

LITERATURE REVIEW

Family Planning Market in India

Rishi Agarwal
Laura Amaya
Vignesh Shankar



REIMAGINING SOCIAL CHANGE

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INTRODUCTION

The main aim of this literature review is to capture the existing knowledge across a range of products and players in India's family planning (FP) market. This review looks at literature that exists on each of the players along the value chain and on consumers, having studied them in isolation and looked at links between them. The product scope of this literature review covers condoms, oral contraceptive pills (OCPs), injectable contraceptives (ICs), intra-uterine devices (IUDs), and male and female sterilization. The broad reach of this analysis brings different perspectives together to provide a complete picture of the current state of the market.

This report does not aim to extrapolate or make forward-looking recommendations based on the literature studied. Instead, it focuses on identifying areas that will benefit from additional analysis. This document can be particularly useful for field practitioners, donors, and other players looking to understand the current state of discovery in the India family planning market.

This literature review is divided into four main parts, driven by the roles that various actors play in the marketplace rather than by the actors themselves:

1. Manufacturers and marketers
2. Intermediaries
3. Providers: both service providers (3.1) and outlet providers (3.2)
4. Consumers

The first three sections as laid out above analyze the roles performed by various actors as part of a system. These go beyond the core (demand-supply) functions, to involve the supporting environment (elements such as financing, capacity building, etc.) and the regulatory framework (informal and formal rules, policy and laws) in which these actors exist and interact.

The fourth section looks at the market from a consumer point of view. It uses five key dimensions to determine the consumer's ability to engage in FP: awareness, availability and access, affordability, assured quality, and acceptability.

1. MANUFACTURERS AND MARKETERS

The role of manufacturers and marketers is performed by players that either manufacture FP products or market them under different brands. Manufacturers include those players operating in India that may or may not market their products domestically. Marketers, by contrast, include players that market FP products purchased or otherwise obtained from manufacturers, both domestic and foreign. While secondary sources on these players exist, they are not abundant and most information lies with market players and industry experts.

CORE FUNCTIONS

Manufacturing of FP products in India, historically a public sector undertaking, has increasingly become a private sector-led industry. While Government of India (GoI)-owned enterprises such as HLL and IDPL remain key players in the domestic market, private players have established significant capacities to service both the domestic and international markets (multiple references¹).

Several large-scale contraceptive manufacturers supply their products to the United Nations Population Fund (UNFPA) and other international institutional buyers, as well as to the GoI (Ahmed & Sarker, 2014; Armand & Beer, 2006). In fact, many of the UNFPA/WHO prequalified condom and IUD manufacturers are based in India (UNFPA, 2016).

Marketers are largely private sector operators, with the exception of public sector distribution led by the GoI (multiple references). The GoI manages the distribution of FP products in its portfolio (condoms, OCPs, IUDs, tubal rings) through the public sector supply chain to end consumers (multiple references). In contrast,

¹ Multiple references not cited directly. Please see References section for the full list of sources.

marketers operating through commercial channels use private sector intermediaries to distribute their products (Malarcher & Mehra, 2010).

Social marketing organizations (SMOs)—funded through either private foundations, bi-lateral and multilateral donors, or the GoI—borrow strategies from commercial marketing to generate demand and make FP products available while influencing the social behaviors of their target audience (India e-FP, Issue Brief #6). SMOs are also contracted by the National AIDS Control Organization (NACO) to implement condom distribution strategies, particularly servicing non-traditional outlets (NTOs) and hard-to-reach locations (NACO). In addition, SMO marketers are expected to conduct demand-generation activities, ranging from mass- and mid-media promotion to communication activities among consumers themselves (Armand & Beer, 2006; NACO).

SUPPORT ENVIRONMENT

The Ministry of Health and Family Welfare (MoHFW) monitors quality, especially for the products it purchases for public sector distribution, in alignment with the World Health Organization's (WHO) Good Manufacturing Practices (Armand & Beer, 2006). For instance, condoms are batch sample tested at the manufacturing location and quality tested in retail outlets (Department of AIDS Control, 2013). Manufacturers also adhere to guidelines set by other quality assurance agencies, like UNFPA and WHO quality standards and ISO certifications (Armand & Beer, 2006; Malarcher & Mehra, 2010).

GoI tenders greatly prefer manufacturers that offer low prices, and winning tenders often depends only on low product prices rather than on product features. Therefore, manufacturers that seek to sell products through GoI tenders have a strong incentive to decrease costs (Armand & Beer, 2006).

