency and cost-benefit analysis of the programs (cost of the program vis-à-vis its benefits) (Prashanth et al., 2013). Looking at family planning programs globally and more specifically in India, evaluation of these programs has mainly focussed on either its effectiveness or impact i.e., whether the program has produced expected intermediate outcomes or ultimate outcomes (Aruldas et al., 2014; Munroe et al., 2015). These studies did not look at the contextual factors that affect the implementation and results of the interventions. Further, the studies only contribute to understand whether the intervention made a difference but fail to explain *how* and *why* the intervention made the difference.

The majority of these family planning evaluation research studies either utilized cross-sectional design, randomized experiments, (quasi-) experimental designs or panel studies (Mwaikambo et al. 2011). Experimental designs, especially RCTs, are considered to be the gold standard for evaluation of programs and policies (Hawkins, 2014; Van Belle et al., 2016). They have been well established as the mainstay for effectiveness studies while isolating the effect of each variable on the outcome. Statistical analysis techniques like randomization, regression and cluster analysis, etc eliminate all potential biases and confounders and prove that the intervention causes the outcome (Marchal et al., 2012). Although these designs provide conclusive proof of cause-and-effect relationship between

an intervention and an outcome, they fail to provide valid information when applied to complex and dynamic programs. Evidence also suggests that these designs are suitable and effective only when the intervention under study has a low variance in context and content, thereby limiting their usefulness in evaluating complex social innovations that would have a high degree of variance in content, context and outcomes (Walshe, 2007). As suggested by Walshe (2007, p. 57) and simplified by Keller et al. (2009, p. 2), "the more heterogeneous the innovation, the more the experimental methods become less helpful in understanding its effects."

In these outcome-focussed research designs, 'context' is often treated as a confounding variable and efforts are made to 'control for' the impact of context on outcomes. Controlling these variables isolate them from each other as also from the real world (Marchal et al., 2012). Holding all other variables constant instead of showing how the variables combine to create outcomes (Fiss, 2007), experimental studies fail to recognize in which conditions and through which configuration of factors the outcome is achieved (Marchal et al., 2012). This therefore limits the drawing of context-sensitive conclusions, use of research evidence in understanding how and why the intervention worked and inadequate uptake of research evidence to practice (Kernick, 2006; Bhattacharyya et al., 2011). Therefore, these designs may not be the most appropriate approach to evaluate complex programs that look beyond attribution and towards exploring and explaining how interventions in complex situations work (Van Belle et al., 2016).

There are alternative well-established research approaches that delve into complex social interventions while recognizing the context and its impact on the outcomes. Theory based evaluation approaches have gained significant recognition in the last two decades as providing a key to unlock complex processes by examining implementation, the causal processes that generate outcomes and contextual factors that influence them (Rolfe, 2019). This gives them an edge over experimental designs that are limited in their explanatory power of how and why outcomes happen while depreciating the effect of context.

One important premise while deciding on the research approach is the appropriateness of the approach to answer the research questions of the study. Theory based evaluation approach was deemed fit for the purpose of the study that aims to examine not only whether the family planning outreach program works, but also why, how and for whom

the program works. Since the focus of the study is to establish 'why, how and for whom the outreach works', the study intends to unpack the complex relationship and dynamic interplay between context, content of the intervention, individuals' responses to the intervention and program outcomes.

Two prominent categories of theory driven evaluation are theory-of-change (ToC) and realist evaluation (RE) (Blamey and Mackenzie, 2007). Both these approaches have been used together or overlapped or used interchangeably (Marchal et al., 2012). The core principle of theory based, or theory driven evaluation is the formulation of a plausible program theory. Although both the ToC and RE centre around understanding the theory of an initiative, they differ in the approach they take to uncover the program theories. ToC looks at building hypothesized links between a program's activity and its anticipated outcomes, i.e. it entails 'mapping the nuts and bolts of the program'. ToC therefore is used as a means to explain the implementation theory and claim causation. On the other hand, RE refers to hypothesized causal links between mechanisms released by an intervention and their anticipated outcomes. This makes RE not just limited to 'mapping the nuts and bolts of the program' and their possible linkages but more concerned with the reasonings and motivations that triggers responses to the interventions ((Blamey & Mackenzie, 2007).

The Realist Evaluation approach developed by Pawson and Tilley (1997) emphasized that in conducting RE the three elements of context, mechanism and outcome must be considered to answer the question of 'what works'. Analysis of these three elements gives the method an explanatory power to provide insight onto the missing 'why' factor, thereby articulating program effectiveness (Pawson, 2006). There has been a growing body of work in the past two decades that apply the realist approaches to assess program effectiveness in health services research (Feather, 2018). It has been applied in a variety of fields within health services to study the implementation of complex interventions (Byng et al., 2005; Greenhalgh et al., 2009; Marchal et al., 2010; Prashanth et al., 2014; Mirzoev et al., 2016) In the current study, the researcher is looking at exploring the need and conceptualization of the outreach model to provide family planning services, reasonings of service providers and service users that make outreach accessible and acceptable, and examining how contexts and mechanisms influence the outcomes of the

outreach model. Realist Evaluation was considered to be the most appropriate design providing a sound framework to examine the same in a complex intervention.

Having justified the use of RE as the overall guiding framework for the study, it is worthwhile to understand the realist principles; realist concepts for explaining programs; and the realist evaluation cycle that will guide the evaluation of the outreach model.

4.2.1 Principles of Realist Evaluation

The Realistic or Realist Evaluation (RE) approach was first developed by Pawson and Tilley (1997) as a theory driven approach that views programs as 'theories in action'. Realist evaluation is a form of theory-driven evaluation developed to strengthen the explanatory power of evaluation studies. The approach explains how and why programs work beyond just seeking to establish program attribution (Stern, 2015). A major assumption under the approach is that nothing works everywhere and for everyone, and that context really makes a difference to program outcomes. For this reason, realist evaluation does not ask 'what works?' or 'does this work'? A realist research question contains some or all of the elements of 'how and why does this work or not work? For whom does it work? To what extent? Under what circumstances does it work?' (Westhorp, 2014). It is therefore imperative for policy makers and practitioners to understand how and why programs work and don't work in different contexts. This understanding makes them better equipped to take decisions about which programs or policies to implement or adapt based on local contexts (Stern, 2015).

Key principles of realist approach (Pawson and Tilley, 1997; Westhorp, 2014; Punton et al., 2020):

a) The realist understanding of 'programs' – Under realist approach, programs are considered theories in action, which are often implicit or incomplete and where different stakeholders may have different understanding of the working of a program. Also, each program will have multiple intervention theories in implementing a program. Therefore, evaluation becomes a process of testing these program theories as explained by different stakeholders. Further, programs are complex in nature as it involves introducing new ideas or resources into existing social systems, thereby attempting to bring a change in the existing conditions that may influence decision making and behaviour (Pawson & Tilley, 1997). However,

realism further acknowledges that no intervention works in the same way for everyone and is dependent both on individuals' responses and on the wider context (Wong et al., 2016).

b) The realist understanding of how causation works - One of the key principles of realism is that observational evidence alone cannot ascertain the link between inputs and outcomes. Rather, outcomes are understood to be caused by underlying causal elements, that an evaluator can partially reveal but can never be known completely. These causal elements are known as mechanisms and these elements are not the mere interventions that cause outcomes. Any changes brought about by a program are a result of different mechanisms, which are often invisible forces or processes found in the choices, beliefs, reasonings and decisions that people make when they are presented with resources (Pawson & Tilley 1997; Westhorp, 2018). Mechanisms are therefore triggered when program resources interact within specific context (individual, interpersonal, or institutional factors within the program setting). A realist evaluation therefore establishes a causal link between a program and an observed outcome by pooling in these mechanisms and developing and testing theories in the form of context-mechanism-outcome configurations.

c) The realist understanding of knowledge or truth – Realism acknowledges that social systems are vast and complex and that programs are sophisticated social interactions set amidst a complex social reality (Pawson & Tilley, 2004). Further, in a constantly shifting social world no theory can be confirmed as 'right' or 'complete' with certainty. Also, there are limitations to the way humans can identify all the hidden elements that either work in favour or against a program. Therefore, realist evaluators believe that theories can at best be an approximation of reality and not the final truth or complete knowledge. Theories are therefore developed and tested in a way that it can at least provide a good enough understanding and explanation of how and why a program works (or not) (Westhorp, 2014; Williams, 2018).

4.2.2 Realist Concepts for Explaining Programs

Realist evaluation stresses four key linked concepts for explaining and understanding programs: ‘mechanism’, ‘context’, ‘outcome pattern’, and ‘context-mechanism-outcome pattern configuration’ (Pawson & Tilley, 1997, 2004).

4.2.2.1 Mechanism

Mechanisms explains what it is about programs and interventions that bring about any effects. They expound the logic of the intervention by determining how the resources under the program may stimulate the reasoning of the participants to either accept or reject any program. Therefore, mechanisms are the causal processes that produce particular outcomes or effects, whether positive or negative (Pawson & Tilley, 1997, 2004; Westhorp, 2014). Program mechanisms relate to how a program works and should not be mistaken as program activities. Although programs offer resources or opportunities, it is the decision making of participants that causes the outcomes. Mechanism therefore refers to how programs influence people’s decision making or their reasoning and what people do in response to the resources that the program provides based on those reasonings. As given by Pawson and Tilley (2004),

Resources + Reasoning = Mechanism

Identifying mechanisms therefore answers the ‘how’ question of program effectiveness (Westhorp et al., 2011). As per realist principles, there are three fundamental aspects to the concept of mechanism. “Mechanisms (1) are usually hidden, (2) are sensitive to variations in context, and (3) generate outcomes” (Astbury & Leeuw, 2010, p. 368). Building on these three aspects, a mechanism can be defined as “an element of reasoning and reactions of (an) individual or collective agent(s) in regard of the resources available in a given context to bring about changes through the implementation of an intervention” (Lacouture et al., 2015, p. 8).

The explanatory powers of mechanism and its dependency on different contexts will guide the present study to unpack the generative causations resulting in observed outcomes. Uncovering mechanisms will provide the study an opportunity to understand the reasoning i.e. how both the service providers and service users conceive resources being offered by the outreach and what leads to how they respond to these resources.

4.2.2.2 Context

Pawson and Tilley (2004) describe context as 'characteristics of the conditions in which interventions are introduced'. These are the factors outside the control of the program designers (Timmins & Miller, 2007). Wong and colleagues refer to context as 'the prevailing beliefs, social and cultural norms, regulations, and economic factors' (Wong et al., 2012). Robert and colleagues consider context as social, cultural, historical, or institutional (Robert et al., 2012). Pawson (2006) describes the four layers of contextual factors, as also used by Lacouture and his colleagues (2015, p.6), that shape the implementation of the social programs:

- the individual capabilities of the key actors to take the intervention forward (e.g., values, roles, knowledge, purpose)
- the interpersonal relationships supporting the intervention (e.g., communication, collaboration, network, influences)
- the institutional settings (e.g., informal rules, organizational culture, leadership, resource allocation, local priorities); and
- the infra-structural system (e.g., political support).

These contextual layers can thus be at micro-level (e.g., individual actors), meso-level (e.g., departments and teams), or macro-level (e.g., organization) (Lacouture et al., 2015). However, there will always be certain features of the context that will affect how a program will work. Identifying those contextual conditions or factors is important to understand the foundational question behind doing RE i.e., 'for whom and in what circumstances' the program works.

In the present study, the researcher will explore the contextual factors that led to the decision of initiating the outreach model as well as understanding the context under which the outreach program is implemented. Studying the social, economic, political, institutional, historic, or geographical context within which outreach is designed and implemented will provide insights on which contextual factor is supportive and which is unsupportive to the outcome of the model. This examination will provide answers to 'for whom and in what circumstances' the intervention works.

In RE, interactions between context and program mechanisms determine the outcome (Westhorp et al., 2011). Here context means including only those context-specific factors or contextual factors that would trigger specific mechanisms that cause outcomes. In other words, context is necessary to 'fire' or 'trigger' mechanisms and determine the direction of the outcomes. It is therefore vital to understand the relationship between the mechanisms and the effects of the contextual factors in which they exist. Understanding the context-mechanism relationship can then help to modify the program theory or the logic of the intervention, help to explain how and why an intervention worked or not in a particular context and whether the intervention can be implemented in other contexts.

4.2.2.3 Outcome Pattern

Outcomes are the resulting positive or negative actions or consequences of the mechanism triggered by the context within the intervention. Realist evaluation does not search for outcome regularities; that an intervention will work every time under certain circumstances. Instead, it aims to identify demi regularities or patterns of outcomes (Pawson, 2006).

Programmes are mostly introduced into multiple contexts and therefore mechanisms that get activated by the interventions also vary depending on different conditions. Some factors in the context may enable particular mechanisms to be triggered. Other aspects of the context may prevent particular mechanisms from being triggered. That is, there is always an interaction between context and mechanism, and that interaction is what creates the program's impacts or outcomes. Because of these variations in context and mechanisms thereby activated, a program may have mixed outcome patterns that can include both intended and unintended consequences of the program.

This concept of 'outcome patterns' allows for a more sensitive evaluation of complex programs looking at implementation variations, impact variations, socio-demographic sub-group variations, personal attribute outcome variations or regional outcome variations, etc (Pawson & Tilley, 2004). This interpretation of 'outcome patterns' is important for the study since the study is looking at examining the extent to which the model addresses the need of the community or sub-group of community for contraceptive services while also identifying unintended consequences of the program.

4.2.2.4 Context Mechanism Outcome Configurations (CMOCs)

A CMOC is a hypothesis that the program works (O) because of the action of some underlying mechanisms (M), which only comes into operation in particular contexts (C) (Pawson & Manzano, 2012). A CMOC describes the linkages between the context, mechanism and outcome (Tilley, 2000). Tilley (2000) further explains that the purpose of developing CMO configuration is to explain 'what works for whom in what circumstances'. Since RE tests and refines program theories, to do so the theory must be cast as an if-then proposition. These propositions bring together mechanism-variation and relevant context-variation to predict and to explain outcome pattern variation. Realist evaluation thus develops and tests CMOC conjectures empirically (Pawson & Tilley, 2004).

To emphasize the causal and conditional nature of this assumption, Pawson and Tilley (1997) presented this idea in the form of an equation:

Context + Mechanism = Outcome

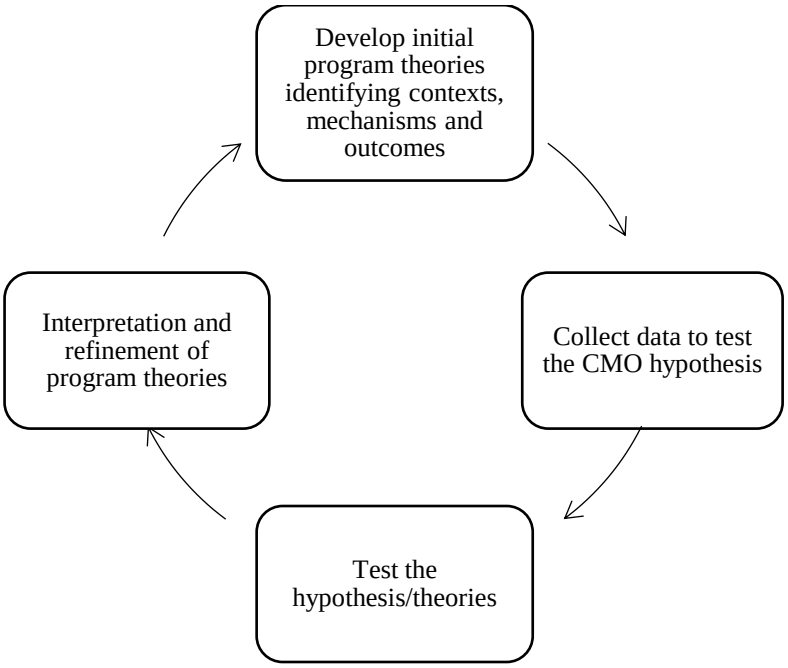
In realist evaluation, CMOCs are expressed in the form of middle-range theories i.e. theories that are below the philosophical or grand theories but above the general statements or hypothesis so that it is possible to use data to develop and 'test' them. However, programs do not work on a single program theory and therefore there will always be multiple Cs that will activate multiple Ms resulting in multiple Os forming many CMOCs (Pawson & Manzano, 2012; Wong, 2018).

For this study, the CMO framework will provide a structured approach to first understand the need of a new program followed by developing a deeper understanding of the effectiveness of the outreach model in terms of explaining how the model works and for whom and under what circumstances it works (or does not work).

4.2.3 The Realist Evaluation Cycle

A realist evaluation cycle follows four main stages or phases (Pawson & Tilley, 1997, 2004). Fig 4.1 presents this cycle followed by an explanation of each of the four stages. Details of how the cycle is adapted to be used in the current study will be presented in the section 4.5.9 under the application of the methodological framework to the current study.

Figure 4. 1 Realist evaluation cycle



Source: Adapted from Pawson and Tilley, 1997

Stage I: Generate program theories and hypothesis to be tested

The first step is to formulate initial program theories to be tested. These theories can be identified using multiple sources -documentation analysis, previous studies, interviews or group discussions with program designers, etc. The theories are developed as tentative hypotheses looking at mechanisms that generate outcomes in a given context. There can be multiple context-mechanism-outcome configurations that are then tested.

Stage II: Collect data to test the hypotheses

Since RE is method neutral, the data collection methods should be appropriate to the generated hypothesis in stage I. Pawson and Tilley advocate for mixed methods approach to collect information around the contexts, mechanisms and outcomes enabling the evaluator to test the hypotheses. Interviews, surveys, observations, before-after measurements, along with existing records or monitoring data could also be used to this effect.

Stage III: Test the hypotheses

In the third stage of RE, all the data collected in stage II are analysed for testing the hypotheses developed during stage I. This analysis maps the pattern of outcomes that the program has produced and assess whether the hypothesized contexts and mechanisms adequately explain the outcomes pattern. It is at this stage that the evaluator can make comparisons to understand for whom the program worked or did not work and explain these differences in terms of context-mechanism interactions (Hewitt et al., 2012).

Stage IV: Refine the program theories

Based on the results of the hypotheses testing in stage III, the initial CMOCs developed in stage I are refined thereby refining the program theory. The sub-group comparisons may also highlight the need to revise the program theory, or it may suggest how to target a particular group under the program. There can also be the possibility that further investigation is required to better understand some outcome patterns which will require the evaluation cycle to repeat again.

4.3 Research Strategy

As demonstrated by Pawson and Tilley (1997) in their seminal work on realist evaluation, this approach can be applied to a number of designs from conventional experimental to ethnographic research. The only condition is that the design must allow the use of realist cycle to build theory and refine CMO configurations based on the analysis of the observed data (Pawson & Tilley, 1997). Case studies have been long used to test hypotheses especially in evaluating policies or programs (Koenig, 2009). Case study research has found a signature role in realist evaluation where the focus is on identifying what works, for whom, when and why (Woolcock, 2013). Several studies within health services research have successfully used case studies driven by the principles of realist evaluation (Marchal et al., 2010: Rycroft-Malone et al., 2010; Flynn et al., 2019).

Robert K Yin (1984) in his seminal publication ‘Case Study Research Design and Methods’ draws upon case study as a separate and all-encompassing research strategy. Yin defines a case study as an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident. Yin in his later work (2009) points out that theory development is imperative to the case study design, that

complements the theory driven approach of RE. For the current study, case study was considered best suited to address the research questions for multiple reasons.

First, the study is specifically looking at exploring a service delivery model providing family planning services that was initiated by an NGO at the national level. Punch (2005) acknowledges case study as a strategy and explains it as "the basic idea is that one case (or perhaps a small number of cases) will be studied in detail, using whatever methods seem appropriate. While there may be a variety of specific purposes and research questions, the general objective is to develop as full an understanding of that case as possible" (p.144). Bryman (2004) and Tight (2010) also suggest that case study is associated with a location, such as a community or organization that requires an intensive examination. There is very limited evidence from the literature that explores and explains any family planning service model run by an NGO. Using the outreach model of the NGO as the case study will give the researcher an opportunity to conduct an in-depth and detailed examination of the model to understand a phenomenon occurring in a bounded context.

Second, using the outreach model of the NGO as a case study with the realist evaluation approach will have a distinct advantage to get answers for the research questions around 'how', 'what', 'why' or 'for whom'. According to Yin (2003, 2009), case studies can be used to explain, describe or explore events or phenomena in the contexts in which they occur. Case studies have a distinct advantage when asking 'how', 'what' or 'why' questions and can therefore help to understand and explain causal links and pathways resulting from a new policy or program development (Crowe et al., 2011). Case study will therefore provide a naturalistic understanding of the outreach model.

Third, as suggested by Yin (2013), case study is suitable to study a complex social phenomenon over which the researcher has limited or no ability to control. This study focusses on an organizational initiative of implementing a new service delivery model that is embedded within a complex healthcare service delivery system involving multiple stakeholders, and complex policies and procedures. This complexity limits the researcher's ability to have any control over the phenomenon.

Fourth, for the researcher to use case study, the study should be focusing on contemporary events occurring in 'real-life contexts' (Yin, 2009, as cited in Harris et al.,

2018). This is what the present study involves by providing contraceptives to community through mobile services.

Fifth, since the current study revolves around an outreach model, which is only being implemented by one NGO, the study is utilizing a single holistic case study. Yin (2009) has described four basic case study designs – single and multiple holistic cases and single and multiple embedded cases. A holistic case is one where the case is the unit of analysis, and no sub-unit can be identified while an embedded case is where there are several units of analysis in the case and its analysis focuses on different sub-units of a specific phenomenon. In his earlier work, Yin (1989) stated, "one rationale for selecting a single-case rather than a multiple-case design is that the single case represents the critical test of a significant theory" (p. 41). Therefore, the value of the case resides in its unique nature, in this case the uniqueness of the outreach model.

Finally, Yin (2013) posits that theory development should be an integral part of designing a case study, which the current study also proposes. Case study offers additional insights into what gaps exist in a program's delivery or why one implementation strategy might be chosen over another, helping in the development and refinement of the program theory (Crowe et al., 2011). This is the premise of the study as well, to develop and refine the program theory of the outreach model to assess what works, for whom, and why.

4.4 Research Methods

Realist evaluation and case study both are method neutral (Pawson & Tilley, 1997; Yin, 2013). It is possible to conduct a case study by primarily using quantitative data or only qualitative data or use mixed methods if the researcher believes any one of these methods to be the best possible way to analyse the case and answer the research questions. (Simons, 2014). Using more than one method within a research allows the researcher to capitalize on the strengths of both quantitative and qualitative methods thereby producing a more complete picture of the phenomenon under study (Johnson et al., 2007; Creswell & Plano Clark, 2011).

Johnson et al. (2007) in their work analysed 19 definitions of mixed methods research as given by leaders in the field and offered the following general definition "mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and

quantitative viewpoints, data collection, analysis, inference techniques) for the purposes of breadth and depth of understanding and corroboration" (p. 123).

Realist evaluation is usually multi-method or mixed method (Wong et al., 2016). Several studies that have utilized the principles of realist evaluation within their research have reported using mixed methods of data collection (Pommier et al., 2010; Nurjono et al., 2018). Even those that used case study design combined both quantitative and qualitative methods (Marchal et al., 2010; Williams et al., 2013). Where case studies complement the theory driven approach of realist evaluation, using mixed methods is an added advantage to the alliance, allowing fuller investigation and explanation of the data. It involves the collection, analysis and interpretation of both quantitative and qualitative data to understand the pattern of outcomes and their relationship with context and mechanism (Graham & McAleer, 2018). Mixed methods case studies are therefore considered to complement RE by using a range of data and focusing on understanding context (Rycroft-Malone et al., 2010).

Mixed methods are preferred and best suited in research where multiple perspectives, viewpoints and positions can provide a more detailed understanding of a complex intervention than obtained from a single perspective or a single source (Halcomb & Hickman, 2015). Realist theory suggests that different stakeholders have different information because of the different roles they play in the program (Westhorp, 2011). As Pawson and Tilley (1997) indicate, two of the key issues of data collection is "who might know" and "how to ask". Further, they imply that since programs are complex social organization, there is a potential "division of expertise" that tends to look at "who might be expected to know what about the program" (p.160). In order to explain how and why the outreach model works, the researcher will collect information from different stakeholders to get their share of understanding about the intervention using both quantitative and qualitative methods. As suggested, contextual factors and mechanisms can be identified using qualitative methods (Westhrop et al., 2011) and outcome patterns can be identified using quantitative methods (McEvoy & Richards, 2006).

Creswell and Plano Clark (2007, 2011) have explained four major types of mixed methods designs that can be used to evaluate complex interventions. These include the exploratory sequential (qualitative methods followed by quantitative), explanatory sequential (quantitative then qualitative), embedded (though collected simultaneously,

one dataset provides a supportive secondary role) and convergent (both datasets are complementary to each other) models. The current study will deploy Exploratory Sequential Mixed Methods model since qualitative data will be collected first, exploring the outreach model and identifying key contexts and mechanisms to develop initial program theory followed by developing quantitative methods that will test and explain the relationships.

Mixed methods used for the present study will be focus group discussion, questionnaires with both open and closed ended questions, document review and the routine management information system (MIS) data of the outreach.

4.4.1 Focus Group Discussions (FGDs)

Focus groups belong to the genre of qualitative research methods that involves an informal discussion among a group of pre-selected individuals on a particular topic or area of interest (Wilkinson, 2004). Focus groups have been identified as an effective technique to explore the shared knowledge and experience and to have a collaborative discussion among participants from a homogenous group (Liamputtong, 2011; Ayala & Elder, 2011). The method aims to obtain data from a purposely selected group of individuals rather than from a statistically representative sample of a broader population (O. Nyumba et al., 2018). Since the present study is looking at the case of an innovative model of an NGO, the group participants will be purposely selected and will be a homogenous group of senior managers.

David Stewart and colleagues (2009) note that focus groups are particularly well suited for exploratory research and have a distinct advantage of addressing broad questions on "why", "how", "when", "where" and "what kind" (p.592). Since it is a group process, it gives the researcher an insight into the point of view of all the participants at the same time along with providing the necessary flexibility to dis/agree with each other while clarifying their points of view, something that is missing in an individual interview (Liamputtong, 2011). It also provides an efficient means for developing different hypothesis about the topic (Stewart et al., 2009). Focus group is also used as the first round of data collection, findings of which then assist in developing questionnaires/ surveys (Kitzinger, 2005; Hesse-Biber & Leavy, 2010). In previous studies, focus groups have been used in case studies of NGOs (Grills et al., 2012; Gooding, 2017; Gooding et

al., 2018). Focus group is chosen over in-depth interviews with senior managers since the technique can generate opportunities for point-counterpoint discussion, a consensus, or a debate, which will be important for developing initial program theories.

These qualities of the focus group and its use in case studies specifically around NGOs, make it an appropriate method of data collection for the current study. This technique will give the researcher required channel to explore the factors that led to the design of the outreach program and to identify the program theories as understood by the participants, in this case the program designers and managers. Focus group has a special relevance in realist evaluation since the first step of eliciting program theories in the form of CMO configurations require an in-depth insight into the context in which outreach model is introduced and deconstruct the mechanisms to understand 'what works, for whom and why' from the perspective of the participants. These findings will then pave the way for developing questionnaires that will focus on getting information to test these program theories.

4.4.2 Survey Questionnaire

Survey is a well-established and systematic technique to gather information using questionnaires in order to investigate social problems (Groves et al., 2009). It is effective in drawing quantitative conclusions about respondents' attitudes, knowledge, beliefs, opinions, behaviours, practices and even facts (Weisberg, 2008; Hageman et al., 2015). By investigating all these components, the survey can provide an insight into the attributes of a population, social determinants, common practices and why people do the things they do (Hageman et al., 2015). Surveys are useful for testing hypotheses and may establish pathways linking specific factors or behaviours to the outcomes of the intervention (Nardi, 2002; Fowler, 2009).

Following on the exploratory sequential mixed method model for the current study, findings on the context and mechanisms from the group discussion will inform the development of the questionnaire. These findings will be used to develop questions and relevant options in the structured questionnaires to test the findings from the viewpoint of different stakeholders. Developing questions from a preceding qualitative stage increases the researchers' confidence that suitable options have been provided (Brannen & Halcomb, 2009).

There is ample evidence that confirms the use of questionnaires within the realist evaluation studies in phase II of collecting data for testing preliminary theories (Prashanth et al., 2012; Goicolea et al., 2015; Goodman et al., 2017). The survey will be designed to obtain demographic information of the respondents and information that might answer the research questions in relation to the impact of outreach program on service uptake and reasons for the same. This will provide empirical data to test the theories developed from the group discussion.

Self-administered questionnaire survey, face to face survey and telephone survey modes of data collection will be utilized. The choice of data collection mode depends on the research topics to be covered by the survey, availability of participants, characteristics of the sample/population, or condition of respondent anonymity (Fowler, 2009). Self-administered questionnaire will be used to draw data from the staff while face to face questionnaire and telephone survey will be administered on service users. Further, questionnaires can have a mix of both closed-ended and open-ended questions. Open-ended questions will be included in the survey where a greater detail from the respondents is desired to answer a question enabling refinement of the initial theories.

4.4.3 Document Review and Routine Management Information System (MIS)

Document review is a way of collecting data by reviewing existing documents, which can be internal to a program or organization. These could include project reports, funding proposals, research reports, program logs, newsletter, or any marketing material (CDC, 2018). Although document review and document analysis are often used interchangeably, the former is a descriptive and non-analytical process as compared to a more analytical process of document analysis (Kayesa and Shung-King, 2020).

Programs also generate vast amounts of data as part of their routine operation, which are often collected to monitor progress or for administrative purposes. This routine MIS data provides a rich source of information and is increasingly being used by researchers to conduct health system planning and evaluation studies (Hung et al., 2020). This routinely compiled data can also provide meaningful comparisons between geographical areas, health services or national figures (Kane et al., 2000).

For the current study, the researcher will review the existing documents like funding proposal and progress reports to understand the program outcomes defined by the

outreach team. The researcher will also review the existing data on the family planning services collected by the outreach teams. This data, which is predominantly activity data will provide information on the volume of clients, service coverage of the teams, type of service provided, and the demography of the service users. This data will then facilitate the selection of outreach teams.

4.5 Application of the methodological framework to the current study

As discussed above, the current study is designed as a single mixed method case study using realist evaluation as the overall guiding framework. This section outlines the application of the framework discussed in the previous section to direct the collection of data for the present study.

4.5.1 Defining the case

Foundation for Reproductive Health Services India (FRHS India) is a leading Indian Non-Governmental Organization working since 2009 to empower women and girls to exercise their reproductive rights and choice. An affiliate of Marie Stopes International, a global organization that provides contraception and safe abortion services, FRHS India (earlier known as Marie Stopes India) provides family planning and reproductive health services through multiple channels. The organization runs its own abortion clinics, clinical outreach teams (COTs) and provides support to Government run family planning services. Through public-private partnerships with the state governments of Rajasthan, Bihar and Uttar Pradesh, the organization works towards improving accessibility and availability of quality family planning services to the rural population in these states.

FRHS India was chosen as the organization for multiple reasons. The organization is India's largest provider of clinical family planning services in the NGO and private sector. They have been recognized by health departments of various districts and states and have received several awards for their exemplary performance in providing family planning services to rural populations. They are the only national NGO running mobile outreach programs in the high-focus states of the country, where total fertility rate is more than 2.1.

COT is the primary service delivery channel through which FRHS India offer services to clients who live in difficult to reach geographies. The program has been running since

2011. COT offers a range of contraceptive services including permanent methods (female and male sterilization), long-acting reversible methods (IUD), spacing methods (Oral contraceptive pills and condoms) and emergency contraceptive pills. A fully staffed and trained team of a surgeon, a medical officer, two nurses, an operation theatre assistant, one counsellor, a coordinator and driver, equipped with the required instruments, drugs and supplies travel in a customized ambulance to the public sector sites (PHCs/CHCs). These sites are identified in consultation with the district health authorities and a monthly schedule of fixed day services is shared with the site staff and the CHWs mainly ASHAs and ANMs. ASHAs and ANMs disseminate information regarding the service delivery days in the community and mobilize the clients to avail services.

As mentioned earlier, case studies have an advantage as they can explore, describe, and explain any phenomenon. FRHS India and its clinical outreach program was chosen as the case study to explore the factors that influenced the design of a new program; unpack the program theories and develop hypothesis to describe the program; and then explain the program by uncovering new knowledge or new causal relationships that inform 'how' and 'why' the outreach program work (or not). In order to develop this holistic understanding, getting the perspective of both service providers as well as service users is essential. This would require use of different methods of data collection that suit the purpose and the participants. Using case study design here offers freedom to incorporate surveys, interviews or group discussions with the staff and the service users with the possibility of different layers of analysis and triangulation of results. Lastly, the researcher is genuinely interested in studying the selected NGO because of its uniqueness of approach in providing family planning services and because of its representation of NGOs that provide family planning services in India.

4.5.2 Study area

The study was conducted in the three States where FRHS India operates its mobile outreach program – Uttar Pradesh (UP), Rajasthan and Bihar. As mentioned in Chapter 2, these three states fall under the high priority or high focus states identified by the Ministry of Health and Family Welfare, Government of India based on the TFR of 2.1 and above. FRHS India provides family planning services in selected districts with high TFR within these three states. The outreach model is used to reach out to the rural population in these

districts where service provision in public health facilities is poor and the areas are geographically distant and hard to travel.

4.5.3 Study Population

A total of 21 FRHS India outreach teams are operational in these three states – eight teams in both Rajasthan and Bihar and five in UP covering a total of 35 districts:

1. Uttar Pradesh - Five outreach teams covering rural population in the districts of Bareilly, Badaun, Barabanki, Faizabad, Sitapur, Lakhimpur, Bahraich, Shrawasti, Gonda and Mirzapur.

2. Bihar – Eight outreach teams covering rural population in the districts of Sitamarhi, Sheohar, Motihari, Bettiah, Chapra, Gaya, Kishanganj, Araria, Purnea, Katihar, Saharsa, Supaul, and Madhepura

3. Rajasthan – Eight outreach teams covering rural population in Jaipur, Ajmer, Alwar, Udaipur, Sikar, Chittorganj, Nagaur, Rajsamand, Pratapgarh, Banswara, Dungarpur and Bharatpur.

4.5.4 Sampling

A total of 10 teams (50% of the study population) were selected for the study. Four teams in Rajasthan and in Bihar and two teams in UP. These teams were selected based on the volume of clients during the period Nov 2017 to April 2018. Management Information System (MIS) data of the outreach teams for six consecutive months was assessed to identify low and high client volume teams. The teams maintain these data on a regular basis. Two high client volume teams and two low client volume teams were selected in Rajasthan and Bihar, and one high and one low client volume team was selected in UP. The selected teams included:

1 Uttar Pradesh – Barabanki and Sitapur

2 Bihar – Motihari, Chhapra, Bettiah and Sitamarhi

3 Rajasthan – Jaipur, Sikar, Nagaur and Bharatpur

4.5.5 Participants and sample size

There are three different groups of study participants, including the senior management team, involved in designing and developing the program; the State team that delivers the program; and the service users or clients.

a) Senior Managers (n=7) – There are eight senior managers at FRHS India. The senior management team comprises National managers (Program Director; Operations Director; Clinical Services Director; and Research and Evaluation Manager) and State managers.

b) State and Field Team (n=40) – At the State level, in addition to the State Program Managers, there is one Assistant Manager- Operations and an M&E Officer who manage the outreach teams. However, each State has a different outreach field team composition. In UP, one Program Coordinator manages two teams/districts. Each of these team has a Program Executive, Field Coordinator and Counsellor. In Bihar one Program Coordinator is assigned 2-3 teams/districts. Each of these district/team has one Program Executive, one Block Coordinator, one male Inter-personal communicator (IPC) and one female Counsellor/IPC. The term counsellor is used interchangeably with female IPC. Male IPC is specific for male sterilization (NSV) mobile team. In Rajasthan also, one program coordinator manages 2-3 teams/districts. Each team/district has 1-2 block coordinators and 1-2 IPC depending on district size and coverage. Table 4.1 provides details on total staff in each state and staff participation in the study in each state.

Table 4. 1 State-wise Staff Participation

State	**Total staff in selected teams**	**Number of participating staff**	**% participation**
Uttar Pradesh	10	8	80%
Rajasthan	18	15	83%
Bihar	18	17	94%
Total	**46**	**40**	**87%**

Source: Study data

c) Service Users (n=52) – Service users are married men and women of reproductive age who have availed family planning services from the sampled outreach team on the day of the data collection. Since more than 95% users of FP from the outreach are women, there was a high likelihood of women being the primary respondents. Therefore, efforts were made to attend special NSV outreach days organized by the selected outreach teams to include male participation. Table 4.2 presents the state-wise and gender breakdown of the service users who accepted a service on the day of the data collection and participated in the study.

Table 4. 2 Number of service users who participated in the study

State	**Male**	**Female**	**Total**
Uttar Pradesh	0	11	11
Rajasthan	5	15	20
Bihar	11	10	21
Total	**16**	**36**	**52**

Source: Study data

Another sub-sample of 18 service users from within the overall sample of 52 also participated in a telephone interview the day after they received the services. Out of these, 13 were females and five were male service users.

