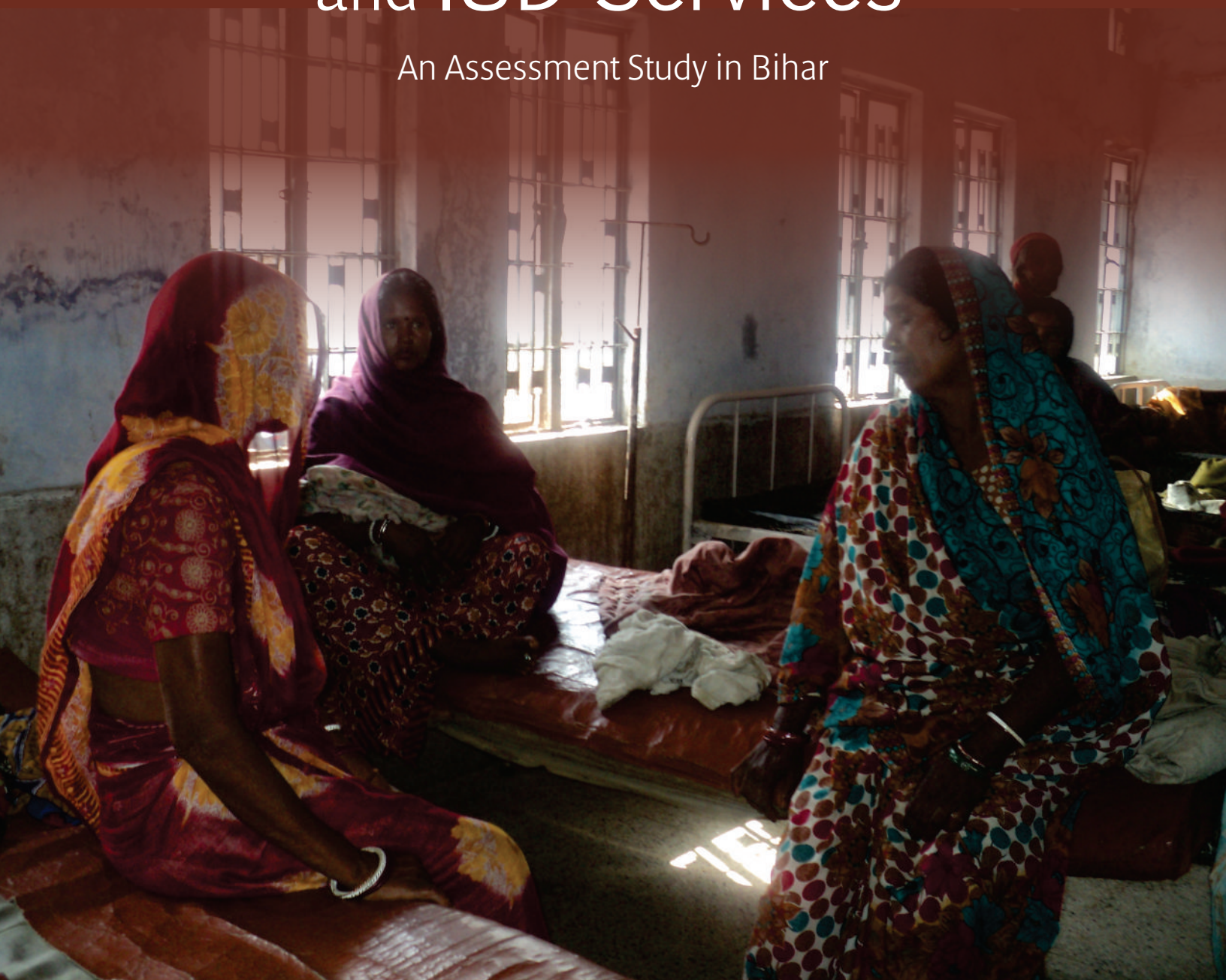


The Quality of Care in Provision of Female Sterilization and IUD Services

An Assessment Study in Bihar



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INTERNATIONAL CENTER FOR RESEARCH ON WOMEN

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An Assessment Study in Bihar



The report provides the results of a study undertaken by the International Center for Research on Women (ICRW) on quality of care in provision of family planning services in Bihar with support from the Packard Foundation. This study is carried out to assess quality of female sterilization and IUD services provided at public and private health facilities; identify gaps and provide recommendations to address those.

Citation

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Executive summary

In many communities around the world, women continue to lack access to quality family planning (FP) services that provide the information, counseling and care necessary for them to make sound decisions about their fertility. And the caliber of care they receive has been shown to have a direct correlation with women's contraceptive use. Often at times, in settings where the quality of family planning services is substandard, contraceptive use among women tends to be low or fragmented. Rarely, high quality FP services, which recognizes their dignity and respects choice and privacy, are considered a matter of rights for women.

This is true for many communities in India as well. However, leaders have responded by carrying out major transformations to the country's family planning program over the last few decades that have, in part, demonstrated a commitment to providing high-quality, comprehensive health services. However, gaps in quality of care remain, as evidenced by the November 2014 deaths of 16 women who had sought sterilization at a family planning camp in the Chhattisgarh state in central India. And in the country's northern states, studies continue to show that the quality of family planning services is particularly poor. In one of those states, Bihar, the government has committed to improving family planning services statewide and as part of this effort is promoting sterilization, the primary choice of birth control used among women; and intrauterine device (IUD) insertion, a less preferred method.

With funding from the Packard Foundation, the International Center for Research on Women (ICRW) conducted a study in Bihar, where contraceptive use is low and women's unmet fertility needs are high. We specifically assessed the quality of care related to the provision of IUD insertion and sterilization in an effort to better understand the nature of quality of care provided and identify the areas of care that require more attention.

Our analysis took place in five districts at district hospitals (DHs), sub-divisional hospitals (SDHs), primary health centers (PHCs) and private hospitals, which all provide sterilization and other family planning services. We conducted interviews with providers, women seeking sterilization or IUD, or following up after such a procedure and those who had recently undergone sterilization surgery. We also conducted an audit of each facility to assess, among other factors, availability of private spaces for consultation and examination, availability of waiting area, water, electricity and functional toilets, cleanliness and infection prevention practices, whether family planning is integrated with other services and the supply of contraceptive methods, equipment, drug and supplies specific for female sterilization and IUD.

Our study found varied quality of family planning care in Bihar, with gaps in several critical areas of quality at several health facilities. Specifically, in the last few years, certain aspects of physical infrastructure, such as electricity and water supply, have improved, however, we found numerous health care facilities which had **unsanitary environments that are woefully void of appropriate spaces for providers and clients to meet**. These include waiting areas with adequate seating and private counseling and examination rooms. A third of the facilities did not have designated examination rooms or areas. Most did not have counseling rooms. These are vitally required aspects of quality of care – without room for compromise – as they affect the level of comfort a woman has when dealing with private and sometimes sensitive issues around her reproductive health. Less than half of the facilities had separate functional toilets for women. And several public facilities, including district hospitals, did not have enough beds to accommodate sterilization clients. In only 14 percent of PHCs were sterilized women provided a bed post-surgery. Often women had to lie down on mattresses or cotton mats on the floor. Moreover, recovery spaces were crowded, posing additional challenges for infection prevention. Owing to a high caseload, and little attention from providers and clients, there were minimal efforts to maintain cleanliness in public facilities. At times during surgery, doctors and support staff did not maintain the minimum standards of infection prevention: staff moved in and out of the Operating theatre (OT) in plain

clothes and shoes; and family members were called in the OT to carry women to the recovery room/area after sterilization surgery.

Further, providing safe sterilization procedures and IUD insertions was dependent on the equipment and drugs available at health facilities in Bihar. **Most facilities even lack the very basic, minimum necessary equipment, drugs and supplies for sterilization**, with some lacking simple essentials, such as scissors and narrow forceps. We found a major gap in the availability of emergency and post-operative drugs in some facilities. The same was true for some of the critical equipment required for IUD insertion and removal such as speculum, anterior vaginal wall retractor and uterine sound. Gloves, dry gauge/cotton swabs and urine pregnancy test kits were also out of stock in some of the facilities at the time of survey.

We found **troubling shortages of staff** at several facilities, from doctors trained to perform sterilizations and post-partum IUD insertion, to nurses and other staff to assist doctors or care for women after their procedures. Our study also revealed that **only a third of healthcare facilities in Bihar have family planning counselors** on staff. These counselors, as well as medical providers, often lacked the interpersonal skills and proper training to deliver quality family planning information and services to women in gender sensitive manners.

We found that more than two-thirds of the women who accessed sterilization were first time family planning users. During their interaction with the service providers, three-fourths of them were informed about follow-up visits, and less than a third were told about problems associated with surgery. Though the majority reported undergoing urine and blood tests, only a third were told about test results. Fewer than one-third were able to converse with their providers in private before the surgery, and this proportion was lower in the SDHs. The situation was similar in private hospitals. We also found that only a **third of sterilization clients at DH/SDH and half at PHC and private hospitals were examined before being discharged and only a small proportion advised**. Experiences of women who had come for IUD services were not substantially different: **a negligible proportion received method-specific counseling such as possible side effects and required follow-up visits and services, such as a pelvic examination**.