RULES

The India Drugs and Cosmetics Acts of 1940 and 1945 established specific regulations for drug manufacturing standards (Tandon, 2010). Similarly, the Drug Controller General of India (DCGI) issues guidance related to the manufacture of medical products, such as OCPs (Armand & Beer, 2006).

Drug schedules regulate the quality of different FP products. Whereas Schedule R focuses on manufacturing procedures and quality testing methods for condoms and “mechanical contraceptives” (Schedule R), Schedules H and K control substances and drugs, like OCPs (Armand & Beer, 2006).

Schedule H regulates prescription-only products (Rx) and includes most types of OCPs, ICs, and IUDs. Products under this category cannot be advertised to the public. On the other hand, Schedule K covers products considered public goods, which can therefore be advertised and sold over-the-counter (OTC). Schedule K products currently include only condoms and certain kinds of OCPs with specific formulations (Armand & Beer, 2006).

2. INTERMEDIARIES

Intermediaries are players that move products through the value chain, taking them from manufacturers and marketers to providers. Private sector intermediaries include distributors and wholesalers. Distributors receive supplies from the manufacturer or CFA (Carrying and Forwarding Agent), and wholesalers sell in bulk to service and outlet providers. Although these definitions are not universal, and existing literature refers to intermediaries in different ways (e.g., super stockists and stockists), hierarchies remain fairly standard across sources.

Public sector intermediaries also play a role in distributing products from central procurement agencies out to public facilities. Public sector distribution levels follow a set hierarchy and include state warehouses, divisional stores, and district stores. Government dispensaries at public sector hospitals also perform a distribution function, giving out products to outreach workers. However, they have been considered as outlet providers for the purpose of this literature review. As with manufacturers and marketers, while literary sources on intermediaries exist, they are not abundant and most information can be obtained only from industry experts and through primary research.

CORE FUNCTIONS

Both public and private sector distribution channels follow hierarchical systems that optimize supply chains. Intermediaries obtain their stock from a wide range of manufacturers and marketers, both in the private and public sectors. Free distribution products then follow the public sector supply chain while SMO and commercially marketed products follow the private sector supply chain (Bill & Melinda Gates Foundation, 2011).

The MoHFW places orders with manufacturers for products in the public sector free distribution channel. Manufacturers ship the products to state warehouses as specified by MoHFW demand estimates. Products get passed further down the system into divisional stores and district stores, from which they move to district hospitals (DHs), urban health centers, primary health centers (PHCs), and community health centers (CHCs). Outreach workers (e.g., ASHAs) then collect products from these facilities and distribute them to consumers in their communities. Consumers can also get FP products from government dispensaries at public sector facilities (Bill & Melinda Gates Foundation, 2011).

The MoHFW also places some SMO product orders with manufacturers. Yet instead of flowing through the public sector supply chain, products are shipped to government medical store depots and then to the state CFA or SMO depot. From this point onward, SMOs move the products along through private sector channels. Products go to distributors and then to wholesalers, from which retail outlets get their stocks. Consumers usually buy products from outlet providers (Bill & Melinda Gates Foundation, 2011).

SMOs can also independently place orders with manufacturers. Along with products marketed by commercial players, these products move along the private sector distribution channel (Bill & Melinda Gates Foundation, 2011). Distributors typically stock a single brand or a particular product, as they tend to have category or marketer exclusivity. Certain intermediaries also have field salesforces that sell products to service and outlet providers (Armand & Beer, 2006). Additionally, intermediaries may receive discounted products offered as part of a commercial promotion scheme or subsidized through donor funding (Malarcher & Mehra, 2010).

Wholesalers buy their stock from several distributors and carry multiple brands. Products move on to retail outlets and to medical representatives (MRs) who promote them to service providers. As stated earlier, most consumers purchase products from outlet providers. However, some also receive them from service providers, especially in the case of ICs and IUDs (Bill & Melinda Gates Foundation, 2011).

SUPPORT ENVIRONMENT

The MoHFW estimates public sector demand based on state-level modern contraceptive prevalence rate (mCPR) population estimates using Censuses 2001 and 2011 as well as product wastage rates. They then allocate supply through different distribution channels (Bill & Melinda Gates Foundation, 2011). Besides the MoHFW, NACO coordinates its condom distribution through State AIDS Prevention and Control Societies (SACS), in association with the National Rural Health Mission (NRHM). It has also developed guidelines for the appropriate storage and distribution of condoms (NACO).