Sample size calculation – Sample size for the state teams and service users was calculated based on practical reasons including logistics, budgetary and time limitations. However, studies that focus on program theories have used similar sample sizes to test program theories at the fieldworker and beneficiary level (Doi et al., 2015; Adams et al., 2016)

4.5.6 Recruitment strategy

Once approval from the Program Director of FRHS India was confirmed and Ethics approval was received, the researcher emailed the research information package to the program director. The information package included the participant information statement (PIS) and consent form for each of the managerial staff. These documents were forwarded by the program director to each of the senior management staff via email at least two

weeks before the scheduled day of data collection. Since there were only eight senior management staff, all were invited to participate. Seven out of these eight staff members participated. One member could not participate because of leave on the day of data collection.

The State Program Manager informed all the field staff of the selected outreach teams about the research via email. The researcher provided the content of the email to the state program managers. The researcher then carried the survey package with her to the outreach event. These survey packages included the Participant Information Statement and Consent form, self- administered questionnaire and an envelope with the name and address of the researcher. The consent page stated that by completing and handing in the survey questionnaire, the team member is giving full consent to use the survey data. They, therefore, did not have to sign the consent form. This ensured anonymity of the staff members. On the day of the outreach, after the client registration was over, the researcher handed over the survey package to each of the team member to fill. If the team member was interested in participating after reading the PIS and consent form, s/he filled in the survey and sealed the consent form and questionnaire into the envelope. These sealed envelopes were then dropped in a box made available by the researcher at the outreach facility. If any team member wanted more time, they were advised to fill in the questionnaire and drop it in the box that was then placed in the common room at the district office.

Service users who came on the day of the survey to the selected outreach site to access contraceptive services were recruited. They were approached by the researcher and informed about the study after their registration was over and before they started receiving the services. Since the service users had limited literacy levels, the researcher read out the PIS and the consent form to the service users. Either a verbal or written consent was taken from the service users depending on their level of literacy. At least five service users were randomly recruited from each of the ten outreach days. Since the study also aimed at enquiring about their overall experience at the outreach post service utilization, the recruited service users were asked whether they would like to further participate in a telephone interview. At least two service users from each of the ten teams were enrolled in the telephone interview after they consented to participate. Their mobile

numbers were noted, and they were informed that the researcher will call them within next 24-48 hours.

4.5.7 Duration of data collection

Data were collected at three levels and duration of data collection varied. At first level, data from the senior managers were collected in a single day. At second level, data collection of the field staff and service users from across the three states took 10 days (days of the outreach) spread over two months. Data collection for both the staff and users were completed on the same outreach day simultaneously. At the third level, the telephone survey with users was done between 24-48 hours of their receiving services from the outreach.

4.5.8 Methods of data collection

It has been well established that the choice of data collection method must be guided by the type of data needed to answer the research question/s. Exploratory sequential mixed method approach was used in the current study to collect the data that would aid in developing a comprehensive understanding of the case study. Since the first step was to explore the phenomenon and develop program theory, qualitative data were collected first. Findings from the qualitative data informed the development of quantitative instruments to further explore and test the theories. Questions for the survey were built from the themes that emerged from qualitative data analysis.

a) Focus Group Discussion (FGD) – As the first step of data collection (in addition to review of project key documents), FGD was conducted with the senior management staff of FRHS India, who have been involved in designing and managing the outreach. A total of seven senior managers (out of eight) participated in the FGD. The discussion took approximately three hours. Questions relating to the topic were designed by the researcher and used to guide the discussion. The purpose of the group discussion was twofold. One, to develop a detailed understanding about the design of outreach model including factors that influenced its conception and the steps they took to develop and implement the model. Two, to identify or develop program theory based on assumptions of the managers on what makes the outreach model work, under what conditions, for whom the intervention is likely to be most effective and what causes people to accept (or not) family planning services from the outreach. Findings

from the second component of the FGD (program theory development) informed the development of the survey questionnaire for the field staff and service users.

b) Questionnaire survey with state and field staff – A survey was conducted with a total of 40 state and field staff of the ten selected outreach teams. The survey included a self-administered questionnaire with both open and closed ended questions. It was developed based on the findings from the FGD with the senior management. The purpose was to understand the model from the field staff's perspective and test the hypotheses that emerged after the group discussion with the senior staff.

One example of how the FGD findings were incorporated into the questionnaire for the field staff is given below where the phrase from the narrative was recorded under the sub-code 'state of public health facilities' within the code of context.

'the government infrastructure was poor, lacking in human resources……'

This variable 'state of public health facilities' was broken down into a list of items in the questionnaire for the state teams. A five-point Likert scale was then used to assess their level of agreement to the various components of the 'state of public health facilities'. Another example of the quantitative transformation to develop a variable from the qualitative data was quantitizing the sub-code of 'client profile'. Responses from the FGD highlighted: 'In terms of socio-economic profile, it really is poor, rural, largely below poverty line and also those who are geographically in distant and difficult areas.'

The 'client profile' accessing services was added as an item in the questionnaire for the state teams. To find out whether clients were coming from geographically distant areas, field staff was enquired around the average distance travelled and time spent by the service users to reach the outreach services.

The staff was informed beforehand by their managers to complete the survey on the day of the outreach or within next 24 hours. Researcher handed over the survey package to the team members at the outreach sites and all the staff completed the survey on the outreach day itself.

c) Questionnaire survey with service users – Researcher also conducted a face-to-face survey with 52 service users using both open and closed ended questions. The purpose of this survey was to explore the factors that influenced their decision to access family

planning services, reasons for choosing the outreach, and perception of the quality of the family planning services. As mentioned above, the questionnaire for the service users was also developed using the findings of the FGD. For example, the service users were also questioned about the distance travelled by them and the total travel time to reach the outreach and how far they will have to go if outreach did not happen at this facility.

Service users of the ten outreach teams of three states were surveyed at the outreach sites where they came to get services. The survey was completed in a total of 10 days spread over two months. Each questionnaire took 15-20 minutes to complete.

d) Telephone survey with service users – A telephone survey with a sub-sample of 20 service users was also conducted within 24-48 hours after they received services. The questionnaire was to assess their experience of getting services from the outreach.

e) Management Information System (MIS) data and registration records of outreach on the day of data collection – MIS data of the ten selected teams for six months preceding the survey (Nov 2017 till April 2018) was also used. The organization maintains this data to track target vs achieved numbers for each of the outreach team. This data was shared with the researcher at the time of selecting the 10 teams. In addition to MIS data, the researcher also accessed client registration records at the outreach on the day of data collection. The registration form includes information about client's age, education, number of children and religion.

4.5.9 Stages in the realist evaluation cycle

Realist evaluation cycle includes both the stages of data collection and analysis. It begins by eliciting the program theories that are then tested in later stages. As mentioned earlier, realist theory works on the premise that different stakeholders have different information because of the different roles they play in the program (Westhorp, 2011). Also reiterating what Pawson and Tilley (1997) imply about the 'division of expertise' within complex social programs that tend to look at 'who might know what' and 'how to ask'.

Looking at the outreach program, program managers and designers are likely to be aware of the settings or the context in which a program is designed and experienced in outlining the program outcomes and developing program theories. On the other hand, program

implementers (the frontline workers) will be more experienced than the managers and designers in translating theories into practice and more aware of for whom the program works. However, both these practitioners may not be prepared to map 'what works for whom in what circumstances and why' pathways (CMO configurations) associated with the program. Conversely, the service users or project participants will be much more aware of the mechanisms that come to play that encourages them to accept or reject the intervention while having limited understanding of the influence of the context and the outcome pattern (Pawson & Tilley, 1997).

For the current study, CMO configurations were developed at two levels. First, to understand the contexts and mechanisms that led to the decision to initiate outreach services. Second, to elicit program theories that were then tested using the realist evaluation cycle to determine the effectiveness of the outreach model.

Fig 4.2 developed by the author based on the previous works of Pawson and Tilley (1997) and Salter and Kothari (2014) depicts the realist evaluation cycle adapted for testing theories of the outreach program. The four stages included:

I. Initial theory development – Focus group discussion was conducted with the senior management staff to understand the need for a new program, aim and objective of the outreach program, expected outcomes of the program, target population at whom it is aimed, contexts and settings in which the program operates, and motivation of the target group to get services from the outreach. In addition to FGD, some of the project documents including project proposal, project reports, and monitoring data were also reviewed to understand the project design and outcomes. All this information resulted in development of initial program theories in the form of context mechanism outcome configurations (CMOCs).

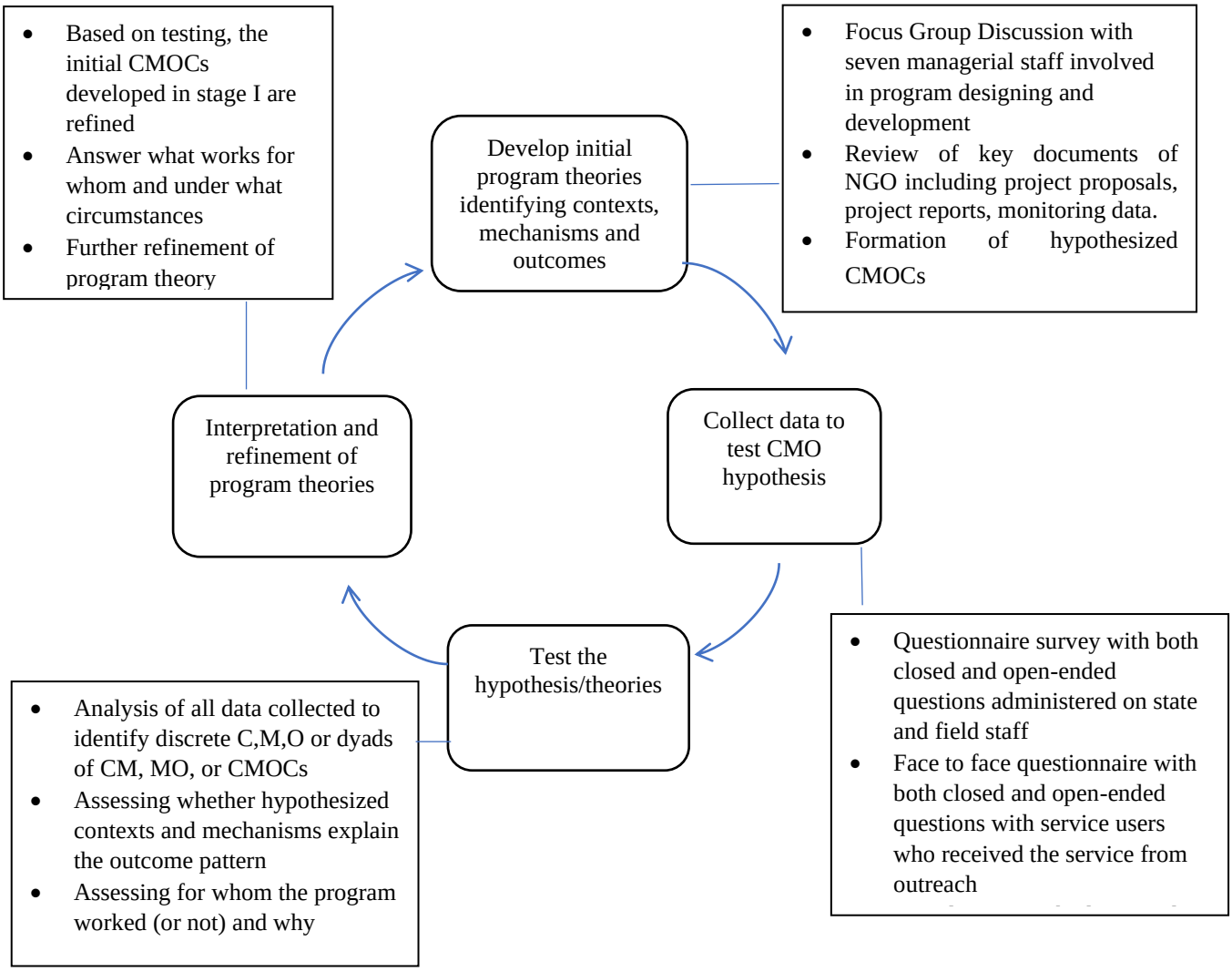
II. Collect data to test the theories – The next stage was collecting data from the staff and service users to interrogate the hypotheses developed in the first stage. The study used questionnaire to collect quantitative data from the state teams and service users to test the hypothesized CMOCs. The questionnaire included questions based on the information collected from the FGD in order to testify the CMOCs as identified by senior managers. Survey using self-administered

questionnaire was conducted with the state teams. They were enquired about the context or the setting in which the program operates, profile of the clients accessing services, factors that influence service users to get services from the outreach, and aspects of quality provided that attracts clients. Further, face-to-face questionnaire with service users was used to collect data to understand their perceptions towards seeking family planning services, source of information, decision making process, aspects that encourage them to avail services from the outreach and their views on good quality services. A further follow-up phone call was also made to probe their experience of receiving services. In addition to primary data collection, existing MIS data around the method mix and client profile from the registration records on the day of the data collection were also collected.

III. Testing the program theories – All the data sets assembled in the first two stages were then subjected to analysis. Analysis included assigning labels of context (C), mechanisms (M), or outcome (O) to the data element; identifying relationship between the contexts, mechanisms and outcomes; developing CMOCs; identifying dyads of CM or MO or CMO statements within the narratives; and identifying relationships across the different CMOCs.

IV. Refined program theories – The final stage was the assessment and interpretation of the analysis. The analysis explained whether the program theories have been accepted or refuted based on the findings. It further clarified the program specifications as to what works for whom in what circumstances. This stage in realist research cycle is ever repeating since the refined theories would need further analysis.

Figure 4. 2 Stages of realist evaluation cycle for the outreach program



Source: Developed by the author based on Pawson and Tilley, 1997 and Salter and Kothari (2014)

4.6 Data Analysis

The FGD in stage one was audio-recorded, transcribed and coded. The data were analysed using both inductive and deductive approaches simultaneously. A deductive a priori code template using context, mechanism and outcome, the core concepts of realist evaluation, was developed. Each of these three concepts were taken as the main codes and included some predetermined sub-codes that corresponded to each of these main codes. For example, context included sub-codes like ‘state of public health facilities’, ‘accessibility of services’, etc. Emerging codes from the data were noted and added under the main codes best suited. Phrases or sentences were highlighted that corresponded to each of the

three predetermined codes and were given sub-codes. In addition to assigning discrete labels of contexts, mechanisms and outcomes, statements that included dyads of CM or MO or complete CMO linkages were also identified and recorded.

Any phrase was identified as context if it described a condition or situation that existed before the introduction of the program. Similarly, mechanisms were detected as activities or actions taken by the participants in response to the program and phrases that described the result of the program were identified and coded as outcome. It is recommended that the CMO coding must be drawn directly from the narrative itself to remain as true as possible to the links made by the participants (Jackson & Kolla, 2012). This practice was followed as much as possible while identifying CMO coding from the senior managers' narratives. The sub-codes were then collated into potential themes. Program theories were then drawn from these tentative propositions and themes.

The quantitative data from the survey with the state teams and service users in Stage 2 were subjected to quantitative analysis using SPSS 26. Descriptive analysis was performed on all the variables. The statistical approach used was determined by the type of variable. Descriptive statistics using frequency and percentage distribution, measures of central tendency and measures of variable were used. Mean scores and standard deviations were calculated to see most commonly indicated responses and the 'spread' of the data. For Likert scale type questions for 'context' and 'mechanism' variables, mean scores and standard deviation were calculated. In addition, for variables looking at identifying 'mechanisms', percentage frequency distribution was calculated. Open ended questions in both the surveys that were primarily asked around mechanisms were also analysed. Each of the response was given a code and the number of times each code appeared was counted to state whether 'majority', 'few' or 'equal' respondents replied. It was then supported by few verbatim quotes.

State-wise differences within the state teams and gender differences among the service users were also analysed using cross tabs and percent distribution. Variables that showed differences were reported. Primary data collection and analysis was also supported by monitoring data provided by the state teams. The data included demographic profile of clients accessing services from the outreach on the day of the survey. Age, sex, education, religion, method adopted were a few variables under the demographic profile of the clients. This helped in assessing the real beneficiaries of the outreach services.

Based on the analysis of all the data collected in stage 1 and stage 2, additional contexts and mechanisms were identified that helped in refining the initial CMO configurations and program theories. Some CMO configurations developed from analysis of data in stage 2 were quite similar to the initial CMO configurations while there were some new context mechanism links that emerged in other configurations that refined the earlier hypothesized program theories.

Conclusion:

The chapter has presented the methodology adopted to conduct the study. It discussed realist evaluation as the overall guiding framework for the study, single case study as the research strategy and use of mixed methods for data collection. The chapter also described the case under study, sampling and recruitment strategy, and stages of data collection and analysis using realist evaluation cycle.

The next two chapters will present the results of the analysis. Since the data were collected to address two objectives – understanding the formation and planning of a new service delivery model and the extent of effectiveness of the model in achieving the program outcomes, results are presented under two chapters. Chapter 5 will discuss the findings for the formation and planning of a new service delivery model. Chapter 6 will present the findings for evaluating the effectiveness of the model.

Chapter 5: Results (Part 1 - Formation and planning of a new service delivery model)

5.1 Introduction

The focus of this study is threefold. First, to understand the factors considered by the senior managers of the NGO while assessing the need for a new family planning service delivery model, and the steps they took to plan and implement the model. Second, to understand the extent to which the model achieved its service outcomes. Third, based on findings, develop an explanatory theory around the working of the model to ascertain 'what works, for whom and under what circumstances'.

This chapter presents findings in relation to the conceptualization or formation and planning of a new service delivery model. It discusses the findings of the focus group discussion conducted with seven out of eight senior managers. These findings are presented in two sections.

The first section describes the need and formation of a new service delivery model. The results are presented in the form of Context-Mechanism-Outcome (CMO) configuration, highlighting the contexts that prompted the senior managers to consider the need for a new model, resources they looked at and reasonings that influenced their decision to initiate outreach as the new service delivery model. As mentioned in the previous chapter, there would always be certain elements or factors that would support the decision or outcome of a program. RE refers to these contextual factors as context or factors and the terms here will be used interchangeably throughout the Results chapters. The second section in this chapter then details the steps the senior managers took to develop the outreach model.

5.2 Formation of a new service delivery model

Senior managers were asked about the context that led to the decision to start a new service delivery model and pushed them towards an outreach model as the model of choice. They were also asked how these contexts influenced their decision making and what actions they took. The responses of all the managers were coded in the form of context and mechanism (resources and reasonings that would explain their decision). All the managers reported at least one or more factors and others agreed to those factors. An

analysis of these contexts and their associated explanations resulted in the identification of the underlying processes, resources and reasonings leading to the conceptualization of the outreach model.

Figure 5.1 illustrates the senior management's decision to initiate outreach in the form of CMO configurations. The senior managers mentioned that the senior team broadly considered the organizational context of their NGO while deliberating on the need to have a new service delivery model. This context encompassed accomplishing their vision and goal of reaching the most marginalized people and improving the accessibility of services to rural areas.

Senior Manager 2: "Strategically in terms of our objective was to reach the most difficult to reach population- geographically, socially, economically marginalized, and therefore outreach seemed to be the most appropriate model in rural areas in contrast to urban areas, where people have more choice. Through Outreach we were going to areas where people don't have much choice to get services, advancing the goal of reaching the most marginalized."

It also included their goal of expanding their scale of operations and increasing their couple years protection (CYP[4]) contribution. They explained that by expanding their service coverage they will increase the market share of their organization in the family planning market. Also, since the funding from their parent organization is based on the CYPs achieved, they wanted to increase their CYP contribution by providing long-acting permanent methods of family planning.

Another key context was that the existing state of public health facilities functioned as a barrier for rural communities to access FP services. This included poor infrastructure, lack of human resources and disorganized and irregular provision of FP services at the public health facilities. Further, the senior managers mentioned assessing the existing

[4]CYP - The couple-years of protection (CYP) index is an estimate of the protection against pregnancy resulting from the differential use of various methods of birth control. It is used to produce a measure of program achievement in a period, by assessing the impact of methods adopted, considering the length of time a couple is likely to be protected by each method. In order to calculate CYP, the numbers of barrier methods, injectables, and oral contraceptives are divided by various factors, whereas single uses of the clinical methods- intrauterine devices (IUDs), implants, and surgical contraception (Tubal Ligation, TL and Non-scalpel Vasectomy, NSV) are multiplied, resulting in enhanced CYP figures.

political will of the state governments to support FP services. They considered it an important factor in their decision to start a new service. They shared that they were mindful of the interest and will of the State government to improve services and minimize the existing service delivery gap and the government's willingness to partner with private players to improve service delivery. Lastly, the senior team also mentioned the successful stories of outreach programs being run by other MSI country programs with similar challenges that they could learn from.

As mentioned before, contexts alone cannot influence the outcome without the working of causal forces, that is, the mechanisms. Similarly, mechanisms are triggered only when the context is supportive. Therefore, each of the contexts was linked to its associated mechanism as shared by the senior managers. This helped to understand how the resources and reasonings would work in a given context to achieve the outcome of choosing a new model.

In the context of service delivery gaps due to structural barriers and the organization's goal of improving accessibility to the marginalized population in need of services, the senior managers reviewed the existing resources and infrastructure within the organization, identified gaps that would require attention and identified strategies to have those resources in place.

Senior Manager 3: "There was also an opportunity since the government infrastructure was poor, lacking in human resources so it was an opportunity for MSI to utilize this lack of infrastructure and resources as an opportunity and provide services to those who need closer to them. We reviewed our own resources and gaps that would need attention and worked upon them."

There was willingness and readiness of the senior team to try innovative approaches to expand their scale of operation. They had rigorous discussions amongst themselves and with all the key stakeholders including their head office and State health officials to get their buy-in and support. They were also mindful of the political will of the state health department to partner with private players to improve FP service delivery in rural areas.

Senior Manager 1: After rigorous discussions with MSI UK and MS India internally, MS India decided to start their own service delivery (outreach). This was an opportunity and a strategic decision to move away from just supporting the public sector and to have their own model to improve accessibility."

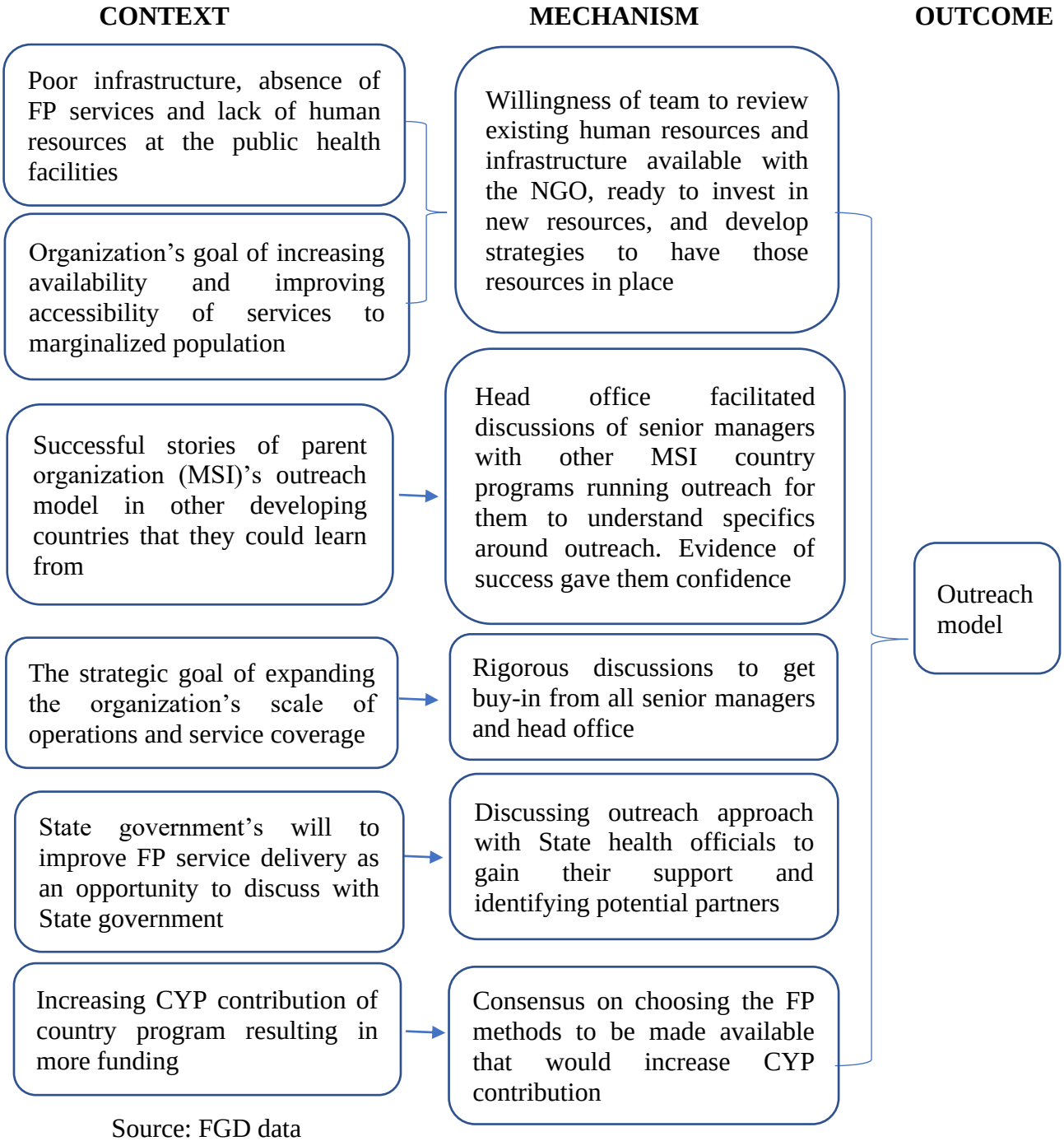
Similarly, evidence of the success of the model in other countries gave the team confidence to roll out the model.

Senior Manager 2: "MSI took on other channels to reach clients that were being successfully used by MSI (in other countries) and there was this outreach channel among the other channels that we discussed and looked at and then outreach evolved."

Another important causal link was the senior managers' appraisal of the target group for the outreach to increase their market share and CYP contribution, thus increasing their funding. They decided on districts with high total fertility rate and high unmet need of family planning and providing a long-term method that will generate more CYPs.

Senior Manager 6: "We identified the districts that have high unmet need for family planning. We identify districts where TFR is high, unmet need is high and then we work in those districts providing long term methods". The funders want us to work in these districts and we increase our market share and CYPs".

Figure 5. 1 CMO analysis of senior managers' decision on developing a new model



Source: FGD data

5.3 Key steps in developing the Outreach model

After the decision was made to run the outreach model to deliver FP services to the rural population, the next stage was developing the model. Senior managers mentioned 14 steps they took to develop the model. There was consensus among all the managers on these measures they took to develop the outreach. All these steps when reviewed resulted

in a total of nine steps, which were iterative and therefore may not have happened in the recorded sequence.

The first step they mentioned was consultations with different levels of government officials at different stages of planning. They talked about the importance of government buy-in and support as crucial in implementing the outreach. Also, since the outreach was planned to run in public health facilities, they did multiple consultations with State and District health officials to identify the districts and public health facilities where they could hold outreach events. They started with one State which had a high total fertility rate and where they had existing presence and more government support. Second, they talked about engagement with staff of public health facilities. Senior management team members visited public health facilities, met medical officers in-charge, assessed the facility for infrastructure and discussed the kind of support that would be required from the facility staff.

The third step was decision on the methods of FP to be provided through the outreach. Senior managers acknowledged that since the organization wanted to improve the accessibility of FP services and increase their market share of services and CYP contribution, they decided to provide long-acting reversible contraceptives and permanent methods of FP. These included IUD and female and male sterilization. Another important step they stated was identifying the target population for the program. The managers concurred on targeting married couples in the reproductive age who want a clinical method like sterilization and IUD.

Next, they talked about the outreach team and field team composition. They reported that the outreach team composition was decided based on the GoI guidelines. Since the outreach model involved provision of long-acting permanent methods (LAPM) which means sterilization and IUD, it would require a surgeon and a medical officer along with nursing staff. Senior managers further shared that from their experience they knew that getting practicing doctors to travel to rural areas would be a challenge. Therefore, the team agreed to hire retired surgeons who were willing to continue to work and travel to remote areas. They further said that with time they also started developing a network of on-call doctors as well. They then talked about the field team composition that would support the outreach team. It was decided to include a district and block coordinator to provide administrative support, a counsellor and an inter-personal communicator (IPC).

The IPC was responsible to generate demand and inform the community about outreach. However, the managers mentioned that over the period, they realized that IPCs alone could not generate demand for various reasons and the role of ASHA would be critical in mobilizing couples to get services.

Alongside recruiting the outreach team, another parallel step the managers discussed was designing the customized ambulance. Senior managers had discussions and consultation with other country program teams to understand the resources required to run a mobile unit. They then consulted local businesses to design a customized ambulance that could carry the necessary equipment and supplies to deliver FP services at public health facilities. Once the teams were recruited and customized mobile van was ready, the next step that the senior team took was accreditation of the outreach teams. They said that they followed all the guidelines necessary to get accreditation for their outreach teams from the district health authorities under the GoI's National Health Mission before they started providing services. This included team composition, staff with relevant experience and training and availability of infrastructure (mobile van) and other equipment to run outreach.

Since the organization was committed to provide quality services through outreach, they decided to adopt the parent organization's (MSI's) standard quality protocols. These protocols were standard operating procedures for infection prevention, medical emergency preparedness and waste management. They further added that the outreach teams were trained by the clinical services director to follow all these protocols.

Lastly, the managers reported that it was decided to first run the pilot project in two districts to assess its feasibility and possibility of scaling up. The two districts were decided where level of support from the district health officials and public health facility staff was good. After a year of running the pilot, outreach services were expanded to other districts followed by other states that were high priority states and districts as per GoI.

The above section examined the factors, resources and reasonings that influenced the NGO to initiate outreach as the new service delivery model; and the steps they took to plan and implement the model. The next chapter will investigate how the outreach model is understood to contribute towards achieving the program outcomes.

Chapter 6: Results (Part 2- Evaluating the effectiveness of the model)

6.1 Introduction

As mentioned in the previous chapter under section 4.5.8, in addition to understanding the formation of the outreach model, focus group discussion with senior managers also included questions around how the model was expected to achieve its outcomes based on their assumptions. This section presents those findings of the focus group discussion. It also includes the results of the surveys with field teams and service users. Both these findings from the FGD and surveys are combined to evaluate the effectiveness of the model. The effectiveness is determined by the extent to which the outreach service is achieving its outcome of increased availability, awareness, uptake, and improved quality of FP services and ascertaining 'what works, for whom and why'. This objective is addressed by examining the program theory of the outreach as perceived by senior managers and then testing it based on the input of the field staff, as well as users of the service. This includes factors that influence the service users to access outreach services; conditions that make the model acceptable to users; and for whom the model works (or does not work).

Again, the RE approach is used to first generate the initial program theories as hypothesized by senior managers. These theories are developed in the form of CMO configurations (CMOCs). As given by Pawson and Tilley (1997), CMOCs describe how specific contextual factors (C) work to trigger particular mechanisms (M), and how this combination generates various outcomes (O). The next phase is testing those configurations using the data from the field teams and service users. This includes confirming the initial CMOCs as well as identifying new mechanisms or contexts shared by the field staff and/or service users, that may elaborate those CMOCs or generate other outcome patterns. This results in the refinement of the program theories to answer 'what works, for whom and under what circumstances'.

The findings are presented in three phases –

Phase I – Developing initial program theories

Phase II – Testing these program theories

Phase III – Refining these program theories

6.2 Phase 1: Developing the initial program theory of the outreach model

The first step in conducting a realist evaluation was to elicit the program theory that explains how the intervention is expected to work according to the program managers. Key documents including program proposals and reports were reviewed to determine the program outcomes. At the start of the FGD, the researcher presented these outcomes to the senior managers to confirm. Based on the concurrence from all the seven senior managers, the following were confirmed as the intended outcomes of the outreach model:

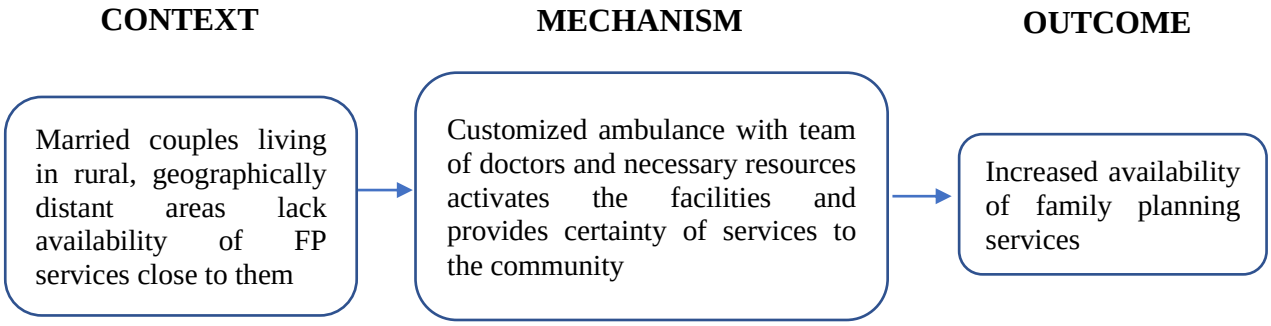
- Increase availability and uptake of quality family planning services in rural India to meet the unmet need for contraception by:
    - Increased availability and uptake of FP services in project area
    - Improved quality and client satisfaction
    - Increased awareness of FP methods.

The outcomes of 'increased availability', increased uptake', 'increased awareness', 'improved quality' and 'client satisfaction' were kept at the centre of the analysis. Group discussion with the seven senior managers was conducted to explore their understanding of the influence of various contexts, mechanisms in action, and how the outreach model triggers these mechanisms in specific conditions that contributes to the outcomes. The FGD guide used to prompt the discussion included questions on factors that influenced the conceptualization of the outreach; factors that influence the extent to which the project outcomes can be achieved; who, according to them, benefits from the outreach and why; what motivates or attracts the couples to get family planning services from the outreach; and how to make outreach more effective.

Senior managers shared their perspective and assumptions to explain how they expected the intervention to achieve its intended outcomes. The data were analysed to identify the contexts and mechanisms leading to development of CMOCs and their associated program theories to achieve the intended outcomes of 'increased availability', increased uptake', 'increased awareness', 'improved quality' and 'client satisfaction'. Four program theories were identified based on the analysis, outlined below. All these theories represent the views from all the FGD participants.

Program theory 1- Bringing services closer to those in need increases the availability of FP services

Figure 6. 1 CMO configuration for program theory 1



As outlined in Figure 6.1, managers reported that the absence of doctors and lack of resources in terms of infrastructure and equipment at the nearest public health facility was the most impeding factor for couples who need a long term or permanent method of family planning. In order to increase the availability of FP services closer to their homes, a team of doctors visits those facilities on fixed days in a customized ambulance, carrying necessary equipment and supplies. The outreach is organized with support from the facility staff, there is movement on the outreach day and the facility gets activated.

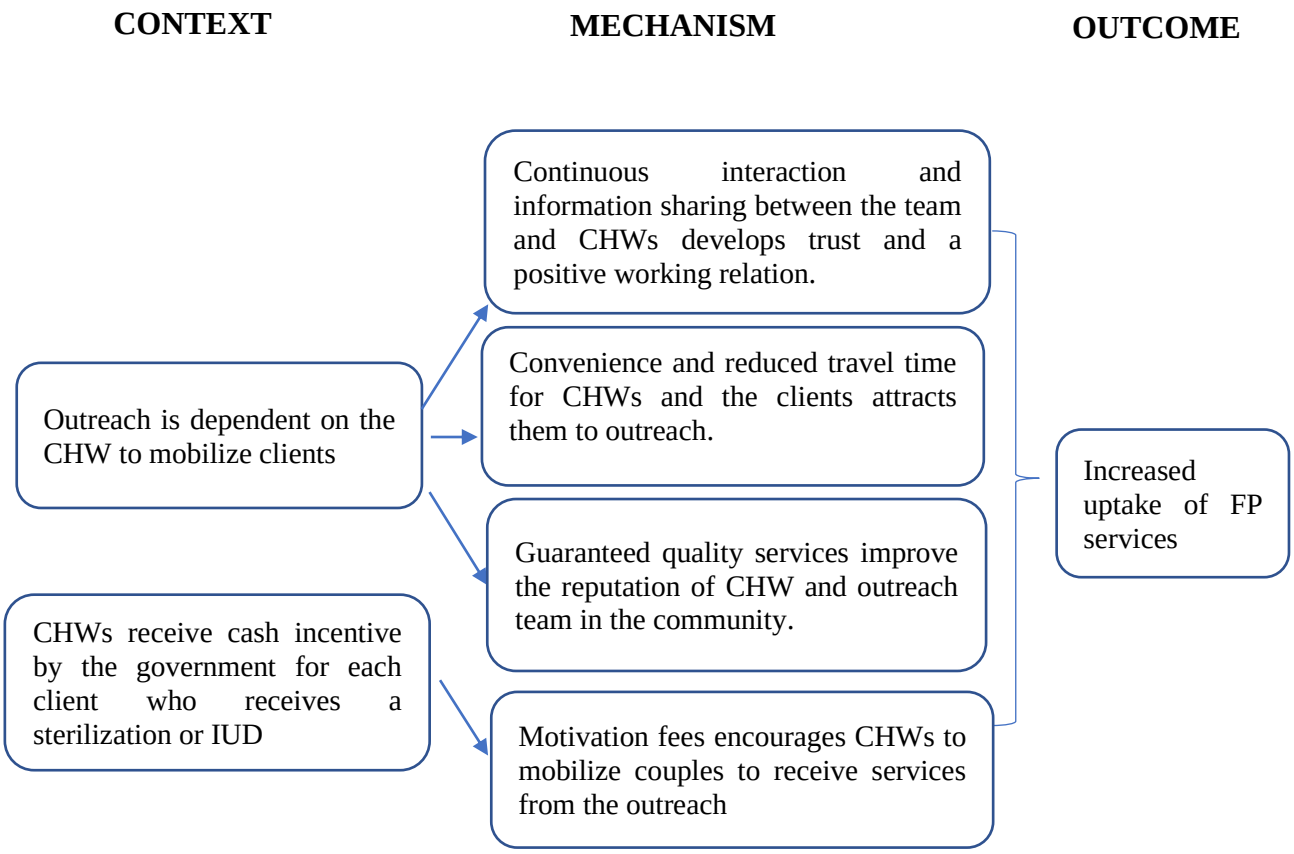
Senior Manager 1: "There are sites where family planning was never provided. But now because we hold our outreach in those sites, facilities are activated, and women come to get services."