It is imperative that these facilities improve their environment and practices in accordance with the Government of India's quality of care standards. Critical to this effort will be to develop realistic human resource planning and deployment of skilled staff at all levels of service delivery in view of high client loads in the public facilities; and create among medical providers a gendered perspective, along with method specific knowledge and skills, to ensure that they understand and appreciate the rights and entitlement of women, need and components of quality services. This should be complemented with the provision of standard guidelines for female sterilization and IUD in the local language. The state government should translate the guidelines and ensure they are available at all health facilities providing these services.

Women, too, need to be better educated on the care they should expect in health facilities and be encouraged to hold providers accountable to national standards. Activating district quality assurance teams; strengthening community and facility level committees with increased involvement of women; and external monitoring to include expectation and experience of women could be some of the concrete steps in this direction.

Finally, it is vital that every health facility in Bihar is stocked with the necessary equipment, drugs and supplies to effectively perform sterilization and IUD procedures. Health facilities must also provide clean waiting areas, OTs, recovery rooms and functional toilets, and private consultation and examination rooms for women seeking family planning services.

Chapter 1: Introduction

Women around the globe continue to lack access to family planning services that provide high-quality information, counseling and care to meet their fertility desires. And often, the quality of services and care available to women influences whether they follow through on their desire to space, limit or discontinue childbearing. Indeed, a number of studies over the last two decades support this notion, validating a close association between the quality of family planning care women receive and women's uptake and continued use of contraceptives in different settings (Jain 1989; Beegle 1995; Mensch et al. 1996; Koenig et al. 1997; Mroz et al. 1999). Although this evidence is well documented, the awareness around the need to improve the quality of family planning services remains high in the same settings where contraceptive use is low or fragmented.

Such trends are similar in India, where the last few decades have seen major transformations in the country's family planning program, including an increased emphasis in the mid-1990s on abolishing method-specific contraceptive targets and a commitment in the last decade to high-quality, comprehensive and integrated health services. However, studies continue to show that the quality of family planning services is poor in the country's northern states. This is particularly true in Uttar Pradesh and Bihar in terms of the availability of trained health providers and contraceptive methods, provision of counseling services, providing women with expanded information and methods to choose from, and following up with new clients to ensure that the method they have chosen is appropriate (Khan, et. al, 1999; Roy and Verma, 1999; Santhya, 2003; and Timothy Powell-Jackson, 2013). It is unclear to what extent the quality of these services remains sub-optimal as well as what specific investments and improvements are needed to address this scenario.

This study focuses on the situation in Bihar, the third most populous state in India, where overall contraceptive use is low and where female sterilization serves as the primary method of birth control. Our interest in Bihar was motivated by the size of its population, low use of family planning services compared to most other states in the country and the state government's commitment to improving such services statewide with a focus on female sterilization (FS) and intrauterine contraceptive device (IUD) insertion.

This study provides a situational analysis of the level of care offered in Bihar's family planning services, with the goal of better understanding how the quality of care has improved and what aspects of care need more attention and investment. Within this context, we specifically assess the caliber of services related to FS and IUD in Bihar. We focus on diverse parameters of quality to offer recommendations to improve the delivery of family planning services, particularly FS and IUD, and their uptake.

Elements of Quality Family Planning Care

While numerous studies over the past two decades have examined how to measure and improve the quality of family planning services (Bruce, 1990; Hardee and Gould 1993; Vera 1993; Speizer and Bollen, 2000; Williams, 2000; Kelley and Boucar, 2000), it was in 1990 that Bruce and Jain developed a theoretical framework that offered specific elements to measure quality of care of family planning services (Bruce 1990). The key elements include: a) choice of methods; b) information given to clients; c) technical competence; d) interpersonal relations; e) follow-up and continuity mechanisms; and f) appropriate constellation of services. This framework has been applied extensively for program design and development worldwide. More recently World Health organization (WHO, 2014) has defined quality of care within the human rights framework as *"a multifaceted element that includes but is not limited to: a full choice of quality contraceptive methods; clear and medically accurate information, including the risks and benefits of a range of methods; presence of equipped and technically*

competent providers; and client-provider interactions that respect informed choice, privacy and confidentiality, and client preferences and needs.

Evidence from diverse settings has underscored the importance of each of the quality parameters in the Bruce-Jain framework. Several studies have shown that clients are more likely to initiate and continue using contraceptives if they receive the method of their choice (Cotten, 1992; Pariani, 1991). It has also been demonstrated that when providers improve their interpersonal relationships with clients, clients are more likely to seek and be open to providers' advice. Furthermore, when health providers give clients accurate and complete information about their family planning options, while ensuring privacy, they are more likely to continue using methods (Townsend, 1991; and Hong, et al, 2006). For instance, a study in rural Bangladesh showed that clients with improved interpersonal relations with providers were 27 percent more likely to use contraceptives in the future. The effect was more pronounced on method continuation among the current users (Koenig et al. 1997). In another study conducted in Michigan, women who received personalized counseling were five times more likely to use contraceptives than those who did not (Weisman CS, et al, 2002). And a longitudinal study conducted with 1,320 Senegalese women showed a positive association between quality of care and contraceptive use (Sanago, et. al, 2003). In this study, quality of care was defined by providing various contraceptive choices, assessing clients' needs, treating them properly and providing them information as well as ensuring clients sought services in the future.

Health providers' technical competency, which includes full and accurate knowledge and acceptable clinical practice, is also an important element of quality of family planning services. Studies from India have pointed to significant lapses among providers in their knowledge and practice. In their four-state examination of providers, Verma and Roy (1999) found that the proportion of workers who correctly understood when the fertile period occurs in the menstrual cycle was low, ranging from only 39 percent of workers in Bihar to 86 percent in Tamil Nadu. An earlier study in Madhya Pradesh reported that more than half of the female workers did not understand how to take blood pressure, and more than three-fourths lacked the knowledge of many basic pathological tests (as cited in Satia and Giridhar, 1991). A study by Visaria (1999) in Gujarat demonstrated the prevalence of inaccurate information among a substantial proportion of auxiliary nurse midwives (ANMs) concerning contraindications for providing oral contraceptives to potential clients. Studies also underscore significant gaps in providers' actual clinical practices: In the same study of women who used IUDs, only 49 percent of them reported receiving a check-up before the IUD insertion, and only 41 percent reported that the provider washed her hands or put on gloves before inserting the IUD (Visaria, 1999).

High quality family planning services provide women with timely and comprehensive information to enable them to make informed decisions about their fertility. Both the timing and depth of information affect women's decision whether to begin and continue using contraception. According to a study conducted in India, when women were given balanced information on available methods such as Norplant, IUD, low-dose oral contraceptives and condoms, the IUD became the leading choice, with 58.6 percent of women choosing this method (Baveja et al., 2000). However, clients often receive very limited information on different contraceptives, particularly the IUD (IIPS and Macro, 2007).

Studies have shown that providers show little respect to the autonomy and decision-making capacity of women, particularly to those who are poor, illiterate and from marginalized communities; and provide information only when they consider it to be appropriate for clients (Murthy, 1999; and Santhya, 2003). Even content is frequently inadequate, that side effects are often not clearly explained, and clients are not effectively counseled in how to deal with them (Roy and Verma, 1999; Mavalankar and Sharma, 1999).

An effective dimension of providing women with accurate and timely information is the interpersonal relations between providers and women users. This tends to receive little attention or get sidelined because of the high

workload and fragile infrastructure of the public health care system in India. Indeed, a number of quantitative and qualitative studies reveal poor interpersonal relationships between providers and women despite extensive outreach programs (Khan, et. al; 1999; Townsend, et al, 1999; Murthy, 1999; Roy and Verma, 1999).

Family Planning Services in Bihar

With 103 million people, Bihar is struggling to reduce its high fertility rate of 3.7 (RGI 2011; RGI, 2010). There is a high unmet need for modern family planning methods, yet, as mentioned earlier, contraceptive use is low and FS serves as the dominant family planning method. And while recent statistics show that contraceptive use has increased by eight percentage points, from 26 percent (DLHS 1, 1998-99)¹ to 33 percent (DLHS-3, 2007-08), this is still low compared to the national average of 54 percent (DLHS-3, 2007-08). Data on method mix indicates that female sterilization is the most opted method (26 percent), distantly followed by the traditional methods (3.5 percent), condom (1.3 percent), oral pill (0.9 percent) and IUD (0.4 percent). Moreover, early discontinuation is high among IUD and pill users (DLHS 3). Among those who had ever used an IUD, almost half discontinued within two years, while 44 percent of pill users did so within six months. The same study reveals that the unmet need for the spacing method is 13 percent, while that for the limiting method is 23 percent.

Existing literature on Bihar, though sparse and dated, indicates glaring gaps in health infrastructure. According to DLHS-3, in 2007-2008, most primary health centers (PHCs)² in the state were poorly staffed, with one in ten functioning without a doctor and more than 70 percent operating without a female medical officer. Moreover, a fourth of the primary health centers did not have even four beds and 90 percent were without regular electricity supply. Coupled with an erratic supply of contraceptives, this limits providers' ability to provide a suitable choice of contraceptive methods to clients. The situation was noted to be particularly grim in Additional PHC (APHCs) as often staff are diverted to operationalize the PHCs (Gill, 2009).

Counseling and follow-up are the other weak areas. According to the latest survey, among those who were using the IUD, only 38 percent were told about side effects (DLHS 3). Furthermore, less than 10 percent of non-users and traditional method users were ever advised to use modern contraceptives. Among those who were advised, only 12 percent were told about the IUD. Nevertheless, all were informed about oral contraceptive pills (OCP) and 80 percent about FS.