Inefficiencies in public sector distribution present challenges for intermediaries and for players further down the value chain. Delays in order placement by the MoHFW and the lack of a fixed order calendar affect the supply of FP products to consumers. In addition, district stores do not use accurate, fact-based methods to allocate products to players along the value chain. This results in some facilities having excess stock, while others face stock-outs. Despite formal coordination mechanisms, public sector suppliers are not consistently monitored for compliance in the delivery of stock to intermediaries and facilities. Added to that, district stores have a limited budget for transportation. They thus often combine the delivery of multiple orders to healthcare facilities, rather than delivering products based on demand, contributing to frequent stock-outs (Bill & Melinda Gates Foundation, 2011).

Whereas public sector intermediaries receive guidance from the MoHFW, there is no evidence of organized guidance provided to private sector intermediaries. Similarly, unlike the centrally coordinated public sector channel, private sector intermediaries also lack formal coordination mechanisms (Bill & Melinda Gates Foundation, 2011).

RULES

FP policy determines which supply chain different products fall under—public or private. For example, the new generation of ICs, Depot Medroxyprogesterone Acetate (DMPA), could only be distributed through private sector channels before

2016. Although the Federation of Obstetric and Gynaecological Societies of India (FOGSI), the DCGI, the United States Food and Drug Administration (USFDA), and the WHO have approved it as a safe and effective contraceptive for marketing and distribution, it was not available through public sector channels as it was not included in the GoI's FP portfolio until then (Family Planning Division, MoHFW, 2016; Malarcher & Mehra, 2010).

The DCGI issues regulations on the distribution of medical products, such as OCPs (Armand & Beer, 2006; Malarcher & Mehra, 2010). Beyond that, limited rules exist for distribution guidelines of FP products at the intermediary stage.

3. PROVIDERS

3.1 SERVICE PROVIDERS

Service providers are players that directly provide FP services to consumers. For the purpose of this literature review, these can be OBGYN, MBBS, or AYUSH (Ayurveda, Yoga, Unani, Siddha, and Homeopathy) doctors. However, rural medical practitioners (RMPs), sometimes referred to as quacks, also provide FP services to consumers, albeit not legally. Service providers operate in the private and public sectors—some splitting their time between both—in facilities that range from consultation-only clinics and PHC/CHCs to full-service hospitals and DHs.

CORE FUNCTIONS

The services that providers can offer vary depending on their specialization and on the type of facility in which they practice (multiple references).

OBGYN and MBBS doctors are the only providers entitled to offer comprehensive FP services. Aside from providing condoms and prescribing OCPs, they can also administer ICs. However, until 2016 they did so only at private sector facilities, as ICs were not included in the public sector FP choice basket prior to that. OBGYN and MBBS doctors can also conduct IUD insertions, at both private and public sector facilities, but need a special training for postpartum IUD (PPIUCD) insertions (multiple references). They are also the only providers allowed to perform sterilization, regardless of whether it takes place at private or public sector facilities. MBBS doctors, including those with further qualifications, can perform male sterilization and mini-lap female sterilization. In contrast, providers offering laparoscopic sterilization must be either OBGYN or MBBS DGO doctors, or MBBS doctors with an MS Surgery specialization who have received special training (MoHFW, 2015).

ASHU (Ayurveda, Siddha, Homeopathy, and Unani) doctors can provide and prescribe condoms and OCPs. They can also conduct IUD insertions at private and public sector facilities, after completing a special training. Other medical providers such as staff nurses, auxiliary nurse midwives (ANMs), and lady health visitors (LHVs) can provide condoms and OCPs distributed through public sector channels (e.g., Nirodh, Mala-N) and insert IUDs, but only at public sector facilities (multiple references).

While public sector facilities offer FP methods free of cost, prices at private facilities vary by product and depend on the type of provider and their locality (multiple references). Aiming to fill gaps in FP service provisioning, temporary camps (e.g., sterilization camps) also take place during specific times of the year, and services are generally offered free of cost as well (Pillai & Singh, *Urban Health Initiative, India: Progress and Results January 2009 to December 2013, 2014*).

Although many service providers do not conduct promotional activities, other players do dedicated FP promotion. The majority of these are outreach workers who operate in specific communities with which they have regular contact (multiple references). Most outreach workers in the public sector fall under the Accredited Social Health Activist (ASHA) program, and are described further under Section 3.2: Outlet Providers (MoHFW, 2015). Private sector outreach workers are mostly managed by non-governmental organizations (NGOs) or SMOs, and their scope depends on the program they fall under and the product they promote (multiple references).