The managers shared another mechanism that also comes into play to get doctors onboard. The team of doctors constituted retired surgeons rather than practicing doctors. The reasoning being practicing doctors would not be interested in travelling to rural areas leaving their practice. Therefore, the team took on-board retired surgeons who were willing to continue working.

Senior Manager 7: "..specially for retired doctors who don't want to migrate to any other state or far away districts, they find it a good opportunity to continue working."

Program theory 2- CHWs mobilize and motivate clients to receive services from the outreach resulting in increased uptake of family planning

Figure 6. 2 CMO configuration for program theory 2



The managers acknowledged that CHWs, commonly known as ASHA, play a prominent role in mobilizing couples who need a FP service (Figure 6.2). They said that since the outreach model works from the supply side of the intervention, the NGO does not have much influence on generating demand for services. However, an ASHA receives motivator fees from the government for every client they motivate for long term (IUD) or permanent method (sterilization) of FP. This is a lucrative incentive for them to motivate more and more clients towards these methods.

Senior Manager 4: "the bottom line is that since we are only on the supply side of the program we do not have any control on the type of clients that come to us."

They further shared that the Outreach team regularly interacts with the ASHA to inform them about their service delivery protocols and their outreach days. Both the outreach team and the ASHA benefit. ASHA do not have to travel long distances with their clients to get services and can convince their clients to access outreach services closer to their homes. So, it is convenient for both the ASHA and her clients while on the other hand, the outreach team gets more clients due to this.

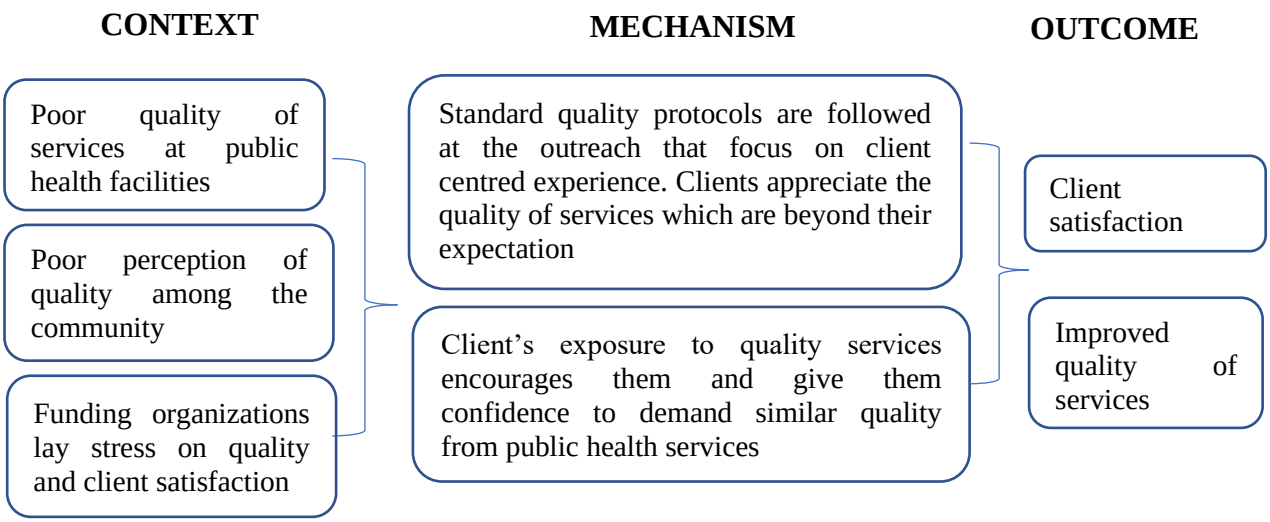
Senior Manager 3: "Motivators (ASHAs) are benefitting from us because there were no facilities there and they would have to travel long distances to district health facilities or CHCs to get services. With our services, they have to travel less to get the services for their clients. So it makes it convenient for the motivators as well and then they are better able to convince the potential clients and also are able to convince more clients."

They further mentioned that continuous interaction with ASHA and showing them their quality standards develops trust in them. ASHAs then encourage their clients to get the services from the outreach as it guarantees quality services. This further strengthens the reputation of both the ASHA and the outreach team in the community.

Senior Manager 1: "Also motivators are assured of the services and quality of services. Otherwise they have to bear the burden if the services are bad and clients would blame them if something goes wrong."

Program theory 3 – Outreach follows standard quality protocols that ensures quality of services and client satisfaction

Figure 6. 3 CMO configuration for program theory 3



As highlighted in Figure 6.3, senior managers shared that public health facilities fail to provide good quality services and they do not even ask if clients are satisfied with the services. But the context in which outreach works, the funding organizations are very particular in ensuring that the programs funded by them provide good quality services and ensure client satisfaction.

Senior Manager 1 – "Government generally does not bother to ask us about client satisfaction. But funding agencies are concerned, and they ask us. Even MSI International is very concerned about quality and client satisfaction."

Senior managers also mentioned that the majority of women who come to outreach are accessing contraceptives for the first time and outreach is their first exposure to family planning services. Therefore, they would not be able to compare the quality of services with other family planning service providers. They can only compare outreach services to other health services that they would have received. They further said that because clients have never experienced good quality services, their expectations are low, and they accept whatever they get.

Senior Manager 7 – "For many of them, the first exposure to FP is on these fixed day outreach services. So they do not have any comparative standards. They have comparison with other public health services that either they have seen or availed. So when they compare our services with what they have seen in other services, our services are definitely acceptable to them."

Senior Manager 1 – "I think for the target group that we cater to, everything is acceptable. Their perception of services is so low that they are happy with everything. For them that they are getting the services is itself a big thing."

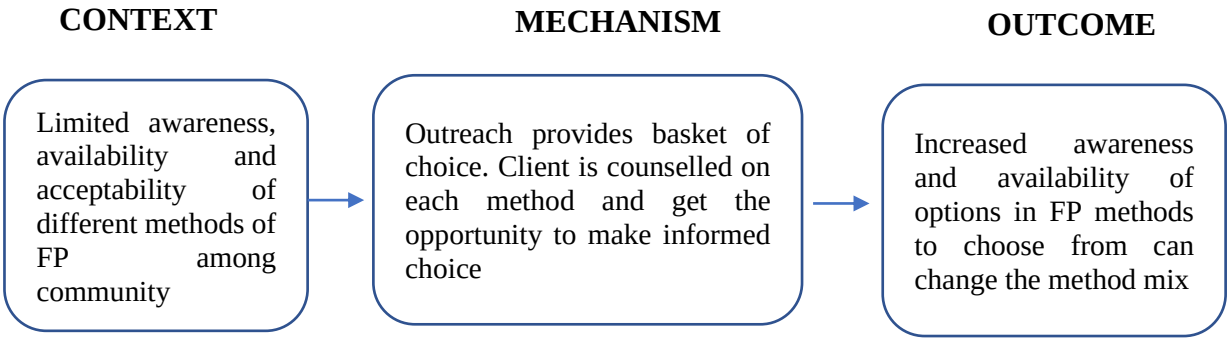
However, they said the kind of resources made available under the outreach program, which includes following standard quality protocols, providing counselling to clients to make informed choice, pre-post-operative care, referral system in case of complications and follow-up calls to ensure client safety, guarantees client centered experience and satisfaction of clients. All these aspects of quality of care are beyond the clients' expectations and are appreciated by them. This further gives them confidence to demand similar quality services from other health programs.

Senior Manager 4 – "In counseling, we make sure that the entire experience is client centered. In addition to counseling we make sure that they have adequate space. They have no expectations because they have seen the public sector service provisioning and at the same time from our side we follow proper protocols, that they have pre-operative, post-operative care. So from clinical side there is continuous monitoring of their indicators while they are being operated and even post-operative. So from service delivery point, we make sure that it's a client centered experience and they have better satisfaction so to make it more acceptable to them."

Senior Manager 5 – "Also not to forget the follow-up calls that are appreciated by many of them. This is beyond their expectation that somebody calls them after to check on them."

Program theory 4 – Provision of a basket of choice increases awareness of options in FP methods and can influence a change in the method mix

Figure 6. 4 CMO configuration for program theory 4



Senior managers mentioned that the rural population has limited awareness and availability of different contraceptive methods which limit their acceptability to these methods. But, because of outreach, the eligible couples become more aware of different FP options that they can chose from. All the service users who come to get services from the outreach are counselled on all the different FP methods. This provides them an opportunity to make an informed decision based on all the information that is provided to them. The senior managers considered this a great way to increase awareness about different methods of FP that could change the method mix which is currently skewed towards female sterilization (Figure 6.4).

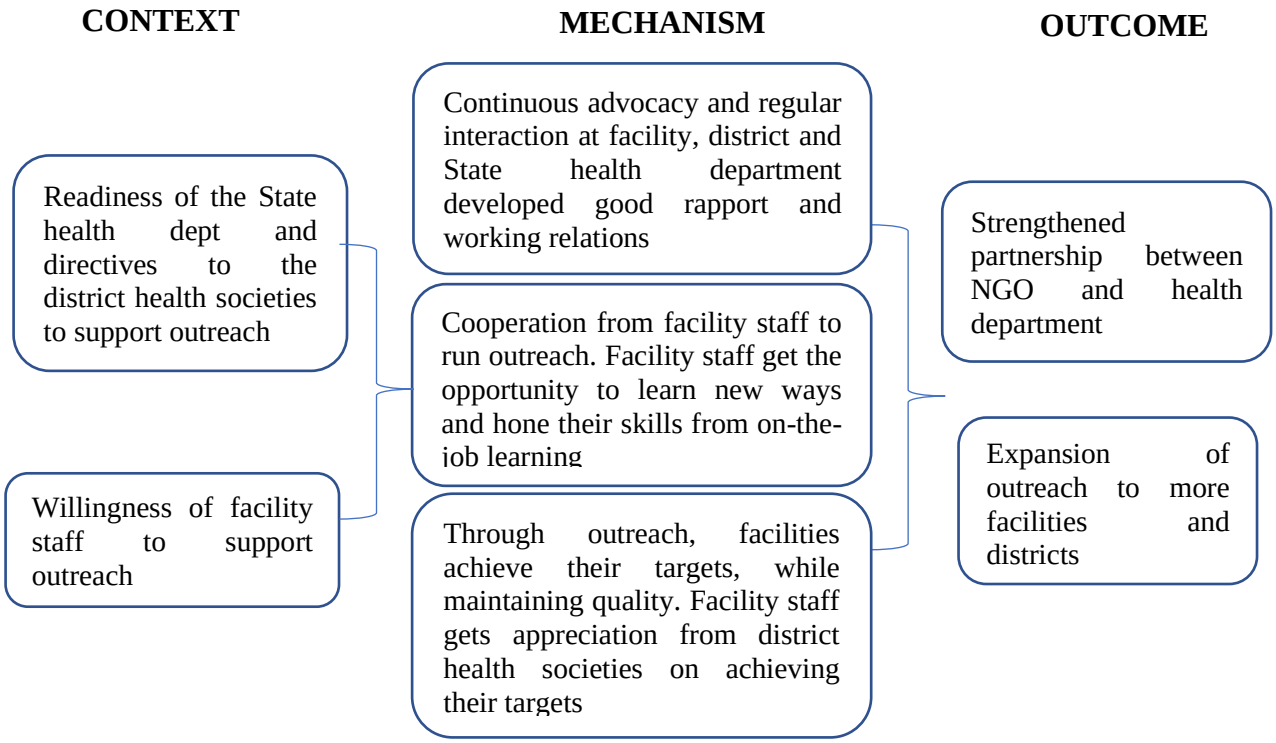
However, they also admitted that over time they realized that most of the service users who come to outreach have already decided the method in consultation with the CHWs, which in the majority of cases is female sterilization and therefore, there is no significant change in the method mix even after counselling them.

Senior Manager 4: "In terms of service provision, we have counseling on all the methods, so that they can make informed choice and decision and then they decide on one particular method but as you know these are public sector sites where we are providing sterilization services on fixed days, its like most of the women who come on these fixed days, they have already decided that they want sterilization and end child bearing."

Additional CMOCs that trigger unintended outcomes

In addition to the above four program theories that explain how the outreach model achieves its outcomes of increased availability, uptake, awareness and improved quality of services, the analysis also noticed some unintended outcomes. These outcomes were further explored to investigate the mechanisms that could have caused the outcomes within given contexts. These additional outcomes were strengthened partnership with public health department at various levels (facility level, district health societies and state health department) and expansion of outreach to more facilities and districts.

Figure 6. 5 CMO Configuration for strengthened partnership and expansion of outreach



As per Figure 6.5, senior managers indicated the readiness of the health department and the public health facility staff as an important factor that determined how well outreach would work. Many mechanisms come into play in this context which results in strengthened partnership between the NGO and the health sector and expansion of outreach to more districts and more facilities. Regular networking with officials at the State, district and facility level ensured their continuous support to run outreach. Facility staff would extend their support in allocating the team with necessary rooms to run its outreach in the facility. They stated that the government benefits from this partnership since outreach provides services in geographically distant areas taking off the burden from public health staff.

Senior Manager 1: "Government is benefitting a lot from our work. One because we are able to reach difficult to reach areas, we are able to fill the gap that they have, we are approx. able to attend to 10 – 15% of the sterilization clients that are served in their states."

They also reported that because of outreach services, the facilities achieve their family planning targets set by the district health societies. The facility staff is then appreciated for their efforts in providing services.

Senior Manager 1: "In fact one more indirect benefit is to the public sector staff in the government system. The government has some system of reward and recognition to the public sector staff for achieving the FP numbers. So they call our teams because when we go there to the sites, we provide services and then they are able to achieve their targets and get appreciation."

Another mechanism that comes to play is on-the-job learning of the facility staff. Facility staff are exposed to the quality protocols being maintained by the outreach service, which they appreciate and try to adapt.

Senior Manager 3: "To a certain extent, the site staff are also benefitting since now they are aware of the process and procedures that we are maintaining and following and so it builds their capacity as well."

Senior managers said because of all these reasons, they are becoming *"good role models for public sector staff."*

Program theory of the outreach model as perceived by the senior managers

All the above CMOCs developed after analysis of the data from the senior managers have been combined to develop a comprehensive initial program theory. Figure 6.6 developed by the researcher shows all the CMOCs linked to explain how the key outcomes of increased awareness, increased availability, increased uptake, improved quality and client satisfaction are understood to be achieved as per the senior managers. The center of the figure highlights the key outcomes (in blue) expected through the outreach service model. Each outcome is then connected to its context/s and mechanism/s in an inward flow.

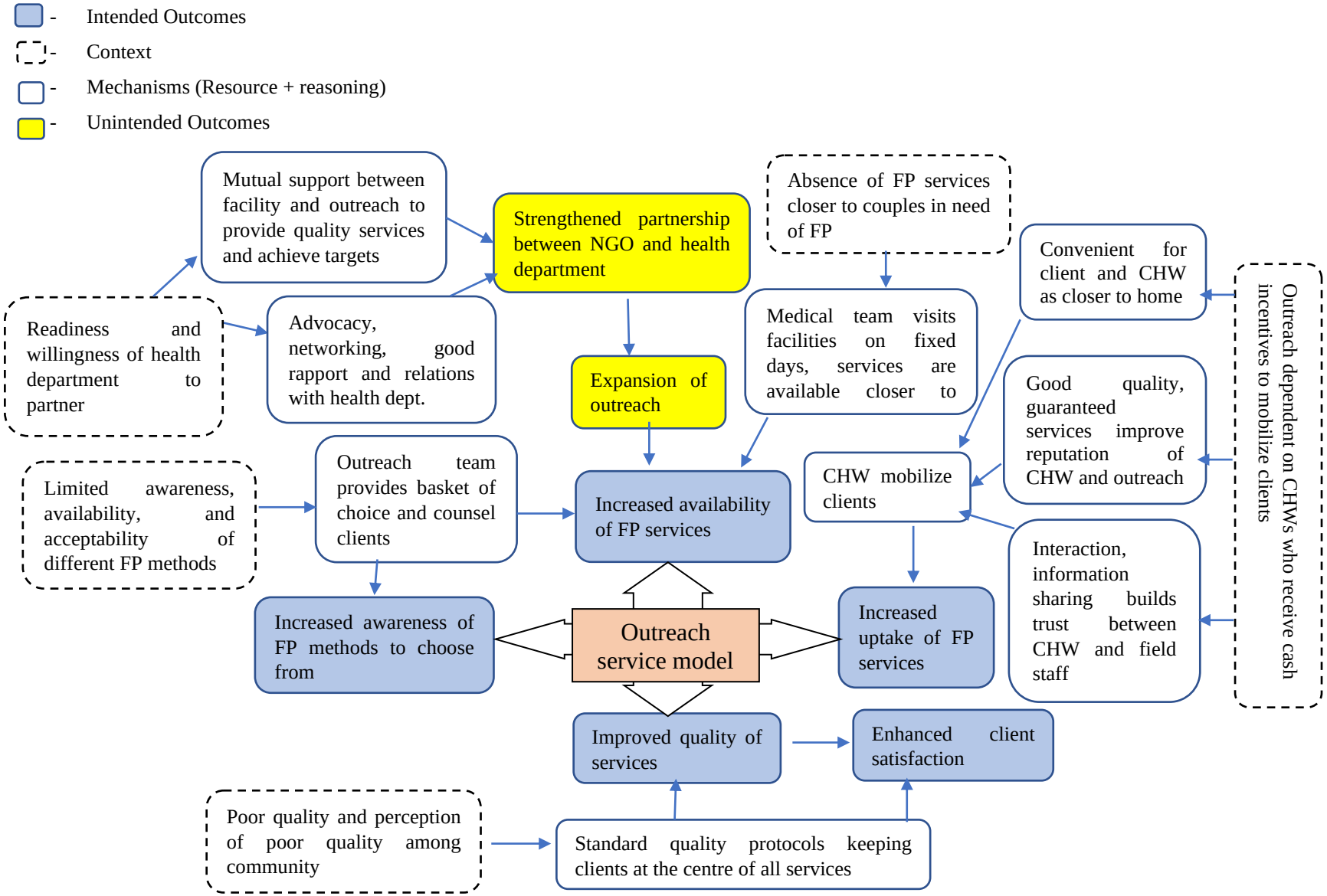
To achieve the outcome of increased availability of all FP methods, key context identified by the senior managers was the absence of FP services closer to couples who need a method. In this context, when outreach team of trained doctors visit facilities to provide the methods, those facilities get activated and methods become available. For the second outcome of increasing uptake of FP services, community health workers (known as ASHAs) who receive cash incentives, play the role of mobilizing and informing the couples who need a method about outreach services. However, the mechanisms of convenience, closer to home, good quality and guaranteed services, trust between CHWs and outreach teams bring about the necessary effect that stimulates the CHWs to encourage couples.

Next, in the context of limited awareness, availability, and acceptability of different methods of FP, outreach teams not only make all the methods available but also inform and counsel the users. Because of available information on all methods and counselling, the users can make informed choice. The outcome of improved quality of services is set within the context of poor quality of services available at public health facilities and perception of poor quality among the community on one side and emphasis on quality of services by the funding organizations on the other side. Within this context, outreach follows standard quality protocols that are client centric. Service users appreciate the quality of services resulting in high client satisfaction.

For the additional unintended outcomes of strengthened partnership between the NGO and public health department and expansion of outreach to more facilities and districts, various mechanisms were reported. These included regular networking, continuous advocacy, rapport building, mutual trust and support between facility and outreach staff, along with appreciation from district officials on meeting facility targets. However, these mechanisms would work only if there were willingness and readiness of the government to support this partnership.

Figure 6. 6 Initial program theory of the outreach model

Source: Developed by the author



These complex connections between the contexts and mechanisms explains the program theory of the outreach model as presumed by the senior managers. The next phase will inform whether the field staff and service users validate these configurations and identify any other contexts and mechanisms that might be important to get the desired outcomes.

6.3 Phase II: Testing the CMO configurations identified during phase 1 of developing program theory

After the initial CMOCs were developed, these configurations were tested using information gathered from the outreach field teams and the service users. Data from the frontline staff of the outreach teams and service users were analysed to help in validating the CMOs identified by senior managers during program theory development phase. The analysis also looked for additional contexts and mechanisms that would support in identifying CMO patterns that could confirm or refute the initial CMOCs and the initial program theory. Any links that would lead to an alternate outcome pattern were also identified.

There were 46 field staff members in the 10 selected outreach teams all of whom were invited to complete the survey. Out of these, 40 of them completed and submitted the survey making a total participation rate of 87%. The six team members who did not participate were two from UP, three from Rajasthan and one from Bihar. Based on the recruitment strategy of five service users from each of the outreach, a total of 52 services users were invited to participate in the survey. All of them participated and completed the questionnaire. These 52 service users included 36 females and 16 males. Both these surveys had a mix of closed and open-ended questions.

This section uses the same program theories as identified during phase I but analysed from the standpoint of the frontline staff and the service users. State-wise analysis for the field staff data; and sex-based comparisons for service users were also undertaken. Findings include these sub-group comparisons wherever there were differences in their responses and provide clarity on ‘for whom’ the program works.

Program theory 1- Bringing services closer to those in need increases the availability of FP services

To test this program theory field staff were asked a set of questions around the provision of FP methods at health facilities on non-outreach days; state of public health facilities where outreach is held in terms of availability of infrastructure, manpower and methods of FP services; decision of outreach schedule and choice of venue; profile of service users; and distance travelled by users to reach outreach. Service users were also questioned around the distance they travelled to reach the facility, information about any alternate provider, time spent in reaching that alternate provider and reason for not going to that provider. These questions were a mix of closed (with either 'yes or no' or multiple responses) and Likert scale questions.

a) Provision of LAPM at public health facilities on non-outreach days

Field staff were asked whether public health facilities provided LAPM on days when outreach is not held. Sixty percent of the field staff was of the opinion that the public health facilities do not regularly provide LAPM on days when outreach is not held. For those who said FP services are provided at the public health facilities on non-outreach days, a follow-up question was asked around the type of service that is available and its frequency. 95% reported that it is only the IUD that is provided to women at the sub health centre (SHC) by the ANMs. Female and male sterilization was only occasionally provided at primary health centres (PHC) and community health centres (CHC) in all the states.

b) State of public health facilities in terms of infrastructure, manpower and method availability

A five-point Likert scale was used to get responses from the field staff on their level of agreement (from strongly disagree to strongly agree) to statements on the state of public health facilities where they organize outreach. These statements included whether the facility has an earmarked space for examination and counselling to ensure privacy to service users; availability of instruments (minilap/laparoscopic/NSV sets) in the operation theatre of the facilities; whether facilities have faced stock-out of contraceptives; availability of trained doctors and nurses at the facilities to provide LAPM; and whether facilities provide all the methods of FP to choose from. The score of the field staff on each of the statement were then calculated to get the mean score (Table 6.1). Higher mean

score suggests higher level of agreement while lower mean score depicts higher level of disagreement.

Table 6. 1 Mean scores of the field staff on the current state of public health facilities to provide FP services.

	Earmarked rooms	Availability of instruments	Faced Stockouts	Availability of doctors	Availability of ANMs	All FP methods
Mean score	4.60	2.70	1.88	2.45	4.13	2.88
Std. Deviation	0.545	1.203	1.418	1.501	1.090	1.362

Source: Field staff survey data

Mean scores highlight that though public health facilities have earmarked space for medical examination, counselling, and procedures to assure privacy to the service users, they do not have the necessary instruments for conducting sterilization. Also, a lower mean score for availability of doctors to provide permanent methods of FP as compared to availability of ANMs, who provide IUD substantiate that IUD is more readily available at public health facilities. This explains a low mean score on provision of all FP methods at the facilities.

If we look at the standard deviation of the mean, except for earmarked rooms, it indicates that the individual responses vary and were over 1 point away from the mean (from 1.09 to 1.501). For example, looking at the availability of doctors at facilities to provide FP in absence of outreach, though majority disagreed and rated it as “1” or “2”, but a smaller segment did rate it as “4” or “5” as well.

c) Decision of outreach schedule (dates and venue of outreach) and factors that influence choice of venue for outreach

Field staff was asked how the team decide the venue and dates for the outreach. It was a multiple response question, to which 85% reported that the schedule is decided by the district health societies based on government directives. Another 12.5% also mentioned discussion among the outreach team as another way to decide the outreach schedule.

Next, field staff were asked about the factors that according to them influence the choice of venue for the outreach (Table 6.2). This was also a multiple response question.

Responses included non-availability of trained service providers (77.5%), depends on government's decision (57.5%), non-availability of equipment and other resources (52.5%) and rough terrain that is difficult to travel (52.5%). However, staff from each state prioritised the factors differently. The most common factor that influences the choice of venue in Rajasthan (80%) and Bihar (82.4%) is non-availability of trained service providers. For Uttar Pradesh, rough terrain/unconstructed roads which are difficult to travel (87.5%) is the most influential factor to decide which facilities will be given to them for their fixed day services. For Bihar, another important factor is non-availability of infrastructure/ equipment/ stocks (70.6%).

Table 6. 2 Factors that influence the choice of venue for the outreach by percentage (number of respondents).

State	Non-availability of trained service providers	Non-availability of infrastructure/ equipment/ stocks	Rough terrain/ unconstructed roads which are difficult to travel	Demand from the community	Depends on government's decision
UP	62.5% (5)	25% (2)	87.5% (7)	12.5% (1)	50% (4)
Rajasthan	80% (14)	46.7% (7)	46.7% (7)	20% (3)	53.3% (8)
Bihar	82.4% (14)	70.6% (12)	41.2% (7)	29.5% (5)	64.7% (11)
Total	77.5% (31)	52.5% (21)	52.5% (21)	22.5% (9)	57.5% (23)

Source: Field staff survey data

d) Profile of service users that access outreach services

Next, field staff were asked their level of agreement (from strongly disagree to strongly agree) using five- point Likert scale on six statements around the clients' profile who access services from their outreach. These statements were - majority of the clients accessing services from the outreach live below the poverty line; majority of the clients accessing services come from geographically distant and difficult to reach areas; clients from all religious groups access services from outreach; married adolescents access services from outreach; migrants access services from outreach; and males access sterilization services from outreach.

The mean scores of the field staff highlighted that the majority of the clients to access services were from below the poverty line (BPL), came from geographically distant areas, represented all religious groups, and that males also accessed sterilization services.

However, a lower mean score of field staff indicated that married adolescents do not readily access FP services nor do migrants, but they had a slightly higher standard deviation suggesting the spread of responses (Table 6.3).

Table 6. 3 Mean scores of the field staff on the service users' profile

Service Users Profile	Mean Score	Std Dev.
BPL clients	4.70	0.608
Geographically distant/hard to reach	4.63	0.628
All religious groups	4.58	0.549
Married adolescents	3.22	1.230
Migrants	3.80	0.992
Males	4.22	0.800

Source: Field staff survey data

However, there were variations in the service users' profile as suggested by the staff above and the existing management information system (MIS) data. Looking at the MIS data of these outreach teams for the six months (Table 6.4) preceding the survey, 99% of service users were females who accessed either sterilization (97%) or IUD (2%). In addition to MIS data, client registration records on the day of the survey showed that all the service users were Hindu and above the age of 21 years.

Table 6. 4 MIS data of the ten outreach teams for six months preceding the survey

State	Female Sterilization	NSV	IUD
Rajasthan (4 teams)	7156	49	144
Bihar (4 Teams)	11560	109	263
Uttar Pradesh (2 Teams)	6154	12	136
Total	24870	170	543
% of method out of total services	97.2	0.7	2.1

Source: MIS data

e) Distance travelled and availability of other FP providers

To further understand the coverage of outreach services, field staff were asked how far the clients have to travel on an average (both in kms and hours) to reach the outreach.

Almost 60% of the staff estimated clients travel around 10-20 km on an average which takes them around 1-2 hours.

The service users were also questioned about how long it took them to reach the facility on that day and their mode of transportation to reach the facility. Around 92% said it took them less than 30 minutes to reach the facility. Around 44% used their personal vehicle to reach the facility, 27% walked, 21% came by public transport and remaining 8% used a private shared transport. Further, on asking the service users if they knew about any other FP provider that they can go to who offers the method they want, only 25% were aware of another such provider. Those who were aware of another provider were then asked the reason for not going to that alternate provider. This was a multiple response question. Around 54% reported they did not go to that alternate provider because it is too far away, another 30% said because they were referred to this outreach (by CHW) and an equal percentage of 15% because of unsatisfactory quality and non-availability of doctors. They were further asked how long (in time) they would have to travel to reach that another provider for this same service. Almost 62% reported they would have to spend between 30 minutes to more than two hours to reach that alternate provider.

Result summary: Analysis of all the above data points towards the context and mechanism highlighted by field staff and service users. Data around state of public health facilities, provision of family planning services, choice of venue for the outreach and limited awareness among the service users on the availability of any alternate FP provider close to them sets the ‘context’ in which outreach is implemented. The mechanism of ‘having services closer to the users’, ‘less distance to travel/less time spent’, ‘reference by CHW’ triggers within this context. Findings however highlight the differences in the profile of the service users (context) as mentioned by the field staff and as recorded on the day of service delivery and existing MIS records. Also, differences were reported in the travel time for the service users as stated by the filed staff and the users themselves, possibly to demonstrate that outreach attracts users from remote areas, who travel long distances to access services. The data supports the initial program theory as given by senior managers to only a certain extent. The theory needs to be refined since the intended outcome of ‘increased availability of FP services’ appears to work only for a certain section of underserved population.

Program theory 2- CHWs mobilize and motivates clients to receive services from the outreach resulting in increased uptake of FP

To test this program theory, field staff were asked about the source of information about outreach to the community; ways to increase number of service users and factors that influence eligible couples to get services from the outreach. Service users were also questioned about their source of information; reasons for importance of the source; reasons for choosing outreach; past use of any FP method; and key considerations by service users when deciding to adopt a family planning method. These questions were a mix of closed (with either 'yes or no' or multiple responses) and open-ended and Likert scale questions.

a) Source of information about outreach

Field staff were asked about the source of information for scheduling of the outreach to the community. This was a multiple response question. All the field staff without exception indicated CHWs to be the main source of information about the outreach to the community. Other sources included their own teams (27%), posters/leaflets (7%) and friends/relatives (5%).

The service users were also asked who informed them that FP services were being provided on that day at the facility. This was a multiple response question. All the female clients mentioned CHWs. For men, in addition to CHWs (56%) there were other sources of information as well including an NGO worker (25%) and promotional material (banners) near the facility (12.5%). Service users were then questioned about the level of importance for the source of information, to which 92% said the source of information was very important in their decision to get the services from the outreach.

As a follow-up question to this, service users were asked in an open-ended question why the source of information was important. They cited various reasons for the importance of the source. Majority stated that CHW is a member of their own community and they have known her for many years. Also, CHW is the only and most reliable source of information for the community for their health needs, is trustworthy, supportive, and always available in need. They further said that if the CHW trust the outreach team, they will prefer going to them for services.

Some of the quotes from the service users regarding the importance of the source of information in supporting them to make decision to get services for the outreach:

"Have faith in ASHA as she always provides correct, genuine and reliable information. If she trusts the camp and the doctors, then it is comforting for us"

"She is the only source of information if we need any medical advice"

"She is like our bodyguard."

"If someone [ASHA] knows about the service and can provide details, it is good"

"We can freely talk with ASHA and she is very supportive and always available for help"

"Have trust in ASHA since in emergency we can go to ASHA and she is always helpful"

b) Ways to increase service uptake

Field staff were questioned on what according to them could be done to increase the volume of service users at the outreach. This was an open-ended question. The majority indicated the role of CHWs in increasing the number of users. They said that since they are dependent on CHWs to mobilize clients for their outreach, they ensure that they maintain regular contact with them. This was also evident from their response to another question about their responsibilities. Field staff was asked (open-ended) about their responsibilities at different stages of implementing the outreach – during preparation for the outreach; on the day of the outreach; and after outreach is complete. All of them reported attending the monthly CHW meetings at the district level and sharing outreach protocols as one of their responsibilities towards preparing for the outreach. Almost all of them said that over time they have built a very positive working relation with the CHWs. They further mentioned that both the state teams and CHWs work on mutual benefits, where the state teams complete their targets and CHWs get their motivation fees (from the government) or incentives (in the form of gifts from the outreach team) to mobilize community.

Few of the field staff also shared that since CHWs receive their payments from the facility, when the facility in-charge delays their payments, it has a negative impact on the CHW's motivation. This would then impact the client numbers at the outreach. Again, looking at their responses to the question around responsibilities, field staff mentioned that after outreach is over, one of their responsibility is to liaise with the government officials at the district level and the facility level and ensure CHWs receive their payments on time. Some of them further said that sometimes field staff will pressurize the

facility staff to release their payments if they want to continue holding outreach services at their facilities.

c) Factors that influence the decision of service users to get services from the outreach

Field staff was asked that based on their experience and observation, how much they agree on the factors that influence a service user's decision to get services from the outreach. A five-point Likert scale was used to get responses from the field staff on their level of agreement (strongly disagree to strongly agree) to the given factors. These factors included - availability of family planning services at the nearest health facility; availability of medical providers; availability of different methods to choose from; convenient timing; reputation of providers; friendliness and respect to the clients; pre and post-operative care; and recommendation/ reference from the CHWs.

Based on the analysis, availability of services at the nearest health facility and reference/recommendation from the CHWs had the maximum mean scores and lowest standard deviation (Table 6.5). Other prominent factors included respect and friendliness, reputation of providers, availability of doctors and different methods to choose from.

Table 6. 5 Factors that influence service uptake as per the staff

Factors	Mean score	Std Dev.
Availability of services at nearest facility	5.0	0.000
Availability of medical providers	4.58	0.781
Different methods to choose from	4.18	0.874
Convenient timing	3.33	0.829
Reputation of providers	4.63	0.490
Respect and Friendliness	4.80	0.516
Pre-Post-operative care	4.58	0.594
Reference from CHWs	4.93	0.350

Source: Field staff survey data

Service users were questioned whether they knew who was providing the FP services that day at the facility. Around 81% of them did not know who the service provider was. They were then asked the reason for choosing this facility/provider for the services on that day. This was a multiple response question. The most common reason for choosing the facility/provider as mentioned by service users was recommendation by CHW (80.8%)

followed by availability of method they want (40.4%), facility closer to home as compared to other provider/facility (30.8%), reputation of provider (25%) and availability of doctor (21%). The responses were further analysed based on sex of the service users. The analysis showed differences in reasons based on sex (Table 6.6). While for females, recommendation by CHWs (92%) was the reason to get services from the outreach, males reported availability of method (62.5%) to be the most important reason. While 19% of the female users each reported availability of doctor and reputation of provider as important reasons, these same reasons were reported by 25% and 37.5% of male users, respectively. None of the service users had chosen outreach because of quality of services offered by them.

Table 6. 6 Service users' reasons for choosing outreach

Reasons	Female	Male	Total
Convenient time	2.8% (1)	0%	1.9% (1)
Closer to home	31% (11)	31% (5)	30.8% (16)
Availability of doctor	19% (7)	25% (4)	21.2% (11)
Availability of method	31% (11)	62.5% (10)	40.4% (21)
Reputation of provider	19% (7)	37.5% (6)	25% (13)
Recommendation by relative	22% (8)	0%	15.4% (8)
Recommendation by CHW	92% (33)	56% (9)	80.8% (42)
Quality of care	0%	0%	0%

Source: Service users interview data

Comparing the results from the staff and service users revealed that while all staff considered availability of FP services at the nearest facility as the most important factor for service users to access services from the outreach, only one-third of the service users considered it to be a reason for them to choose outreach services. However, if we look at the distance travelled by them to reach outreach as stated in the previous section, more than 90% of service users said it took them less than 30 min to reach the outreach and they did not go to alternate provider because of duration of travel (62%). This suggests that service users are travelling less distance to get the services as against the alternate provider.

Role of CHWs and the profile of service users - Although as mentioned by both the staff and service users, role of CHW is crucial throughout the service provision, it is worthwhile to look at the profile of the service users motivated by them. The survey with

service users included questions around their socio-demographic profile. These included their age; number of living children; sex of living children; and age and sex of their eldest and youngest child.

Most of service users who were interviewed were in the age group of 26-30 years (40.4%) followed by 26.9% in the age group of 21-25 years and 13.5% between 36-40 years of age. An equal percent of 9.6% of service users were in the age group of 31-35 years and older than 40 years. The mean age of service users was 30.7 years. Breaking it down based on sex and method received, the mean age of women who came to receive sterilization was 28 years and for IUD was 25 years. The mean age for men who came to get vasectomy was 38 years. Looking at the number of living children, 67% of the service users already had more than two living children. Further breakdown of the number of children with age group of service users revealed that 86% of the clients between 36-40 years of age already had more than two children followed by 80% each in the age group of 31-35 years and more than 40 years. Also, 64% of service users of age 25 years or less had more than two children. Overall, 67% of the service users already had more than two children. (Table 6.7).