However, with the launch of National Rural Health Mission in 2005, the government of Bihar has made several efforts to improve health outcomes, including strengthening health infrastructure, increasing human resources and public-private partnerships and introducing schemes to create demand for maternal health services. According to the state report, the health expenditure has increased from 1.2 percent of GSDP in 2008-09 to 1.8 percent in 2012-13 (Sanjay Kumar, 2014). Further, under public-private partnerships, the government has accredited private health facilities to conduct female sterilization, with the Indian Medical Association (IMA) and the Federation of Obstetricians & Gynecologists Society of India (FOGSI) helping to design and implement the program. These accredited private health facilities receive Rs. 1,500 per female sterilization so they may provide free quality services to clients (GoB, 2012). The government recently increased this further.

1 District Level Household and Facility Survey (DLHS)

2 Primary Health Care set-up in rural Bihar consists of Primary Health Centers (PHC), Additional Primary Health Centers (APHC) and Sub-Centers (SC). The SC is the first point of contact with health system with one or two auxiliary nurse midwife (ANM) and responsible for providing preventive and promotive health care to 5,000 to 10,000 population. Additional PHC caters to around 25,000-30,000 population and staffed with a doctor and 5-7 paramedical staff. On the other hand, PHCs cater to 100,000 to 150,000 population and staffed with four doctors and 10-14 paramedical staff. These are six bedded facilities and provide curative, preventive and family welfare services. District and Sub-Divisional Hospitals constitute uppermost tier of health system maintained by states

To capitalize on the increased institutional delivery, the government of Bihar has made a specific effort to promote immediate post-partum IUD insertion and FS. The initiative includes training of doctors and ANMs on immediate and extended postpartum IUD insertion, asking districts to set up quality assurance committees, and fixing specific service delivery days for family planning at facilities. The government has recruited large number of community health workers (ASHAs) to motivate and link potential clients to the facilities. It has also made them the depot holder for oral pills and condom.

Given the government's efforts to address high fertility and low contraceptive use, female sterilization and IUDs are expected to remain the mainstay in Bihar's overall family planning strategy. It is therefore important to assess whether services are improving as a result of the efforts in Bihar, especially given higher health and family planning spending. The following section provides more details on how we went about this study.

Objective

The objective of this study was to provide evidence on the gaps in family planning services for women as well as in the efforts to improve the quality of such services in Bihar. Specifically, we measured the standard of quality of FS and IUD-related services in the state to provide specific guidance on how to improve the services and therefore uptake of these methods. Overall, we aimed to examine:

- The standard of quality for sterilization and IUD services in different types of facilities in Bihar.
- Women's experiences in relation to the quality of care they receive for IUD and FS.

We applied the Bruce-Jain framework on quality of care to address the following research questions:

Method choice

- What is the system of preparedness in terms of supplies and logistics to provide sterilization and IUD services?

Information to clients and processes for follow-up

- Are clients given adequate information to enable them to make an effective choice?
- What are the levels of pre-operation/insertion and follow-up counseling provided to IUD and sterilization clients?
- Are clients given information on possible side effects and follow-up?

Technical competence

- What is the level of knowledge about FS and IUD services among providers?

Interpersonal relations

- What are the standards of privacy and confidentiality?
- What are sterilization and IUD clients' one-on-one experiences like with their provider? What are the experiences of clients of sterilization and IUD relating to interpersonal relations with the provider?

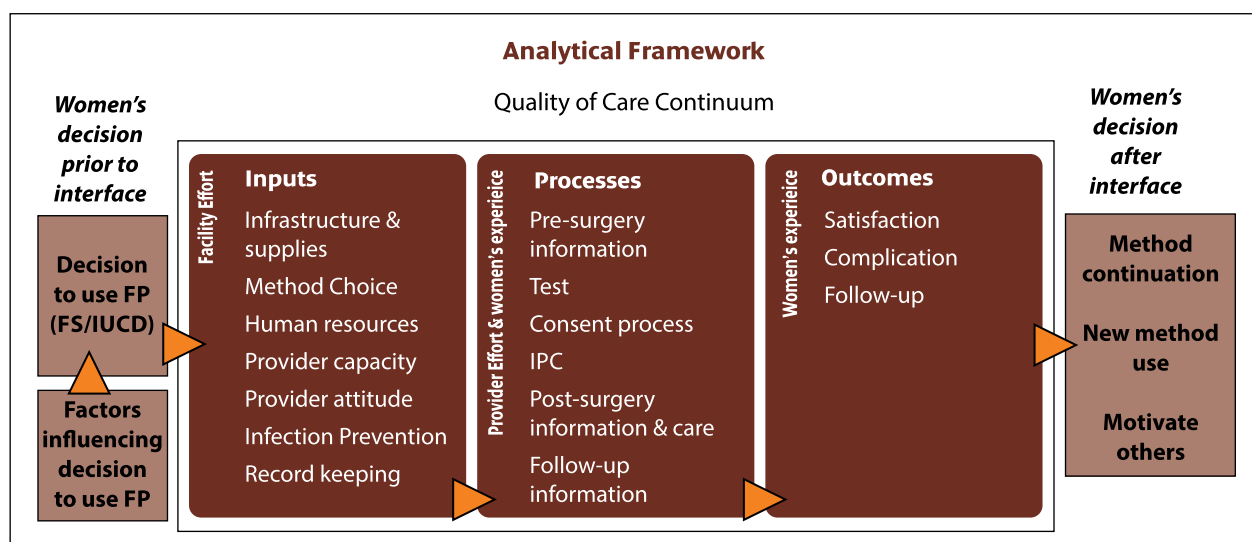
Appropriate constellation of services

- Are family planning counseling and services provided as part of post-partum care?

Analytical Framework

The analytical framework for this study recognizes that the quality of care offered in family planning services is not an input or an outcome but rather a continuous process that encapsulates the health facility's efforts, providers' attitudes and skills, counseling and care as well as the experience of care by women. The resultant effect of this quality continuum is defined by women's satisfaction with services, any complications they may face and whether they decide to return for follow up visits.

Women's experience with health systems is paramount and should be considered ahead of any data related to the use of services or family planning methods delivered. Women not only decide to continue a certain contraceptive method, return for follow up visits or switch to a more effective appropriate method addressing their needs, but they can also motivate other women to use family planning. Therefore, women's experiences with family planning services are critical to understand the quality of care at any one point of time as well as a continuous process of engagement. This engagement process involves how the health system empowers women to achieve their reproductive intentions, make informed decisions regarding continued use of contraceptives, and influence other women to demystify fears and misperceptions about birth control. With that, our analytical framework suggests that the goal of the health system should be to influence women to be empowered users of modern family planning.



In the case of sterilization, women who have had few or no complications from the procedure are more likely to influence other women to choose sterilization or other methods. We suggest that these are the types of outcomes after women's interface with the health system, which efforts to improve quality of family planning care need to be concerned about.

Providers' hyperbolic reports of the care they provide and women's low expectations of quality contribute to a complacent understanding of quality of care concerns (Santhya, 2003; Williams, 2000; and Nanda, et. al, 2011). Thus, a women's actual experience of quality of care is a critical lens in this framework. It serves as a bridge between the provider's effort and the outcomes of a satisfied user after her experience with the health facility; a testimony to what information and counseling and care was provided to her.

Chapter 2: Data and Method

For our study, we applied structured and semi-structured surveys of facilities, providers and clients to assess the quality of care during sterilization and IUD procedures, both from the perspective of users and providers. Our work took place in five districts of Bihar selected on the basis of contraceptive prevalence, unmet need and geographical spread. The parameters of our assessment of quality were derived from the Bruce-Jain framework. Specifically, we conducted facility audits, interviewed health care providers and held exit interviews with women after IUD insertion, follow-up or removal. We also interviewed women in their homes who were sterilized the previous week. A brief description of each tool follows:

- The **facility audit** included structured and open-ended questions and observations. It included specific questions on the provision of different family planning methods; presence of adequately trained health providers to counsel clients and provide specific contraceptive methods; a stock of methods and the availability of essential functional equipment and drugs; and the integration of family planning services with maternal and abortion care services. The audit also included questions on the number of women availed IUD and FS services in last six months. A clinic walk was conducted through the registration, waiting and examination/consultation areas where family planning, delivery and abortion services are provided to assess cleanliness, seating arrangements, privacy, water supply and lighting in each. The study also observed how the flow of clients was managed while waiting for a procedure and during pre-operative interactions with providers (examination/counseling), surgical procedures, post-operative care and discharge of sterilization clients.
- **Exit interviews** included questions to clients on their comfort and privacy; recall of information on method choice, side effects and follow up; perceptions on the appropriateness of the information; levels of satisfaction or dissatisfaction; their use or intention to use the facility, and willingness to follow up or return to the facility. To cover a range of services provided by a facility, exit interviews were conducted with clients who had come for family planning services or for follow-up to IUD use or sterilization or who were leaving the facility after IUD insertion. The exit interviews included maternal and child health clients in order to understand the integration of family planning with maternal and child health services, an important strategy to increase contraceptive use.

As it was difficult to interview women leaving facilities immediately after sterilization, the study did so at their homes between four to eight days after the procedure.