Certain NGOs conduct promotional activities for FP by training outreach workers, peer educators, and FP counselors who then engage with communities. NGO outreach workers also do product-use demonstrations—particularly for products like condoms—and distribute written material that ties in with NGO-sponsored media promotions (NACO; Pillai & Singh, *Urban Health Initiative, India: Progress and Results January 2009 to December 2013, 2014*). The Dimpa Program, for example, has used outreach workers to promote ICs, specifically DMPA. Workers identify and refer women interested in using DMPA as an FP method, and provide systematic follow-up to ensure continued use (Pillai & Singh, *Urban Health Initiative, India: Progress and Results January 2009 to December 2013, 2014*).

SUPPORT ENVIRONMENT

The MoHFW offers guidance related to service delivery norms and standards for different FP products (MoHFW, 2015). Yet though it makes guidance material available, it does not actively circulate market information (market size, players in the value chain, etc.) among service providers. Available literature also does not mention the sources from which service providers receive market information, suggesting a gap in the support environment (multiple references).

Different medical associations exist to facilitate coordination both among private sector service providers and between them and other value chain players. FOGSI brings together OBGYN providers, and the Indian Medical Association (IMA) covers registered allopathic medical practitioners across India. Other associations bring together different branches within AYUSH medicine. For example, the National Integrated Medical Association (NIMA) groups Ayurveda and Unani practitioners from institutions recognized by the Central Council of Indian Medicine (multiple references).

Besides official medical associations, NGO- and donor-run associations provide coordination for specific service provider segments. For example, OBGYN and MBBS providers can enroll in the Dimpa Program—funded by USAID—to become part of the Dimpa Network, which increases access to affordable IC services for consumers by linking marketers and service providers (Patro, Singh, Srivastava, & Tanwar, 2012).

Public sector facilities are financed through government-allocated funds at the state level (Pillai & Singh, *Urban Health Initiative, India: Progress and Results January 2009 to December 2013*, 2014). The MoHFW has also implemented a public-private partnership (PPP) whereby it reimburses accredited private sector and NGO facilities for costs up to INR 2,000 (Uttar Pradesh (UP) and Bihar) per sterilization procedure (MoHFW, 2015). To further incentivize the provision of sterilization services, the MoHFW has implemented the National Family Planning Indemnity Scheme (NFPIS), which ensures that States and Union Territories process and pay for consumer claims in the event of complications, method failure, or death related to the procedure (MoHFW, 2015).

Even with allocated funding, public healthcare facilities have inadequate infrastructure and human resources, and they lack essential services, drugs, and supplies (Blanchard, Ghosh, Prakash, & Ramesh, 2015). For instance, there is a major gap in the availability of critical equipment and emergency drugs required for IUD insertion and removal, at both public and private facilities (Achyut, Khan, Nanda, & Verma, 2014; *Expanding Contraceptive Use in Urban Uttar Pradesh: Quality of Care*, 2010). Many public sector facilities below the DH level also lack adequate infrastructure and equipment to provide quality sterilization services (Achyut, Khan, Nanda, & Verma, 2014). Likewise, temporary FP camps have inadequate infrastructure and equipment for providing services (*Expanding Contraceptive Use in Urban Uttar Pradesh: Quality of Care*, 2010).

Adding to poor infrastructure, quality is also compromised by service providers that do not follow standard protocols, especially in terms of counseling about side-effects and product use (*Expanding Contraceptive Use in Urban Uttar Pradesh: Quality of Care*, 2010). Service providers also have user- and method-related biases about providing spacing methods to lower-parity women, which restrict consumers' access to FP (Achyut, et al., 2013).

The MoHFW has an existing quality assurance committee that establishes pre- and post-procedure guidelines for sterilization. It has also formed state- and district-level committees to ensure high-quality FP services (MoHFW, 2015). These committees focus on service delivery norms and training, with tools like reference manuals and provider handbooks (IFPS Technical Assistance Project (ITAP), 2012; MoHFW, 2015). Still, few service providers receive regular FP training, regardless of whether they practice in public or private facilities (Achyut, et al., 2013; Achyut, Khan, Nanda, & Verma, 2014).

Led by NGOs and donors, private players have begun to implement quality assurance programs and monitoring and evaluation tools (Patro, Singh, Srivastava, & Tanwar, 2012; Public Health Foundation of India, 2016). Quality assurance tools include provider training and mentoring, as well as the design and distribution of communication materials and job aides tailored to the needs of providers (Pillai & Singh, *Urban Health Initiative, India: Progress and Results January 2009 to December 2013*, 2014). Client surveys prove their effectiveness, indicating that

providers who operate within private networks (e.g., Dimpa Network clinics) or as part of NGO programs tend to deliver higher-quality services to consumers (*Expanding Contraceptive Use in Urban Uttar Pradesh: Quality of Care*, 2010).