Also, 46% of the service users had at least one son and 53% had more than one son, whereas only 36% had at least one girl, 38% had more than one girl and 25% of the service users did not have any girl child. For 67% of the service users, their youngest child was a boy.

Table 6. 7 Age group of service users and number of living children

Living Children	Age Groups					
	<=25 yrs	26-30 yrs	31-35 yrs	36-40 yrs	>40 yrs	Total
<=2	35.7%	42.9%	20%	14.3%	20%	32.7%
3-4	64.3%	38.1%	60%	71.4%	80%	55.8%
>4	0	19%	20%	14.3%	0	11.5%

Source: Service users interview data

In order to understand their past use of family planning, service users were asked if they have ever used anything to delay or avoid getting pregnant. Only 34.6% of the service users have ever used a FP method with 56% males and only 25% females. Those who responded yes to this question, were further asked what they or their partner used to delay

or avoid getting pregnant. This was a multiple response question. Out of those users who have ever used a method earlier, 68% reported using condoms followed by 33% pills and 28% IUD.

The data were further analysed to identify any links between past use of any method and the number of living children. Out of those who had never used FP, 76% of the service users had more than 2 children as compared to 50% of those who had earlier used a method. All the service users were also questioned about their purpose of attending the service on that day. For 94.2% of service users, the purpose of attending the outreach was to stop childbearing and only 5.8% wanted to space their next child. None of them reported delaying first child as the purpose for attending. All the users were further asked when they decided to get family planning services. Around 46% of the service users said they had decided to get the method a few months ago, 21.2% said a few weeks ago and 32.7% had decided less than a week ago.

For those who had decided to get family planning services for more than a week ago (67% of the service users), an open-ended question on the reason for delay in getting the services was also asked. They reported multiple reasons for the delay in coming for the service. Most of the service users said they were busy with farming/daily wage or family celebrations/festivals. An almost equal number expressed either fear of getting operated in summers because of high risk of infection due to heat wave and excess sweating; or no one to take care post-surgery, therefore they waited for some support from family members. A few of them mentioned recommendation about this camp from CHW, therefore they waited for the camp date.

All the service users were asked how they made the decision to use a method this time and the reasons or key considerations they took into account. This was an open-ended question. All the responses were analysed and grouped into categories as mentioned below. These categories reflect the views of all the service users and may also include multiple views.

a) Achieved the desired family size

The majority of the service users mentioned that they decided to have sterilization now because they have achieved their desired number of children. They said that now that they are happy with their family size, they do not want to risk getting pregnant. A few service users also said that temporary methods like condoms are risky and one might still get

pregnant, therefore wanted to adopt a permanent method. Some of them said that they had been contemplating getting sterilization after they completed their family but were not sure when and from where to get services. ASHA told them about the outreach, so they decided to get sterilized.

b) Waited for a boy and now the last born was a son

Majority of the service users expressed their desire to have a son before they decide to use any contraception. They said that it is both a matter of pride and social pressure to have at least one son. There were a few service users who confirmed that they had three or four daughters because they would not give up trying for a son. Most of them shared that even their in-laws were against them using any method until they gave birth to a boy. Once they had a son, it was easier for them to convince their mother-in-law to allow them to get sterilized.

c) Want to look after the education and health of children

Another reason for deciding to get a family planning method cited by majority of service users was to take care of their children. They said that they wanted to educate their children and look after their health and other needs which will be difficult if they have more children.

d) Convincing husband/mother-in-law

Service users also shared the role of mothers-in-law in deciding when to get a permanent method. For most of them, it was difficult to convince their husbands and mothers-in-law that they do not want more children. Some of the users stated that even though they did not want more children, they had to wait and give birth (to a son) before their mother-in-law would agree to let them adopt a permanent method. In some cases, the women would instead opt for an IUD to at least not get pregnant too soon.

e) Female contraceptive methods did not suit the wife so now the couple decided to get NSV

All male service users reported that male sterilization was their last choice of family planning method. For men who had come for sterilization, their only reason for getting sterilized was medical ineligibility of their wives to adopt any method. In some cases, the wives have been refused sterilization even more than once because of medical reasons. They said that it was a tough decision for them to get sterilized because of all the social

stigma attached to it including the fear of impotency. But because they did not want more children and no other method suits their wives, they decided to get sterilized.

All the above reasons demonstrate that couples either avoid or are not permitted to use any method until they have achieved their (or family's) desired family size and desired number of sons. Once they are satisfied and family (husband and mother-in-law) agrees, women are the apparent receiver of a method. Also, as mentioned above, CHW is a woman, from within the community, known to family and considered most reliable and trustworthy source to discuss family planning needs. They approach the women who do not want any more children and convince them to adopt a FP method, especially female sterilization from the outreach. It was only when women are considered not-fit for a method, that men come forward for sterilization.

Result summary: The above data highlights the contexts and mechanisms that determine the outcome of increase in the uptake of family planning services. The context in which outreach is implemented is that it is dependent on CHWs as the main source of information for the potential users of FP method; and CHWs get cash incentives from the government for each of their motivated client who receives LAPM. To develop a positive working relation with CHWs, field staff 'maintains regular contact with them', 'inform them about their quality protocols', and 'accompany them into the field' (mechanisms). Field staff also mentioned that for CHWs, 'convenience of getting services closer', 'appreciation from outreach team for their hard work', 'support in getting timely payments' are vital mechanisms that would prompt them to encourage more potential users.

For service users, CHWs are trusted members of their community and the main source of information (context). However, service users will approach the CHW or listen to CHW and follow their recommendations only when the service users have completed their family and are willing to adopt a method. Service users' reasonings included 'already completed their family', 'desirable number of sons', 'concern for health and education of children', and 'convincing husband/mother-in-law' before they would adopt a FP method.

However, disaggregating service users data based on sex further suggests other mechanisms that come into effect. While for women, recommendation from CHWs was the most important reason for choosing outreach once they have decided to adopt a method, for men it was the availability of the method as the most influencing reason.

Again, different mechanisms triggered for men when deciding to adopt a method- 'medical ineligibility of wives/no method suits the wife' was the only reason for men to access NSV. Some of the constraining mechanisms for men were 'tough decision because of social stigma and fear of impotency'.

Field staff data also highlights some of the constraining mechanisms that would hamper the work of CHWs. These were 'delays in their payments' and 'low motivation' that would impact the number of service users accessing outreach services. The results therefore suggest refinement of the initial program theory considering all the mechanisms that impact the outcome.

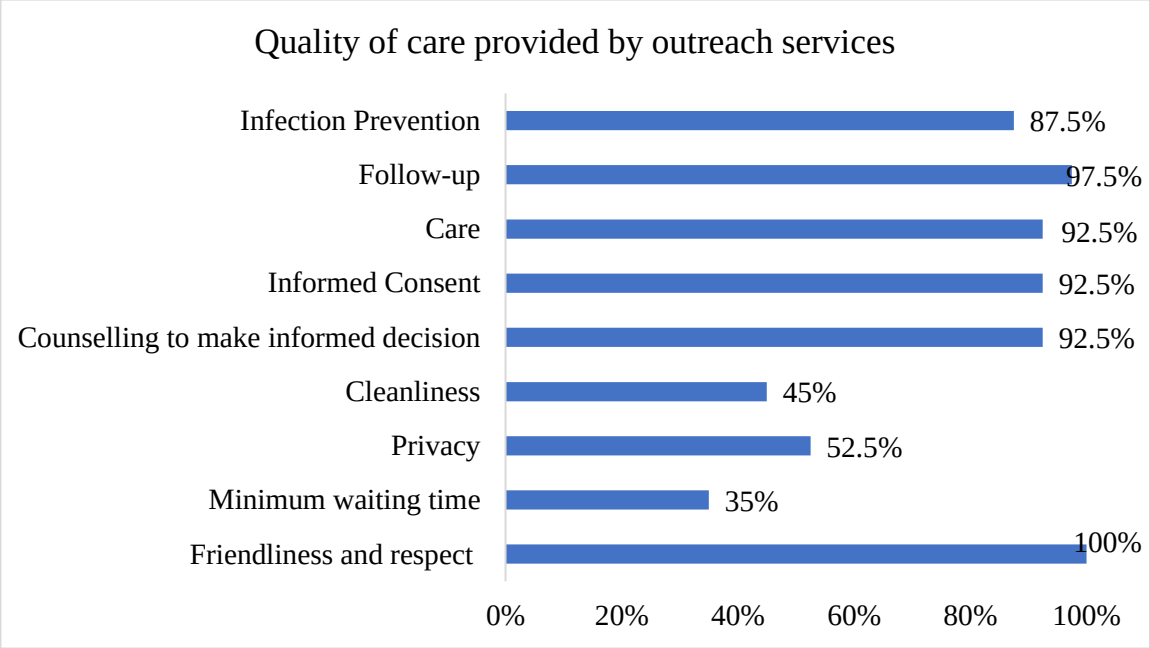
Program theory 3 – Outreach follows standard quality protocols that ensures quality of services and client satisfaction

The third program theory as identified during phase I was also subjected to test with field teams and service users. The field staff were asked about the quality of care provided by the outreach to ensure quality services and client satisfaction and its comparison with the quality offered by public health facilities. They were also asked about their perspectives on the aspect of quality that attracts the users to the outreach. Service users were also enquired about their perception of a good quality family planning service and their real experience of getting services from the outreach.

a) Ensuring quality of outreach services

Field staff were asked how the outreach ensures quality of services. This was a multiple response question. All the staff mentioned extending friendliness and respect towards the clients accessing services. In addition, 97.5% mentioned follow-up after the services to ensure there are no complications. An equal percentage of 92.5% reported counselling, informed consent, and pre-post-operative care followed by infection prevention reported by 87.5% of the staff. However, ensuring minimum waiting time, cleanliness at the facility, and privacy were some of the other quality aspects that were reported by less than 52% of the staff (Figure 6.7).

Figure 6. 7 Quality of care provided by outreach services



Source: Field staff survey data

b) Comparison with quality of family planning services offered by government run family planning services

Field staff were also asked based on their observation which aspects of quality are also provided at the government run family planning services at the public health facilities. This was also a multiple response question. Almost 92% of the field staff stated that public health facility staff only ensure the client's informed consent (because it is mandatory for them to take consent before providing services). Less than 10% reported cleanliness (7.5%), post-operative care (5%), friendliness and respect (2.5%) and privacy (2.5%).

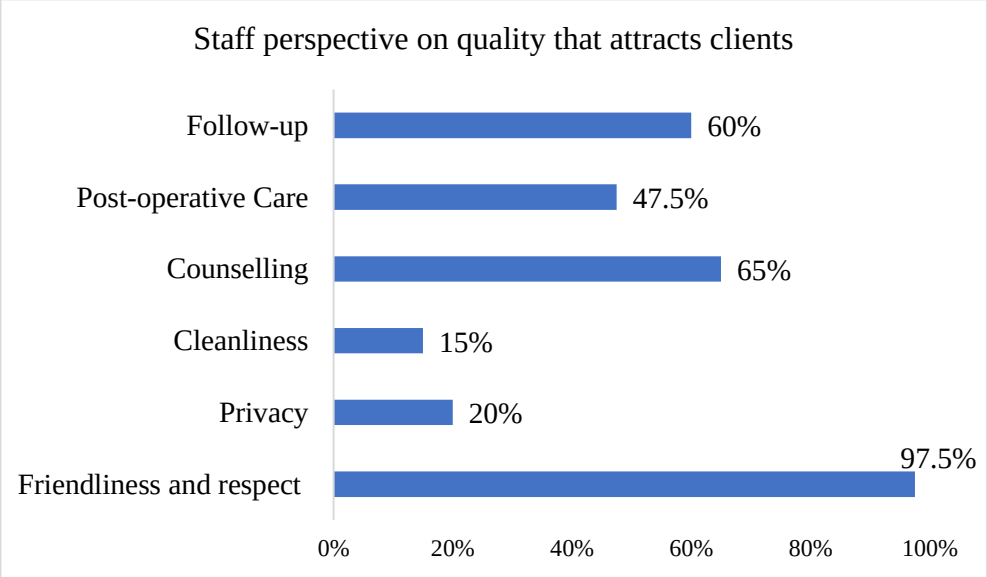
Field staff was also asked in an open-ended question what, according to them, differentiates outreach from government run FP services. Majority of the team members reported that public health services do not provide the kind of quality that is assured by the outreach services. They shared the nine-step process that the outreach follows – registration, counselling, laboratory tests, PV examination, pre-procedure examination, pre-procedure medication, procedure, post-procedure care, and client follow-up. They compared their nine-step process to care provided in other government run FP services where it is only registration, lab tests and method provision. Most of them also mentioned that ensuring good quality of services and client satisfaction is not a priority for the

government and therefore they often neglect it. They stated that government often neglects infection prevention, there are no follow-up or after care of clients, no counselling and the services are poorly managed. Some of the team members said that public health facilities cancel their services if they do not have enough clients. A few also reported that cleanliness is not maintained in public health facilities whereas outreach team would take their own cleaner to mop the operation theatre before organizing services.

c) Staff perspectives on the aspect of quality that attracts the client to the outreach

Next, in a multiple response question, field staff were asked about the aspect of quality that according to them attracts the users to the outreach. Around 97.5% of the staff reported friendliness and respect given to the clients attracts them to the outreach. This was followed by 65% who stated counselling on all methods and 60% reporting follow-up after the services. Post-op care, privacy and cleanliness were reported by less than 50% of the staff (Figure 6.8).

Figure 6. 8 Staff perspective on quality that attracts clients



Source: Field staff survey data

d) Staff perspectives on whether service users can differentiate between government run FP services and outreach services

Using an open-ended question, field staff were asked whether they think that the service users can differentiate between public health service provision of FP services and the outreach services, followed by why or why not? The majority of the staff mentioned that

the service users might not know who the service providers are since the CHWs recommend these services and they are provided at the public health facilities. They said that for clients it is only an outside team who comes once a week to the facility to provide sterilization services. This response was substantiated by the service users as well in the earlier section where 81% of them reported that they did not know who the service provider was. Some of the field staff however also mentioned that the service users would realize the difference if they had earlier accessed services from the same public health facility for some other health services. They said that users can differentiate looking at the management style with clear signages and instructions and behaviour of the staff.

e) Staff perspectives on what the service users like or dislike about the outreach

Field staff were then asked using an open-ended question on what they think the service users like or dislike about the outreach services. Almost all the field staff mentioned that according to them service users like everything about the outreach. This included complete care, staff behaviour, available method of choice, counselling, quality of services, and overall management. A few of the field staff also mentioned that service users like availability of reputed doctors and the trust that service user will receive a method even if rejected for sterilization. There was only one thing that a few field staff felt could be a cause of concern for the service users. This was reported as waiting time at the facility.

f) Service users' perception of a good quality FP service and after care

Service users were asked in an open-ended question what, according to them, is a good quality family planning service and after care. All the service users said good quality for them is when everything happens smoothly and normally without any problem or complications. Some of the other views shared by a few service users included- getting the service and method of their choice in one visit; presence of lady doctor with whom they can talk freely; complete information about the method; behaviour of the doctor where s/he does not shout or rush but listens to them patiently (half of the problem goes away if the doctor talks nicely and shows respect and compassion); and where they are willing to go back again to the doctor.

Further, service users were asked about the level of importance for them of various aspects of quality services. A five-point Likert scale was used to get responses from the users on their level of importance (not at all important to very important) on the various

aspects of quality (Table 6.8). These included friendliness and respect they receive from the staff and doctors; length of waiting time; cleanliness of the facility; privacy during their time spent with the health care provider; complete information about all methods and its side-effects; complete information about the do's and don'ts post procedure; and follow-up after the services.

A high mean score of four and above was reported for complete information about the do's and don'ts post procedure; complete information about all the methods and its side effects; friendliness and respect from the staff and doctors; follow-up after services; and cleanliness of the facility. Privacy and length of waiting time at the facility were reported as least important by the service users.

Table 6. 8 Level of importance of different aspects of quality of services for the service users

Aspects of quality of services	Mean score	Std Dev.
Friendliness and respect	4.65	0.789
Length of waiting time	1.60	0.913
Privacy	3.13	0.816
Cleanliness	4.04	1.314
Information about all methods	4.79	0.536
Information about do's and don'ts	4.85	0.364
Follow-up	4.54	0.699

Source: Service users interview data

g) Service users' experience of outreach services

A sub-sample of service users who consented for a telephone interview were called within 48 hours of their receiving the service. Out of a total of 20 service users who agreed to be tele-interviewed, a contact with 18 service users could be made (13 females and five males). The contact number for the remaining two users was out of reach/out of order. Each service user was asked questions about whether they received the various aspects of quality as stated by the staff and those that were also considered important by the users. These questions were either in a 'yes' or 'no' form.

Each service user was asked whether they have received the method for which they approached the outreach. All the service users confirmed that they received their method of choice, which was an important aspect of good quality service for them as mentioned earlier. They were then asked whether the provider took their consent before providing

the method, to which all of them said ‘yes’. The next question was whether the provider made them feel comfortable to ask questions during the counselling. Around 94% service users said ‘yes’.

They were then questioned whether the provider told them about the potential side effects of the method that they received and were they given clear instructions about what to do if they had any problems or side effects as a result of the service received. Overall, 72% of the users confirmed that they were told about potential side effects and 61% reported receiving instructions about what to do in case of any side-effects. However, there were differences between male and female service users on whether they received all necessary information. In comparison to 85% of the female service users who reported they were told about potential side effects of the method and were given instructions to follow in case of any problem, only 40% of male clients were informed about potential side effects with none of them receiving any instruction on protocol to follow in case of any complications.

Next, the service users were asked whether they received any follow-up call from the provider to check their wellbeing. Overall, 50% of the service users had already received a follow-up call from the provider. Again, there were variations between male and female users. In contrast to 60% of female users who had already received a follow-up call before they were interviewed over the phone, only 20% of male users had received a follow-up call from the outreach team.

Further, the service users were asked to rate their experience on certain aspects of service delivery. A five-point Likert Scale was used to measure their level of experience from ‘very poor’ (1) to ‘very good’ (5). These aspects included operating hours of the outreach; cleanliness at the outreach facility; length of waiting time after registration; friendliness and respect received from the staff; level of privacy during their time with the provider; and their overall experience. Table 6.9 presents the mean score and standard deviation of the experience of users on all these aspects. They were most satisfied with friendliness and respect they received from the staff followed by privacy, even though privacy is considered less important by users as stated before. There were also differences in the satisfaction from services between male and female users. Male users had slightly lower mean scores in almost all the aspects as compared to female users. An independent sample t-test was conducted to determine whether there was any statistically significant

difference between the means of the experience of male and female users. Results showed that there was no significant difference in the mean scores of male and female users on their experience of services.

Table 6. 9 Experience of service users

		Operating Hours	Cleanliness of facility	Waiting time	Friendliness and respect	Privacy	Overall experience
Female	Mean Score	3.85	4.0	3.77	4.08	4.0	4.0
	Std. Deviation	.555	.000	.599	.277	.000	.000
Male	Mean Score	3.60	3.60	3.60	4.0	4.0	3.60
	Std. Deviation	.548	.548	.548	.000	.000	.548
Total	Mean Score	3.78	3.89	3.72	4.06	4.0	3.89
	Std. Deviation	.548	.323	.575	.236	.000	.323

Source: Service users interview data

All the tele-respondents were also asked that based on their experience at the outreach, how likely was it that they would recommend this outreach to a friend or relative. A three-point Likert scale was used to measure their level of recommendation from ‘not likely at all’ to ‘very likely’. Overall, 90% of them responded either very likely (39%) or likely (50%) to recommend outreach services if their friends/family need a FP service, with a mean of 1.72 and std dev. of 0.669.

All the service users were also asked in an open-ended question whether they experienced any problems during their visit to the outreach and if there was anything that could be improved or changed about the services provided by the outreach. None of the service users reported experiencing any problem during their visit and no one recommended any changes. However, a few mentioned that though the team said they would call within 1-2 days, nobody had called them yet.

Result Summary: All the above findings highlight key mechanisms that are activated in specific contexts and work towards achieving client satisfaction and improved quality of services. Field staff reported that public health facilities lack provision of quality services (context) and that client satisfaction is not considered a priority for the public health facility staff (context). However, on the other hand, outreach provides quality services, ensuring nine-step process and standard protocols (resources). According to field staff, the friendliness and respect extended to the service users at the outreach attracts them the most (reasoning). Service users mentioned complete information about dos and don'ts post procedure; information about all the methods, friendliness and respect from the staff and doctors to be of high importance to them (reasoning). However, when asked whether they received all these aspects mentioned by them, there were variations in male and female service users. Irrespective of their experience at the outreach, majority of the users said they would recommend outreach services to their friends/family who need a FP method. All the data support the program theory to a great extent except for the differences in satisfaction from services between male and female service users.

Program theory 4 – Provision of a basket of choice increases awareness of options in FP methods and can change the method mix

To test the fourth program theory, responses to questions already mentioned under program theories two and three were used along with some additional questions that were asked to field staff and service users. Field staff were questioned about organising any special activities promoting different methods. Service users were asked whether they had already decided the method they wanted before coming to the outreach.

As stated above (Table 6.5), field staff mentioned the availability of different methods to choose from as one of the reasons for the clients to avail services from the outreach (mean score of 4.18). Also, service users reported a mean score of 4.79 on the importance of information around all the methods as an important aspect of quality of services (Table 6.8). Again, as highlighted under program theory 3, 92% of the field staff had reported providing information about different methods during the counselling session on the day of the outreach. However, when service users were asked if they have already decided the method they wanted, all the clients who came on the day of the outreach said they had already decided the method they wanted. Also, as reported earlier, all the service users

received the same method that they had decided. Therefore, even after counselling, there was no change of method among anyone.

Field staff were also asked how often their team have organized any special activities to promote different methods among different categories. These categories included males for sterilization; religious groups; married adolescents; and migrants. Around 52% of the staff reported undertaking a male sterilization promotional activity once a month. More than 90% of the staff reported that they have not undertaken any special activities to promote methods among different religious groups, married adolescents, or migrants (Table 6.10).

Table 6. 10 Frequency of special activities to promote different methods by percentage (number of responses)

	Special activities	None	Weekly	Fortnightly	Monthly	Bimonthly	Once in six months
a)	Male sterilization	17.5% (7)	2.5% (1)	5% (2)	52.5% (21)	7.5% (3)	15% (6)
b)	Religious groups	95% (38)	0	0	2.5% (1)	2.5% (1)	0
c)	Married adolescents	92.5% (37)	0	5% (2)	2.5% (1)	0	0
d)	Migrants	100% (40)	0	0	0	0	0

Source: Field staff survey data

Responses of field staff from the two open-ended questions on what can be done to increase client volume; and what according to them can be done to make outreach services more readily available to the community helped in getting the answer to whether increasing awareness on different methods can change method mix. The responses were focussed primarily towards increasing NSV clients. Majority of the field staff reported having seen a change in the number of male service users accessing outreach services in the recent past. They attributed these changes to organizing fixed day NSV outreach, doing promotional activities and field visits to labour points and markets where they can talk to men, counselling to clear their doubts and having doctors trained in NSV. Some of the field staff reported increasing NSV clients by giving gifts like watches to existing NSV clients so that they promote the method among their peers.

Result Summary: For this program theory, the mechanism of counselling and providing information about all methods on the day of the outreach as stated by the field staff does not seem to trigger the anticipated outcome of change in the method mix. This is because

all the users had already decided the method they wanted before they came to outreach (context). However, the field staff mentioned that they have seen a change in the number of NSV acceptors over the time. According to them, approaching men beforehand, promoting NSV, clearing their doubts (reasonings) and having trained doctors in conducting NSV (resources) could change the method mix. This indicates that the initial program theory should be refined if the intended outcome is to be achieved.

Additional CMOC

Support from public sector staff results in strengthened partnership and expansion of outreach

The additional CMO link identified during phase I indicated the readiness of the health department and willingness of facility staff to support outreach (Figure 6.5). This context was tested using data from the field staff. Field staff were asked about their level of agreement regarding support they receive from facility staff. A five-point Likert scale (strongly disagree to strongly agree) was used to get their responses on statements around type of support they receive. These statements included support the demand generation by informing the community about outreach; availability of rooms to be used during outreach for registration, counselling, waiting, medical examination, recovery; support in managing client flow in case of large client load; support in managing side-effects or complications faced by service user; support in maintaining client records; and any other comment on the level of support.

A high mean score was reported for all the statements except support in maintaining client records (Table 6.11), highlighting that public health facility staff do support the field teams in running the outreach.

Table 6. 11 Support received from public health facility staff in running the outreach

Support from facility staff	Mean score	Std Dev.
Support demand generation	4.97	0.158
Availability of rooms to be used	4.78	0.423
Support in managing client flow	4.55	0.749
Support in managing side-effects	4.55	0.846
Support in maintaining client records	1.70	1.488

Source: Field staff survey data

However, some of the field staff also mentioned some additional comments around the level of support. They stated that they do not seek support from the public health facility staff in maintaining client records as they are specific to the outreach team and the field teams are trained to fill those forms. They also mentioned that not all the facility staff are supportive enough. Sometimes there is lack of interest and ownership at some facilities (context) which makes it difficult for the field staff to maintain their quality protocols (mechanism). In those instances, they might have to discontinue their services at those facilities (outcome).

A few others also stated that it depends a lot on the liaising of the field staff with the facility staff. They said that most of the field staff are very sincere and hardworking and ensure that the outreach runs smoothly even without the support of the facility staff.

Result Summary: Overall, field staff reported support from the facility staff on various accounts (context) that would result in strengthened partnership. However, some of them also mentioned lack of interest and ownership from the facility staff (context) that makes it difficult for the outreach team to maintain their protocols (mechanism). In some cases, they then decide to discontinue services at those facilities (outcome). The results support the initial program theory around strengthened partnership.

6.4 Phase III: Refining the initial program theory

The final phase of realist evaluation cycle is to refine the initial program theory. In this phase, findings from testing the program theories in phase II were incorporated into the initial findings from phase I. All the contexts and mechanisms as reported by the field staff and service users were integrated into the initial CMOCs developed from the responses of the senior managers. Combining all the data together would help in refining these configurations. All the findings together would further help to understand the association between mechanisms and the influences of the context in which they exist. The sub-group comparisons done in phase II further identify the need to either revise program theory or suggest how to target a particular group under the program.

This section will present what needs to be considered in each of the tested program theories to achieve the outcomes expected from the outreach services.

Program Theory 1: Revisiting the context of married couples in need of contraceptives to ensure services though outreach is not limited to any specific group

The data from the field staff confirms the context of the poor status of public health facilities and lack of availability of FP services in geographically distant areas, also recognized by managers, as the conditions in which intervention of outreach is introduced. It also indicated limited awareness among the community on the availability of any alternate FP service provider close to them. Also, data around the factors influencing choice of venue for the outreach, which depends on the government's decision, highlights that outreach teams are given facilities where there are no trained providers, no infrastructure/equipment, and facilities are located on rough terrain that are difficult to travel (contexts). This indicates that because of outreach (resource), venues for providing FP services have increased in the intervention areas.

The mechanism of 'taking customized ambulance and making doctors and equipment available at the facility would activate the facility' as stated by the managers could be further refined adding other mechanisms reported by the field staff and service users. The mechanism of 'having services closer to the users', 'less distance to travel/less time spent' and 'reference by CHW' were other reasonings shared by the staff and users.

The context of 'married couples in need of services' could be further refined based on data from the field staff, data from the day of the survey and existing MIS records of the organization. The analysis draws attention to the profile of service users coming to outreach services as Hindus, married females above the age of 21 years specifically those who want female sterilization. This suggests that though the teams reported their target group to be 'married couples in need of FP services', outreach was only attracting a specific population within this group. This further reflects that although availability of FP services increases, the real beneficiaries are limited to a specific population, while missing the other underserved population including other religious groups who might not be looking at permanent methods.

This raises questions regarding the outcome pattern of increased availability of family planning services in the context of the client profile who are getting services from the outreach. It rather points at the outcome pattern of increased availability of 'female sterilization' services.

Program Theory 2: Trust, coordination and monetary incentives drive the work of CHWs and who they influence

Testing this program theory using data from the field staff and service users draws out the complexity in program theory 2 where the outcome is increased uptake of family planning services. All the information gathered in phase II has uncovered several additional CMOCs that come into play and influence the program theory as mentioned by managers (Figure 6.2).

The context that outreach is dependent on CHWs, who are the main source of information for the community, as stated by the managers was corroborated by data from both the field staff and service users. Similarly, the mechanisms mentioned by the managers were also validated by field staff and users. However, responses from field staff and service users also underlined various additional contexts, mechanisms and CMO links.

Figure 6.9 shows the links between different CMO configurations and intermediate outcomes that lead to the final outcome of increased uptake. This figure has been developed combining all the contexts and mechanisms reported either by the managers during phase I or by the field staff and service users during phase II. The first configuration highlights two contexts - CHWs being the only source of information for women and outreach being dependent on CHWs to mobilize clients. To develop trust and a congenial working relation with the CHWs (outcome), the state teams maintain regular contact with the CHWs, showcasing their quality protocols, attending their monthly meetings and accompanying them in the field visits (mechanisms).

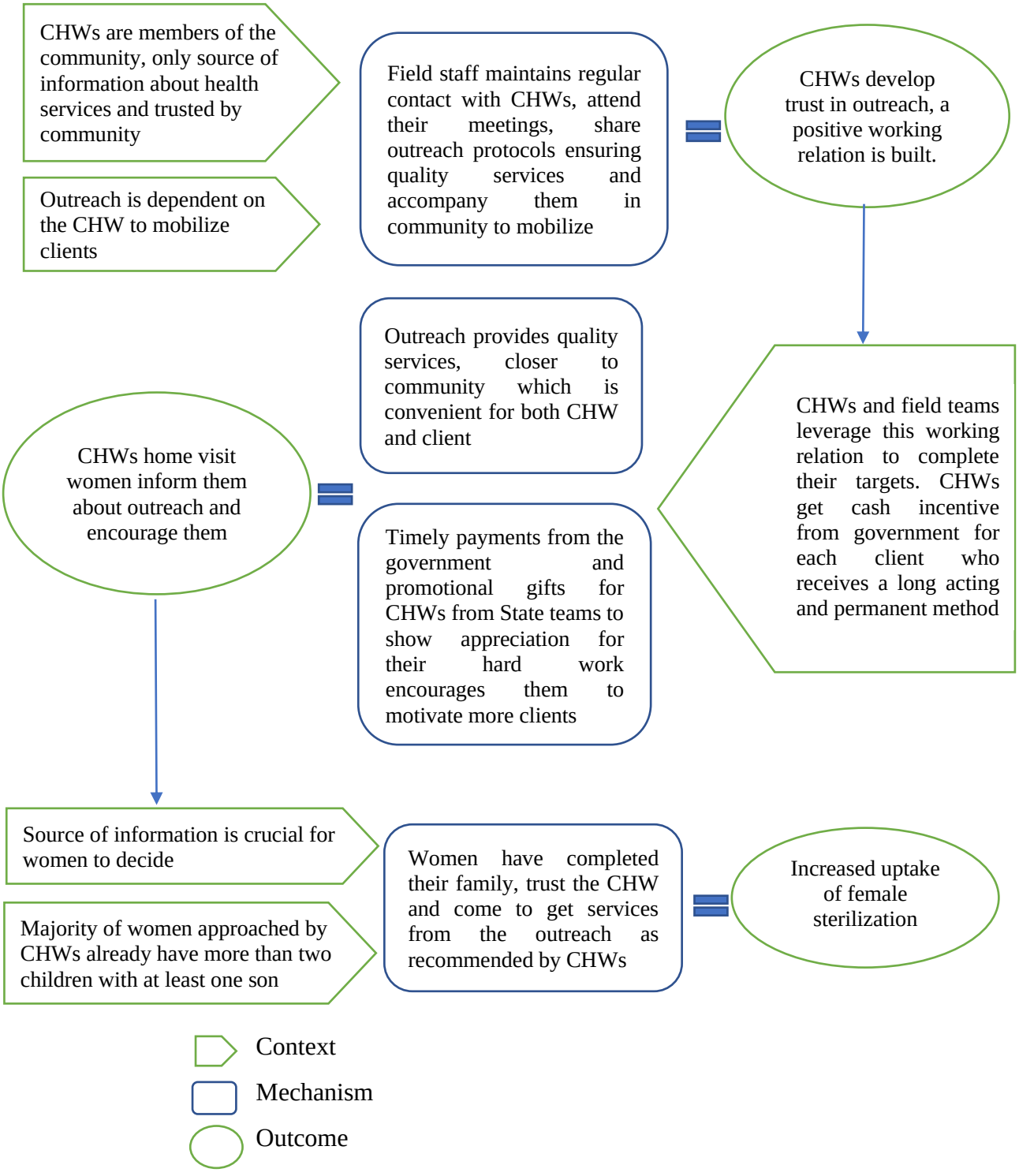
In the second linked CMOC, this amiable work relation provides the necessary opportunity and platform for both the outreach teams and CHWs to complete their targets and for CHWs to receive the motivation fees from the government for each client served (context). In order to get incentives, CHWs home visit women who have completed their family, inform, encourage and convince them to get sterilization from the outreach. CHWs consider outreach a better option for women to get services because of quality assurance and convenience where they do not have to travel with the client to the district hospital and wait in long queues (mechanism). In addition, CHWs who get more clients to the outreach are also felicitated and appreciated for their hard work by the outreach teams (mechanism). This further motivate them to encourage more women to get a method (outcome).

This further connects with the third CMOC where CHWs visit women who already have completed their family size and do not want more children (context). Women trust the CHWs, get convinced and approach outreach to get sterilization as recommended by CHWs (mechanism). This results in increased uptake of ‘female sterilization’.

However, another alternate CMO would also come into play in case the CHWs do not receive their payments on time from the government (context). This scenario would then have a negative impact on the CHW’s motivation to encourage women (mechanism) resulting in low uptake of services (outcome).

Another outcome pattern also emerges here where women are medically unfit for sterilization or any other method and their husbands come to get male sterilization because there is no other option.

Figure 6. 9 Different CMO configurations that refine Program Theory 2.



Source: Developed by the author

All these context-mechanism interactions make it evident that outreach works better for women who already had their desired number and sex composition of children and are looking for a permanent method. This is where the role of CHWs comes in who are the

trusted members of the community. They motivate women to access female sterilization services from the outreach. However, they recommend outreach only after they are convinced about the quality and assured services of the team. Both the service users and CHWs find outreach convenient because of reduced travel time, guaranteed services for their method choice and reputed doctors. For CHWs, getting their motivator fees on time also encourages them to motivate more and more women to adopt sterilization. Men access NSV services from the outreach only when their wives are medically advised against using any method, especially sterilization.

Program Theory 3: Outreach follows quality protocols, but staff behaviour, complete information, and care attracts the users

Data analysis in phase II validated the senior managers' claim of poor quality of services being provided by government at public health facilities. It also confirmed the standard quality protocols mentioned by the managers being offered and maintained by the outreach teams. These protocols included informed consent, counselling, privacy, staff behaviour, infection prevention, and pre and post care along with follow-up. Data also underlined the nine-step process they follow to ensure quality of services. Although senior managers expressed that for service users, getting services itself is a big thing and they do not expect much in terms of quality of services, the services users had their own expression of good quality FP service. For them, good quality was getting the service without any complication, in one visit, getting complete information about the method, and where staff treats them with respect.

The analysis of service users data underscores important mechanisms that come to play that attracts them to the outreach. Amidst all the resources provided under quality protocols maintained by outreach teams, some key reasonings that make the outreach acceptable to service users included the doctors and staff's behaviour, complete information about methods and care received post procedure. Privacy and waiting time were not much of a concern for service users as also mentioned by the staff.

When asked about their satisfaction from services post receiving a method, everyone was happy with the staff's behaviour and friendliness and that they could receive method of their choice. But male users were less satisfied as compared to women regarding information around potential side effects of method and what to do in case of complications.

Overall, all the data highlights that participants perceived that outreach does ensure quality services and client satisfaction, but female service users were more satisfied from the services than male users. These findings suggest a few important things. Firstly, even though the community accessing the outreach services might not have been exposed to good quality services since quality at public health facilities is compromised, they have a clear opinion about what constitutes good quality services for them. Secondly, for majority of the service users, they did not know who the service providers were, but they appreciate when they receive quality services. Thirdly, it appears that female service users were being given more attention than males when it comes to providing information and post-operative follow-up and care. This shows variation in satisfaction level based on sex.

Program Theory 4: Timing of counselling and promotion of all modern methods is crucial to influence change in method mix

As stated by managers, the outreach team provides a basket of choice of methods with the premise that counselling on different methods will not only increase awareness about methods but will also work towards changing the method mix (outcome), which is heavily leaned towards female sterilization. However, they also mentioned that the service users who access services from the outreach have already decided the method and they stick to it even after counselling. Therefore, method mix does not change (outcome).

Field staff also stated that they counsel service users on the day of the outreach on all the methods to support them in making an informed decision (mechanism). Service users also appreciated getting information on all the methods. But users data also suggested that they have already decided their method (context) in consultation with the CHW, therefore, counselling does not seem to work in shifting method mix. This corroborates the views of the senior managers that even after providing choice in methods and counselling them on these methods, the method mix that is skewed towards female sterilization does not change.