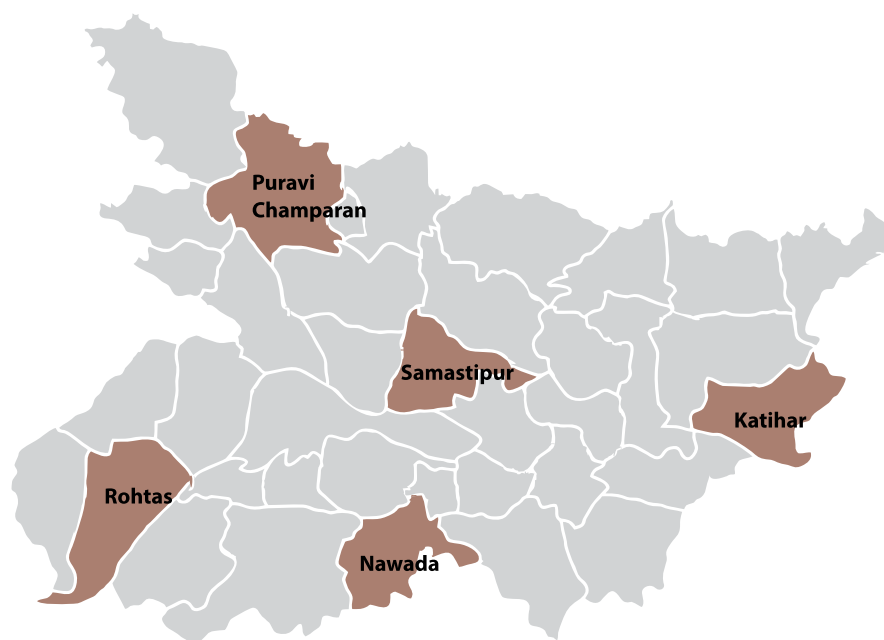
- **Interviews with health care providers** (doctors, nurses, ANMs and family planning counselors) to learn about their training, knowledge and provision of family planning methods; topics covered during counseling; adherence to protocols; availability of family planning methods and necessary equipment; provider barriers; and integration of family planning with delivery and abortion or post-abortion care services. The providers interviewed were those who conducted sterilizations, provided IUDs or delivery and abortion services, and who counseled clients on family planning.

Elements of Framework	Data collection methods
Infrastructure	Facility audits
Equipment and supplies	Facility audits
Technical competence	Interviews with Service Provider
Information to clients and follow-up	Interviews with SPs
Interpersonal relations with clients	Exit interview
Integration of family planning with delivery and immunization services	Interviews with SP, and exit interviews
Waste management and infection prevention	Facility audits

Sample size and sampling procedure

In Bihar, sterilization and IUDs are offered on fixed days at District Hospitals (DHs), Sub-Divisional Hospitals (SDHs), PHCs, sterilization camps³ and in private health facilities. To achieve a representative sample, a three-stage sampling design was used with the selection of districts at the first stage, health facilities at the second and respondents at the third stage.

- Selection of districts:** In consultation with the state government, districts were selected based on four criteria: 1) a functional DH and community health centers (State PIP, Bihar 2010-11); 2) high or low sterilization prevalence rate (DLHS-3); 3) high unmet need (DLHS-3) and 4) geographical spread across the state. Based on these criteria, five districts -Katihar, Nawada, Purvi Champaran Samastipur and Rohtas – were selected for the study. Among these districts, Rohtas performed better based on some of our criteria, with a 32 percent sterilization rate and 28 percent unmet need, while Katihar had the lowest performance rate, with an 18 percent sterilization rate and 43 percent unmet need.



³ As per government of India guidelines, a sterilization camp is defined as alternate service delivery mechanism, when “operating team located at a remote facility (District headquarter/Medical colleges/First Referral Units) conducts sterilization operations at a sub district health facility, where these services are not routinely available.” During the three months of data collection, we could not get any specific information about camps.

- **Selection of facilities:** We selected 16 facilities from each district - a DH, three SDHs, eight PHCs and four private facilities. These facilities were selected based on accessibility, with some being centrally located and easily accessible from district headquarters and a few being more remote, to ensure geographical spread.
- **Selection of respondents:** Each tool used to gather quantitative and qualitative data on the quality of family planning services had the following specific set of respondents:
 - The facility manager, store keeper and record keepers were the key respondents for the **facility audit**.
 - For the **service provider interviews**, three or four providers involved in counseling and providing sterilization and IUDs, including a doctor, nurse/ANM and counselor, were selected. The roster from the facility audit provided a frame for the selection of different categories of providers; and they were selected randomly for interviews.
 - Four to six clients who accessed information or services related to sterilization and IUDs were **interviewed when they left the facility**.
 - **Interviews with sterilization clients** were conducted with four randomly selected women from each facility. While the interview was conducted between four and eight days after surgery at their residence, consent for the interview was taken before the procedure at the facility.

Table 2.1 Sample Size				
Health facility	Facility audit	Provider interview	Exit Interview with female clients	Interviews with sterilization clients
District Hospital	5	25	48	20
Sub-Divisional hospital	11	42	75	46
Primary Health Centre	45	134	262	154
Private Hospital	18	55	80	42
Total	79	256	465	262

Chapter 3: Quality of Care in the Provision of Female Sterilization

3.1 Facility Preparedness to Provide Female Sterilization Services

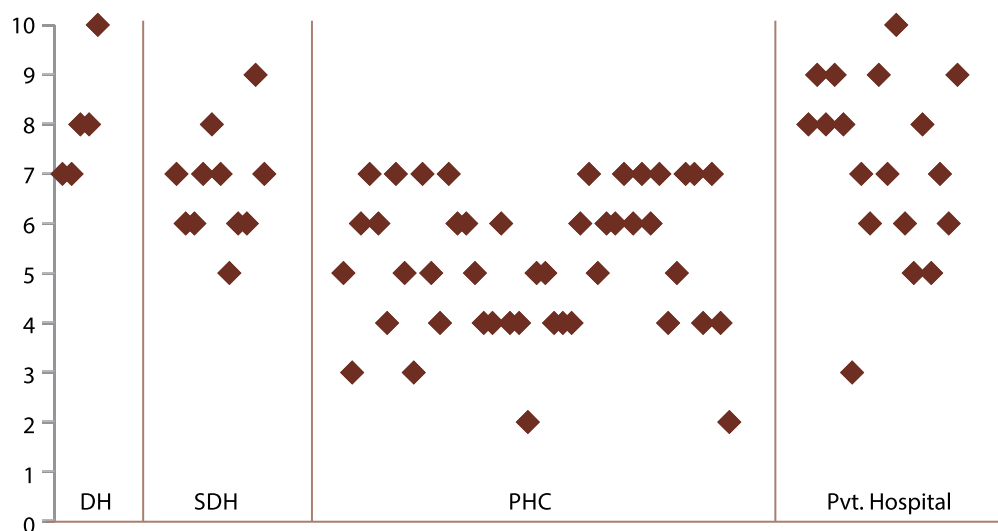
The government of India's guidelines on female and male sterilization and hospital waste management were used to assess the preparedness of public and private health facilities in terms of physical infrastructure, equipment, drugs and supplies and human resources in Bihar (Gol, 2006; Gol, 2007; Gol 2012).

3.1.1 Physical Infrastructure

While certain aspects of physical infrastructure have improved in health facilities, there is a gap in critical spaces for waiting, counseling, examination and recovery.

We developed an infrastructure index based on 10 key elements from standards in the national guidelines that are essential for quality sterilization services. They are: a waiting area with a clear seating arrangement; separate family planning counseling room; separate examination room or area; a working generator; functional operation theatre; running water in the operating theatre; blood and urine testing facility; separate toilet for female clients; enough beds for each sterilized client; and the availability of running water throughout the day. A facility was given a score of '1' for each element that was present and '0' if it was not. The score was then added. The index value ranges between 0 (with none of the items) to 10 (with all the items).

Figure 3.1 Infrastructure: Health facility score on infrastructure index



Scores for each facility is presented in Figure 3.1. Only two facilities – a DH and a private hospital – have all 10 items; and most of the PHCs are between scores four and seven.

Data on specific items shows that certain items are available at all the facilities (Table 3.1). For example, during the survey, all the facilities had a functional generator to provide around the clock electricity. Similarly, all facilities except one PHC had running water. Barring these two, it is the other items on our facility infrastructure score, such as separate examination room or a family planning counseling room, which are often missing.

Although public facilities, including DHs, tended to cater to large populations, most did not have a covered waiting area with adequate seating. Only two DHs out of five, two SDHs out of 11 and 16 percent of PHCs had designated covered waiting areas with chairs or benches for clients and those accompanying them. Clients often were seen sitting on the floor of a hallway, in the registration and outpatient department areas or outside on the ground. The situation in private facilities was marginally better with 10 out of 18 of them having appropriate waiting areas.

Despite the high presence of female clients seeking family planning and other services at health facilities, less than half of these facilities had separate functional toilets for women. This was generally true for both public and private health facilities.