Labor capacity constraints aggravate the challenges involving quality. Existing service providers have an excessive workload and limited time (multiple references). This is especially the case for public sector facilities, which also face shortages in the number of dedicated FP counselors (Achyut, Khan, Nanda, & Verma, 2014; Pillai & Singh, *Urban Health Initiative, India: Progress and Results January 2009 to December 2013*, 2014).

The number of OBGYN and MBBS providers per 100,000 population in UP and Bihar is far lower than the national average in India (Central Bureau of Health Intelligence, 2015). The Indian average is 6 OBGYN providers per 100,000 population; UP only has 2, and Bihar only has 1 OBGYN per 100,000 people. For MBBS providers, the Indian average is 70 per 100,000 population. UP only has 29 and Bihar only has 37 MBBS providers per 100,000 people. In the AYUSH category, there are only Ayurvedic, Homeopathic, and Unani (AHU) providers in both UP and Bihar² (Central Bureau of Health Intelligence, 2015), a disproportionate number of which are registered in Bihar (132 per 100,000 population) as compared to the national Indian rate (59 per 100,000 population) (Central Bureau of Health Intelligence, 2015).

RULES

Policy and regulations on FP service provisioning have changed significantly, moving from centralized mandates to decentralized planning to address local needs. Initiatives include the development of district action plans and the involvement of Panchayati Raj Institutions in FP (ITAP, 2012). Policy changes have also allowed for the introduction of new methods into public sector channels. For instance, the GoI included DMPA in its FP portfolio in 2016, enabling public sector facilities to administer it (Family Planning Division, MoHFW, 2016; Patro, Singh, Srivastava & Tanwar, 2012).

² The *National Health Profile* (Central Bureau of Health Intelligence, 2015) only records the number of ASHU providers and does not include the count of Yoga and Naturopathy practitioners.

Different government branches, such as the DCGI and the MoHFW, issue guidelines related to service delivery of medical products (Armand & Beer, 2006; MoHFW, 2015). However, providers violate these guidelines in actual practice, as is the case with sterilization quality standards and counseling norms (Tandon, 2010).

3.2 OUTLET PROVIDERS

Outlet providers sell or give FP products to consumers. They include traditional outlets (TOs) like pharmacies and chemists, as well as non-traditional outlets (NTOs) like *kirana* shops and beauty parlors. They also include public sector outreach workers (e.g., ASHA) and government dispensaries.

CORE FUNCTIONS

Private sector outlet providers stock condoms, OCPs, ICs, and IUDs distributed through the commercial and SMO channels (multiple references). Traditional outlets stock both OTC and Rx products, and sell a vast majority of FP products (Pillai & Singh, *Urban Health Initiative, India: Progress and Results January 2009 to December 2013*, 2014). TOs tend to stock products across price brackets, ranging from INR 3 for one cycle of SMO-marketed OCPs to over INR 2,000 for commercially marketed hormonal IUDs (multiple references). By contrast, NTOs sell mostly low-priced condoms and over-the-counter OCPs (multiple references).

Public sector outlet providers fall under two main categories: government dispensaries and outreach workers. Government dispensaries stock government-brand condoms (Nirodh) and OCPs (Mala-N) for free distribution to consumers at public healthcare facilities. They also stock non-branded IUDs (Cu-T 375 and Cu-T 380A), which service providers insert free of cost at public facilities. Outreach workers (e.g., ASHA) have government-brand condoms (Nirodh) and OCPs (Mala-N) for distribution within their communities (FHI 360, 2012; MoHFW, 2015; National Health Mission, 2015-16).

As part of the MoHFW's Home Delivery of Contraceptives scheme, ASHA workers can charge INR 1 per pack of three condoms and INR 1 per cycle of OCPs (MoHFW, 2015). Both ASHA workers and consumers in target communities have expressed

satisfaction with the scheme, but issues with supply chain management hinder the consistent availability of FP products (Basu & Green, 2012).

Outreach workers promote FP through direct interaction with the communities they work in, with activities like home visits, community events, and one-on-one counseling. Other types of outlet providers do passive promotion for FP. Those in the private sector usually have FP marketing collateral, such as danglers and posters, on display (multiple references). Similarly, government dispensaries are located within public sector healthcare facilities, which have posters promoting different FP practices and methods (MoHFW, 2013).

Promotional efforts have not always been successful because the messages aimed to attract new users have not decreased the resistance of the poor to using modern contraception (multiple references). For example, promotion of condoms at the outlet provider level is either fear-based and focused on HIV prevention (public sector and SMO condoms), or overly sexualized (private sector commercial condoms) (Begum, Dontra & Naik, 2014; *Expanding Contraceptive Use in Urban Uttar Pradesh: Quality of Care*, 2010).