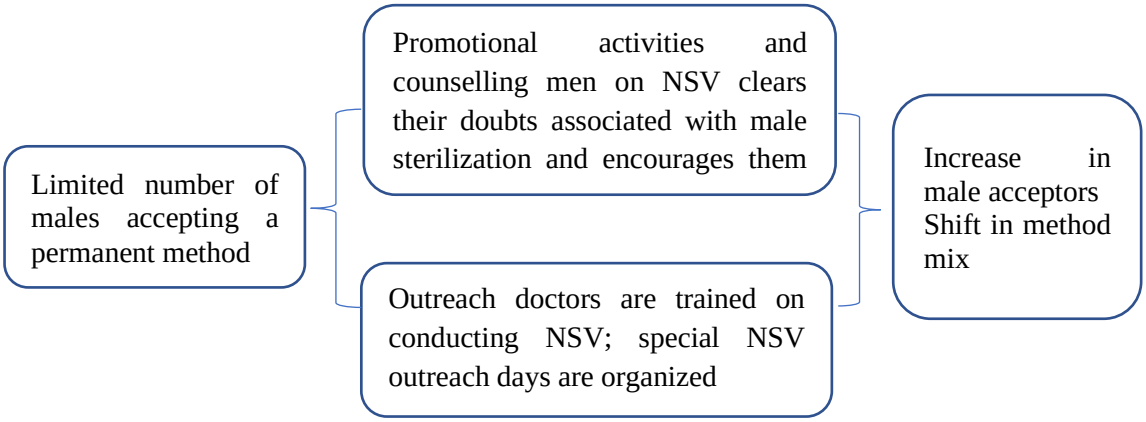
It therefore highlights that providing information about different methods of FP on the day of the outreach itself would only increase awareness of the service users who have come to avail an already decided method but would not have any influence on changing the method mix.

This could be attributed to the way different mechanisms get triggered in two different conditions producing mixed outcome patterns including both positive and negative outcome. Thus, even though the intervention of providing the basket of options and counselling is expected to increase the awareness and availability of different methods, providing opportunity to choose, if the service user has already decided the method, the mechanism of 'opportunity of choosing' will not fire in the context resulting in the negative outcome of 'no change in method mix'. This raises the question around the timing to counsel service users on all methods which currently is happening on the day of the outreach when they come to get a predetermined procedure.

However, the data from the field staff around promoting NSV points at an alternate context-mechanism link that can influence a shift in method mix (Figure 6.10). As stated by them, during early stages of outreach, only a handful of male clients would come for vasectomy (context). But then, in order to increase the number of male clients adopting vasectomy (outcome), field staff would conduct activities to promote NSVs, organize field visits to areas where it is easy to find men (labour points, markets, etc) and counsel them on the method (mechanism). The outreach doctors are also trained to conduct vasectomies which increases the provider base (mechanism). Outreach then organize NSV outreach days on a fixed day of every month. These interactions give men opportunity to clear their doubts and myths associated with vasectomy (mechanism). This has resulted in an increase in the number of male acceptors.

Thus, in the case of low male acceptors (context), promotional activities, counselling men beforehand to clear their doubts, and having a trained NSV doctor in the team (mechanisms) would increase the number of male acceptors and influence change in method mix (outcome).

Figure 6. 10 Alternate CMO configuration that influences a shift in method mix

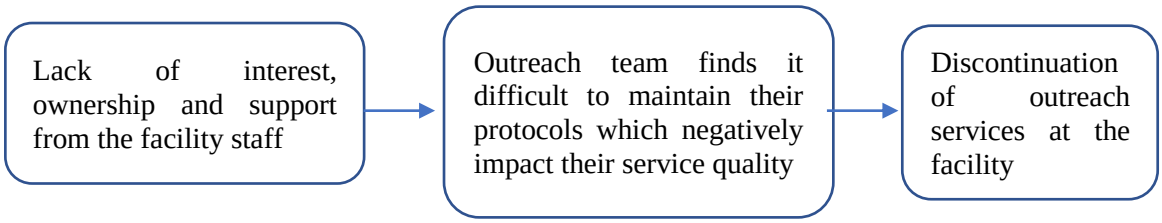


Additional CMOCs

Commitment, ownership, liaison between facility staff and outreach teams strengthens public private partnership

Field staff data verified the views of the managers on the support being received by the public sector staff in running the outreach. Facility staff would support in demand generation, making rooms available in the facility, managing client flow and managing side-effects. However, comments from some of the field staff indicated an alternate outcome pattern (Figure 6.11). Lack of interest and ownership from some facility staff (context) would make it difficult for the field staff to maintain their quality protocols (mechanism). In those instances, they might have to discontinue their services at those facilities (outcome). Others also mentioned mechanisms of 'liaising of the field staff with the facility staff' and 'sincerity and hard work of the field staff' to ensure that the outreach runs smoothly even without the support of the facility staff.

Figure 6. 11 CMO configuration that can result in a negative outcome of discontinuation of services



***Conclusion*:**

Analysing the data in three phases of developing initial program theories; testing; and refining those theories has brought to light additional contexts and mechanisms, clearer understanding of mechanisms and their working, insights on the effect of context on whether and which mechanisms would operate and a better understanding of the patterns of outcomes that result from this interplay of contexts and mechanisms. Refinement of the outreach program theories highlights the extent to which the outreach model addresses the need of FP among the underserved community and for whom and under what conditions the outreach works best.

The next two chapters will discuss the findings of the two results chapters in the light of the existing literature.

Chapter 7: Discussion (Part 1 - Formation and planning of a new service delivery model)

7.1 Introduction

The aim of this study is to understand the factors considered and the process followed by an NGO when deciding on a new service delivery model; the extent to which the model achieved its service outcomes; and ascertain what works, for whom and under what circumstances. The model was examined through the lens of realist evaluation approach and focussed on the perspectives of the senior managers, field staff and service users of the model. This and the next chapter will interpret the study findings as they relate to the research objectives of the study and present key arguments in the context of the wider literature.

This chapter will discuss the study findings on the conceptualization of the new service delivery model and how it compares to the program planning literature.

7.2 Conceptualising a new service delivery model

The present study focussed on the factors considered by the NGO while initiating a new service delivery model. This step, known as the initiation or conceptualization phase, is categorized as the first and most crucial step in any project's life cycle (Meredith et al., 2017; Kerzner, 2017; Gido et al., 2018; Dwyer et al., 2019). As discussed in the literature review chapter, this phase is characterized by a set of activities crucial and specific to the project initiation stage. Understanding relevant context from the earliest stage in a project helps in understanding both the external and internal influences that would impact the project or the organization (Stange & Glasgow, 2013; Robert & Fulop, 2014). Leaders or project planners should recognize these internal and external influences, also known as inner and outer contextual factors, that drive the ideas or interests.

In the current study, group discussion with the managers helped to recognize the context i.e., the environment or setting in which the NGO developed and implemented the idea. The senior managers shared several contextual factors that they considered while assessing the need for a new service delivery model that resulted in choosing outreach as the new model. These factors are comparable with the existing literature on project initiation. According to the PMBOK® guide (PMI, 2017), the organizational leaders have

the responsibility of initiating projects that align with the organization's strategic goals. The phase involves identifying and defining the health needs of the communities, gathering potential ideas, and screening the most promising interventions (Landoni & Corti, 2011), while also identifying and assessing how the project would respond to multiple stakeholders' interests along with gaining organizational leadership's approval and dedication to the initiative (LeRouge et al., 2013).

Consistent with the above literature, the managers considered that the new initiative must align with their organization's strategic goal of reaching the most marginalized community and improving the accessibility of FP services. They also envisaged a new model that should expand their scale of operation, increase their market share as provider of FP services thereby increasing their national presence and attracting more donor funding. As articulated by Boehm (2003), this assessment corresponds to looking at the profitability of the initiative. These would classify as 'inner contexts'.

In the 'outer context', they looked at the service and policy environment i.e., the state of public health services and existing political will of the State government to invest in family planning and partner with private providers. Past research has demonstrated the impact of political decisions and government's responsiveness to public health programs (Lezine & Reed, 2007; De Ceukelaire et al., 2011) and the role of public health professionals who understand the dynamics of politics and can anticipate opportunities and design effective programs (Oliver, 2006). Managers also explored different interventions being implemented in other country programs while narrowing down to choosing 'outreach' as the new intervention. As evidenced in the literature, learning from tried and tested strategies, and adapting them to other settings through consideration of contextual factors is a critical step for public health interventions (Brannan et al., 2008; Ng & Colombani, 2015). It was also noteworthy that while assessing the state of public health services, senior managers also reviewed and identified gaps in the existing resources and infrastructure available within their organization and contemplated strategies to minimize those gaps and to have resources in place. This was an important mechanism considering the resource-poor settings in which the NGO was about to initiate the new service.

However, it was interesting to note that although the senior managers wanted to start a service delivery model that would increase availability and accessibility of FP services to

the ‘marginalized’ population, they were inclined towards providing FP methods that have high CYPs, that would increase their CYP contribution and attract more funding from their parent organization. Experts on family planning have argued the use of CYP to monitor impact of the program could potentially bias managers to promote specific methods (more is discussed under influence of method targets and CYP on program effectiveness later in the chapter). This is because of the combination of donor pressure to reduce per-CYP cost and target oriented family planning programs. There is a fair share of literature that suggests that NGOs are donor dependent for financial support that skews their accountability to the donor (Walsh & Lenihan, 2006; Biermann et al., 2016). Further, the managers also acted with prudence when responding to the needs of the multiple stakeholders’ including the state government and the organization’s top management. Though very vital to get buy-in and support from all the major stakeholders at the project initiation stage (Banks and Hulme, 2012), the findings point out their bend towards prioritization of the institutional survival.

One crucial aspect of this ‘outer context’ during the project initiation phase is also identifying and defining the prospective beneficiaries of the intervention and identifying and confirming their needs (Landoni & Corti, 2011; Moullin et al., 2019). Gido et al. (2018) emphasized the importance of defining the right need that involves gathering data regarding the need and analysing various approaches to address the need. But the senior managers reported taking a very general approach to identify their target areas and groups. There were no community consultations or data collected that would have elucidated the population groups who are in need of the services. Rather, they decided to start the new model in some of the high priority districts as listed by the GoI where there is high unmet need of FP and high total fertility rate. These were also the districts with high donor interest. They mentioned targeting married couples in the rural areas of these districts that lack FP services. Although this is a valid approach to work in partnership with the government, get their approvals and provide services to the community with donor funding, a systematic needs assessment could have provided the team with relevant sub-group segregation of family planning needs.

Further, within these districts they proposed providing long term FP methods that would yield more CYPs. This approach could be attributed to the historical context of family planning programs in India that have always been sterilization centric, and donor driven. They did not conduct any needs assessment or rapid community surveys in the

communities where they planned to implement the new FP model and therefore appeared to presume that this historical approach was relevant. Needs assessment or rapid community surveys are systematic processes for determining the health needs of any given population while taking into account the diversity within the population (Bani, 2008). For a project to be successful, the needs of the beneficiaries have to be clearly analysed and understood for appropriate planning to take place (Matiwane & Terblanché, 2012). This assessment would have provided the team an opportunity to understand the individual, family and community context to determine the FP needs of the community. It would provide valuable and reliable information around the community's demand in terms of FP methods and the gaps that need to be filled so that their choice of method reaches them. The assessment would further provide relevant information to segregate sub-group populations based on the couples' family planning goals of limiting, spacing, or delaying births. Based on this analysis, the senior team could have developed various approaches to address the unmet FP needs of their target population.

Coming to the development of the outreach model, the senior managers took some reasonable steps. They did consultations with the government officials and the public health facility staff, where outreach would be held, to involve them and get their consistent support. There is ample evidence that suggests that involvement of key stakeholders from an early stage is crucial to gain endorsement and commitment to project endeavours (Andersen et al., 2006; Zieff et al., 2013). Next, they followed the guidelines under the NHM of the MoHFW, GoI to finalize the outreach team and field team composition; designing a customized ambulance; and getting accreditation of the outreach teams from the district and state health authorities. They also adapted the standard quality protocols of their parent organization to ensure quality standards at the outreach and the teams were trained to follow these protocols. In any healthcare setting, training is crucial to improve staff performance and practices that would impact the quality of care provided to clients (Reynolds et al., 2008; Thatte & Choi, 2015). Again, during this project development stage as well, the senior managers concurred to the target group of the outreach being married couples in the reproductive age who want a clinical method i.e., sterilization and IUD. However, it was interesting to note (presented later in the discussion) that they would market the outreach as providing a 'basket of choices' of FP methods for the couples to choose from.

Overall evidence from the current study as discussed above suggests that the senior managers took into consideration vital aspects of the initiation phase including strategic alignment with organization's vision and goals, buy-in from multiple stakeholders, examining the service and policy environment, exploring options to select the best option, getting all necessary approvals and stocktaking of all resources and gaps. However, not much emphasis was given to understanding the needs of the community where outreach was planned to be implemented. They also took all the recommended steps while developing and planning the model, whether it was consultations with relevant officials, following the national guidelines or adapting the standard quality protocols. But it was disappointing to see that community needs assessment was still missing at this stage that would have provided the team with sub-group classification around the FP needs to delay, space or limit childbirth. It further strengthens the claim made earlier by the researcher that it was presumed by senior managers, looking at the historical context of FP in India, that couples need clinical methods.

Chapter 8: Discussion (Part 2- Evaluating the outreach in terms of what works, for whom and why)

8.1 Introduction

The findings from the analysis in the results chapter (part 2) have presented important considerations relating to the delivery of family planning services via the outreach model. Developing the initial program theory to illustrate 'how' change occurs and then using realist evaluation to identify 'for whom' and 'why' the outreach services work has provided important insights into the program's effectiveness.

This chapter will discuss the key themes that emerged from the findings on the extent to which the model addresses the need of FP services; contexts and mechanisms that influence the underserved population to access services from the outreach; and for whom the model works (or does not work). Each of these themes will be discussed taking a holistic approach and looking at the implications at the individual or community level, organization level, systems, and policy level.

8.2 Outreach programs bring FP services closer to the community and increase the availability of contraceptive choices, but only reach a certain section of the underserved rural population – Hindu women seeking female sterilization

The results of the study show that outreach program is instrumental in increasing the availability of FP services at the public health facilities, hence filling the service gaps, particularly among the more disadvantaged populations. The NGO organize outreach days at facilities decided by the government that do not have a trained service provider, lack infrastructure/equipment and are difficult to reach, covering long distance from the district centre. This certainly increases the number of facilities where couples can access services without the need to travel long distance. This corresponds with the existing literature that demonstrates that outreach services are successful in not only addressing the access barriers and increasing contraceptive use in rural and geographically distant areas (Jacobstein et al., 2013; Jarvis et al., 2018), but also in increasing the choice of methods (Jacobstein et al., 2013). But whether these outreach services are benefitting all the couples in need of family planning is a matter of concern.

In the current study, realist evaluation helped in disclosing 'for whom' the outreach works. It therefore is an effective approach in identifying gaps in the design of the outreach services and recruitment strategies. The sub-group analysis draws attention to the service users of the outreach, who are mostly confined to a specific group – women, Hindu, seeking a permanent method to stop childbearing. It either excludes or has very limited clientele of women who want to delay their first birth or space the next birth; women from other religious backgrounds; and males. This highlights the limitations of the program design as also discussed earlier.

a) **Gender dynamics in family planning -** The study findings undoubtedly confirm that women are the key recipients of family planning services and female sterilization is the most used method. There is a vast body of literature that shows that family planning continues to be the responsibility of women and female sterilization being the predominant method (Chacko, 2001; Char et al., 2009; Patra & Singh, 2014; Bharadwaj et al., 2017). Even the data from all four National Family Health Surveys (NFHS- 1992-93; 1998-99; 2005-06; and 2015-16) highlights that female sterilization continues to be the most received contraceptive method (68%) among married women using any contraception. While all the four health surveys show an increase in the percent of female sterilization over the years, it points at male sterilization being at constant decline from 3.5% (NFHS-1) to a mere 0.3% (NFHS-4).

   There are many contextual factors for this gender imbalance in the use of contraceptive methods as found in the current study consistent with the family planning literature. First is the broader context of the family planning program of India and the design of the program that has only seen women as their clients since its inception, as also explained in chapter 2. This is primarily because of the reproductive roles played by women as the birth giver and perceived notion that child rearing is a woman's job (Garg & Singh, 2014). Second is the lack of autonomy of women regarding birth control and spacing. Evidence suggests that family and societal pressure often influence women to have the expected number of children (and sons), as decided by elders, especially mother-in-law, and then terminate fertility using a permanent method (Chacko, 2001; Dwivedi et al., 2007; Char et al., 2010; Bharadwaj et al., 2017). Findings from the current study also support this evidence where the majority of the women service users reported getting sterilization because they have

achieved the desired family size and desired number of sons and have received permission from their mother-in-law to adopt permanent method.

Third is the patriarchal mindset that make men think that family planning is primarily a woman's responsibility. Several studies have noted men's belief that contraception is a women's business and that wives should get sterilization for various reasons including social, cultural and economic factors (Char et al., 2009; Patra & Singh, 2014). The present study findings indicate that men opted for sterilization only as the last resort to limit childbearing, once all female focussed FP methods were exhausted and the wife was medically unfit to adopt any method. Fourth, there has been limited effort to involve men in family planning programs and to encourage them to undergo vasectomy. There are ample studies that indicate that there still exist myths and misconceptions about male sterilization including the loss of virility and strength (Char et al., 2009; Patra & Singh, 2014). This was also found in the current study where male users revealed that opting for vasectomy was a tough decision for them because of the social stigma attached to it and the fear of becoming impotent. Even the field staff admitted to not having done enough to promote male participation in family planning and to address their misconceptions around the method.

While all these factors accentuate birth control as currently women's burden, there is a greater need to recognize the shared responsibility of both sexes in fertility control. Increasing men's participation in family planning is crucial for dismantling the decades-long gender disparity in responsibility to control fertility without worsening the current inequalities in the male-female power dynamics. Studies suggest that men have a strong interest in family planning but limited information about all the available methods (Raju & Leonard, 2000; Char et al., 2009). This could be one reason why most men therefore opt for female sterilization which is easily available and often discussed by their peers. Increasing men's participation in family planning, therefore, should be all encompassing with men taking active part in fertility decisions and method use rather than just being an 'approver' of FP which would again put the burden on women. There are numerous studies that have reported a positive association between couple communication and contraceptive use (Jejeebhoy, 2002; Underwood et al., 2020).

In a cluster randomized controlled trial of a gender equity and family planning intervention in Maharashtra, India, a multi-session gender-equity focussed family planning program was delivered to married men and their wives by village health providers. The study, known as CHARM (Counselling Husbands to Achieve Reproductive Health and Marital Equity), demonstrated that engaging husbands in male-only and couple sessions is an effective way to improve contraceptive communication and contraceptive use (Raj et al., 2016). In a review of family planning interventions that reached men, Hardee et al. (2017) highlighted a range of interventions including outreach with male motivators, community engagement, communications programs and comprehensive sexuality education to engage more men.

In the current study, the field staff reported a context mechanism link wherein they would conduct promotional activities that would provide an opportunity and a platform for the men to discuss vasectomy and clear their doubts that resulted in a slight increase in the number of male users coming for vasectomy. This was coupled with training the outreach doctors to conduct vasectomy thereby increasing the provider base. Currently, there is a huge shortage in many states for skilled doctors who can conduct non-scalpel vasectomy (MoHFW, 2011). Though incremental, such undertakings are worth pursuing.

These findings backed by previous studies underscores the importance of male involvement in family planning, that if educated on the various contraceptive methods and their access, and correct their misperceptions, men can engage in discussions with their wives, and together they can choose the method that is best for them. Also, findings draw attention towards the need to train doctors in NSV technique and develop a cadre of health workers who are trained to discuss family planning with men and answer their queries with substantial facts. If there is no doctor to perform the procedure, there will be no demand and no supply. It is therefore important for both policy makers and program planners to understand the local context, design communication strategies to reach more men and encourage couple communication and have trained doctors available at health facilities.

Another influencer is the mother-in-law, whose strategic role and authority in the couple’s decision to adopt a FP method, especially female sterilization, is well

documented (Kadir et al., 2003; Char, 2010) as is also evident from the current study. However, no studies were found on any intervention programs with mothers-in-law on behaviour change communication or to increase their knowledge about contraceptives. It is therefore suggested that mothers-in-law should be included in Information-Education-Communication (IEC) campaigns about family planning, whether they are run by the government or NGO.

b) **Religion and use of contraception -** Evidence from the NFHS- and various studies on religion and the use of contraception show the differentials in fertility and contraception use among the subgroups of population based on their religion (Iyer, 2002; Rasheed et al., 2015). Higher fertility rates and low contraceptive use among Muslims as compared to Hindus and people of other religions are also well documented (Mishra, 2004; Dharmalingam et al., 2005; Stephenson, 2007; NFHS-4). Existing literature also explains the relationship between religion and choice of family planning methods in India. Studies indicate low acceptance of permanent or terminal methods of family planning among Muslims and more inclination towards and use of temporary methods (Iyer, 2002; Chaurasia, 2014; Rasheed et al., 2015).

   All this evidence underscores the importance of religious acceptability of family planning methods. It further directs towards adopting service delivery approaches that are sensitive to the religious and cultural beliefs of the community. Contrary to this, the FP program in India has always promoted the use of sterilization through the public health sector where almost 70% of contraceptive users obtain their method (NFHS-4). Findings from the current study highlight that the service users of the outreach were predominantly Hindu. Although the field staff mentioned that the service users who access services come from all religious groups, the data pointed otherwise. Moreover, field staff reported no special activities to promote different methods to religious groups based on their religious preference. It is therefore quite evident that Muslim women would refrain from approaching outreach services that are known to provide sterilization services.

   There are studies that have shown increase in contraceptive use after involving religious leaders and community leaders. A study conducted in rural Afghanistan attributed the increased uptake of contraceptives to designing family planning interventions after in-depth discussions with religious leaders and community leaders

(both men and women). The approach not only built community's trust in the team, but leaders also supported developing culturally sensitive approaches and messages consistent with Islamic teaching. This resulted in acceptance of program activities in the region (Huber et al., 2010). Another study in Malawi engaged religious leaders to sensitize their congregations on the benefits of family planning and addressed barriers related to religious beliefs. They also distributed brochures especially designed by major religious denominations in Malawi and promoted contraceptive use (Lemani et al., 2018).

These two sub-group analyses point at the gaps in the outreach service delivery model. Although the current outreach model succeeded in increasing the availability of FP services closer to the community, it failed to fully address the needs of specific community groups because of two oversights: inadequate needs analysis and the lack of engagement of broader communities in the project planning process

The program planners did not conduct any situational analysis or needs assessment of the areas where they planned to provide outreach. As discussed under the previous section, this assessment would have supported them in identifying the different target groups based on their unmet need of limiting and spacing, hence relevant services would have also been provided to meet their needs. Currently, they only focussed on providing sterilization services which is comparatively easy since there is already a demand for it from women who have completed their families and are willing to undergo sterilization. But they failed to reach out to the other target groups who want to space or delay their first birth. A systematic review done by Sarkar et al. (2015) on studies improving access to contraception found stratifying couples as per their specific needs in different reproductive life stages (newly married, nulliparous women, women with one child and women with more than one child) to be an effective strategy in reaching them with required package of services.

There was no community engagement or community participation. The phrase 'community participation' became prominent in the 80s among program developers and policy makers as an essential element when planning and providing primary health care. However, participation has remained inadequately acknowledged and addressed in family planning programs (Steyn et al., 2016). Involvement of communities in family planning programs has been rather passive as recipients of information or contraceptive services

offered (Askew & Khan, 1990). A scoping review of programs to identify participatory approaches in family planning programs identified three types of approaches – establishing committees to improve or extend health services; collaborating with existing community structures to optimize use of services; and collaboration for quality improvement (Steyn et al., 2016). Interestingly, these approaches are effective during project implementation including demand generation and service provision.

There is very limited evidence on community engagement during the design and planning of a family planning initiative. A systematic review of studies related to community engagement in family planning program development in the U.S (Carter et al., 2015) indicated the importance of community engagement in developing family planning programs. However, these studies primarily looked at community engagement for development of educational materials to promote contraceptive use. Only one study (Cheng & Patel, 2011) used community engagement to guide which services to include in the expanded suite of services offered by the health centre.

The above discussion therefore suggests the NGO should identify and segregate couples as per their reproductive phase and then engage them from the design and planning stage itself. This could be an effective strategy for program managers to improve access to contraception for all men and women. The programs can then develop tailor-made approaches to reach all men and women in need of family planning services.

8.3 Timing of family planning intervention, contraceptive adoption, and method choice

Rapid non-immigration population growth in any country is the result of a combination of early pregnancy, high fertility, and frequent childbearing (Howarth & Walker, 2011). Family planning programs have the potential to alter reproductive behaviour and reduce fertility thereby slowing population growth (Bongaarts et al., 2012). As mentioned in the literature review section, age at marriage and contraception use are the two most important predictors of fertility transition. However, the impact of contraception is not just determined by its prevalence level but also by the level of effectiveness which depends on the mix of methods to a large extent (Bongaarts, 1997).

Contraception use has two dimensions – dimension of birth limitation and the dimension of delayed and spaced childbearing (Ranjan, 2012). The timing of accepting family

planning methods for the first time after initiating sexual activity and after the birth is a critical aspect to regulate fertility, thereby impacting population growth (Singh & Shekhar, 2010). However, contraceptive use and the choice of method is influenced by the characteristics of the acceptors (Chaurasia, 2014).

The current study shows some interesting data on the service user's past use of any modern contraceptive method, mean age of users receiving a method, number of living children, sex of the child and their method choice. These data highlight the characteristics of service users and uncovers the timing of contraception adoption, method choice, and the role and approach of family planning interventions.

Majority of the service users, with more women than men, had never used any modern method of contraception before accepting sterilization. There is ample literature that confirms female sterilization is often the first and the sole method that couples use to control their family size. These studies present that once couples achieve their desired family size, they undergo sterilization which is considered the most effective and safest method to stop childbearing (Zavier & Padmadas, 2000; Arora et al., 2010; Bharadwaj et al., 2017).

The profile of the service users in the current study also corresponds with the user profiles from other available studies. The mean age of women undergoing sterilization in the current study was 28 years which is comparable to mean age of 27.1 years and 28.9 years found in other studies (Epari et al., 2017; Bharadwaj et al., 2017). Similarly, the mean age of men undergoing sterilization was 38 years, slightly higher than the mean age of 35 years found in another study (Bhuyan et al., 2012). Three out of four users who attended the outreach already had three or more living children, and the last born was a son. Also, for one in five users, the age of the youngest child was five years and more. As per data from NFHS-4, contraceptive use among currently married women rises with an increasing number of living children; from 8 percent of women with no living children to 36 percent of women with one child and 68 percent of women with three children. Preference for sterilization also increases with increasing age, number of living children and having older children (Zavier et al., 2005). This analysis accentuates the user profile where majority of women already had at least three children by the age of 28 years.

Reasons for opting the permanent method by the service users in the current study match those observed in earlier studies as achieving the desired family size and sex composition

of children with visible preference for a son. Chaudhuri (2012) had demonstrated the impact of desire of son on parity progression using NFHS- 3 data. Another study by Jayaraman et al. (2009) substantiated that the contraceptive use increased as the number of children and number of sons increased. All this evidence suggests that a significant proportion of women continue childbearing and refrain from using contraception until they have at least one son, signifying that son preference continues to persist in India (Visaria & Ved, 2016).

Another important finding of the current study was that none of the outreach service users represented women who wanted to delay their first birth. There could be several plausible explanations for this result. One, as mentioned by the field staff, they do not organize any demand generation activities among married adolescents to create awareness about use of contraceptives to delay the first birth and rely on CHWs to inform communities. Two, the way outreach is marketed in the rural areas, it targets married women who want to stop childbearing rather delay first birth. (This point will be further discussed later in the chapter). Three, previous studies have reported provider bias and restrictions to young women's access to reversible methods and limited attempt by health care providers to facilitate contraceptive use among the young married couples (Calhoun et al., 2013; Jejeebhoy et al., 2014). The major role of CHWs in motivating couples in the current study is discussed later in the chapter. Four, there are socio-cultural pressure on women to conceive within the first year of marriage (Barua & Kurz, 2001; Sethuraman et al., 2007).

The data from NFHS- 3 and NFHS- 4 shows the prevalence of early marriages and early childbearing practices among rural women. As per NFHS- 4, the unmet need for family planning among currently married women is at a high of 22 percent among women in the age group of 15-24 years with 19.9 percent for spacing among 15-19 years and 15.7 percent among 20-24 years, respectively. Although NFHS does not report data on unmet need to delay first pregnancy, according to a study by Jejeebhoy et al. (2014) in six Indian states, more than half of the women in the age group of 15-24 years showed a considerable demand for contraception to postpone their first pregnancy. All this evidence points at the high demand for contraception to delay first birth but poor response of family planning programs to satisfy this demand.

A systematic review conducted by Sarkar et al. (2015) has shown that a combination of community-based interventions targeting young married couples, family elders,

community members and health systems are effective in delaying pregnancy and increasing contraceptive use. Although the review also highlighted the paucity of studies focusing on strategies to delay first pregnancy. The PRACHAR project in rural Bihar, India with three major goals of delaying marriage until the girl was 18 years or older and boy 21 or older, delaying the birth of a first child until the woman is at least 21 years, and initiating contraception within three months of marrying had demonstrated positive outcomes. The project implemented behaviour change communication interventions with not only the youth and young couples but also their parents, in-laws, and influential community members. This approach brought about substantial attitudinal change resulting in contraceptive acceptance (Daniel et al., 2008).

These studies, though limited in number, have also emphasized that marriages should take place only after legal minimum age with strict implementation of laws. The WHO guidelines on preventing early pregnancies among adolescents in developing countries features key domains of preventing early marriage, creating understanding and support for preventing early pregnancy, and increasing use of contraception. These guidelines also provide action recommendations at the level of the individual, family, community, health systems and laws and policies (Chandra-Mouli et al., 2013). As mentioned earlier, provider bias and social norms restrict young couple's access to reversible methods. NGOs can play an important role in addressing the contraceptive demand of married adolescents. Along with the community health workers, NGO field staff can organize community interactions, social support groups that include mothers-in-law, married youth groups, and home visits to talk about the benefits of delayed childbearing and spacing on maternal and child health while also assuring choice of methods, quality services, and privacy at the outreach. This approach will create an enabling environment for the newly married couple to discuss their fertility goals and seek services.

The results also showed a very small percentage of users who had come to outreach to get reversible method – IUD, for spacing their next pregnancy. This is in line with the national data on IUD usage that stands at less than 2%. The reason cited by the NGO staff is their limited demand generation activities and reliance on CHWs to encourage couples to get services from the outreach. They also mentioned that IUD is also available at sub centres by the ANM but still the uptake is very low. There are numerous studies that have reported the lack of availability and non-use of reversible modern contraceptives for decades. Lack of information on reversible methods, perceived lack of consumer demand,

fears of side effects and misinformation, inaccessibility, inadequately trained providers, poor quality of care that also result in discontinuation, and provider-imposed barriers are well researched and documented hurdles to adoption of reversible methods including IUD (Diamond-Smith et al., 2012; Calhoun et al., 2013; Blumenthal et al., 2013; Kulathinal et al., 2019).

Conversely, there are several documented success stories that show the impact of increasing demand for reversible methods, increasing provider base and service delivery points, improving technical competence of providers in IUD insertion and providing correct and adequate information to dispel any myths and fear among women on increased uptake of reversible methods especially IUDs. One study conducted by the Population Council in India demonstrated that strengthening the technical and counselling skills of providers, running an IEC campaign to remove myths and disseminate correct information, ensuring provision of IUD services in public health facilities have a positive impact on the uptake of IUD both in rural and urban areas (Khan et al., 2008).

Another study commissioned by Population Services International (PSI) in 2009 focussed on increasing consumer demand and service provision of IUDs in 13 countries. Services were provided through franchised clinics, outreach 'event days', seconding PSI staff to high volume facilities, and network clinics. They also linked supply and demand by integrating demand generation activities in all the models. These activities included mass media and interpersonal communications where community-based health workers conducted one-on-one and group sessions with women in communities surrounding the clinics or outreach areas. These interventions resulted in more IUD acceptance by younger and less educated women. This study showed that latent consumer demand is more prevalent than realized and suggests that effective linkage of demand creation and service delivery can significantly increase access and uptake of long-acting reversible methods (Blumenthal et al., 2013).

Another study conducted in India (Kulathinal et al., 2019) demonstrated the use of a mobile health (mHealth) initiative to increase knowledge and uptake of reversible methods among rural population. The study showed an increase in the use of reversible contraception by 18% in the intervention areas. Although the study had a small sample size and did not segregate short term reversible methods (like condoms, pills) and long-acting methods (IUD), mHealth is an innovative initiative that has shown some promising

results in influencing uptake of contraceptives (Smith et al., 2015) and has still stronger impact when combined with other channels of mass media and inter-personal communication (Lee et al., 2019).

All these studies and many more highlight that IUD use can be increased by using various strategies yet progress still gets hampered due to reasons cited above, mainly perceptions of both providers and potential clients. Cleland et al. (2017) emphasized provider enthusiasm as the key to success in promoting reversible methods. Evidence shows varied approaches work to increase provider motivation to promote reversible methods. Few studies suggest that extending didactic training to providers to improve their knowledge and practical skills can improve their comfort with IUD insertions and removals (Wall et al., 2013). Others connote that traditional approach to training alone cannot turn a provider into reversible method promoter or enthusiast, rather qualities of commitment, attitude, and work ethics are equally important as clinical skills (Neukom et al., 2011). Hiring of enthusiastic providers who believe in contraceptive choice, offering more provider-client interaction time, steady supply of resources, post-training monitoring and supportive supervision with feedback; regular appreciation; and continuous support to do their work are well established strategies to sustain provider motivation (Dieleman et al., 2009; Neukom et al., 2011; Frimpong et al., 2011).

Evidence from the available literature as highlighted above establishes that IUD use can be increased by dispelling myths, creating demand, increasing provider base of trained, competent, and motivated staff, and providing follow-up services. It is important for service providers to provide adequate information in a timely manner in order to assist families in making informed choices. Outreach has the potential to provide these services since they have trained providers and resources, they only need commitment and stronger networking with ANMs and community health workers to engage with the community, identify the latent demand, and provide services.

The effectiveness of any family planning program also depends on the mix of methods made available for the clients to choose from. On the question of method choice being offered to the service users, the current study found that outreach would use the ‘cafeteria approach’, offering a basket of options including reversible and permanent methods and counselling the users on all the methods. Also, NSV would be offered on separate days marked as ‘NSV fixed days’. As observed by the researcher during the data collection, the

counsellor (a female member of the outreach team) would provide information on all the methods to the clients, supported by IEC material like flipcharts and display of the contraceptive devices/methods.

An interesting finding was the timing of these counselling sessions, which would happen on the day of the outreach. The NGO staff mentioned that availability of different methods at the outreach and providing counselling on each of those methods help the users in deciding the method and making an informed choice. However, all the service users had already decided on the method after talking to the CHWs before they came to outreach, although they did appreciate getting information about all the methods. This raise concerns on the contraceptive choice even though a mix of methods is offered since all the clients who approach outreach want to stop childbearing, thereby reinforcing method skewedness. Counselling the prospective client at the right time empowers them to make informed choice as is discussed later in the chapter. However, as stated in the results chapter, counselling users at the outreach when the decision has already been made to receive sterilization, would not influence method change, thereby missing out the opportunity to choose.

The landmark International Conference on Population and Development (ICPD) in 1994 endorsed to make available a full range of safe and effective methods as one of the principal objectives of any family planning program. However, how each method is positioned within the family planning program such that it is given equal attention when generating awareness and targeting the right group to address their demands is crucial. A study by Baveja et al. (2000) revealed that when balanced information on all the available methods is given to women, they can make informed choice. The study showed remarkable differences in the method choice among women who were given balanced information and those who had pre-decided a method. Majority (80%) of women who received information opted for spacing methods while 60% of women who had pre-decided the method received permanent method. Even though higher parity and older women opted for sterilization as evidenced in other studies, for women in the age group of 20-29 years, IUD was the most preferred method. This study shows the potential of putting contraceptive choice in women's hands by providing correct and timely information on all the methods equally without any bias.

All the above discussion points at some of the key implications for the outreach family planning program. There is no doubt that the outreach is able to meet the family planning needs of women who want to stop childbearing. The dominance of sterilization reflects that the program is relatively more effective in meeting birth limitation needs of women rather than delaying first birth or birth spacing needs. It reveals the program's inability to engage young married women with latent demand for delaying and spacing childbirth. However, outreach program is very well positioned to fulfill this latent demand of women. They have team of trained doctors and counsellors and necessary supplies. What they need is a good demand generation strategy; recruitment strategy to target the right group; motivated and trained providers who are well supported; and timely counselling of eligible couples on all methods without any bias.

8.4 Influence of contraceptive method targets and couple-years of protection on the effectiveness of the outreach

Outreach program is aimed at increasing the availability and uptake of long term and permanent methods of contraception by the rural population. However, an important finding discussed earlier is that the outreach model is working well only in increasing the uptake of permanent methods i.e., female sterilization. Two program related factors that can explain the reason behind this are the influence of couple-years of protection (CYP) and family planning method targets on the model's effectiveness. First let us unpack the influence of CYP on the outreach effectiveness. As mentioned earlier, CYP is a commonly used indicator to assess family planning program performance and their cost-effectiveness. The indicator is used by many donor agencies and family planning organizations including USAID, DFID, DKT International, Marie Stopes International. CYP gives the maximum credit to permanent methods followed by long-acting reversible methods and lastly to short term methods.