Table 3.1 Infrastructure Distribution of health facilities by infrastructure required to provide FS, Bihar, 2013-14				
	District Hospital (No.)	Sub-divisional hospital (No.)	Primary Health Centre (%)	Private hospital (No)
Availability of generator in working condition	5	11	100.0	18
Availability of running water throughout the day	5	11	95.0	18
Operation theatre in use	5	11	98.0	18
OT have running water	5	10	76.7	12
Blood and urine testing facility	5	7	52.0	10
Separate room/area for examination	5	7	66.0	14
Separate FP counseling room/area	3	5	9.0	5
Separate functional toilet for female clients	3	7	41.0	10
Designated covered waiting area with sitting arrangement	2	2	15.6	11
Facilities having a bed for each sterilization client	3	4	14.0	16
Total number of health facilities	5	11	45	18

A critical aspect of quality care is client privacy, specifically auditory and visual privacy, particularly during counseling, medical examinations, surgery and recovery. As expected, we found all DHs to have a separate room or area for these purposes. However, four out of 11 SDHs, four out of 18 private hospitals and one-third of the PHCs, did not have separate examination rooms. In these facilities, providers used other spaces such as a duty or labor room or any other empty space, which rarely provided any kind of privacy to their clients. Even fewer facilities offered a designated counseling area. In the absence of such spaces, clients' consultation with health providers were quick and often cursory and further compounded by both a high client load and limited waiting space. For instance, in a public facility we witnessed the following:

"... doctor is calling patients one by one, while others are waiting at the gate of the OPD. It's very noisy. There is no chair for clients in the consultation room - people are standing and showing themselves to the doctor. The doctor is asking about problems briefly and writing prescription. He is not giving time to explain or ask any question. At times, he was not even looking at the patient"

In several PHCs, we discovered OTs that were in poor condition and ripe for infection due to a lack of adherence to safety protocols. We also noted that in two PHCs, surgeries were not conducted in an OT, but rather, in an in-patient ward or Out Patient Department (OPD).

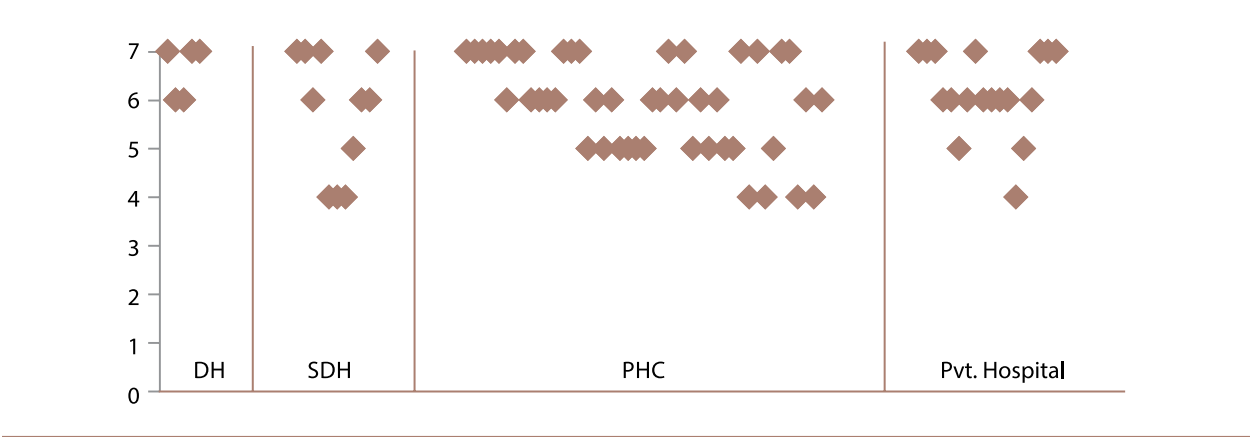
Meanwhile, several public facilities, including DHs did not have enough beds to accommodate sterilization clients. On the days of the survey, only three DHs and four SDHs were able to provide beds to women after their surgery. This situation was particularly grave in PHCs where on an average, 11 sterilization surgeries take place on scheduled days but where there are only six to nine beds available, which are often reserved for women post-childbirth. Only in 14 percent of PHCs, did all the women receive a bed post-surgery on the day of the survey. To cover the shortfall in beds, some facilities provided mattresses, but at times can only supply a *darri* or cotton mat on the floor for recovery, neither of which meets the minimal standards of cleanliness and hygiene. Moreover, recovery spaces were often crowded, as each client has two to three attendants, causing additional challenges for infection prevention. In the PHCs, while the client load for sterilization and delivery has increased, the supply of beds for recovery is not keeping pace with the demand for services.

3.1.2 Equipment and supplies

DHs are well-equipped to provide female sterilization, but sub-divisional hospitals and PHCs need to be strengthened.

Using the government of India guidelines, we identified the following list of equipment required, at a minimum, to perform a sterilization procedure: mini-laparotomy kit, autoclave/boiler, blood pressure apparatus with a stethoscope, Cheatle’s forceps, scissors, spotlight and puncture-proof box for needles. We then created an index to assess the availability of such equipment and supplies in public and private facilities.

Figure 3.2 Equipment: Health facility score on equipment index



The graph indicates (Figure 3.2) that only three of five DHs, four of 11 SDHs, 35 percent PHCs and seven of 18 private facilities had all the necessary functional equipment required to provide sterilization.

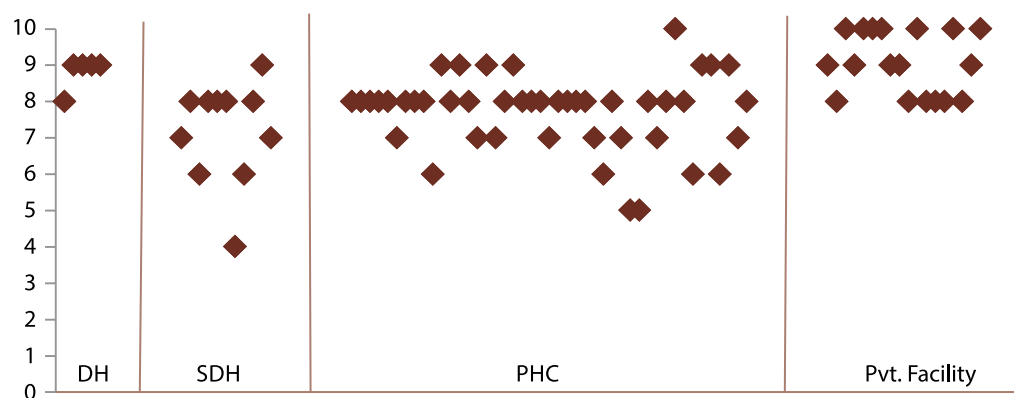
Two to three facilities did not have critical equipment such as an autoclave/boiler and mini-laparotomy kit (Table 3.2). Meanwhile, simple but necessary items such Cheatle’s forceps were available in only six of 11 SDHs and three-fourths of the PHCs. The lack of this basic equipment, particularly autoclave/boiler and mini-laparotomy kit, affect service delivery.

Table 3.2 Equipment
Distribution of health facilities by availability of functional equipment required to provide FS, Bihar, 2013-14

	District Hospital (No.)	Sub-divisional hospital (No.)	Primary Health Centre (%)	Private hospital (No)
Mini-laparotomy kit	5	10	95.6	18
Autoclave or boiler to sterilize equipment	5	11	97.8	17
Scissors	5	8	84.4	17
Spotlight	5	11	84.4	18
BP apparatus with stethoscope	5	8	82.2	18
Puncture-proof box for needles	3	7	60.0	16
Cheatle's forceps	5	6	73.3	16
Total number of facilities	5	11	45	18

To assess the status of surgical necessities, we asked about availability of different drugs and supplies required for sterilization. We constructed a drug and supplies index using the following 10 items: anesthesia drugs (Inj. Ketamine or Inj. Diazepam), post-operative drugs (antibiotics, anti-inflammatory and analgesic), emergency drugs (Inj. Adrenalin, Inj. Hydrocortisone, Inj. Chlorpheniramine Maleate, Inj. Frusamide, Inj. Atropine, Inj. Mephentine, Inj. Aminophylline, Inj. Deriphylline, Inj. Soda Bicarb., I/V fluids 5% dextrose, Normal Saline, and Ringer Lactate), dry gauze/cotton swabs, gloves, bleaching powder, providine iodine, surgical blade, silk/cotton thread and catgut chromic⁴.

Figure 3.3 Drug and Supplies: Health facility score on drug and supplies index



Among the public facilities, only one PHC reported having all the 10 listed items (Figure 3.3). All the DHs have eight or nine items, while most of the PHCs between seven and nine. In some facilities – SDHs and PHCs – six or fewer supply items were available.

We found major gaps in emergency and post-operative drugs (Table 3.3), with no DH or SDH having available all 12 emergency drugs and only 10 private hospitals (out of 18) and seven percent PHCs with a supply of such

drugs. Moreover, less than half of the PHCs and one SDH (out of 11) reported having post-operative drugs. The shortages are particularly stark for anti-inflammatory and analgesic drugs. During the discussion, one of the providers shared that they receive Rs 100 for each sterilization client to buy the necessary drugs (at a prescribed rate), but as the drugs were more expensive in the open market, they could not buy these drugs and instead asked clients to purchase them. Given that these drugs are easily available in market at low price, it's difficult to reconcile this gap.

Apart from a few PHCs, all hospitals had anesthesia drug for surgeries. However, simple but important items, such as bleaching power and providine iodine, which are necessary to ensure aseptic procedure, were unavailable in three of the 11 SDHs. Only 62 percent PHCs reported having bleaching power.