SUPPORT ENVIRONMENT

Public sector outlet providers fall under a strict supply chain hierarchy managed by the MoHFW. The MoHFW coordinates between providers and across players along the public value chain. It also manages demand forecasting and other market information, and issues guidance on the distribution and delivery of different FP products (Bill & Melinda Gates Foundation, 2011).

Unlike the centrally coordinated public sector, existing literature suggests there are gaps in information sharing and guidance for private sector outlet providers. Existing literature also suggests a lack of formal coordination mechanisms both between private outlet providers and with other value chain players (multiple references). In fact, any formal coordination among private sector outreach workers happens through dedicated FP programs, if at all (*Expanding Contraceptive Use in Urban Uttar Pradesh: Quality of Care*, 2010; Pillai & Singh, *Urban Health Initiative, India: Progress and Results January 2009 to December 2013*, 2014).

Most financial incentives for outlet providers target MoHFW outreach workers (multiple references). ASHA workers receive incentives for the following (MoHFW, 2015; National Health Mission, 2015–16):

- Delaying a couple’s first child for two years after marriage (INR 500)
- Guaranteeing a three-year gap between a couple’s first and second children (INR 500)
- Persuading consumers to undergo sterilization (varies, INR 150–300)
- Ensuring that couples undergo sterilization after their second child (INR 1000)
- Counseling consumers to opt for IUD (select dates) and PPIUCD (year-round, INR 150)

Outreach workers also counsel consumers about product use and side effects to support the continued use of FP (Public Health Foundation of India, 2016; Urban Health Initiative, 2015). Yet unlike outreach workers, outlet providers rarely counsel consumers about drug side effects, as they are neither trained nor required to do so (Achyut, et al., 2013; *Expanding Contraceptive Use in Urban Uttar Pradesh: Quality of Care*, 2010).

RULES

The India Drugs and Cosmetics Acts of 1940 and 1945 that established specific regulations for manufacturing standards also regulate the storage and sales of FP products (Tandon, 2010). As previously stated (in Section 1: Manufacturers), different drug schedules regulate different FP products. Schedule R looks at condoms and “mechanical contraceptives” (Schedule R), and Schedules H and K focus on substances and drugs, like OCPs (Armand & Beer, 2006). Outlet providers can advertise Schedule K products and sell them over-the-counter, but can only sell Schedule H products (Rx) after seeing a doctor’s prescription (Armand & Beer, 2006).

4. CONSUMERS

In the scope of FP in India, consumers are typically defined as currently married men and women of reproductive age (15–49 years), with a heavier emphasis placed on currently married women (CMWs) in this age bracket. Most of the literature on consumers focuses on CMWs, yet some sources also look into other segments like males, adolescents, and family influencers.

As described in the Introduction, this section uses five key dimensions to understand the factors that limit the consumer's ability to effectively engage in FP: awareness, availability and access, affordability, assured quality, and acceptability.

AWARENESS

Awareness of FP and different FP methods is high among both men and women, with almost universal awareness of female sterilization (multiple references). However, most women have gaps in information, especially on correct product usage and postpartum FP (PPFP) (multiple references). Many consumers also equate FP (*Parivar Niyojan*) to female sterilization and rarely consider male sterilization as an FP option (Char, Kulmala, & Saavala, 2009).

Sources of information about FP differ for women and men. In addition to receiving information through television, women discuss FP with outreach workers as well as with friends, neighbors, and families (Achyut, Calhoun, Mishra, & Nanda, 2011; Idnani, Khan, Kumari, & Sebastian, 2012). Family influencers, particularly the husband and the mother-in-law, thus play a crucial role on a couple's decisions regarding contraception and FP (Dixit, 2012; Rai & Unisa, 2013). Unlike women, who have many channels to access FP information, men receive information primarily through mass media (Char, Kulmala, & Saavala, 2009). Hence, although studies have shown that repeated exposure to mass- and mid-media contributes to a significant increase in modern contraceptive use (Chaudhury, Datta, & Roy,

2012), men feel that women have better and more direct access to FP information through outreach workers (Char, Kulmala, & Saavala, 2009; Char, Kulmala, & Saavala, 2011).