In the current study, the senior managers stated that their funding depends on their overall CYP contribution. They also mentioned that they initiated the outreach model to increase their share of long acting and permanent methods in the family planning market. Increasing the CYP and market share were critical for them to continue their funding. Donor agencies require their recipient organizations to report CYP and is therefore being used widely by program managers to design and monitor their family planning programs. The advantages and disadvantages of using CYP for measuring program performance is

well documented in the family planning literature and by the stalwarts of the field (Shelton, 1991; Fort, 1996; Stover et al., 2000).

One important limitation of depending on CYP is that program managers might get biased towards the delivery of permanent methods to achieve their CYP targets. This would result in a series of program inefficiencies in reaching out to the beneficiaries based on their 'true' need for family planning (Fort, 1996). One, the program will direct its resources and efforts in providing a method that would yield more CYPs. Two, likelihood of recruitment errors where young couples in need of spacing or delaying their first birth are missed out and limiting methods are provided to couples who have given birth in succession and might have low need for protection. As noted earlier, incorporating the dimension of wider spacing between births and delay in first birth are critical not only in achieving population stabilization but also in improving maternal and child health. Contrary to this, the focus of population stabilization efforts through any family planning program has always been on birth limitation. For e.g., a woman sterilized at the age of 40 years with 3+ children would not prevent as many births as a 25-year-old woman receiving IUD. This results in missed opportunities to provide services to couples who will have higher impact on population control. Three, CYP factors of each method are used as a standard across the board with no recognition of the impact of the program in reaching the hard-to-reach clients who live in rural and geographically distant areas. This might hinder program managers to put effort and resources in reaching those population groups who are truly underserved.

Next, let us look at the context of method targets. India's family planning program has focussed on birth limitation rather than birth planning ever since its inception (Srinivasan, 2006; Chaurasia, 2014; Oliveira et al., 2014). This is quite evident through the family health surveys that shows the terminal method- female sterilization to be ruling the method charts for decades (NFHS-4; NFHS-3). As detailed in the literature review, family planning programs in India have a long tumultuous history of being target driven and incentive based. Although the country adopted a target free approach post ICPD conference in 1994 and shifted to an informed choice model, many states continue to use a target-based approach and health workers continue to receive annual targets for sterilization (Donaldson, 2002; Das, 2012).

In the current study, the senior managers indicated that each of the health facilities where they provide outreach have targets. Because of the outreach, these facilities achieve their targets and get appreciation from the district health societies (Figure 6.5). The same is true for CHWs targets and incentives (Figure 6.9). When the outreach achieves these targets, it further strengthens the NGO's partnership with the health department, and they receive more facilities where they can conduct outreach. This presents a win-win situation for both since public sector achieve their method targets and the outreach achieve their CYP targets.

Combining both CYP targets and method targets together is detrimental to the provision of method choice to the clients. Although the outreach team offers a basket of choice which includes both permanent and long-acting methods, it is evident that the program has given more emphasis on female sterilization. This clearly depicts a skewed method mix. Although there is no ideal method mix, dominance of a single method in a country suggests limitation of contraceptive choice. Sullivan et al. (2006) defined a method mix to be skewed if a single method constitutes 50% or more of all contraceptive use in a country. Some of the reasons of this skewed method mix they suggested which has high likelihood in the present study as well include policies and programs of a country that promote certain methods at the expense of others, history of the method, provider bias, and client characteristics.

Several studies have shown that contraceptive use increases when more method choice is provided to the clients (Ross et al., 2002; Matheny, 2004; Muttreja & Singh, 2018). Many countries in the neighbouring South Asia including Bangladesh, Bhutan, Nepal and Sri Lanka have reported increase in modern contraceptive use by providing more method choice without preference for any single method (Muttreja & Singh 2018). Although personal choice or client's characteristics is critical to the use of contraceptives, it is unlikely that this skewed method mix solely reflect a woman's preference. Rather it reflects the limited access and incomplete information about the range of choices available to them (Mbizvo et al., 2014).

Another study by Lemani et al. (2018) has demonstrated the impact of family planning interventions in Malawi on the increase in CYP and improved method mix. A package of family planning interventions including community mobilization and providing correct information about all methods, availability of trained and skilled providers and on-the-job

mentoring increased the uptake of long-acting reversible methods and thereby increased their CYP levels as well.

India's family planning program and specifically outreach model can learn from the experiences of other programs mentioned throughout the chapter. There is an urgent need to revamp the approach of the NGOs, the public sector as well as the funding organizations both at organization level and collectively.

First, the public health department must make the word 'target' obsolete in family planning program and reinforce the importance of informed choices. As the focus of family planning program is to increase contraceptive use, it should not be misconstrued as increasing the use of female sterilization, as is considered an easy approach, and therefore setting targets for it. Rather, as noted by other country programs, contraceptive use increases by providing more method choice. Second, the government should recommend a method mix that does not favour one specific method (not more than 50% for any one method) while achieving the goal of contraceptive prevalence rate set under FP2020.Third, instead of providing incentives to the community health workers for each sterilization motivated by them, their remuneration should also depend on the method mix that they promote. Fourth, train the frontline health workers to correctly understand the fertility desires of eligible couples, and to provide necessary support to adopters in case of any side-effects or concerns related to spacing methods.

The outreach program also needs to revisit their approach. Since outreach works in close partnership with the government and utilizes their community health workers for demand generation, there should be some level of consistency in the approach. First, the focus of the outreach should also be on promoting methods based on the calculated method mix by the government and not CYPs. Using method mix would ensure that all eligible couples are identified based on their fertility goals of whether delaying first birth, spacing, or limiting childbirth. This will facilitate the outreach's recruitment strategy for the services. Second, managers can warrant fair distribution of resources and efforts without any preference for a single method to achieve their CYP targets. Third, special consideration given to staff who make efforts to reach the difficult geographies and increasing availability and accessibility of different methods in the method mix.

Similarly, the funding organizations should also comply with the government's approach. Although CYP is beneficial in assessing cost-effectiveness of the family planning

programs, the donors need to be mindful that it can also result in provider bias, method skewness and even coercive actions. Also, these organizations should develop a framework and develop indicators to monitor the reach of the outreach services to ensure the program is planned in a way that it reaches the underserved populations and resource-poor settings.

8.5 The critical role of CHWs in increasing the uptake of contraception

The findings from the current study have underlined the prominent role played by the community health workers known as ASHA in increasing the uptake of services from the outreach. Dependence of the outreach on the CHWs or ASHAs to get clients is the key context in which outreach operates. For the community, especially women, ASHAs are the main source of information for all their health-related needs. As detailed in the literature review, ASHAs, who are village-level female workers, acts as a link between the community and the public health system. They serve as a healthcare educator and promoter; service provider; and health activist, while helping the remote communities to access health services.

There is consensus in the literature that CHWs play a critical role in improving maternal and child health, immunization, expanding access to family planning services and contributing to the control of infectious diseases along with promoting healthy behaviours in resource poor settings (Lehmann & Sanders, 2007; Gilmore & McAuliffe, 2013; Perry et al., 2014). There is also a substantial body of evidence documenting the effectiveness of the CHWs in the FP programs (Haver et al., 2015; Mazzei et al., 2019; Brooks et al., 2019). A systematic review done by Scott et al. (2015) confirmed that the CHWs have a positive contribution in the provision of FP services to the rural community. The studies reviewed indicated that CHWs were effective in increasing contraceptive use among women across countries including Bangladesh, Ghana, Pakistan and Uganda.

All the above evidence from the existing body of literature and findings from the current study exemplify the contribution of CHWs in increasing the uptake of contraception. However, the use of realist evaluation in the current study helped in determining ‘who is benefitting’ from the ASHAs visit and ‘how’ the ASHAs affect women’s contraceptive use. A series of CMO links have been identified that demystifies the role of the ASHAs, their relationship with the communities and with the outreach teams, and its impact on the service uptake by couples. Below are the identified key mechanisms and contexts and

their various combinations that influences the outcome of enhancing contraceptive acceptance by couples.

a) Trust between the ASHA and the communities especially women

As per the NRHM guidelines of the Government of India, ASHAs are selected from within the community they serve, and therefore share similar socio-cultural attributes as their prospective clients. Studies have shown that CHWs who come from the communities they serve enjoy higher levels of acceptance from within these communities and become trustworthy over time (Mishra, 2014; Saprii et al., 2015). As local women, they are uniquely positioned to understand the health needs of the community and be able to provide a variety of services to households, including the delivery of basic health care and promoting uptake of facility-based health care (Seth et al., 2017). They do this by home visiting women, counselling and motivating them to seek healthcare and linking them to the public health facility (Saprii et al., 2015).

The same applies to their role in disseminating information about family planning and contraceptive use as also found in the current study. The outreach teams and the service users under current study unanimously agreed that ASHAs are their main source of information for family planning services. They said that they are considered trusted members of their community and women can freely discuss about reproductive health with them. Women consider them their 'bodyguards' projecting the trust they have on their ASHA. They also acknowledged that they agree to get services from the outreach on the recommendation of the ASHA. All the above evidence underscores the critical role ASHA play in connecting women to family planning services.

b) Collaboration and teamwork between the ASHAs and the outreach teams

As mentioned earlier, outreach is dependent on the ASHAs for their clients. However, how ASHA gets convinced to promote outreach to women depends on the underlying mechanisms as identified by the analysis of the findings. These mechanisms include an amiable working relation between the teams and the ASHAs developed through regular contacts, and teams attending ASHA meetings, presenting outreach quality protocols, and ensuring good quality services. ASHAs also weigh the benefit of outreach to the women and for themselves as well. Having services closer to women that reduces their travel time, guaranteed service provision and quality of services further convince ASHA to promote outreach. Several studies have highlighted that poor institutional support in terms

of under-staffed and ill-equipped public health facilities put ASHAs/CHWs in a tight situation where her credibility is at stake when people approach health facilities following her advice, and their expectations could not be met (Scott & Shanker 2010; Gopalan et al., 2012; Kok et al., 2017; Scott et al., 2019). But as mentioned by the staff, outreach appears to be a promising option for the ASHAs with a team of committed staff and doctors that guarantee services and maintain the quality. Thus, outreach services are beneficial and practical for both the ASHAs and the women.

In addition to positive working relations, the need to achieve their targets also drive the outreach teams and the ASHAs together. As mentioned earlier, both the ASHAs and the outreach have targets for permanent methods. Close coordination between the two, sharing of outreach schedule with the ASHAs, and ASHAs encouraging women to adopt a method and accompanying them to the outreach results in achieving their targets. These mechanisms indicate how each one needs the other implying teamwork and collaboration between outreach and ASHA to make outreach services acceptable to the women.

c) Motivation and Incentives for the ASHAs

The study findings highlight another important mechanism that impacts the service uptake - motivation fees or cash incentives to ASHA for each acceptor of permanent method. Since ASHA receives performance-based incentives from the government for each client they refer for permanent method, and outreach ensures quality services closer to them, ASHA can complete their targets and receive their cash incentives. Although targets and incentives are known to improve job related motivation and performance (Kok et al., 2015; Meyer et al., 2015), there is strong evidence that suggest that incentives can also influence CHWs to prioritize activities with higher incentives (Nandan et al., 2007; Singh et al., 2015; Sarin et al., 2016).

Studies have also reported that irregular, delayed and incomplete payments negatively affects CHW's performance and motivation to execute her role (Sharma et al., 2014; Saprii et al., 2015). Findings from the current study revealed that outreach team would liaise with the facility staff to ensure that ASHA receive their payments on time. They would also encourage ASHAs by giving gifts on achieving maximum targets and honouring them in meetings. This further motivates ASHA to refer more women to outreach. These findings are similar to other studies highlighting the motivation behind the performance of CHWs (Gopalan et al., 2012; Chin-Quee et al., 2016).

CHWs are supposed to visit all women of reproductive age in their area but because of heavy workload, they would probably choose whom to visit (Arends-kuenning, 2001). As stated above, cash incentives can influence CHWs to focus on incentivized activities. There are studies that are critical of the incentive-based payment model of the ASHA program. These studies argue that remuneration based on number of clients they served especially related to sterilization targets, would skew the program and promote one form of contraception over another (Saprii et al., 2015; Bellows et al., 2015). Studies also claim that incentives could lead to encouraging behaviour among the ASHAs that do not put the client's interest first. As incentives provided for permanent methods are higher than other methods, there are studies raising concerns that ASHAs might be pushing those services, involving an element of coercion and curtailing free and informed choice (Sarin et al., 2016). However, literature has shown mixed results and an ongoing debate on the role of financial incentives on promoting family planning methods.

Looking at the service users' profile in the current study, it can be presumed that ASHA choose to home visit women who already have more than two children with at least one boy and encourage them towards sterilization. This indicates that ASHAs might be targeting women who were easier to reach and were more likely to accept sterilization in order to meet their targets and obtain incentives with less efforts. This is known as 'cherry-picking' and reported as one of the demerits of targeted incentives (Oxman & Fretheim, 2008).

Although ASHAs are uniquely positioned as an intermediary between the community and public health systems with multiple roles, the above discussion indicates some prominent missed opportunities where ASHAs can improve the effectiveness of the outreach. First, ASHAs are the first point of contact for women and counsel them on various FP methods. Although there is lack of evidence on the nature of information provided by ASHAs to women, previous studies have reported that they have poor knowledge of family planning methods, timing and use of spacing methods, and that they also have the same misconceptions about methods as community members (Ahmad et al., 2012; Waskel et al., 2014).

Another study by Dehingia et al. (2019) found the positive association between quality of FP counselling and contraceptive initiation and continuation. This clearly implies the need to strengthen ASHA's training curriculum around FP method knowledge and use

with regular refresher trainings; develop their contraceptive counselling skills to support women to choose a method according to their needs; and regular monitoring, supportive supervision and guidance (Kok et al., 2018). Although ASHAs are government functionaries and therefore it should be the responsibility of the district health societies to regularly provide refresher trainings and supportive supervision, the option of involving the NGOs (in this case the outreach team) who closely work with ASHAs in service delivery can also be explored. Together they can do community needs assessment and identify eligible couples with specific method needs.

Second, ASHA's role as a health activist is underutilized and has received minimal focus. But it presents a vital opportunity to act as an influencer and change agent in communities. Since they belong to the same community and understand the socio-cultural context, they are better positioned to influence both the gender and religion dynamics of family planning. For ASHA to take on their activist role, there is a need for thorough sensitization about the religious, cultural and gender norms for them to first overcome their personal prejudices that would hinder them to reach out to the marginalized especially home visiting and encouraging Muslim women to adopt FP method. As mentioned above, it can either be a part of trainings organized by district health societies or can be outsourced to the NGOs.

Third, as suggested in the above sub-section, the government should explore the possibility of remunerating the ASHAs based on the method mix they promote rather than method specific incentives. This can be an opportunity to correct the method skew and promote all methods equally.

All the above opportunities present the prospect for outreach teams and ASHAs to work together and support each other in expanding FP services. ASHA workers therefore can be used as an important source of support to the outreach in conducting needs assessment, facilitating community engagements and dispelling myths, and promoting all the methods without any bias.

8.6 Quality of care sought and received by the service users that attracts them to the outreach

The quality of care in family planning services is an important factor that influences contraceptive use (Tessema et al., 2017; Mozumdar et al., 2019; Yirgu et al., 2020). The

Results chapter highlighted the components of care provided by the staff and aspects of care sought and received by the service users. Outreach applies standard quality protocols and follows a nine-step process to ensure a client-centred experience. Service users also appreciated the quality of care they received at the outreach. However, it would be worthwhile to compare the quality extended by the outreach to the quality-of-care framework developed by Bruce (1990). Bruce developed a client-centred quality of care (QoC) framework for family planning services. This framework focuses on the needs of the clients rather than demographic outcome of reducing population growth (Bansal & Dwivedi, 2020). The six elements detailed in the framework include choice of methods; information given to clients; technical competence of providers; interpersonal relations; follow-up/continuity mechanism; and appropriate constellation of services.

The 'choice of methods' available at the outreach and 'information given to clients' in the form of counselling to empower them to make informed choices is discussed earlier under section 8.3 and 8.5. Another important point to add to that discussion is the need to ensure quality and correct information to those adopting reversible methods. Studies have pointed that better quality, whether perceived or actual, and information received at the time of contraceptive initiation has a higher likelihood of contraceptive use continuation among users (Ramarao et al., 2003; Jain et al., 2012; Jain et al., 2019). Here, the argument could be a country that has high use of sterilization holds little grounds for investing in improving quality to improve method continuation. But this issue is critical since women who discontinue due to poor quality of services, add to the existing unmet need (Jain, 2017). Also, as outlined in India's FP2020 Vision document, the family planning program is inclined to shift the method-mix towards reversible methods. Therefore, a focus on quality and information exchange would influence the contraceptive continuation. Moreover, irrespective of the method choice, clients have a right to receive services of their choice and of good quality.

Further, regarding information given to clients, the outreach team informed them about all the available methods (irrespective of the fact that all the clients have already decided the method and there was no change in their decision as discussed earlier); potential side-effects of the chosen method; and instructions on what to do in case of any side-effects. These three questions combined form the Method Information Index (MII) which is a core indictor that captures the extent to which women are given information when they receive a service (FP2020, n.d.). In the current study, there were variations among male

and female service users on these three important indicators with only half of male users as compared to female users reporting being told about potential side effects of their method (NSV) and none of the male users reported receiving instructions on what to do in case of any complications. This raises concerns since family planning programs need male involvement not just in supporting females but also as receivers of contraception. Concerted programmatic efforts are needed to promote the use of male methods and ensuring good quality services is one crucial way to promote it. However, not much has been researched on the quality of services extended to male users who opt for sterilization.

Coming to the next element of technical competence of providers, outreach has a team of trained doctors, which is a requirement to get accreditation to run outreach. They trained their doctors on conducting NSV. They have also adopted the standard quality protocols of MSI that require regular trainings of the team for infection prevention, medical emergency preparedness, waste management and counselling skills. All these inputs indicate the technical competence of the outreach team to provide good quality services. This approach further supports the revised FP QoC framework by Jain and Hardee (2018) that suggested technical competence to include competent providers who ensure safety and compliance with infection prevention practices in delivering FP services.

The quality of client-provider interaction to ensure that providers adopt a client-centred approach is a well-researched element of the QoC framework (Abdel-Tawab & Roter, 2002; Kim et al., 2005; Sathar et al., 2005; Johns et al., 2020). The aspects of dignity, respect, privacy, and confidentiality makes the framework compatible with rights-based family planning (Jain & Hardee, 2018). The current study found that for both the staff and service users, behaviour of the doctor and the staff in terms of friendliness and respect extended to the service users was an important mechanism that attracted the users to the outreach and was also appreciated by them. Surprisingly, both the staff and users gave low score to importance of privacy as an indicator of quality services, although service users were happy with the privacy they received at the outreach. Overall, service users reported their satisfaction from the outreach services. A review conducted by RamaRao and Mohanam (2003) found that interventions that focus on better interaction between providers and clients show the most promise of client satisfaction from FP services. Other studies including Williams et al. (2000) and Mathur et al. (2013) also reported higher

client satisfaction from services where behaviour of service providers was polite and courteous.

The next element of follow-up to ensure continuity of contraception use is being looked at from a different connotation in the context of the outreach services. Since the majority of outreach clients are women receiving sterilization, the staff uses follow-up as a means to ensure their post-procedure wellbeing. Service users also reported follow-up to be important for them and appreciated receiving it. The guidelines under the MoHFW's manual 'Standards for Female and Male Sterilization Services (2006) state the importance of post-operative care and recommend three follow-up appointments. First, within 48 hours after the surgery with a female health worker via telephone. Second, a week following the surgery to remove stitches and third, one-month post operation where the wo/man receives a certificate of sterilization. The current study only asked the service users about the first follow-up. It was interesting to note that only one third of the males as compared to female users reported receiving the call after 48 hours as per the guidelines. This again points at the differences in male female service quality and focus on women as their prime customers. This inconsistent quality of care being extended to male clients (as also mentioned earlier) could result in a negative client experience that would deter them from encouraging other men to accept vasectomy. As reported by Subramanian et al. (2010), the testimonial or the satisfied user approach to promote vasectomy has the potential to influence more men to seek NSV services.

Coming to the last element of the framework, i.e., the appropriate constellation of services, there is no other integrated reproductive or maternal health services that outreach provides apart from family planning services. Although, a number of studies have begun to examine integration of family planning with other health services as an opportunity to improve the efficiency and effectiveness of the program (Dulli et al., 2016; Achyut et al., 2016; Cooper et al., 2020).

Overall, outreach seems to be faring well when comparing their quality to the QoC framework which is extensively been used and referred by national and international FP organizations for decades. However, as mentioned earlier, the timing of providing counselling on different methods and improving quality of care for male users need more attention by the NGO staff.

Another important and interesting context that makes outreach acceptable to couples who need services is the poor quality of the government run family planning services and low expectation of quality among the users. There is enough evidence that suggests that public health facilities show poor adherence to quality protocols and guidelines; and women receiving services from the public sector receive minimum information about different methods and side effects; and experience harsh and derogatory treatment from the providers. (Koenig at al., 2000; PFI, 2014; Achyut et al., 2014; Bansal & Dwivedi, 2020). On the other hand, for service users in the current study, 'no complications', 'getting services in one visit', 'getting the method they want', 'getting necessary information', and 'behaviour of the doctor and staff' are important aspects they identify as good quality family planning services. Another important finding indicates that since the community expects little from the public health service delivery system, they do not demand these services and accept whatever they receive. By contrast, outreach is providing quality services with client-centred approach that attracts users and make outreach acceptable to them. It is quite natural that women would prefer services where they are treated with respect and then would recommend it to their friends and families.

It is quite evident from the above discussion that communities are not aware of their rights and entitlement when it comes to quality of services. Women need to be better educated on what defines quality care in health facilities and be empowered to ask for it. It is the responsibility of all, whether government functionaries like ASHAs under their role as a 'social activist' or the NGO program staff who are the first point of contact for the community to make them aware of what good quality service entails and their right to demand those services. This will raise the standards of the delivery system and make the system more accountable.

8.7 Support from public health department is critical to the running of outreach services

The last few decades have witnessed an upsurge in the public-NGO partnerships in the health sector of many low-and middle-income countries to improve health systems' performance (Hushie, 2016). Although the readiness of the government and nature of collaboration and type of support provided by them varies it is crucial to the effectiveness of the program. The current study has underscored the critical role played by the public health department at various levels in running the outreach. It highlighted the contextual

factors that facilitate the partnership between the NGO and the government. The government's political will to promote family planning, acknowledging the gaps in public health service delivery system, willingness to partner with NGOs and directive from state and district health societies to extend support to NGO at the facility level were the key contextual factors that facilitate this linkage. These factors have also been well documented in previous studies (Pal & Pal, 2009; Hushie, 2016; Schwandt et al., 2018).

Although an enabling environment is important to build any partnership, further analysis of the data also identified the mechanisms that are instrumental in strengthening and sustaining this partnership. These mechanisms were identified as continuous advocacy, regular interaction and liaising, good rapport, cooperation from facility staff and CHWs, and interest and ownership by both the actors. Jütting (1999) has suggested that interest, commitment, cooperation, credibility, and transparency between the actors are critical determinants for successful and long-term partnerships. The current study also found other constraining mechanisms that would negate the partnership and may result in discontinuation of services. One is the lack of cooperation and ownership by facility staff that hinders the field staff to maintain their quality protocols. Two is the delay in payments by district health authorities to the CHWs demotivate them and impact service numbers. Three comprises unclear communication around administrative guidelines and direction from the department. But the NGO team claimed that they would make their way to get things done. This is an interesting finding demonstrating the autonomy of the NGO and their position to pressurize the public health staff to deliver.

However, the partnership would not work if there were no mutual benefit. Mitchell (n.d.) pointed that public-private partnerships work only when both partners benefit from the partnerships. The same was found in the current study as well. For the NGO, availability of the facilities to provide services and support from the facility staff help the outreach teams in achieving their service targets. Likewise, the health facilities benefit by achieving their targets, facility in-charge gets appreciation from district health department, reduced workload on public sector doctors, and CHWs receive their incentives on time.

A number of studies on public-private partnerships have raised concerns that these partnerships are poorly governed and monitored by the public sector due to lack of resources and cumbersome bureaucratic procedures (Baig et al., 2014; Hushie, 2016). The

current study did not explore the contract details of the NGO-government partnership and therefore discussing the nature of this partnership is beyond this research. However, the study findings point at key gaps in the role played by the public health department in developing performance deliverables for both the facility staff and outreach and monitoring the quality of services. As mentioned earlier, both the partners were interested in achieving their targets with no attention on the method mix and without acknowledging that one segment of women in need of spacing and delaying pregnancy is being excluded. Some suggestions have been given under section 8.4 emphasising on method mix instead of method targets or CYPs.

Further, the staff also reported that there was no concern shown by the government staff on the quality of services being provided by the NGO. We can be optimistic in our thinking and believe that the government has trust in the NGO and their services, nevertheless it is the responsibility of the government to monitor the quality of services. This raises the need to carefully implement the partnerships if the expected benefits are to be achieved.

***Conclusion*:**

The two discussion chapters have presented a detailed discussion on the findings and implications of actions taken by the chosen NGO at the project initiation stage as well as the stage of evaluating the outreach model and assessing its effectiveness. The chapters have highlighted key gaps and themes taking a holistic approach, acknowledging the individual, organizational, systems, and policy level implications.

Chapter 9: Comprehensive program theory and theoretical implications of the study

9.1 Introduction

This chapter will present a revised comprehensive program theory of the outreach model based on the results and discussions in the previous chapters. This will be followed by discussing the theoretical implications of the study and presenting a framework to guide developing family planning programs and evaluate program effectiveness.

9.2 Revised Program Theory

Based on the above discussions around the key themes that emerged from the findings, a refined program theory in the form of middle-range theories is being proposed (Figure 9.1). This program theory provides an explanation of how, why and in what contexts outreach model can lead to particular outcomes. The theory is presented in the form of linked sets of hypotheses about mechanisms that cause the outreach model to work in particular contexts resulting in specific outcomes (CMOCs). These hypotheses have been developed from the refined theories that emerged from testing the initial theories in the study, available evidence from the existing literature, and proposed practical implications of the study as suggested in the earlier sections. These middle-range theories are specific enough to generate propositions to test and general enough to apply across different situations. These testable propositions can further our understanding of how similar programs work in other contexts that were not covered by the current study.

The revised program theory in the form of middle-range theories features the contexts that were not identified by the NGO team, therefore not taken into account while developing the outreach program, resulting in mechanisms that would work only for a sub-section of the population leading to partial outcomes. However, once identified and acknowledged, it is expected that the intervention resources would be used differently and population's response to these resources would also change, thereby extending the benefit of the outreach to all couples in need. This is an important step to consolidate the findings and discussions around the family planning program run by an NGO, as well as to provide guidance for future interventions and research considering all the identified contexts.

To achieve the outcome of increased availability of all FP methods, key contexts identified include absence of methods/services at facilities closer to those in need; inadequately trained providers; community needs identified based on the unmet need of either delay, space or limit childbirth. In these contexts, when outreach team of trained doctors visit facilities and all methods are made available for couples closer to their home, it results in increased availability of FP services for all as per their need. Looking at the outcome of increased awareness of all methods, limited awareness and acceptability of all methods; limited male involvement; and provider bias are the key contextual factors. Providing opportunity and platform for men to discuss and clear their doubts about NSV by the field teams and improving the technical and counselling skills of providers so that they disseminate correct information on all methods, thereby increasing the awareness of the eligible couples.

For the next outcome of increased uptake of FP services, ASHAs as the main source of information is the most crucial context as was also identified in the study. Although several mechanisms around the role of ASHAs were identified, a shift in the way ASHAs are incentivized, can trigger a number of other mechanisms that will support the outcome of increased uptake by all in need. These include training ASHAs on all methods and strengthening their counselling skills to dispel any myths will improve their mobilization efforts and because of the trust in them, couples will follow their recommendations. Further, because ASHAs will be remunerated based on method mix, they will provide correct, timely, and balanced information to couples on all methods.

However, there are other contextual factors that influence the uptake of family planning and should be acknowledged while planning the service delivery. These contexts include socio-cultural pressure on women and norms on number of children and preference for son; religious and cultural beliefs; influence of mothers-in-law; and fear of side-effects and misinformation around long-acting methods. ASHAs and NGO staff organising community engagements, couple sessions, and other IEC/BCC activities with mothers-in-law, and involving religious or faith leaders in developing culturally sensitive interventions will influence attitudinal change and develop trust and acceptability of outreach services.

The outcome of improved quality of services is set within the context of poor quality of services available at public health facilities and perception of poor quality among the

community on one side and emphasis on quality of services by the funding organizations on the other side. The outreach following standard quality protocols while keeping all their clients at the centre of their services and providing follow-up services post procedure for both men and women results in improved quality of services. On the other hand, friendly behaviour of the doctors and staff and respect given to service users along with receiving services of their choice in a single visit and getting all the information attracts the community in need to the outreach services. These satisfied clients would then refer and recommend their friends and families to get services from the outreach.

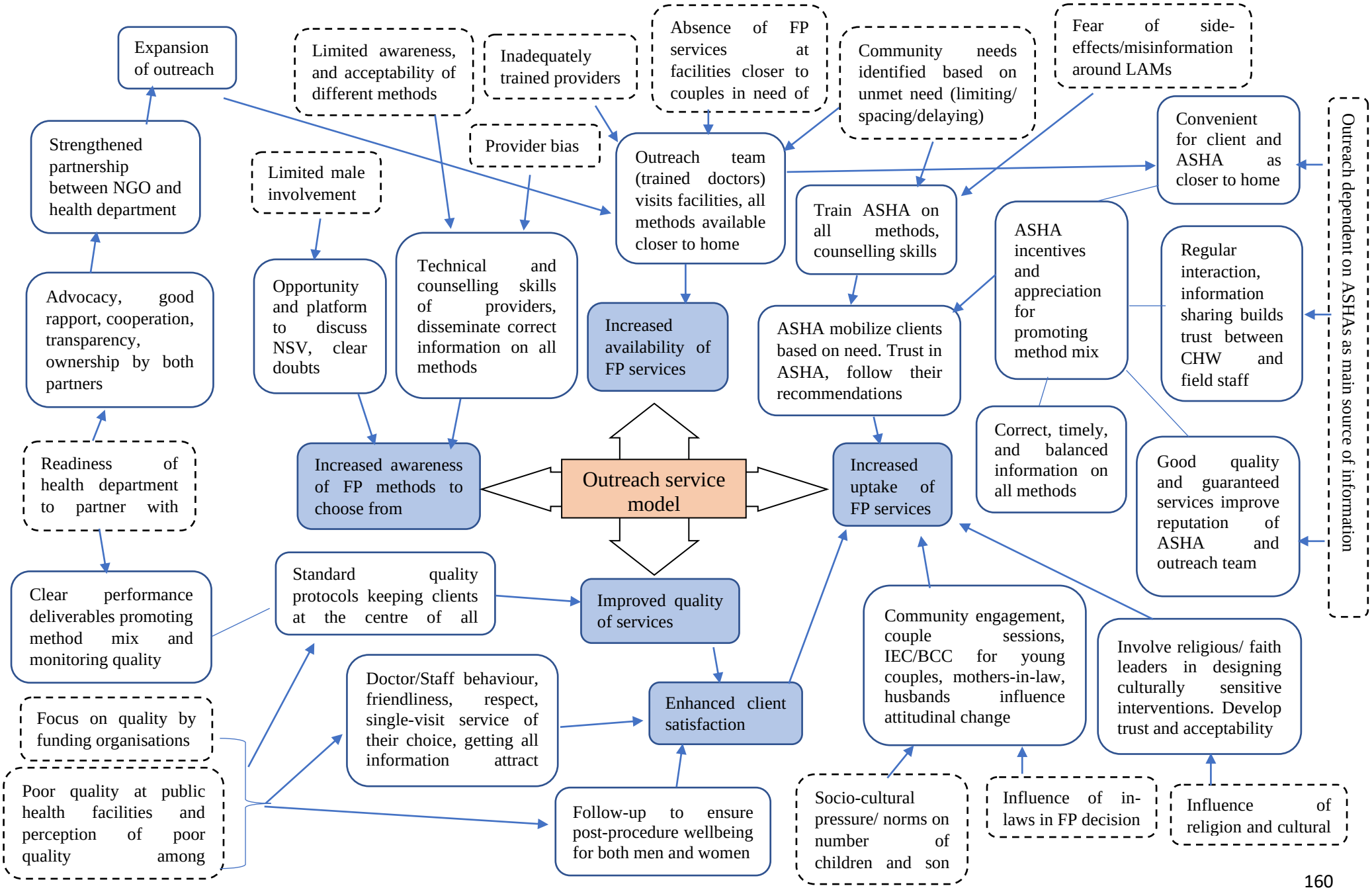
The public sector plays a crucial role in the outreach services and therefore their role in implementing this program theory cannot be undermined. It is the willingness and readiness of the health department to partner with NGO by assigning public health facilities to them and extending FP services to those in need. The mechanisms of advocacy, cooperation, transparency, ownership is important to strengthen this partnership that will result in expansion of outreach to more rural sites. However, one important context-mechanism link is the responsibility of the public health department to set clear performance deliverables of promoting method mix as suggested along with monitoring quality of services.

Lastly, since this program theory is not linear in its approach, the proposed theory has a few inter-connections where either two or more mechanisms group together to achieve a single outcome or may impact more than one outcome.

Figure 9. 1 Refined Program Theory in the form of Middle-Range Theories of the Outreach Model of Family Planning

Source: Developed by the author

- Intended Outcomes
- Context
- Mechanisms (Resource + reasoning)


Expansion of outreach
Limited awareness, and acceptability of different methods
Inadequately trained providers
Absence of FP services at facilities closer to couples in need of
Community needs identified based on unmet need (limiting/ spacing/delaying)
Fear of side-effects/misinformation around LAMs
Strengthened partnership between NGO and health department
Provider bias
Outreach team (trained doctors) visits facilities, all methods available closer to home
Convenient for client and ASHA as closer to home
Outreach dependent on ASHAs as main source of information
Limited male involvement
Train ASHA on all methods, counselling skills
ASHA incentives and appreciation for promoting method mix
Regular interaction, information sharing builds trust between CHW and field staff
Advocacy, good rapport, cooperation, transparency, ownership by both partners
Opportunity and platform to discuss NSV, clear doubts
Technical and counselling skills of providers, disseminate correct information on all methods
Increased availability of FP services
ASHA mobilize clients based on need. Trust in ASHA, follow their recommendations
Readiness of health department to partner with
Increased awareness of FP methods to choose from
Outreach service model
Increased uptake of FP services
Correct, timely, and balanced information on all methods
Good quality and guaranteed services improve reputation of ASHA and outreach team
Clear performance deliverables promoting method mix and monitoring quality
Standard quality protocols keeping clients at the centre of all
Improved quality of services
Community engagement, couple sessions, IEC/BCC for young couples, mothers-in-law, husbands influence attitudinal change
Involve religious/ faith leaders in designing culturally sensitive interventions. Develop trust and acceptability
Doctor/Staff behaviour, friendliness, respect, single-visit service of their choice, getting all information attract
Enhanced client satisfaction
Focus on quality by funding organisations
Poor quality at public health facilities and perception of poor quality among
Follow-up to ensure post-procedure wellbeing for both men and women
Socio-cultural pressure/ norms on number of children and son
Influence of in-laws in FP decision
Influence of religion and cultural

9.3 Theoretical implications of the study

The current study utilized two theoretical approaches to explore the outreach model. One, utilising the project initiation and planning phase of the project management theory to understand how a new model was developed and two, adapting theory-based realist evaluation approach to then assess the effectiveness of the new model based on the program theories and testing and refining those theories.

First is about the initiation and planning within the project management theory. The study establishes the importance of understanding and acknowledging the context, both internal and external, as early as possible during initiation and planning a new project as is endorsed by the project management theory. The study discusses these inner and outer contextual factors as identified by the senior managers and also highlighted key gaps. According to the project management theory, these factors play a dual role of influencing how to plan a new project as well as indicating the type of issues that might emerge during the planning process and be dealt with. The current study adds to this perspective of the importance of context in initiating and planning a project by introducing the concept of mechanism that further expounds how the decision work. Figure 5.1 in the results chapter illustrates the link between the context and mechanism that explains the decision behind initiating the outreach model. However, it is critical to note that neither of the two can act in isolation, i.e., context alone cannot influence the outcomes in absence of the causal forces i.e., mechanism (both resources and reasonings) while mechanisms will only trigger when the context is supportive (Pawson, 2006). Recognising these mechanisms earlier in the project life cycle and its interaction with the contexts in which the project is being initiated can provide insights into the need for a new program and why the implementers think it will work.

Second, the outreach model was examined through the lens of the realist evaluation approach that focuses on identifying the contextual conditions and mechanisms of change to evaluate the program outcomes. Evaluating the project's effectiveness is not just to find out does it work or what works but also why and how, and this is where a theory-based approach to evaluation works. While realist evaluation which is one of the theory-based approach is gaining momentum among the academia and researchers in the developed world, there has been little research using this approach in developing countries (Gilmore et al., 2016). In India in particular, only a handful of studies have applied realist

evaluation in assessing the impact of interventions in projects on disability, mental health, and capacity building of health managers (Nambiar et al., 2012; Prashanth et al., 2014; Young et al., 2016; Mathias et al., 2019). This is the first research that has applied realist evaluation to a family planning program run by an NGO in India.