Table 3.3 Medical Supplies and Drugs				
Distribution of health facilities by availability of drugs and supplies required to provide FS, Bihar, 2013-14				
	District Hospital (No.)	Sub-divisional hospital (No.)	Primary Health Centre (%)	Private hospital (No)
All 12 items in emergency drug tray	0	0	6.7	10
Dry gauze/cotton swabs	5	10	84.4	17
Gloves	5	10	91.1	18
Providine iodine	5	8	95.6	17
Surgical blade	5	11	100.0	17
Catgut chromic	5	11	95.5	18
Silk/cotton thread	5	9	97.7	18
Anaesthesia drugs	5	11	91.1	18
Post-operating drugs	4	1	46.7	13
Bleaching powder	5	8	62.2	17
Total number of facilities	5	11	45	18

3.1.3 Human Resources

Districts are mobilizing trained doctors and other staff to regularly provide female sterilization, but this mechanism is not without challenge

National guidelines on sterilization allow for a trained doctor to conduct a mini-laparotomy, while an obstetrician or a trained surgeon is permitted to conduct laparoscopic sterilizations. Doctors are prohibited from doing more than 30 sterilizations in a day, according to regulations. Since every health facility may not have trained doctors to conduct a mini-laparotomy or laparoscopic sterilization, each state is expected to constitute a district-wide panel of doctors to conduct these operations in public institutions and accredited private and nongovernmental centers. The panel is to be updated quarterly and only the doctors on the panel are authorized to carry out sterilizations.

Our data suggested that all DHs in Bihar had at least one doctor trained to perform mini-laparotomy, the procedure primarily performed in the state (Table 3.4). On the other hand, seven SDHs (out of 11) and two-thirds of PHCs had such trained doctors. Although this has not affected the delivery of sterilization procedures because district authorities mobilize providers from other facilities to make up for the gaps, it has its own challenges: patients must wait for long hours when doctors come from other facilities to perform surgeries, and if there are nine or fewer patients on a scheduled day, surgeries are cancelled and clients are asked to return on the subsequent

scheduled day. When asked specifically about post-partum sterilization, a less number of the public facilities mentioned that they have doctors trained to so, through no separate training is required for this. This could be due to a lack of information or the confidence necessary to preform post-partum sterilization.

Table 3.4 - Trained Human Resources
Distribution of health facilities by availability of trained medical staff necessary to provide FS, Bihar, 2013-14

	District Hospital (No.)	Sub-divisional hospital (No.)	Primary Health Centre (%)	Private hospital (No)
At least one doctor trained in mini-lap	5	7	66.7	16
At least one doctor trained in post-partum sterilization	4	5	40.0	16
ANM/Staff Nurse available round the clock	5	10	100.0	17
Family planning counsellor	4	8	11.1	8
Number of health facilities	5	11	45	18

To expand the service delivery duration and operationalize in-patient care, which is necessary for sterilization clients, all except three facilities (one SDH and two PHCs) have ensured availability of ANM or staff nurse round the clock. However, discussion with providers revealed that public facilities, particularly PHCs, do not have enough staff nurses or ANMs to keep in-door services running, and that the staff shortages are being met by deputing ANMs from sub-centers (SCs). This has potential implications for services as the SC from where the ANM is deputed and for the extra burden on staff. For example, one of the ANMs shared that after doing night duty at PHC, she used to go to her SC area for routine immunization sessions. During discussions, providers mentioned logistical challenges that needed attention, such as the lack of or limited space for a night stay, long working hours and inadequate or no security for ANMs staying overnight at PHCs.

With the introduction of the Janani and BalSurakshYojana⁵, a large number of women are coming to PHCs for delivery, which presents an excellent opportunity to reach out to clients with family planning information and services in advance. However, not every facility – even DHs and SDHs – have a FP counselor. At the time of the survey, four DHs (out of five), eight SDHs (out of 11), eight private hospitals (out of 18) and only 11 percent PHCs had family planning counselors. Moreover, some of these facilities with counselors do not have separate rooms to provide their clients privacy during their counseling sessions. In terms of selection and posting, providers shared that counseling services would benefit from greater gender and community representation. For example one provider noted:

“This is a Muslim populated area, therefore if there were Muslim women advisors, then there would have been more cases.”

3.1.4 Providers Knowledge and adherence to protocols and guidelines

A Majority of the providers are not aware of the eligibility criteria including minimum age and parity, and consent process for sterilization.

The government guidelines on female and male sterilization highlight the need for adhering to protocols on standard guidelines as “an important step in ensuring the provision of quality services to the growing number of clients by program managers and service providers providing permanent methods of contraception” (Gol, 2006). However, data suggests that less than half of the SDHs (five out of 11), PHCs (48 percent) and private hospitals (seven out of 18) have standard protocol on guidelines on sterilization physically available in the facilities. This lacuna is paralleled in the knowledge of the providers also.

Though the guidelines on consent process have changed long back and do not require spousal consent, most of the health providers including doctors and counselors still consider partner consent necessary for FS (Table 3.5). This cuts across both public and private facilities. Furthermore, a majority of the providers are also unaware of the eligibility criteria related to age and parity. To be eligible for sterilization, the government requires women to be between the ages of 22 and 49 years and have at least one child aged above one year unless the sterilization is medically indicated (Gol, 2006). When asked about these criteria, two-thirds or more providers mentioned minimum parity to be two.

Table 3.5 - Knowledge of Providers							
Distribution of health providers involved in providing FS by their knowledge of guidelines and eligibility criteria to provide FS by provider type in public and private facilities, Bihar, 2013-14							
		Public Facilities			Private Facilities		
		Doctor (%)	ANM/ Nurse (%)	FP Counselor (No.)	Doctor (%)	ANM/ Nurse (%)	FP Counselor (No.)
Require a partner's consent for providing FS		86.8	94.7	17	90.9	92.3	7
Minimum age for providing FS	<22yrs	16.2	4.4	0.0	18.2	0.0	0
	22yrs	10.3	8.0	5	4.5	11.5	3
	>22yrs	73.5	87.6	12	77.3	88.5	4
Minimum no. of children	No min	1.5	0.9	1	0.0	0.0	0
	1 child	23.5	10.6	1	9.1	3.8	1
	2+ children	75.0	88.5	15	90.9	96.2	6
Number of providers		68	113	17	22	26	7

Among the 253 providers interviewed, 68 doctors conducted sterilization surgeries. Eighty percent of them mentioned that they would delay such a procedure if the woman was pregnant, while 30 to 50 percent of them said they would do so if she had irregular menstrual bleeding or puerperal sepsis or if she currently had a sexually transmitted disease or pelvic inflammatory disease (PID) (Table 3.6).

Table 3.6 – Knowledge of Medical Conditions to delay Female Sterilization
Distribution of doctors providing FS about medical conditions for which FS should be delayed by facility type, Bihar, 2013-14

	Public Facilities (%)	Private Facilities (%)
Pregnancy	81.6	78.9
Irregular menstrual bleeding	40.8	42.1
Puerperal sepsis	34.7	31.6
Current STI	32.7	36.8
Current PID	28.6	47.4
Post abortion sepsis	10.2	5.3
Postpartum hemorrhage	8.2	10.5
No. of providers	49	19

3.1.5 Provider's attitude during interaction with clients

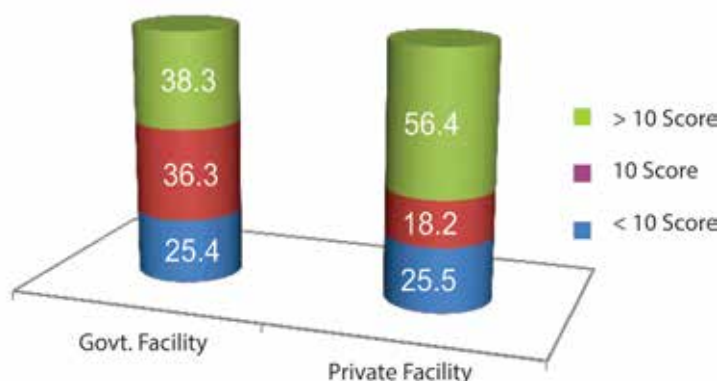
Often providers do not give enough attention towards strengthening interpersonal relation with the clients.

We developed an index based on the following six indicators to assess providers' attitudes with sterilization patients:

- Provider does not meet the client in the presence of other clients
- Provider talks to the person accompanying the client
- Provider ensures privacy during the patient's examination
- Provider explains to the client what happening during the examination
- Provider usually explains the results of the examination
- Provider keeps information about the client confidential.

For each behavior, a score of two was given if the provider reported always following it, one for sometimes and zero for never. Thus, the index value ranged from zero to 12.

Figure 3.4 Provider's attitudes during interaction with family planning clients



On average, we found that more than half of private hospital providers and a third of those working in public facilities had positive interactions with clients, based on our criteria (Figure 3.4). This still is not sufficient, however, as every woman has the right to be given privacy during an examination, informed about what is going to happen in an examination and know about the test results. Earlier studies have also shown that often providers do not consider women capable of understanding and appreciating the information on examination, test results and even privacy.

3.1.6 Service provision - Frequency of conducting female sterilization

Female sterilization is carried out at least weekly in all the surveyed facilities. Wherever, in-house doctors are not available, doctors from other facilities are mobilized for this.

Following the guidelines, all facilities in our survey carried out sterilizations at least once a week, but the frequency depended on the caseload and whether an in-house doctor trained in mini-lap was available. The majority of district and private hospitals performed sterilization daily, whereas more than half of the SDHs and PHCs did so once or twice a week.