AVAILABILITY AND ACCESS

The majority of women have access to a healthcare facility within a reasonable distance. Nevertheless, access to FP is still a barrier in rural areas, where consumers have difficulty obtaining low-cost, high-quality services (Rai & Unisa, 2013). Adding to that, many facilities do not have consistent availability of all FP methods (multiple references), and most public sector facilities have experienced product stock-outs (Achyut, Calhoun, Mishra, & Nanda, 2011; Bill & Melinda Gates Foundation, 2011).

Private sector distribution channels do not face severe stock-out issues. In the case of condoms, for instance, consumers have low brand loyalty and product stock-outs are rare. The unavailability of one brand does not necessarily prevent consumers from using condoms as an FP method. OCP stock-outs do present a barrier to continued use because consumers have strong brand loyalty. Given that stock-outs are more common for SMO than for commercial brands, they limit access for lower-parity consumers who prefer the subsidized SMO products (Bill & Melinda Gates Foundation, 2011).

Biases further limit consumers' access to comprehensive FP. Service provider biases regarding client profiling and particular methods prevent certain consumer segments from accessing FP (Achyut, et al., 2013). Many consumers also feel uncomfortable or embarrassed when purchasing FP products from outlet providers due to socio-cultural norms involving contraception and FP (Char, Kulmala, & Saavala, 2011). Men are the primary purchasers of condoms and OCPs, leaving women subject to their husbands' willingness to buy a particular product or a specific brand (Measurement, Learning & Evaluation (MLE) Project, 2014).

AFFORDABILITY

FP methods are available across price ranges, and affordability is not a commonly cited issue contributing to discontinuation or lack of use (multiple references). Still, certain segments of the population cannot afford comprehensive FP at facilities of

their choice. This is the case largely for lower-parity consumers that need service-dependent FP methods like ICs, IUDs, and sterilization (ITAP, 2012). For example, ICs have not been affordable for lower-parity CMWs, as they were not offered for free through public sector channels before 2016 (Ahmad, Dixit, Khan, & Pillai, 2015; Bill & Melinda Gates Foundation, 2011; *Expanding Contraceptive Use in Urban Uttar Pradesh: Quality of Care*, 2010).

To counter some of these challenges, the MoHFW has implemented a wage-loss compensation (WLC) scheme for acceptors of sterilization. It seeks to ensure that income lost due to the procedure is not a deterrent to adoption (MoHFW, 2015). WLC ranges from INR 1,000 to INR 2,200 depending on the type of procedure (interval or postpartum tubectomy, or vasectomy) and on the type of facility (MoHFW, 2015).

ASSURED QUALITY

Consumers have an overwhelming fear of infertility and of the side effects caused by different FP methods (Campbell, Diamond-Smith, & Madan, 2012; Prusty, 2014). In fact, discontinuation due to side effects is particularly high for OCPs and IUDs, and is more common in urban than in rural areas (Dixit, 2012). Although there are real health concerns, women also have incorrect beliefs about the side effects of different FP methods, mainly due to misinformation. Studies show that some women acknowledge the perception of side effects as being potential exaggerations by other women who have faced them. Many have indeed expressed that they would be more likely to use FP if service providers disproved their fears (Campbell, Diamond-Smith, & Madan, 2012). However, only a limited number of CMWs are fully informed about the potential side effects of using different FP methods (Achyut, Khan, Nanda, & Verma, 2014; Ahmad, Dixit, Khan, & Pillai, 2015).

Consumers often perceive free distribution condoms to be of poor quality (NACO). The same cannot be said about service-dependent FP methods offered free of cost at public facilities. Despite low quality standards in FP service provisioning, the majority of women are satisfied with the quality of service they receive. The only difference in the perception of quality, which is higher in private than in

public sector healthcare facilities, lies in consumers preferring closer interpersonal relationships with service providers (Achyut, Khan, Nanda, & Verma, 2014).

ACCEPTABILITY AND CONTINUED USE

Modern contraceptive use in UP and Bihar, measured in terms of mCPR, is lower among urban poor than among rural consumers (Dadhwal, et al., 2015). Besides access and affordability, consumer fears, myths, and misconceptions are significant barriers affecting the demand and uptake of FP methods (*Expanding Contraceptive Use in Urban Uttar Pradesh: Quality of Care*, 2010).

Method discontinuation also plays a role in the acceptability of FP. The highest discontinuation rates within the first year are for ICs, followed by OCPs and condoms (Barden-O’Fallon, Calhoun, Montana, Nanda, & Speizer, 2014). Aside from a desire to conceive, the most commonly reported reason for discontinuation (Barden-O’Fallon, Calhoun, Montana, Nanda, & Speizer, 2014), many consumers suspend method use even though they need contraception. A significant proportion of them cite side effects and health problems as their reasons (Dixit, 2012; Joshi, Nagar, Sharma, & Sharma, 2014). IUD users, for example, discontinue either within four months of insertion (suggesting problems with the method) or after two years of use (suggesting a desire to get pregnant) (Chander Modi, et al., 2011).