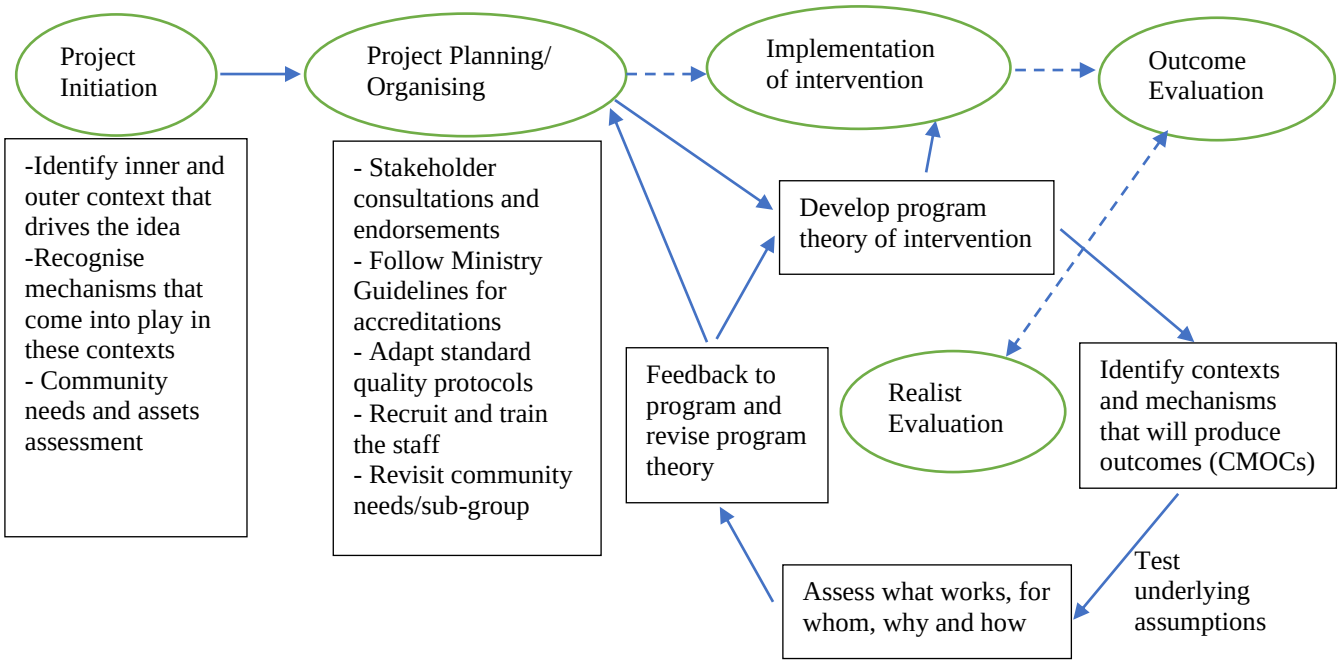
The results of the study substantiate the premise of realist evaluation that different stakeholders have different information and perceptions based on the role they play in the program. Data from the senior managers, field staff and service users have provided a range of perspectives and mechanisms that helped the researcher in getting a comprehensive picture of the outreach model. The study also shows the possibility of developing a program theory retrospectively by involving program managers who were instrumental in designing the outreach model and had anticipated the program outcomes. The realist approach of first eliciting the program theory and identifying the configurations of contexts, mechanisms, and outcomes provided a structure to evaluate the outreach model.

The study presents the possibility that realist evaluation can be a potential alternative approach to evaluate NGO interventions particularly in developing understanding of the reasons behind success and failure, providing guidance for project redesign and replication. Rather than measuring the results to assess whether outcomes have been achieved and objectives met, this study examined what actually happens in interventions and why and what makes a project successful in a certain context. Findings of the study show that using a relatively new evaluation methodology – realist evaluation, that integrates the concepts of contexts and mechanisms into the program theory increases the depth of analysis and can provide answers to ‘how the outreach works, for whom it works, and why it works’. Thereby going beyond the traditional, mainstream approach of outcome or impact evaluation.

Using both the theoretical approaches as mentioned above, the study thus implies the crucial role of context and mechanisms during project management as well as for evaluating the effectiveness of the project. Based on this discussion, the study presents a framework that describes the process for developing a new service delivery model with a built-in theory-based evaluation to assess its effectiveness (Figure 9.2). It presents important components of the project initiation and planning phase based on the results of the study and associated discussions. Along with project planning it proposes the

development of the program theory of intervention that then follow the realist evaluation cycle to identify the contexts and mechanisms that will produce the outcomes and testing these underlying assumptions to assess what works for whom why and how. This assessment then feeds back into the program theory to modify the interventions if necessary.

Figure 9. 2 Planning and Evaluating the Effectiveness of Family Planning Program



Source: Developed by the author

Chapter 10: Conclusions and Recommendations

10.1 Introduction

This chapter provides a summary of the research and brings together key findings, program and policy recommendations, and contributions of the study. This is followed by detailing the limitations and challenges of the study. Finally, the chapter provides recommendations for future research and practice implications.

10.2 Research summary

The focus of the current study was to explore and explain the development of a new approach- the outreach model, initiated by an NGO to provide family planning services in rural areas of India and assess the model's effectiveness in delivering its service outcomes. The study intended to look at effectiveness of the outreach model not by examining whether the program was achieving the planned outcomes it had set at the beginning or whether the activities did what they were supposed to do. Rather, it aimed at evaluating its effectiveness by examining in detail how, for whom, and why the outreach program works or does not work.

Whilst the family planning literature has no dearth of studies on the factors that influence family planning uptake or the evidence of family planning interventions in increasing availability, access, uptake and quality of care in family planning services, the literature review showed a paucity of evidence on how and why these interventions work. Further, no study was found that explores the project initiation and development phase of a new service delivery model designed by the non-governmental organizations. The current study was aimed to fill these important research gaps and to develop an explanatory theory around the working of the outreach model.

Based on the premise that all programs begin as ideas and that those who create it often do not explicitly state how they decide on a new project or why they expect the project to work (Fick & Muhajarine, 2019), the study utilized two theoretical approaches to explore the outreach model. One, utilising the project initiation and planning phase of the project management theory to understand how a new model was developed and two, adapting the theory-driven realist evaluation approach to identify the program features of the outreach and conceptualize it in terms of a theory that can explain how and for whom the outreach

produces the desired outcomes. Since the focus of the evaluation was not on measuring outcomes based on service numbers or to ascertain whether outreach had an effect, realist evaluation was deemed fit for the purpose of the study. The study has highlighted the critical role of contexts and mechanisms (resources and reasonings) while conceptualising and planning a new project as well as in evaluating its effectiveness. Mixed method using both quantitative and qualitative tools were used to collect data at three levels – senior managers; state and field teams; and service users.

The study has identified key contextual factors that determined the need for a new service delivery model and the internal and external influences that resulted in the development of the outreach model. Each of these factors were linked to the collective reasonings like 'appraising the resources', 'willingness and readiness to try innovative approaches', and 'rigorous discussions to get buy-in'. In addition to the key contexts considered by senior managers during the initiation phase, that were found to be consistent with the project management literature, the study identified some other key contexts that either influenced the service delivery approach or were not given due consideration when designing the model. The historical context of being sterilization focused and target oriented greatly influenced the family planning methods that were being promoted at the outreach. This could be the reason why the individual, family and community context were not examined in detail to determine the true family planning needs and demands of the rural population. Understanding and acknowledging this context could have resulted in sub-group segregations and alternate approaches that would benefit all couples whether in need of limiting, spacing or delaying first birth. The senior managers, however, took rational steps of stakeholder management; following the health ministry's guidelines for outreach services; adapting standard quality protocols of their parent organization; and regularly training the staff.

Next, realist evaluation of the outreach model to assess its effectiveness identified four program theories in the form of Context-Mechanism-Outcome (CMO) framework. These CMO configurations explained how the model achieves its intended outcomes of increased availability; uptake; and awareness of family planning methods and improved quality of services and client satisfaction. An additional CMO link was also identified that produced an unintended outcome of strengthened public-private partnership and expansion of outreach.

The realist cycle of evaluation started with the development of the initial program theories as perceived by the senior managers. These theories were then revised incorporating the mechanisms that emerged during the second stage of testing the theories using information from the outreach field teams and the service users. These revised theories, though more detailed had many of the key elements of the initial theories. This suggests that the senior managers were experienced and had a good practical understanding of the specifics of the intervention and implementation. Testing, interpreting, and refining these four program theories provided important insights as to 'what works for who, to what extent, in what contexts, and how' and identified gaps in the service delivery channel. The next few paragraphs would summarize the key findings of this four-stage process of realist evaluation before moving on to practical and policy recommendations.

The identified contextual factors are grouped into four broad contexts. One, the context that define the demand for family planning services is characterized by issues of poor condition of public health facilities, limited resources including absence of trained doctors, and lack of availability of services in geographically distant areas resulting in postponement of getting service or long commute for those seeking services. Two is the context of the source of information for the community on family planning services. Community health workers commonly known as the ASHAs are the main source of information as well as the influencer for the community. Three is the context of limited awareness and acceptability of different methods and limited male involvement. Lastly, the compromised quality of services that community have always experienced at government-run services as compared to quality as a non-negotiable context for the NGO and the funding organization.

These contextual factors, combined with the intervention of outreach that includes a team of trained doctors and field staff, travelling in a customized mobile van carrying equipment to provide services at public health facilities on fixed days, were found to trigger several mechanisms of availability, accessibility, and acceptability. Key mechanisms included: convenience because less distance travelled; strong network and collaboration between outreach teams and community health workers; appreciation, incentives and timely payments to CHWs; standard quality protocols; friendliness and respect from the staff; complete information; trust on CHWs; recommendation from the CHWs; service and quality assurance; completed the desired family size and composition; family approval; medical reasons to opt for NSV; counselling to clear doubts; and

opportunity to make an informed decision. Another mechanism that resulted in the unintended outcome of expansion of outreach to more facilities is the advocacy, commitment, ownership and liaison between facility staff and outreach teams.

By linking all the above stated contexts and intervention components to the mechanisms they triggered, this evaluation describes how the outreach model worked and for whom. There is no doubt that outreach model is playing a very crucial role of providing family planning services to the rural population. However, results suggest that the model is achieving its intended outcomes to only a certain extent while highlighting key gaps that were either not identified or not acknowledged by the program team or they were beyond the project control. Four weakness/gaps are identified that points at partial success of the project outcomes.

One, the outreach has undeniably increased the availability and accessibility of family planning methods for the underserved with services offered at the public health facilities closer to them. However, RE revealed that the approach used by the outreach was benefiting only a specific group of population – Hindu, women, seeking permanent method. It uncovered the limited ability of the model to reach young married women with a latent demand for delaying or spacing childbirth. This raise concerns on how the model is promoted amongst the communities.

Two, there is an increase in the uptake of family planning services since outreach is convenient for both the service users and the CHWs, who are the prime source of information. CHWs generate demand for services and encourage prospective service users to get the method from the outreach. However, there were a number of CMOCs identified that influenced the increase in service uptake (Figure 6.9). Here CYP targets for outreach teams, and method targets for CHWs that are also linked to monetary incentives is suggestive of bias towards promoting a specific method and recruiting a specific group that are easy to target.

Third, the quality protocols followed by the outreach and client-centred approach where users are treated with respect and friendliness, are appreciated by both the service users and the CHWs. This makes the outreach acceptable to them and they further recommend it to others. However, inconsistent quality of care offered to male clients in terms of method information and follow-up services could have an inverse effect on male users and negative feedback about the outreach.

Four, outreach provides a cafeteria approach with all methods available that female users can choose from. They also counsel women on all methods that increases their awareness and give them an opportunity to make an informed decision. While outreach is hopeful that this will influence a change in method mix, results showed that timing of counselling and the way outreach is marketed hinders this expected change. Timing of counselling is therefore critical for women to decide the method to be adopted. On the other hand, their promotional activities targeting men has shown an increase in the acceptance of NSV.

In addition to the above gaps that impact the intended outcomes of the project model, the unintended outcome of strengthened partnership with the health department and expansion of outreach depends on the strength of the networking, ownership and commitment between NGO staff and health department. Failure to maintain these positive work relations might result in discontinuation of services at the facility.

Linking these findings of the study to the existing evidence in family planning, has resulted in a revised program theory that can be applied for the delivery of family planning services in similar contexts. This revised program theory presented in Figure 9.1 illustrates how to improve the effectiveness of the outreach model.

10.3 Program and Policy Recommendations

The findings of this study have highlighted four major gaps in fully achieving the project model's intended outcomes. These have a number of important practical implications for future program design and policy formulation to guide the delivery of effective family planning services. The proposed recommendations should be considered bearing in mind that the NGOs, government, and funding bodies not only have a strong influence on each other, but also are subject to the influence of the environment and context in which they operate. None of these three can exist in a vacuum and therefore require greater engagement in working towards the recommendations suggested by this study.

First, the project team should assess the family planning needs of the community in the design phase based on the diverse individual, family and community context as early as possible. Engaging with the community from the beginning, and understanding these contexts help in stratifying target groups based on their need for either limiting, spacing or delaying first birth. This understanding of their needs along with the context that would influence their service seeking behaviour should be given priority over designing the

intervention. This approach will improve the acceptance of the intervention and make it more effective. As suggested by Webster et al. (2021, p.11), 'for interventions to be accepted, rather than asking 'will this intervention work in this context?' the approach should ask: 'given this context, which intervention do we need to apply?'.

Second, family planning has always been women focussed where husbands and mothers-in-law have a great influence on when and which family planning method the woman would accept. To improve service relevance and coverage, it is important to emphasize on the importance of shared responsibility in fertility control. The program team should design strategies to reach men, encourage couple communication, counsel them on small family, and clear doubts around vasectomy. Government should train more doctors on NSV so that the demand can be met along with developing a cadre of male health workers like the multi-purpose workers who are trained to discuss family planning with men. Likewise, mothers-in-law should be involved in the IEC activities that are either run by the government health staff or NGO staff. Another important recommendation is to develop service delivery approaches that are sensitive to the religious and cultural beliefs of the community. Involving religious and faith leaders in project development phase will help the project team in developing strategies and offering services that are acceptable to their congregations.

Third, the study has highlighted the impact of CYP and method targets on service provision. A key policy priority should therefore be to invalidate the use of targets, instead make recommendations to promote method mix based on the contraceptive needs and fertility goals of the population at different stages in the reproductive life cycle (newly married, nulliparous pregnant women, couples with one child and pregnant women with one/more children). Post ICPD and under the ninth five-year plan of the country (1997-2002) targets were abolished and emphasis was given on community needs assessment approach. However, even after more than two decades, sterilization targets still rule the family planning program. This therefore will require continued concerted efforts by the government as well as programs to offer method choice to the clients. Providing more method choice under one roof would not only promote shift in method mix but also increase contraceptive use. The public health department, donor agencies, and NGO should comply and convert the policy into practice. The outreach program should therefore promote methods based on the calculated method mix depending on the need of delaying, spacing, or limiting childbirth and distribute resources and efforts to

achieve that method mix. This would also include incentivising CHWs based on different method choices they promote rather than remunerating them for promoting a specific method.

Fourth, the study has highlighted the critical role of CHWs in increasing the uptake of family planning services from the outreach. Based on the above recommendation, the CHWs should be trained to conduct needs assessment along with the outreach staff and develop their skills to support women to choose a method according to their needs. CHWs are also better positioned to influence the gender, socio-cultural and religious barriers to family planning uptake by behaviour change communication interventions. The study has identified a number of opportunities for the outreach teams and CHWs to work together and support each other in expanding the FP services. These include generating demand while assuring method choice and quality services by organising community interactions, social support groups including mothers-in-law, married youth, and home visits to talk about the benefits of delaying and spacing childbirth.

Fifth, although outreach is maintaining all quality protocols and follow the ministry's standard operating procedures, there is a need to make the health department more proactive in monitoring the quality being maintained at the health facilities. The district health societies should develop performance deliverables for both the outreach as well as facility staff to monitor the quality of services. This would also be crucial going forward as more choice would be made available for prospective clients to choose from. One suggestion is to implement Bruce's QoC framework as discussed in the earlier chapter. Also, programmatic efforts are required to ensure male clients are given the same priority as women clients. The outreach team or the male health workers as suggested above should provide all necessary information and follow-up with men who undergo NSV. This would result in satisfied male users who would further promote both the method and the outreach.

Lastly, the outreach program is very well positioned to improve the method choice and provide quality services. They have trained doctors, necessary support staff and supplies. In addition to the role of service provider, they should be more proactive in lobbying with the government and their funding bodies and persuade shift in policies to influence greater family planning access for the rural population. They have already shown some success in promoting small but consequential changes at administrative levels and service

bureaucracies. However, a more sustained advocacy agenda that goes beyond their own performance deliverables that focus on CYPs and call for promoting method mix and providing method choice for the rural population should be developed.

10.4 Contribution of the Study

The study has provided an insight into how the family planning program was designed and implemented by a leading NGO in India. The study not only explores the need for a new project and provides evidence of its effectiveness, but also offers an explanation that can help to develop and improve the content and target approach of future family planning programs. The value of the study can be understood from guidance provided to future service design and implications to policy-making and further research agendas.

The study has added to the existing knowledge of the project initiation stage within the project management theory as utilized by an NGO. Going beyond understanding only the contextual factors as important in decision making and adding the concept of 'mechanism' to realize the effect of those factors on decision making is a novel approach presented in the study.

The study has provided a detailed description of contexts necessary to evaluate the effectiveness of the outreach. The study has also contributed towards the understanding of mechanisms through which the actors (i.e., the program team, public health staff, service users) respond (either accept or reject) to the intervention of the outreach within the context and influence the outcome. Together these explain how, for whom and in what circumstances outreach program works best.

The study completed the first realist evaluation of a family planning service delivery model of an NGO in the Indian context, and generated evidence and knowledge to inform future evaluations of similar program working in different contexts as well as evaluations of other family planning service delivery models. The documentation of the project initiation phase utilised by the NGO including consensus building, buy-ins from the stakeholders, appraisal of resources and infrastructure, along with the incorporation of the missing step of needs assessment identified by the study, can be a great source for NGOs planning a new project.

The insights gained from the study are valuable to academic researchers, program practitioners, policy makers as well as funding bodies. For the program staff, the detailed

understanding of the context and mechanism and their impact on the effectiveness of the outreach would enable them to tailor their approach to different contexts identified. This would inform future program designs to ensure outreach serves all in need of family planning. The findings can be put to alert the policy makers that the program is only working for certain groups while others are still in need of services. The study explains why this is happening, thereby providing an opportunity to the policy makers to brainstorm policy options to correct the problem. Funding bodies would also understand why different approaches based on different contexts and mechanisms might be required to meet policy objectives and achieve their specific program objectives.

The novel use of realist evaluation has highlighted the potential of using this research design to explore more about the initiation stage of projects planned by NGOs and evaluate effectiveness of public health programs including family planning interventions transcending the traditional approach of measuring program results. Case study approach added richness to the data by allowing a detailed examination of the outreach intervention. Also mixed methods of data collection and multiple sources of data provided the necessary triangulation to enhance the validity of research findings. Throughout the study, RE provided the methodological framework that was useful to maintain the focus of the study around unearthing context, mechanism, and outcome links and demonstrating how the outreach model works at a theoretical level. The approach facilitated the identification of all the program theories that were not explicitly stated followed by testing and evaluating these theories to identify the extent of outcomes and further refinement of these theories to modify the logic of interventions.

Further, this study also adds to the existing body of literature and evidence around the use of realist evaluation in health management and services research. The study has established not only the importance of acknowledging context early on during project initiation but also the value proposition in recognising mechanisms during this stage. The findings suggest that understanding the context-mechanism dyads during initiation stage form a part of the explanation of why and how the NGO management decide on a new model. Next, evaluating the program theories developed in the form of CMO configurations helped in identifying the areas of weakness in the outreach program and actionable recommendations to improve the effectiveness of the program. Thus, RE is not only useful in theory generation but also offers lessons to researchers, program planners and policy makers on how to effect change in settings that are complex. As Pawson and

Tilley (1997) emphasized, the goal of RE is not only to construct theories per se, but to help programs and policy makers in making decisions. The study presents a framework that describes the process for developing a new service delivery model with a built-in theory-based evaluation to assess its effectiveness (Figure 9.2).

In conclusion, the realist evaluation method has a strong explanatory focus of how, for whom and why a program works. Both the public sector as well as non-profit organizations working on health services can derive value from this approach. They can commission formative and/or summative evaluations of interventions whether implemented in new contexts or being replicated in different contexts as well as programs where outcomes are inconsistent. This would result in findings that have a high utility value and can aid in evidence-based policy making.

10.5 Limitations and challenges of the Study

The study has some limitations, mainly in the prospects of study participants and the study design. In terms of study participants, perspectives of two important actors – the CHWs or the ASHAs and the non-users of the outreach services were not captured. The exploration of ASHAs perspectives would have provided a more complete understanding of their motivations to counsel women to accept a method and approach outreach. Since ASHAs are government functionaries, it would have required approval from the district/state officials to interview them. This would have required a number of visits to the government offices which were considered impractical looking at financial and time constraints for data collection. Fortunately, the NGO staff were well aware of the role of ASHAs in community mobilization and the challenges they face. Therefore, they were able to share how ASHA influence the clients who approach outreach.

In addition, the non-users of the outreach were not included in the study. While the realist design identified what aspects of the outreach worked, for whom and why, thereby providing insight into the intervention strategy that worked in a context favourable to the outreach. It does not provide any evidence of how the intervention would have worked in other contexts. Including the couples who need family planning but are not approaching the outreach would have provided the alternate context and an understanding on how those contextual factors impact on their mechanisms. This, however, would have required a more experimental approach to test the outreach intervention in different contexts and is beyond the scope of this current study.

Another limitation of the study is the limited exploration around the diversity of context. Some of the identified program level contexts are deeply rooted in the broader context of health systems and health policy and digging deeper into those contexts to understand how they shape mechanisms is beyond the scope of the current study. Likewise, as mentioned earlier, lack of stratified analysis of the community is a missed opportunity of examining more carefully the community context. Also, collecting more specific characteristics of community health workers or the program team was not foreseen at the earlier stages of developing research methodology which resulted in limited perspectives on different contexts within which the program is working.

Given the large number of people served by the outreach program, the perspective of a relatively small sample of users may have led to biased results. However, the service user participants provided consistent feedback, suggesting the data obtained were largely representative of the broader population. In addition, the sample size was consistent with other realists evaluations (Doi et al., 2015; Adams et al., 2016).

Realist evaluation as an evaluative framework also has its limitations and challenges. One, the realist approach requires the testing of not only the outcomes but also contexts and mechanisms in order to articulate program theories. Since there is no single straightforward definition of what constitutes a context and mechanism, it was therefore difficult at times to differentiate one from the other. This further got complicated when some outcomes become contexts for other mechanisms as identified in Figure 6.9. Two, the explanatory theory of this realist evaluation of the outreach program (Figure 9.1) is only propositional. Since the CMO configurations are context-dependent, they are open to further testing and refining. Three, since the logics and reasonings of the different study participants is determined by many interrelated factors, it is not possible to ascertain exact contribution of each factor in various settings. Evidence of causality is therefore very limited. Lastly, it was difficult to explore all possible CMO configurations due to abundance of elements of contexts and mechanisms and therefore the analysis may have missed an important link.

Another limitation is the reliance on the perspectives and interpretations of the practitioners, (in this case the senior managers of the NGO) on how the outreach program is intended to work. Since there are very limited research and evaluation studies on outreach model with practically none identifying their program theory, the current study

could not incorporate or validate theories from the available literature. This would have added richness to the program theories articulated by the senior managers. Nearly all the CMOs in the current study are located within the program data with limited engagement with the wider theories. Also, the outreach program was initiated in 2010 and the program had not documented any programmatic theories at the time. There is therefore the possibility of selective memory of the senior managers. However, this limitation is mitigated through the methodology adopted in this research.

Finally, the data were collected by one researcher with knowledge and experience working in the sector and may be subjected to her biases. The research methods, with managers, outreach team members and service users participating and providing both qualitative and quantitative data were designed to minimize these potential biases.

10.6 Recommendations for future research

As mentioned above, this study is the first realist evaluation of an NGO run family planning program. The study has presented a huge scope of conducting more research using this approach to evaluate both the effectiveness of NGO programs as well as different family planning service delivery approaches.

The program theory (Figure 9.1) developed from this study provides a basis for future outreach studies both to test the theories identified and to further explore the elements in different settings to enhance program planning and development effectiveness. Further studies can also include the ASHAs and the non-users of outreach services to understand their underlying contexts and mechanisms. The study has also opened the possibility of developing program theories and using realist evaluation to evaluate the effectiveness of other family planning service delivery approaches, namely social franchising, community-based distribution, and clinic-based approach. It would also be interesting to research all these service delivery models together if they are operated by a single entity or NGO.

Further, utilising the realist evaluation approach incorporated the views of program teams as well as the service users to develop the program theory. This is an important factor that warrants attention for future research on family planning projects, emphasising the need to represent the theories of the people who would use them.

Next, there has been increased attention on using project management practices in the development projects especially run by NGOs (Batti, 2015) but not much evidence around project design. This study has established the influence of initiation and planning stages on program outcomes. Future studies can also research on how an NGO decides a new project and factors they consider when designing the project i.e., emphasising more on the initiation and planning stages of project life cycle. This will develop a good evidence base on the importance of these two stages on project success. Additionally, the study has shown the possibility of identifying the mechanisms and their importance early on in the project life cycle. It would be worth future research to see how mechanisms interact with contexts while designing new projects and influence the project decisions of the NGO managers.

Lastly, the framework proposed in the current study (Figure 9.2) on planning and evaluating the effectiveness of a family planning program would require more research to establish the scope of this framework. The framework provides an opportunity to add to the existing project management literature by integrating program theory in the form of context-mechanism-outcome configurations into the project life cycle and evaluating a project model using realist evaluation.

Appendices

Appendix 1: Ethics Approval

PRIME Researcher Portal

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S17/214

Information

Record Name	S17/214	**Ethics Application Title**	Mobile outreach model of family planning service delivery in India: What works, for whom and why?
Ethics Application Number	S17/214	**Record Type**	Human Ethics Application
Research Office Contact		**Trim Link**	
Sponsor			

Review and Approval

Ethics Application Approval Date	16/01/2018	**Ethics Application Expiry Date**	31/12/2019
Conditions of Approval	None.	**Ethics Review Committee**	Low Risk Committee
Status	Closed	**Ethics Application Review Outcome**	Closed-off
Ratified		**Meeting Date**	
Assigned Reviewers	This field has intentionally been left blank	**Actions for researchers**	

Time to Decision

Time To Decision		**Number of Review Times**	

Sites, Data and Privacy

Count of Collaborating Organisation/s	0	**Data and Privacy**	
Site Name			

Waiver of Consent Section

Waiver of Consent	☐
Waiver of Consent Reasons	

Clinical Trials

Clinical Trials		**Trial Description**	
Target Participant Numbers		**Invasive Nature of Trial**	
Dosage/Description of Drug/Device		**Name of Drug/Device**	

Appendix 2: Participant Information Statement – Senior Managers

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22 December 2017 Study Ref No: S17-214

PARTICIPANT INFORMATION STATEMENT

MOBILE OUTREACH MODEL OF FAMILY PLANNING SERVICE DELIVERY IN INDIA: WHAT WORKS, FOR WHOM AND WHY?

The current study titled "Mobile outreach model of family planning service delivery in India: what works, for whom and why?" is being conducted by Monisha Vaid Sandhu for the degree of Doctor of Philosophy under the supervision of Dr Zhanming Liang as Chief Investigator and Dr Sandra Leggat as Associate Investigator. The purpose of the study is to explore the mobile outreach model of family planning service delivery and understand what works, for whom and why. This will be done by exploring the factors that influence the design and implementation of family planning service based on the mobile outreach model of family planning in the rural settings in the states of Uttar Pradesh, Bihar and Rajasthan, in India.

You have been recruited to participate since you were involved in the design of the outreach model. In order to participate you must be working with this organization for atleast six months. You can participate in the study by participating in a focus group discussion. The discussion will take approximately three hours and will include questions related to the factors that influenced the design of outreach model and what makes the outreach model work or not. If interested, please bring the consent form (as attached) on the day of the discussion.

Your participation in the study is voluntary. Whether or not you volunteer for the study will not affect your employability with the organization. You can skip any questions for any reason. You can stop being in the study at any time. You have the right to withdraw from active participation in this project at any time during the conduct of FGD. At the end of each question, participants will be asked to confirm and accept the notes taken. If any of the participants wants to withdraw from the study or wants the information provided by them not to be used, they can do so. At the end of FGD, the student researcher will once again confirm using data provided by participants. If at any stage of the FGD, all the participants want to withdraw their consent or withdraw the use of data provided by them, they can do so. However, it may not be possible to withdraw an individual's data from that collected from the focus group after the discussion is complete. If agreed, a sound recording of the discussion will be made, which will be typed into a computer and will remove any names that were recorded. The sound recording will then be destroyed. If you prefer not to have your voice recorded, I will take written notes instead.

Your responses are strictly confidential. When results are presented, you will not be linked to the data by your name, title, or any other identifying information. Your information will be kept confidential and will only be accessed by study staff. However, there are circumstances under which the confidentiality of the participant cannot be guaranteed, more so where the investigators believe that disclosure is necessary to lessen or prevent a serious threat to public health or public safety. All the study data will be kept in locked cabinets and electronic data will be password protected. The raw data will be disposed after five years. Study findings might be presented at conferences and published in journals, but no identifying information will be used. The results of the study will be available to the participants on request.

ABN 64 804 735 113
CRICOS Provider 00115M

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The data from the study might be preserved for possible future use in another project. However, only the study staff would be given access to the data. There are no risks associated and no direct benefits of study participation for you. Your participation may help us to understand the mobile outreach model and ways in which these services could be improved.

Any questions regarding this study may be directed to MonishaVaid Sandhu at Department of Public Health at La Trobe University at 19095859@students.latrobe.edu.au. If you have any complaints or concerns about your participation in the study that the researcher has not been able to answer to your satisfaction, you may contact the Senior Human Ethics Officer, Ethics and Integrity, Research Office, La Trobe University, Victoria, 3086 (P: 03 9479 1443, E: humanethics@latrobe.edu.au).

Appendix 3: Participant Information Statement – Frontline/Field Staff

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You have been recruited to participate since you are involved in the implementation of the outreach model. In order to participate you must be working with this organization for atleast six months. You can participate in the study by participating in the self-administered questionnaire survey. The survey will take around 15 minutes and will include questions related to the factors that influence the implementation of outreach model and what makes the outreach model work or not. If interested, please read the consent form, fill in the survey and seal the consent form and questionnaire in the envelope provided in this package. Please drop the sealed package into the research box placed in the common room. By completing and returning the questionnaire in the sealed envelope provided, you are giving the research team full consent of using the data included in the survey. No name or other form of identifiable information and signature are required.

Your participation in the study is voluntary. Whether or not you volunteer for the study will not affect your employability with the organization. You can skip any questions for any reason. You can stop being in the study at any time. You have the right to withdraw from active participation in this project at any time. However, you can withdraw from the study only till the time you have dropped the filled questionnaire into the box provided by the student researcher in the common room. Once dropped in the box, you cannot request withdrawal since all forms will be non-identifiable.

Your responses are strictly confidential. When results are presented, you will not be linked to the data by your name, title, or any other identifying information. Your information will be kept confidential and will only be accessed by study staff. However, there are circumstances under which the confidentiality of the participant cannot be guaranteed, more so where the investigators believe that disclosure is necessary to lessen or prevent a serious threat to public health or public safety. All the study data will be kept in locked cabinets and electronic data will be password protected. The raw data will be disposed after five years. The study findings might be presented at conferences and published in journals, but no identifying information would be used. The results of the study will be available to the participants on request.

The data from the study might be preserved for possible future use in another project. However, only the study staff would be given access to the data. There are no risks associated and no direct benefits of study participation for you. Your participation may help us to understand the mobile outreach model and ways in which these services could be improved.

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LA TROBE UNIVERSITY

Any questions regarding this study may be directed to MonishaVaid Sandhu at Department of Public Health at La Trobe University at 19095859@students.latrobe.edu.au. If you have any complaints or concerns about your participation in the study that the researcher has not been able to answer to your satisfaction, you may contact the Senior Human Ethics Officer, Ethics and Integrity, Research Office, La Trobe University, Victoria, 3086 (P: 03 9479 1443, E: humanethics@latrobe.edu.au).

Appendix 4: Participant Information Statement – Service Users

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22 December 2017 Study Ref No: S17-214

PARTICIPANT INFORMATION STATEMENT

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You have been recruited to participate since you accessed outreach services to receive a family planning method. In order to participate you must have received either a long acting reversible method (IUCD) or a permanent method (tubal ligation or vasectomy). You can participate in the study by participating in the questionnaire survey assisted by the student researcher. The survey will take around 20 minutes and will include questions related to the acceptability and accessibility of the outreach services and what makes the outreach model work. At the end of the survey, the student researcher will invite you for a telephone follow-up within 24-48 hours. The purpose of the call is to learn about your overall experience at the outreach services today. If you agree to participate, the student researcher will note down your phone number and your preferred time for the phone call.

Your participation in the study is voluntary. Whether or not you volunteer for the study will not affect the services you receive from the organization. You can skip any questions for any reason. You can stop being in the study at any time. You have the right to withdraw from active participation in this project at any time during the survey by informing the student researcher assisting you in filling the questionnaire. After the survey is over, student researcher will once again reaffirm your consent to participation. You may also withdraw the consent to use your data till the student researcher is present at the outreach site. Once the researcher leaves the site, you cannot request the withdrawal of consent to use the data since the data will be non-identifiable.

Your responses are strictly confidential. When results are presented, you will not be linked to the data by your name, title, or any other identifying information. Your information will be kept confidential and will only be accessed by study staff. However, there are circumstances under which the confidentiality of the participant cannot be guaranteed, more so where the investigators believe that disclosure is necessary to lessen or prevent a serious threat to public health or public safety. All the study data will be kept in locked cabinets and electronic data will be password protected. The raw data will be disposed after five years.

The data from the study might be preserved for possible future use in another project. However, only the study staff would be given access to the data.

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There are no risks associated and no direct benefits of study participation for you. Your participation may help us to understand the mobile outreach model and ways in which these services could be improved. You may feel uncomfortable with some of the questions. In case you need assistance, you will be directed to a counsellor.

Any questions regarding this study may be directed to MonishaVaid Sandhu at Department of Public Health at La Trobe University at 19095859@students.latrobe.edu.au.

If you have any complaints or concerns about your participation in the study that the researcher has not been able to answer to your satisfaction, you may contact the Senior Human Ethics Officer, Ethics and Integrity, Research Office, La Trobe University, Victoria, 3086 (P: 03 9479 1443, E: humanethics@latrobe.edu.au).

Appendix 5: Consent Form – Senior Managers

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22 December 2017

Study Ref No: S17-214

Consent form

MOBILE OUTREACH MODEL OF FAMILY PLANNING SERVICE DELIVERY IN INDIA: WHAT WORKS, FOR WHOM AND WHY?

"I have read and understood the participant information statement and informed consent, and any questions I have asked have been answered to my satisfaction. I agree to participate in the project, realising that I may withdraw at any time. I understand that my inputs in this study may help to understand the mobile outreach model and ways in which these services could be improved. I also understand that my inputs in this study may be included in a thesis, presented at conferences and/or published in journals. I further understand that neither my name nor any identifying information will be used in any data dissemination. By proceeding to the study (participating in the focus group discussion), I give full informed consent for my participation and audio recording of the discussion."

Name of Participant (block letters):

Signature: **Date**

Name of Investigator (block letters):

Signature: **Date**

Name of Student Supervisor (block letters): **Date:**

ABN 64 804 735 113
CRICOS Provider 00115M

Appendix 6: Consent Form – Frontline/Field Staff

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"I have read and understood the participant information statement and informed consent, and any questions I have asked have been answered to my satisfaction. I agree to participate in the project, realising that I may withdraw at any time. I understand that my inputs in this study may help to understand the mobile outreach model and ways in which these services could be improved. I also understand that my inputs in this study may be included in a thesis, presented at conferences and/or published in journals. I further understand that neither my name nor any identifying information will be used in any data dissemination. By completing and returning the questionnaire and consent form in the sealed envelope provided, I am giving the research team full consent of using the data included in the survey."

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Appendix 7: Consent Form – Service Users

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22 December 2017 Study Ref No: S17-214

Consent form

MOBILE OUTREACH MODEL OF FAMILY PLANNING SERVICE DELIVERY IN INDIA: WHAT WORKS, FOR WHOM AND WHY?

"I have read (or, where appropriate, have had read to me) and understood the participant information statement and informed consent, and any questions I have asked have been answered to my satisfaction. I agree to participate in the project, realising that I may withdraw at any time. I understand that my inputs in this study may help to understand the mobile outreach model and ways in which these services could be improved. I further understand that neither my name nor any identifying information will be used in any data dissemination. By proceeding to the study (participating in the survey questionnaire), I give full informed consent for my participation."

I also understand that after the survey I might participate in the telephone follow-up call.