Table 3.7 – Female Sterilization Case Load			
Average monthly case load⁶ of female sterilization by facility type, Bihar, 2013-14			
	Mean	Maximum	Minimum
District Hospital	70	182	18
Sub-Divisional Hospital	102	169	30
Primary Health Centre	68	160	2
Private hospital	38	207	2
Total	66	207	2

The caseload data presented interesting facts (Table 3.7): Even with limited infrastructure, on average SDHs handled a higher caseload compared to DHs; and the load of a DH was similar to that of the PHCs. Though the average caseload in private hospitals was 38, it ranged anywhere between two to 207 cases a month.

3.1.7 Waste management and infection prevention practices

There are simple things that are lacking to ensure hygiene, safe waste disposal and infection prevention

Based on the Bio-Medical (Management and Handling) Rules, 1998, the government of India has developed a national policy and operational guidelines to manage biomedical waste for different facilities under the Infection Management and Environment Plan (IMEP). These guidelines provide information on how to segregate, collect, treat, transport and dispose of different types of biomedical waste.

All DHs in our survey had waste disposal guidelines, but only four of the 11 SDHs, eight of the 18 private hospitals and 53 percent PHCs did (Table 3.8). For waste disposal, mostly facilities use land fill followed by outsourcing to a waste management agency. Only one private facility used an incinerator. Despite this, our observations found that hospital waste, particularly syringes, cotton and bandages were scattered in at least 30 percent of the facilities.

⁶ Data is based on the FS conducted in last 6 months (July to December, 2012)

Table 3.8 - Facility Cleanliness**Distribution of health facilities by cleanliness and infection prevention practices, Bihar, 2013-14**

		District Hospital (No.)	Sub-divisional hospital (No.)	Primary Health Centre (%)	Private hospital (No)
Facilities having waste disposal guidelines		5	4	53.3	8
Process of waste disposal*	Land fill/pit	4	6	73.3	10
	Shredder	0	1	2.2	0
	Needle and syringe destroyer	1	0	17.8	3
	Outsourced to waste collection agency	3	6	48.9	5
	Others	0	2	6.7	5
Floors and walls have blood and body fluid strains		3	2	26.7	2
Infection prevention guidelines		4	7	45.5	5
Total number of facilities		5	11	45	18

* Note – Multi-response

Maintaining cleanliness is a big challenge in public facilities, particularly in DHs due to high caseloads. In three out of the five DHs, the walls and floors were stained with blood or bodily fluid. In comparison, nine out of the 11 SDHs and 73 percent of the PHCs were clean. However, most of the SDHs and PHCs had broken windows and doors, and in some facilities, the windows were broken even in the OTs. In several facility audits, the levels of cleanliness varied but often was lower than expected by the observers, who noted foul smells and flies on women who had recently delivered babies or undergone sterilization.

Such unhygienic conditions were further compounded by an environment vulnerable to infection and contamination, particularly in the operating and recovery areas. For instance, in several facilities we noted that doctors and paramedical staff were freely moving in and out of the OT in their usual shoes; family members were called inside the OT to help transfer women to the recovery room; members of the staff who were attending to women after their surgery had injuries; and used surgical instruments were being washed with only hot water in an open area.

"While the operation was going on, the paramedical staff could be seen moving out after sometime. The doctor came out to spit out the betel leaves quite a few times. No one took off their shoes before going into the operation theater..."

"While operation was going on, the staff came in and out of the theater ... calling the clients one by one. One of the staff took tea and biscuits inside too."

3.1.8 Record keeping

Sterilization case records are kept more for financial accounting than for medical purposes.

National guidelines clearly outline that sterilization clients' medical information, such as their menstrual, contraceptive and medical histories, in addition to their demographic characteristics, need to be documented. Our review of medical records revealed that while almost all facilities kept records of FS, the information noted on the case sheets was incomplete (Table 3.9). The situation was relatively better at DHs compared to other

facilities: in at least three out of the five DHs, most of the case sheets contained requisite information, such as demographic characteristics, menstrual, obstetric, contraceptive and medical histories, and information related to lab tests and physical examination; whereas, less than half of SDHs and PHCs had recorded obstetric, contraceptive and medical histories. Data suggests that case sheets are kept more for financial accounting than for a patient's medical record.

Table 3.9 - Record Keeping					
Distribution of health facilities by availability of record room and information captured in the client case sheets, Bihar, 2013-14					
		District Hospital (No.)	Sub-Divisional Hospital (No.)	Primary Health Centre (%)	Private Hospital (No)
A room for keeping records		3	10	75.6	13
Information captured in most of the case sheets	Demographics	4	8	93.3	16
	Menstrual history	3	6	31.1	8
	Obstetrics history	4	5	48.9	11
	Contraceptive history	3	5	0.0	5
	Medical history	3	5	20.0	6
	Lab tests	3	10	60.0	11
	Physical examinations	2	6	22.2	7
No. of facilities		5	11	45	18

3.2 Experience of Women

To capture the quality of care experienced by women who had opted for sterilization, the study selected 220 women from public facilities and 42 from private ones, for a total of 262 women, and interviewed them at their residence between four and eight days after undergoing the procedure. This chapter describes clients' knowledge of family planning methods, previous use, reasons for choosing sterilization and the care they received before, during and after surgery and their level of satisfaction.

3.2.1 Knowledge and use of family planning methods

The Majority of female sterilization clients are first time users – only 30 percent had used any method before sterilization

Women who are knowledgeable about the range of family planning methods and side effects associated with each are in a better position to make an informed choice about contraceptives. Our study showed that all of the women who had registered for sterilization were aware of the procedure as a method of family planning (Table 3.10). However, they were not as well informed about other contraceptive methods: only half spontaneously mentioned the pill and IUDs, while around one-third had heard about condoms and almost one quarter knew about injectable. Other modern methods were mentioned by less than a fifth of the women interviewed.

Table 3.10 – Knowledge of Contraceptives**Percentage distribution of clients by knowledge of contraceptives (spontaneous) according to the facilities they access for FS, Bihar, 2013-14**

Contraceptive	District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
Female Sterilization	100.0	100.0	100.0	100.0	100.0
IUD/CuT	60.0	43.5	57.1	61.9	55.7
OCP	55.0	50.0	57.1	71.4	58.0
Condom	40.0	47.8	34.4	46.7	39.3
Injectable	40.0	28.3	19.5	33.3	24.8
Male Sterilization	15.0	26.1	22.1	19.0	21.8
Rhythm method	5.0	4.3	15.8	4.8	11.1
EC	10.0	0.0	1.3	7.1	2.7
Total FS clients (no.)	20	46	154	42	262

It is important to note that a very high proportion of the women who opted for sterilization (70 percent) had not used any contraceptive before. Some of the clients (15 percent) had relied on the rhythm method, while less than one-tenth (eight percent each) had used the pill or condoms. This is particularly concerning given that all DHs and almost all PHCs (96 percent) provided at least four contraceptive options including the IUD, OCP and condom. It is clear that women in our survey were not knowledgeable about contraceptives beyond sterilization. And nearly all of those who came to a facility to be sterilized had already decided to go ahead with the procedure (Table 3.11). The majority told us they chose sterilization because they felt their family was complete and did not want more children (90 percent), while one-fifth also said they thought sterilization was an effective method and around 15 percent that sterilization was also their partner's choice.

Table 3.11 - Reasons for Choosing Female Sterilization**Percentage distribution of clients by reasons to choose female sterilization according to the facilities they access to receive service, Bihar, 2013-14**

	District Hospital	Sub - Divisional Hospital	Primary Health Centre	Private Hospital	Total
Decided on female sterilization before visiting facility	100.0	100.0	100.0	97.6	99.6
Reasons for FS					
Family complete	85.0	97.8	90.3	83.3	90.1
Effective, no problem	15.0	26.1	13.6	40.5	20.2
Partner's choice	20.0	21.7	14.9	9.5	15.6
Provider suggested	0.0	17.4	10.4	7.1	10.3
Others (easily accessible, within capacity; lots of people use)	25.0	21.7	20.1	38.1	23.7
Total FS clients	20	46	154	42	262

3.2.2 Pre-surgery information and care

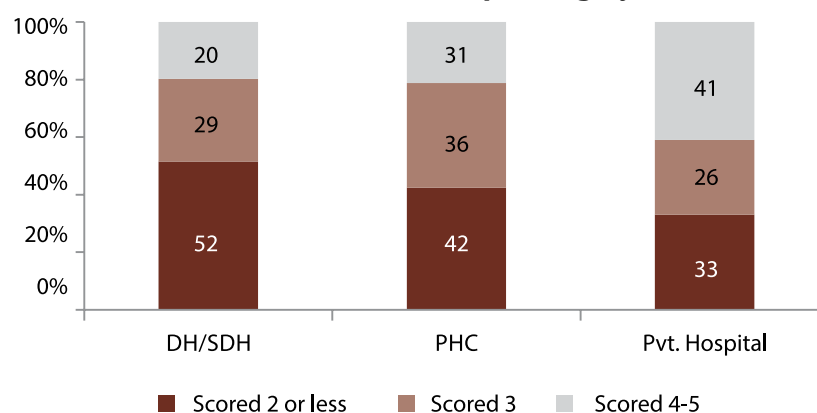
While women are motivated and decide to come forth for sterilization, the level of pre-surgery counseling and care given at the facility are minimal

An important aspect of the quality of care for sterilization procedures is the relevant information and care women are provided prior to surgery, which help prepare them physically and psychologically, and affects their overall experience. It is important that clients are aware that this procedure is a permanent method and difficult to reverse. National guidelines call for providers to inform women that soon after the surgery, she may feel nausea, vomiting or pain; the importance and timing of follow-up visits; and the post-surgical medical problems such as excessive pain, fainting, fever, bleeding or pus discharge from the incision, unable to pass urine or bloating of the abdomen, which would require them to visit the facility again.