Women who have used multiple methods are likely to have discontinued one method in pursuit of another, more effective one. After condom users, these women are also the most likely to have an unwanted pregnancy (Barden-O’Fallon, Calhoun, Montana, Nanda, & Speizer, 2014; Knowledge, Attitudes, Beliefs, and Perception of the North Indian Population Toward Adoption of Contraceptive Practices, 2012). It comes as no surprise, therefore, that improvements in service approach and quality—educating consumers on reproductive anatomy, product use demonstrations, counseling, etc.—result in significant reductions in discontinuation (*Expanding Contraceptive Use in Urban Uttar Pradesh: Quality of Care*, 2010).

AREAS FOR FURTHER ENQUIRY

As this document shows, the bulk of existing literature on the FP market in India focuses on providers (namely service providers and outreach workers) and consumers. However, upstream value chain players in the public and private sectors also have great potential for driving the market and would warrant further study.

In addition, while nonprofit organizations and private companies have conducted independent research on different parts of the value chain, there is no one consolidated resource to understand how these players together have shaped the market. While this literature review highlights key findings from existing sources, consolidating collective knowledge should be a priority for the field in the future.

LIST OF ABBREVIATIONS

AHU	Subset of AYUSH doctors: Ayurveda, Homeopathy, Unani
ANM	Auxiliary nurse and midwife
ASHA	Accredited Social Health Activist
ASHU	Subset of AYUSH doctors: Ayurveda, Siddha, Homeopathy, Unani
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homoeopathy doctors
CFA	Carrying and forwarding agent
CHC	Community health center
CMW	Currently married women
Condoms	Generally refers to male condoms
DCGI	Drug Controller General of India
DGO	Diploma in Gynecology & Obstetrics
DH	District hospital
DMPA	Depot Medroxyprogesterone Acetate
FOGSI	Federation of Obstetric and Gynecological Societies of India
FP	Family planning
GoI	Government of India
HLL	HLL Lifecare Limited (formerly Hindustan Latex Limited)
IC	Injectable contraceptive
IDPL	Indian Drug and Pharmaceutical Ltd.
IMA	Indian Medical Association
INR	Indian rupee
ISO	International Organization for Standardization
IUD/IUCD	Intra-uterine device/Intra-uterine contraceptive device

LHV	Lady health visitors
MBBS	Latin abbreviation for Bachelor of Medicine and Bachelor of Surgery (<i>Medicinae Baccalaureus, Baccalaureus Chirurgiae</i>)
mCPR	Modern contraceptive prevalence rate
MoHFW	Ministry of Health and Family Welfare
MR	Medical representative
NACO	National AIDS Control Organization
NFPIS	National Family Planning Indemnity Scheme
NGO	Non-governmental organization
NIMA	National Integrated Medical Association
NRHM	National Rural Health Mission
NTO	Non-traditional outlet
OBGYN	Obstetrician/Gynecologist
OCP	Oral contraceptive pill
OTC	Over-the-counter
PHC	Primary health center
PPFP	Postpartum family planning
PPIUCD	Postpartum intra-uterine contraceptive device
PPP	Public-private partnership
RMP	Rural medical practitioner
Rx	Prescription-only product
SACS	State AIDS Prevention and Control Societies
SMO	Social marketing organization
TO	Traditional outlet
UNFPA	United Nations Population Fund
UP	Uttar Pradesh
USAID	United States Agency for International Development
USFDA	United States Food and Drug Administration
WHO	World Health Organization
WLC	Wage-loss compensation

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AUTHORS

Rishi Agarwal, Managing Director. Rishi focuses on leveraging his experience from the corporate strategy world to using market-based solutions to drive sustainable social change and on working with corporates to embed addressing relevant social needs as a central theme and a key driver in their growth agenda.

Laura Amaya, Senior Consultant. Laura's work at FSG has focused on devising market-based solutions to problems ranging from family planning to market systems innovation. In addition to strategy development, Laura has also conducted field research in geographies that include India and her native Colombia.

Vignesh Shankar, Associate Director. Vignesh has a variety of experiences across management consulting and financial services, including research, strategy development, and large-scale operations improvement. Vignesh also has experience in conducting field research with lower income consumers and analyzing business models for social enterprises in healthcare.

CONTACT

Rishi Agarwal
rishi.agarwal@fsg.org

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