Consent for follow-up phone call: ☐ Yes ☐ No

Contact No:

Name of Participant (block letters):

Signature: **Date**

Name of Investigator (block letters):

Signature: **Date**

Name of Student Supervisor (block letters): **Date:**

ABN 64 804 735 113
CRICOS Provider 00115M

Appendix 8: FOCUS GROUP DISCUSSION WITH SENIOR MANAGEMENT

FOCUS GROUP DISCUSSION WITH SENIOR MANAGEMENT

Session 1. What were the key considerations when deciding the design of the outreach model in the three states? (Probe whether it was government requirement or funding agency requirement or previous need assessment conducted by the organization in those states).

Session 2. Discuss the project outcomes to itemise them into categories –

i) Government (Department of Health)

ii) Funding agencies

iii) FRHS India (NGO)

iv) Service Users

a) Ask if these are all the planned outcomes of your family planning program.

b) Are these outcomes any different for the outreach program?

c) If yes, list down the additional outcomes (putting into each of the four categories mentioned above) or delete the outcomes not planned for the outreach program.

d) Have these outcomes been fully achieved, partially achieved or not achieved (ask for each of the above outcomes)? What are the reasons for partial or non-achievement of the outcomes? What can be done to achieve the partial or not achieved outcomes?

e) Who is benefiting from each of the above outcomes? How are they benefiting?

f) Are there any indirect benefits of the outreach program to any of the above categories?

Session 3. Who are your target population? Do you think they are the real population who can access your services? What can be done to improve accessibility for people who really need outreach services? (Probe for - based on religion, social-economic class, gender, parity and geographic location)

Session 4. How do you make sure you are providing services that are acceptable to the service users? How often and in what way do you assess whether service users are satisfied with the outreach services? What can be done to improve acceptability of outreach services among your target population?

Appendix 9: Questionnaire with Frontline/Field Staff

QUESTIONNAIRE WITH FRONTLINE WORKERS

फ्रंटलाइन वर्कर्स के साथ प्रश्नोत्तरी

SECTION I. BACKGROUND

1. How long have you worked with this NGO? आपको इस गैर सरकारी संगठन के साथ काम करते कितना समय हो गया है ?

-------years

-------months

2. What is the title of your position? आप किस पद पर कार्यरत हैं?

3. How long you have been in this position? आप इस पद पर कब से हैं?

--------years
--------months

4. What are your responsibilities in the below mentioned stages of implementing an outreach? आउटरीच लागू करने के नीचे दिए गए चरणों में आपकी ज़िम्मेदारियां क्या हैं?

   i) Preparing for the outreach आउटरीच के लिए तैयारी

   ii) On the day of the outreach आउटरीच के दिन

   iii) After outreach is over आउटरीच खत्म होने के बाद

5. During the past 12 months, have you participated in any professional training organised by FRHSI? पिछले 12 महीनों के दौरान, क्या आपने FRHS India द्वारा आयोजित किसी भी पेशेवर प्रशिक्षण में भाग लिया है?
   a) Yes
   b) No

6. If Yes, the below table is about the professional trainings you have attended during past 12 months. Please indicate the type of training, duration and how it helped with your responsibilities.

यदि हां, तो नीचे दी गई तालिका पिछले 12 महीनों के दौरान आपके द्वारा भाग ली गयीं पेशेवर प्रशिक्षण के बारे में है। कृपया प्रशिक्षण, अवधि और कैसे आपकी जिम्मेदारियों के साथ मदद की गई है इंगित करें।

S No	Type/name of training (Ex. Counselling, Communication, incident reporting, data collection, IT skills, etc) प्रशिक्षण का नाम	Duration (Ex. 2 hours, Half day, 1 day, etc) अवधि	How it helped you with your responsibilities इस ट्रेनिंग से आपके काम में क्या सहायता मिली?
1			
2			
3			
4			

SECTION II. STATE OF PUBLIC HEALTH FACILITIES WHERE OUTREACH IS HELD सार्वजनिक स्वास्थ्य सुविधाएं जहाँ आउटरीच आयोजित किया जाता है उनकी अवस्था

The next set of questions talk about the services, infrastructure and manpower in the public health facilities where outreach is organized. प्रश्नों का अगला सेट सार्वजनिक स्वास्थ्य सुविधाओं में सेवाओं, बुनियादी ढांचे और जनशक्ति के बारे में बात करता है जहां आउटरीच आयोजित किया जाता है।

7. During normal days (non-outreach days) does the public health facilities provide long acting and permanent methods of family planning? सामान्य दिनों के दौरान (जब आउटरीच नहीं होता) क्या सार्वजनिक स्वास्थ्य सुविधाएं परिवार नियोजन के दीर्घकालिक और स्थायी तरीके प्रदान करती हैं?
    a) Yes
    b) Sometimes
    c) No

8. If your answer is a) or b), please record the service and frequency of service in the health facilities on NON-OUTREACH Days. यदि आपका उत्तर ए) या बी) है, कृपया गैर- आउटरीच दिनों में स्वास्थ्य सुविधाओं में उपलब्ध सेवा और सेवा की आवृत्ति रिकॉर्ड करें

Health Facility	Female Sterilization महिला नसबंदी		Male Sterilization पुरुष नसबंदी		IUCD	
	Daily or on fixed days दैनिक या निश्चित दिनों पर	Sometimes or Irregular कभी-कभी या अनियमित	Daily or on fixed days दैनिक या निश्चित दिनों पर	Sometimes or Irregular कभी-कभी या अनियमित	Daily or on fixed days दैनिक या निश्चित दिनों पर	Sometimes or Irregular कभी-कभी या अनियमित
Primary Health Centre						
Community Health Centre						
Sub centre						

9. Based on your experience and observation of the public health facilities, how much do you agree or disagree with the following statements regarding the public health facilities?

सार्वजनिक स्वास्थ्य सुविधाओं के आपके अनुभव और अवलोकन के आधार पर, आप सार्वजनिक स्वास्थ्य सुविधाओं के संबंध में निम्नलिखित बयानों से कितना सहमत या असहमत हैं?

		Strongly agree पूरी तरह सहमत	Somewhat Agree थोड़ा सहमत	Unsure अनिश्चित	Somewhat Disagree कुछ हद तक असहमत	Strongly Disagree पूरी तरह असहमत
a)	The facility has an earmarked space for examination and counseling to assure privacy to service users सेवा उपयोगकर्ताओं को गोपनीयता सुनिश्चित करने के लिए इस सुविधा में जांच और परामर्श के लिए एक निर्धारित स्थान है					
b)	There is availability of instruments (minilap/laparoscopic/NSV sets) in the operation theatre of the facilities सुविधाओं के संचालन थिएटर में उपकरणों की उपलब्धता (मिनीलाप / लैप्रोस्कोपिक / एनएसवी सेट) है					
c)	Facilities have faced stock-out of contraceptives (pills/condoms/IUCD) atleast once in last 6 months सुविधाओं ने पिछले 6 महीनों में गर्भ निरोधकों (गोलियाँ / कंडोम / आईयूसीडी) के स्टॉक-आउट का सामना कम से कम एक बार किया है					
d)	Facilities have availability of trained doctors to provide permanent methods of family planning परिवार नियोजन के स्थायी तरीके प्रदान करने के लिए सुविधाओं में प्रशिक्षित डॉक्टरों की उपलब्धता है					

e)	Facilities have availability of trained nurses (ANMs) to provide long acting reversible methods of family planning (IUCD) परिवार नियोजन के दीर्घकालिक रिवर्सिबल तरीकों (आईयूसीडी) को प्रदान करने के लिए सुविधाओं में प्रशिक्षित नर्सों (एएनएम) की उपलब्धता है					
f)	Facilities provide all the methods of family planning (male and female sterilization, IUCD, pills, condoms) to choose from. सुविधाएं परिवार नियोजन (पुरुष और महिला नसबंदी, आईयूसीडी, गोलियाँ, कंडोम) के सभी तरीकों में से चुनने के लिए उपलब्ध कराती हैं।					

10. How much do you agree or disagree with the following statements in the table below regarding the support you receive from public health facility staff? सार्वजनिक स्वास्थ्य सुविधा कर्मचारियों से प्राप्त समर्थन के संबंध में नीचे दी गई तालिका में निम्नलिखित विवरणों से आप कितना सहमत या असहमत हैं?

	Type of support	Strongly agree पूरी तरह सहमत	Somewhat Agree थोड़ा सहमत	Unsure अनिश्चित	Somewhat Disagree कुछ हद तक असहमत	Strongly Disagree पूरी तरह असहमत
a)	Support the demand generation by informing the community about outreach सुविधा कर्मचारी समुदाय को आउटरीच के बारे में सूचित करके मांग उत्पादन में मदद करते हैं					
b)	Availability of rooms to be used during outreach for registration, counselling, waiting, medical examination, recovery पंजीकरण, परामर्श, प्रतीक्षा, चिकित्सा परीक्षा, पोस्ट प्रक्रिया के लिए आउटरीच के दौरान उपयोग की जाने वाली कमरों					

	की उपलब्धता प्रदान करते हैं					
c)	Support in managing the client flow in case of large client load बड़े ग्राहक लोड के मामले में ग्राहक प्रवाह के प्रबंधन में सहायता					
d)	Support in managing side-effects or complications faced by a service user सेवा उपयोगकर्ता द्वारा सामना किए जाने वाले दुष्प्रभावों या जटिलताओं के प्रबंधन में सहायता					
e)	Support in maintaining client records ग्राहक रिकॉर्ड बनाए रखने में सहायता					
f)	Any other, pls specify अन्य					

SECTION III. REACH OF THE OUTREACH

The next set of questions talk about the reach of outreach services. प्रश्नों का अगला सेट आउटरीच सेवाओं की पहुंच के बारे में बात करता है।

11. How does the team decide the outreach schedule (dates and venue of outreach)? (Circle all that apply) टीम आउटरीच शेड्यूल (आउटरीच की तिथियां और स्थल) का निर्णय कैसे लेती है? (लागू होने वाले सर्किल करें)
    a) Outreach Team discussion resulting in schedule आउटरीच टीम आपस में चर्चा करके अनुसूची तैयार करती है
    b) Senior Management directive वरिष्ठ प्रबंधन निर्देश
    c) Government directive सरकारी निर्देश
    d) Other, please specify अन्य

12. According to you, what are the factors that influence the choice of venue for the outreach? (Circle all that apply) आपके अनुसार, आउटरीच के लिए स्थल के चुनाव को प्रभावित करने वाले कारक क्या हैं? (लागू होने वाले सर्किल करें)
    a) Non- availability of trained service providers प्रशिक्षित सेवा प्रदाताओं की अनुपलब्धता
    b) Non-availability of infrastructure/equipment/stocks बुनियादी ढांचे / उपकरण / स्टॉक की अनुपलब्धता

c) Rough terrain/unconstructed roads which are difficult to travel कठिन इलाके / अनियंत्रित सड़के जिनपे यात्रा करना मुश्किल है
d) Demand from the community समुदाय से मांग
e) Depends on government's decision सरकार के फैसले पर निर्भर करता है
e) Any other please specify अन्य

13. What is the source of information to the community about the schedule of the outreach? (Circle all that apply) आउटरीच के शेड्यूल के बारे में समुदाय को जानकारी का स्रोत क्या है? लागू होने वाले सर्किल करें)
    a) Community Health Workers (Public health staff) or Motivators सामुदायिक स्वास्थ्य कार्यकर्ता या प्रेरक
    b) Public health facility staff सार्वजनिक स्वास्थ्य सुविधा कर्मचारी
    c) FRHS India staff FRHS India कार्यकर्ता
    d) Posters/leaflets पोस्टर / पत्रक
    e) Friends/relatives मित्र / रिश्तेदार
    f) Any other please specify अन्य

14. On an average, how much do the clients have to travel to reach the outreach? औसतन, सेवा उपयोगकर्ताओं को आउटरीच तक पहुंचने के लिए कितनी यात्रा करनी पड़ती है?

i) ---------km
ii) ----------hrs ----------min

15. What according to you should be the average number of clients that your outreach must serve in each camp? आपके आउटरीच में ग्राहकों की औसत संख्या आपके अनुसार क्या होनी चाहिए?

16. If your outreach is unable to serve the average number mentioned by you above, what could be some of the reasons for this low volume of clients? यदि आपका आउटरीच ऊपर वर्णित औसत संख्या की सेवा करने में असमर्थ है, तो इस कम मात्रा में ग्राहकों के आने का क्या कारण हो सकते हैं?

17. What according to you could be done to increase the client volume? क्लाइंट मात्रा बढ़ाने के लिए आपके अनुसार क्या किया जा सकता है

18. Based on your observation and information about the clients accessing services from your outreach, how much do you agree or disagree with the following statements? आपके अवलोकन और जानकारी के आधार पर आपके आउटरीच से सेवाएं लेने वाले ग्राहकों के बारे में आप निम्नलिखित कथन से कितना सहमत या असहमत हैं?

		Strongly agree पूरी तरह सहमत	Somewhat Agree थोड़ा सहमत	Unsure अनिश्चित	Somewhat Disagree कुछ हद तक असहमत	Strongly Disagree पूरी तरह असहमत
a)	Majority of the clients accessing services from the outreach live below the poverty line. (they have red cards) आउटरीच से सेवाएं लेने वाले अधिकांश ग्राहक गरीबी रेखा से नीचे रहते हैं।					
b)	Majority of the clients accessing services come from geographically distant and difficult to reach areas (ex. Unconstructed roads, hilly areas) सेवाएं लेने वाले अधिकांश ग्राहक भौगोलिक दृष्टि से दूर और मुश्किल क्षेत्रों से आते हैं (उदाहरण- गैर निर्मित सड़क, पहाड़ी क्षेत्र)					
c)	Clients from all religious groups access services from outreach सभी धार्मिक समूहों के ग्राहक आउटरीच से सेवा लेने आते हैं					
d)	Married adolescents (till 19 years of age) access services from outreach विवाहित किशोर (1 9 साल की उम्र तक) आउटरीच से सेवा लेने आते हैं					
e)	Migrants access services from outreach प्रवासि आउटरीच से सेवा लेने आते हैं					
f)	Males access sterilization services from outreach पुरुष ग्राहक नसबंदी के लिए आउटरीच से सेवा लेने आते हैं					

19. How often has your outreach team organized any special activities to promote below mentioned: आपकी आउटरीच टीम ने कितनी बार प्रचार करने के लिए निम्लिखित किसी भी विशेष गतिविधियों का आयोजन किया है

	Special activities	None कोई नहीं	Weekly साप्ताहिक	Fortnightly पाक्षिक	Monthly मासिक	Bimonthly द्विमासिक	Once in six months छह महीने में एक बार
a)	Male sterilization पुरुष नसबंदी						
b)	Religious groups धार्मिक समूह						
c)	Married adolescents विवाहित किशोर/ किशोरियां						
d)	Migrants प्रवासी						

SECTION IV. INFLUENCE OF OUTREACH ON SERVICE UPTAKE

The next set of questions talk about the factors that influence the eligible couples to get family planning services from the outreach प्रश्नों का अगला सेट उन कारकों के बारे में बात करता है जो योग्य जोड़ों को पारिवारिक नियोजन सेवाओं को आउटरीच से प्राप्त करने के लिए प्रभावित करते हैं

20. Based on your experience and observation about the factors that influence a client's decision to get services from the outreach, how much do you agree with the following statements? आउटरीच से सेवाओं को प्राप्त करने के क्लाइंट के निर्णय को प्रभावित करने वाले कारकों के बारे में आपके अनुभव और अवलोकन के आधार पर, आप निम्नलिखित कथन से कितना सहमत हैं?

	Factors that influence a client's decision to get services from the outreach ऐसे कारक जो आउटरीच से सेवाओं को प्राप्त करने के लिए ग्राहक के निर्णय को प्रभावित करते हैं	Strongly agree पूरी तरह सहमत	Somewhat Agree थोड़ा सहमत	Unsure अनिश्चित	Somewhat Disagree कुछ हद तक असहमत	Strongly Disagree पूरी तरह असहमत
a)	Availability of family planning services at the nearest health facility निकटतम स्वास्थ्य सुविधा पर परिवार नियोजन सेवाओं की उपलब्धता					
b)	Availability of medical providers चिकित्सा प्रदाताओं की उपलब्धता					
c)	Availability of different methods to choose from चुनने के लिए विभिन्न तरीकों की उपलब्धता					
d)	Convenient timing					

	सुविधाजनक समय					
e)	Reputation of providers प्रदाताओं का प्रतिष्ठा					
f)	Friendliness and respect to the clients ग्राहकों के प्रति मित्रता और सम्मान					
g)	Pre and post operative care प्री और पोस्ट ऑपरेटिव देखभाल					
h)	Recommendation/reference from someone who has received services from the outreach आउटरीच से सेवाओं को प्राप्त करने वाले किसी व्यक्ति से सिफारिश / जिक्र					
i)	Recommendation/reference from the community health workers सामुदायिक स्वास्थ्य श्रमिकों की सिफारिश / जिक्र					

SECTION V. QUALITY OF OUTREACH SERVICES

This section talks about the quality of care provided by the outreach, comparison with the quality offered by public health facilities and clients perception of the quality of care. यह अनुभाग आउटरीच द्वारा प्रदान की जाने वाली देखभाल की गुणवत्ता, सार्वजनिक स्वास्थ्य सुविधाओं द्वारा प्रदान की जाने वाली गुणवत्ता के साथ तुलना, और गुड़वत्ता पर ग्राहकों की धारणा के बारे में बात करता है.

21. How does the outreach ensure quality of services? (Circle all that apply) आउटरीच सेवाओं की गुणवत्ता सुनिश्चित कैसे करता है? (लागू होने वाले सर्किल)
    a) Friendliness and respect to the clients ग्राहकों के प्रति मित्रता और सम्मान
    b) Minimum waiting time न्यूनतम प्रतीक्षा समय
    c) Privacy during time spent with healthcare provider स्वास्थ्य देखभाल प्रदाता के साथ बिताए समय के दौरान गोपनीयता
    d) Cleanliness of the facility सुविधा की सफाई
    e) Counselling to make informed decision सूचित निर्णय लेने के लिए परामर्श
    f) Informed Consent सूचित सहमति
    g) Post-operative care including discharge card निर्वहन कार्ड सहित पोस्ट ऑपरेटिव देखभाल
    h) Follow-up within 24-48 hours 24-48 घंटों के भीतर फॉलो-अप
    i) Infection prevention संक्रमण रोकथाम
    j) Others please specify अन्य

22. According to you, how often are you able to provide each of the above to the service users? आपके अनुसार, आप उपरोक्त में से कितनी बार सेवा उपयोगकर्ताओं को प्रदान करने में सक्षम हैं?

		Never कभी नहीँ	Rarely शायद ही कभी	Sometimes कभी कभी	Often अ क्सर	Always हमेशा

a)	Counselling on all available methods सभी उपलब्ध तरीकों पर परामर्श					
b)	Informed Consent of the client ग्राहक की सूचित सहमति					
c)	Post-operative care पोस्ट ऑपरेटिव देखभाल					
d)	Follow-up within 24-48 hours 24-48 घंटों के भीतर फॉलो-अप					
e)	Infection prevention संक्रमण रोकथाम					
f)	Any other, pls specify अन्य					

23. Based on your observation, which aspect of quality is also provided at the public health camps? (Circle all that apply) आपके अवलोकन के आधार पर, सार्वजनिक स्वास्थ्य शिविरों में गुणवत्ता का कौन सा पहलू भी प्रदान किया जाता है? (लागू होने वाले सर्किल)
    a) Friendliness and respect to the clients ग्राहकों के प्रति मित्रता और सम्मान
    b) Privacy गोपनीयता
    c) Cleanliness of the facility सुविधा की सफाई
    d) Counselling to make informed decision सूचित निर्णय लेने के लिए परामर्श
    e) Informed Consent सूचित सहमति
    f) Post-operative care and discharge card निर्वहन कार्ड सहित पोस्ट ऑपरेटिव देखभाल
    g) Follow-up within 24-48 hours 24-48 घंटों के भीतर फॉलो-अप
    h) Infection prevention संक्रमण रोकथाम
    i) None of the above उपर्युक्त में से कोई नहीं
    j) Others please specify अन्य

24. Do you think client can differentiate between public health service provision and outreach? Why or why not? क्या आपको लगता है कि ग्राहक सार्वजनिक स्वास्थ्य सेवा प्रावधान और आउटरीच के बीच अंतर कर सकता है? क्यों या क्यों नहीं?

25. What according to you differentiates outreach from government run camps? आप के अनुसार सरकारी शिविर और आउटरीच में क्या अंतर है?

26. What aspect of quality according to you attracts the client to the outreach? (Circle all that apply) आपके अनुसार गुणवत्ता का कौन सा पहलू ग्राहक को आउटरीच की ओर आकर्षित करता है? (लागू होने वाले सर्किल)
    a) Friendliness and respect to the clients ग्राहकों के प्रति मित्रता और सम्मान

b) Privacy गोपनीयता
c) Cleanliness of the facility सुविधा की सफाई
d) Counselling on all methods and side-effects सभी तरीकों और साइड इफेक्ट्स पर परामर्श
e) Post-operative care पोस्ट ऑपरेटिव देखभाल
f) Follow-up within 24-48 hours 24-48 घंटों के भीतर फॉलो-अप
g) None of the above उपर्युक्त में से कोई नहीं
h) Others please specify अन्य

SECTION VI. COMMUNITY AND SERVICE USERS PERCEPTIONS OF OUTREACH SERVICES

27. Do you think community in your project areas is familiar with the outreach services provided by FRHS India? क्या आपको लगता है कि आपके प्रोजेक्ट क्षेत्रों में समुदाय FRHS India द्वारा प्रदान की जाने वाली आउटरीच सेवाओं से परिचित है?
    a) Yes हाँ
    b) No नहीं
    c) Don't Know पता नहीं

28. What do you think the service users like or dislike about the outreach services? आपके अनुसार सेवा उपयोगकर्ता आउटरीच सेवाओं के बारे में क्या पसंद या नापसंद करते हैं?

29. What according to you can be done to make outreach services more readily available to the community? आप के अनुसार आउटरीच सेवाओं को समुदाय के लिए अधिक आसानी से उपलब्ध कराने के लिए क्या किया जा सकता है?

Appendix 10: Questionnaire with Service Users

QUESTIONNAIRE WITH SERVICE USERS सेवा उपयोगकर्ताओं के साथ प्रश्नोत्तरी

SECTION 1. SOCIO-DEMOGRAPHIC INFORMATION सामाजिक-जनसांख्यिकीय जानकारी

1. How old are you? आपकी उम्र कितनी है?
   a) ---- years

2. How many living children do you have? आपके कितने जीवित बच्चे हैं?

Total -----

   i. Boys -----
   ii. Girls ------

3. What is the age of the eldest child? आपके सबसे बड़े बच्चे की उम्र कितनी है?

------ years

4. What is the age of the youngest child? आपके सबसे छोटे बच्चे की उम्र कितनी है?

------ years

SECTION II. GENERAL HEALTH SERVICES AND CARE सामान्य स्वास्थ्य सेवा और देखभाल

5. Where do you and your family usually go for health care services? (Circle all that apply) आप और आपका परिवार आमतौर पर स्वास्थ्य देखभाल सेवाएँ लेने कहाँ जाता है? (लागू होने वाले सभी सर्कल करें)
   a) This facility यह सुविधा
   b) Some other public health facility कोई और सार्वजनिक स्वास्थ्य सुविधा
   c) Private doctor निजी चिकित्सक
   d) Community health worker सामुदायिक स्वास्थ्य कार्यकर्ता
   e) Other please specify अन्य

6. How did you choose that facility? (Circle all that apply) आपने वह सुविधा कैसे चुनी? (सभी सर्कल करें)
   a) Only facility available केवल वही सुविधा उपलब्ध है
   b) Availability of doctor डॉक्टर की उपलब्धता
   c) Reputation of doctor डॉक्टर की प्रतिष्ठा
   d) Free services मुफ्त सेवाएं
   e) Closer to home घर के करीब
   f) Quality of care देखभाल की गुणवत्ता
   g) Recommendation from someone किसी की सिफारिश

7. If not this facility, how far is that facility from your home? यदि यह वही सुविधा नहीं है, तो आपके घर से वह सुविधा कितनी दूर है?

   i) -------- km-
   ii) -------hrs ------ min

8. How do you reach that facility? आप उस सुविधा तक कैसे पहुंचते हैं?
   a) Walk पैदल
   b) Public Transport सार्वजनिक परिवाहन
   c) Private shared transport निजी साझा परिवहन
   d) Personal Vehicle निजी परिवहन

9. Do you think that place is convenient to you? Why or why not? क्या आपको लगता है कि वह जगह आपके लिए सुविधाजनक है? क्यों या क्यों नहीं?

10. Do you like the care you receive there? Why or why not? क्या आपको वहां की देखभाल पसंद है? क्यों या क्यों नहीं?

SECTION III. FAMILY PLANNING SERVICES परिवार नियोजन सेवाएं

11. Does that facility (if different from this facility) you normally go to provide family planning services? क्या वह सुविधा (यदि इस सुविधा से अलग है) आप आम तौर पर पारिवारिक नियोजन सेवाएं प्रदान करते हैं?

    a) Yes
    b) No
    c) Occasionally कभी- कभी
    d) Unsure अनिश्चित

12. Do you know of another provider offering the family planning method you want that you could go to? क्या आप किसी अन्य प्रदाता के बारे में जानते हैं जो पारिवारिक नियोजन विधि की पेशकश करता है जिसे आप चाहते हैं?
    a) Yes
    b) No
    c) Do not know

13. If yes, what is the reason you did not go to that alternative provider today? (Circle all that apply) यदि हां, तो आज आप उस वैकल्पिक प्रदाता पर क्यों नहीं गए थे? (लागू होने वाले सर्किल)
    a) Too far away/inconvenient बहुत दूर / असुविधाजनक
    b) Long waiting time लंबे इंतजार का समय
    c) More expensive अधिक महंगा
    d) Unsatisfactory quality of services सेवाओं की असंतोषजनक गुणवत्ता
    e) Non- availability of doctors on all days सभी दिनों में डॉक्टरों की अनुपलब्धता
    f) Referred to FRHSI एफआरएचएसआई को संदर्भित किया गया
    f) Other, pls specify अन्य

14. How far would you have to travel to reach another provider for the same service? इसी सेवा के लिए किसी अन्य प्रदाता तक पहुंचने के लिए आपको कितनी दूर यात्रा करना होगा?
------- hours
------- min

15. Do you have to pay any fees to get the family planning method from that alternate provider? क्या आपको उस वैकल्पिक प्रदाता से परिवार नियोजन विधि प्राप्त करने के लिए कोई शुल्क देना पड़ता है?
    a) Yes
    b) No

SECTION IV. FAMILY PLANNING PAST USE परिवार नियोजन का पिछला उपयोग

16. Have you ever used anything or tried in any way to delay or avoid getting pregnant before today? क्या आपने कभी भी पहले गर्भवती होने से बचने की कोशिश के लिए कुछ भी इस्तेमाल किया है?
    a) Yes
    b) No
    c) No answer

17. If yes, what did you or your partner do to delay or avoid getting pregnant? यदि हां, तो आप या आपके साथी ने गर्भवती होने में देरी या इससे बचने के लिए क्या किया?
    a) Female Sterilization महिला नसबंदी
    b) Male Sterilization पुरुश नसबंदी
    c) IUD गर्भनिरोधक उपकरण
    d) Injectable इंजेक्शन
    e) Pills गोलियाँ
    f) Condoms कंडोम
    g) Other, pls specify अन्य

18. Where did you get the method you last used? आपने जिस विधि का उपयोग किया था, उसे आपने कहां से प्राप्त किया?
    i. This facility यह सुविधा

ii. NGO Outreach at this facility इस सुविधा पर आउटरीच
iii. NGO outreach at some other facility किसी अन्य सुविधा पर एनजीओ आउटरीच
iv. Other public health facility अन्य सार्वजनिक स्वास्थ्य सुविधा
v. Private provider निजी प्रदाता
vi. Pharmacy फार्मेसी
vii. Community Health Worker सामुदायिक स्वास्थ्य कार्यकर्ता
viii. Don't Know पता नहीं
ix. Other, pls specify अन्य

19. Do you think that place was convenient to you? Why or why not? क्या आपको लगता है कि वह जगह आपके लिए सुविधाजनक थी? क्यों या क्यों नहीं?

find

20. How far did you have to travel to reach that provider for the service? सेवा के लिए उस प्रदाता तक पहुंचने के लिए आपको कितनी दूर यात्रा करना पड़ा?

------- hours
------- min

21. Did you like the care you received there? Why or why not? क्या आपको वहां मिली देखभाल पसंद आयी? क्यों या क्यों नहीं?

SECTION V. FAMILY PLANNING RECENT DECISION परिवार नियोजन का हालिया निर्णय

22. What is the purpose of attending the service today? आज सेवा में भाग लेने का उद्देश्य क्या है?

a) Stop child bearing बच्चा पैदा न करना
b) Want to delay first child पहले बच्चे में देरी करना चाहते हैं
c) Want to space next child birth अगले बच्चे के जन्म में देरी करना चाहते हैं
d) Other please specify अन्य

23. Have you already decided the method you want? क्या आपने पहले से ही जिस विधि को आप चाहते हैं उसका फैसला किया है?

a) Yes
b) No

24. If yes, what method do you want? यदि हां, तो आप किस विधि को चाहते हैं?

a) Female Sterilization महिला नसबंदी

b) Male Sterilization पुरुश नसबंदी
c) IUCD गर्भनिरोधक उपकरण
d) Injectable इंजेक्शन

25. Can you tell me about how you made the decision to use a family planning method this time? क्या आप मुझे बता सकते हैं कि आपने इस बार परिवार नियोजन विधि का उपयोग करने का निर्णय कैसे लिया?
    i. What was the reason of this decision? What all was considered when you decided to use a method this time? इस फैसले का कारण क्या था? इस बार किसी विधि का उपयोग करने का निर्णय लेने पर क्या विचार किया गया था? किन चीज़ों पर ध्यान दिया गया था?

26. Did you involve anyone else in your decision? क्या आपने अपने फैसले में किसी और को शामिल किया था?
    a) Yes
    b) No

27. If yes, whom did you involve (Circle all that apply) यदि हाँ, तो किसे?
    a) Husband पति
    b) Mother-in-law सास
    c) Mother माँ
    d) Sister-in-law ननद
    e) Other relatives अन्य रिश्तेदार

28. When did you decide to get family planning? आपने परिवार नियोजन पाने का फैसला कब किया?
    a) < 1 week ago 1 सप्ताह से भी कम
    b) Few weeks ago कुछ हफ्ते पहले
    c) Few months ago कुछ महीने पहले

29. If more than a week, what is the reason of this delay in getting the method? यदि एक सप्ताह से अधिक, विधि प्राप्त करने में इस देरी का कारण क्या है?

30. Do you know who is providing family planning services today at this facility? क्या आप जानते हैं कि आज इस सुविधा पर परिवार नियोजन सेवाएं कौन प्रदान कर रही हैं?
    a) Regular government staff नियमित सरकारी कर्मचारी
    b) NGO outreach staff एनजीओ आउटरीच स्टाफ
    c) Private doctors निजी चिकित्सक

d) Do not know पता नहीं
e) Others please specify अन्य

31. Who informed you that family planning services are being provided today at this facility? आपको किसने बताया कि इस सुविधा पर परिवार नियोजन सेवाएं आज उपलब्ध कराई जा रही हैं?

a) Community health worker सामुदायिक स्वास्थ्य कार्यकर्ता
b) NGO Staff एनजीओ कार्यकर्ता
c) Relative/friend/neighbour रिश्तेदार/दोस्त/पड़ोसी
d) Read some promotional material (poster, wall painting, signpost, etc) कुछ प्रचार सामग्री पढ़ें (पोस्टर, दीवार पेंटिंग, साइनपोस्ट, आदि)

32. How important was this source of information in your decision to get services today? आज सेवाओं को प्राप्त करने के आपके निर्णय में जानकारी का यह स्रोत कितना महत्वपूर्ण था?

a) Very important बहोत महत्वपूर्ण
b) Important महत्वपूर्ण
c) Not important महत्वपूर्ण नहीं
d) Does not matter कोई फरक नहीं पडता

33. Why was it important? यह महत्वपूर्ण क्यों था?

34. Why did you choose this facility/provider today? (Circle all that apply) आपने आज इस सुविधा / प्रदाता को क्यों चुना? (लागू होने वाले सभी मंडल)

a) Convenient timing सुविधाजनक समय
b) Closer to home as compared to other providers/facilities अन्य प्रदाताओं / सुविधाओं की तुलना में घर के करीब
c) Availability of doctor डॉक्टर की उपलब्धता
d) Availability of method I want विधि की उपलब्धता मैं चाहता हूं
e) Reputation of providers प्रदाताओं का प्रतिष्ठा
f) Recommendation by relative/friend/neighbour सापेक्ष / दोस्त / पड़ोसी द्वारा सिफारिश
g) Recommendation by CHW सामुदायिक स्वास्थ्य कार्यकर्ता द्वारा सिफारिश
h) Quality of care देखभाल की गुणवत्ता
i) Previous experience with the provider प्रदाता के साथ पिछले अनुभव

35. How long did it take to reach this facility today? आज इस सुविधा तक पहुंचने में कितना समय लगा?

------ hours
------ min

36. How did you reach here? आप यहाँ कैसे पहुंचे?
    a) Walk पैदल
    b) Public Transport सार्वजनिक परिवाहन
    c) Private shared transport निजी साझा परिवहन
    d) Personal Vehicle निजी परिवहन

37. Is someone accompanying you today? क्या आज कोई आपके साथ है?
    a) Spouse पति या पत्नी
    b) Family member/relative पारिवारिक सदस्य / रिश्तेदार
    c) Neighbour पड़ोसी
    d) Community health worker सामुदायिक स्वास्थ्य कार्यकर्ता
    e) No one कोई नहीं

38. Since you have decided to receive the service today, what would you have done if the service was postponed? चूंकि आपने आज सेवा प्राप्त करने का निर्णय लिया है, अगर सेवा स्थगित कर दी जाती तो आप क्या करते?
    a) Gone to some other public health provider किसी अन्य सार्वजनिक स्वास्थ्य प्रदाता के पास जाता
    b) Gone to some other private provider किसी अन्य निजी प्रदाता के पास जाता
    c) Postponed till the outreach hold a camp अगले आउटरीच शिविर तक स्थगित
    d) Discussed with Community health worker for other alternatives अन्य विकल्पों के लिए सामुदायिक स्वास्थ्य कार्यकर्ता के साथ चर्चा
    e) Not taken service सेवा नहीं लेती

SECTION VI. PERCEPTION OF QUALITY OF FAMILY PLANNING SERVICES

39. What according to you is a good quality family planning service and after care? आपके अनुसार एक अच्छी गुणवत्ता वाली परिवार नियोजन सेवा और देखभाल क्या है?

40. In the below list, what is the level of importance for you? नीचे दी गई सूची में, आपके लिए महत्व का स्तर क्या है?

		Very Important	Moderately Important	Neutral	Slightly important	Not at all important
a)	Friendliness and respect you receive from the staff and doctors कर्मचारियों और डॉक्टरों से					

	आपको मिलने वाली मित्रता और सम्मान					
b)	Length of waiting time प्रतीक्षा समय की लंबाई					
c)	Cleanliness of the facility सुविधा की सफाई					
d)	Privacy during your time spent with the health care provider स्वास्थ्य देखभाल प्रदाता के साथ आपके समय के दौरान गोपनीयता					
e)	Complete information about all methods and its side-effects सभी विधियों और इसके दुष्प्रभावों के बारे में पूरी जानकारी					
f)	Complete information about the do's and don'ts post procedure क्या करें और पोस्ट प्रक्रिया के बारे में पूरी जानकारी					
g)	Follow-up after the services सेवाओं के बाद अनुवर्ती					
h)	Other, pls specify अन्य, कृपया निर्दिष्ट करें					

Appendix 11: Follow-up Phone Call Survey with Service Users

FOLLOW-UP PHONE CALL FOR SERVICE USER EXPERIENCE

Thank you for agreeing to share your recent experience at the outreach (camp).

I will like to ask a few questions about your experience with the facilities available and the staff at the outreach.

1. What method of family planning did you receive at the outreach?

2. Is this the same method that you wanted?

3. How long did you have to wait before surgery/insertion from the time of registration?
   ------- hours
   ------- min

4. Did the provider take your consent before providing the method?
   a) Yes
   b) No
   c) Don't Know

5. Did the provider tell you about the potential side effects of the family planning method you received?
   a) Yes
   b) No
   c) Don't Know

6. Were you given clear instructions about what to do if you had any problems or side effects as a result of the service received?
   a) Yes
   b) No
   c) Don't Know

7. Did the provider make you feel comfortable to ask questions during the counselling session?
   a) Yes
   b) No
   c) Don't Know

How would you rate the service in terms of:

		Very Poor	Poor	Neutral	Good	Very good
8.	Operating hours					
9.	Cleanliness of the facility					

10.	Length of waiting time to be seen after registering					
11.	Friendliness and respect you received from the staff					
12.	Level of privacy during your time with the provider					
13.	Your overall experience					

14. Have you received any follow-up call from the provider to check your wellbeing?
    a) Yes
    b) No
    c) Visit by Community health worker

15. Based on your experience at the outreach, how likely is it that you would recommend this outreach to a friend or relative?
    a) Very Likely
    b) Likely
    c) Not likely

16. Did you experience any problems during your visit?

17. If there was anything that could be improved or changed about the services provided at this facility, what would it be?

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