Pre-surgery information

We developed an index to measure the level of information provided to clients in public facilities compared to private ones (Figure 3.5), based on the following five critical elements of method specific counseling: The patient is told that the sterilization is permanent, she is informed about minor problems related to surgery, the need for a follow-up visit and the types of medical conditions that would require a revisit. And finally, the provider speaks to the patient in private. The guidelines are followed appropriately, all women opting for sterilization should score four to five. However, only a fifth at DHs/SDHs and PHCs, and two-fifths at private hospitals received at least four out of five items. Around half of the clients at DHs/SDHs received two or fewer items.

Figure 3.5 Female sterilization clients who received pre-surgery information



Data on specific items are presented in Table 3.12. While almost all women told or knew that sterilization is a permanent method, less than a third were told about minor problems associated with surgery across all health facilities. In public facilities less than a third (and only 10 percent in DHs) and in private facilities about half of the women were told they would need to revisit if they face specific conditions or problems, such as problems with sutures or pain and bleeding after surgery. While the private facilities spent a bit more time providing necessary information, on the whole, there is a gap across the board in properly informing women about sterilization.

Table 3.12 – Pre-Surgery Counseling
Percentage distribution of clients who received pre-surgery information and talked in privacy by the facilities they accessed for FS, Bihar, 2013-14

	District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
Client knew or was told that sterilization is a permanent method	100.0	100.0	99.4	95.2	98.9
Told about minor problems related to surgery (nausea, headaches, etc.)	20.0	39.1	21.4	23.8	24.8
Told about need for a follow-up visit	50.0	61.4	77.3	78.6	73.7
Told about medical conditions that would require a revisit to the facility	10.0	37.0	37.0	52.4	37.4
Talked in private	35.0	17.4	34.4	26.2	30.2
Number of clients	20	46	154	42	262

During discussions, health providers told us that ASHAS, as community health workers, are expected to provide women with family planning information, including sterilization, and motivate them to choose a method. However, there is no mechanism at facilities to check and ensure that every woman coming for family planning services is given the necessary information. We found that providers assume that women already have the information and therefore do not spend any additional time on this.

“ASHAs do mobilize women for sterilization in the community. They provide all information to the women. We don’t have to do anything here” (Medical Officer).

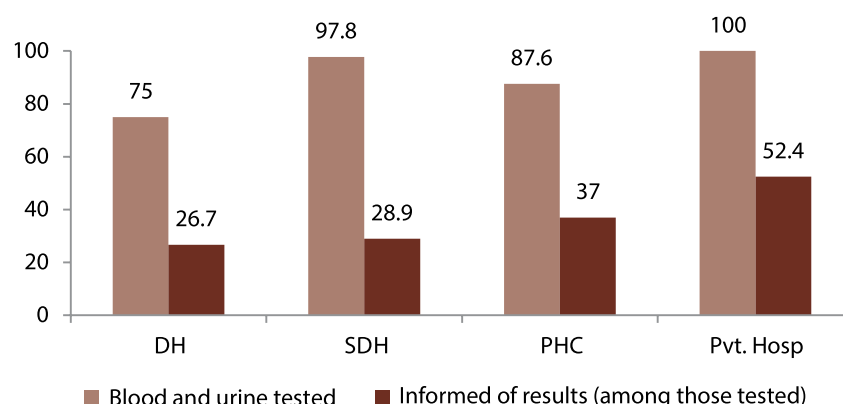
In terms of whether women ask questions of the providers regarding family planning, our analysis, as suggested in other studies, found that women are uncomfortable sharing their concerns and asking about them. This could be because of the lack of privacy and interpersonal relation with the provider. Due to limited space, counseling rooms are not available and consultation rooms are occupied by more than one health provider, making it difficult to ensure privacy. Overall, less than one-third of the clients (32 percent) were able to converse with their providers in private before surgery, and this proportion was as low as 17 percent in the sub-divisional hospitals. The environment was not very different in private hospitals, where only a quarter of women had an opportunity to speak privately with their provider.

Recently, the Bihar government recruited and placed a few family planning counselors at district and sub-divisional level hospitals. However, they require specific training and a designed area to effectively provide contraceptive method information, while building a relationship with clients.

Tests and check-ups

Blood and urine tests are mandatory before conducting sterilization surgery. Figure 3.6 show that a high proportion of women recalled undergoing these tests: three-fourths at DHs, almost all at the SDHs and private facilities and 88 percent at PHCs.

Fig 3.6 - Percentage of clients whose blood and urine were tested and who were told of the result before surgery



Among those who were tested, only 38 percent overall were informed about their results. Providers do not appear to prioritize informing clients about their test results as they consider this information useful for them clinically to make decisions about clients. This might be a missed opportunity as the act of sharing the results with clients can also build confidence and enhance interpersonal interaction.

Consent process

As for all surgeries, clients must give their consent in writing prior to the procedure and must understand what they are agreeing to. This is an important step towards ensuring that their participation is voluntary and free from coercion. It also respects her autonomy and safeguards her right to refuse the surgery. National guidelines on sterilization outline that clients should be explained in their local language that sterilization is a permanent procedure for preventing future pregnancies; that it is a surgical procedure that has a possibility of complications; reversal of this surgery is possible, but success cannot be guaranteed; and several other features. For our study, we asked a series of questions to understand the steps providers followed in getting consent from women prior to surgery.

Table 3.13 shows the proportion of clients who recall receiving a consent form to sign, when the form was obtained and whether she read the consent form or had it read to her. We found that 90 percent of sterilization clients at public facilities and 98 percent at private hospitals recalled receiving a consent form for their signature. But only a small proportion (less than a third), particularly at the DHs, read or asked someone to read the consent form before signing it or providing their thumb impression. Irrespective of whether women read or asked someone to read the form, almost all the women who recalled receiving it reported that they signed or provided their thumb impression on it.

Half of the clients said that they received a consent form just before their operation, while 42 percent mentioned they received it three to six hours prior to the procedure. The idea of seeking consent before the surgery is to give clients time to think where they want to go ahead with the procedure. There seems to be no standard processes for seeking consent and our data clearly demonstrates that health providers are not reading the consent form to women or explaining its content to them, which is the whole purpose of the consent process.

Table 3.13 - Consent Process

Percentage distribution of clients according to the consent process followed before surgery by the facilities they accessed for FS, Bihar, 2013-14

	District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
Received consent form for signature	90.0	82.6	92.2	97.6	91.2
Number of clients	20	46	154	42	262
Read consent form or asked someone to read it to them	5.6	29.0	24.0	34.1	25.1
Timing of consent - just before operation	75.0	54.3	44.8	52.4	50.0
Timing of consent - 3-6 hour before operation	10.0	34.8	51.3	31.0	42.0
Timing of consent - 7-12 hours before surgery	15.0	4.3	1.9	16.7	5.7
Timing of consent - a day before surgery	0.0	6.5	1.9	0.0	2.3
Number of clients	18	38	142	41	239

Interpersonal interactions

Interpersonal interactions between health providers and clients are considered one of the key aspects of the quality of care and the government of India has a counseling guide that provides simple tips for this purpose. Encouraging clients to ask questions and giving attention to their concerns are some of the ways to put them at ease prior to a procedure. However, we found only a few cases (16 percent) in which the providers encouraged questions from women prior to surgery, and only half of the women felt comfortable asking questions (Table 3.14). These proportions were a bit higher (28 percent) at the private facilities and lower at DHs, where only one-tenth of the clients were encouraged to ask questions before surgery, and only 30 percent felt comfortable doing so. Around 60 percent of women visiting SDH, PHC and private hospitals reported asking questions, while the proportion was lower in DHs at 40 percent. Among those who asked questions in SDH, PHC and private hospitals, about 90 percent mentioned that the provider responded to their questions.

Table 3.14 - Interpersonal Relations with Providers

Percentage distribution of clients according to their perception on their interaction with providers prior to surgery by the facilities they accessed for FS, Bihar, 2013-14

		District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
Provider encouraged client to ask questions		10.0	17.4	12.3	28.6	15.6
Client felt comfortable asking questions		30.0	56.5	55.8	66.7	55.7
Client asked questions		40.0	63.0	60.4	66.4	60.3
Number of clients		20	46	154	42	262
Perception of clients about providers' response						
Provider took questions seriously	Did not listen / pay attention	2*	6.9	3.2	7.1	5.7
	Listened / paid some attention	4	44.8	37.6	21.4	36.7
	Listened well / full attention	2	48.3	59.1	71.4	57.6
Provider responded to the questions		6	89.7	91.4	92.9	90.5
No. of clients who asked questions		8	29	93	28	158

*Note – it is a number based on small denominator less than 20

3.2.3 Post-surgery information and care

There are gaps in the information and care provided after surgery. Though expected, a substantial proportion of women are not checked before discharging, and given basic information on rest, bathing and follow-up visit.

Before discharging a client, the health provider is expected to examine her and give her basic advice on how long to rest after the surgery, the need to keep the stitched area dry and clean and when to return to remove the stitches, among other suggestions. Using the national guidelines, we asked a series of questions on the care and information women received, their experiences post-surgery and follow-up from providers to assess the quality of care. The data is presented in Table 3.15.

More than 90 percent of the women we interviewed were discharged seven or more hours after their surgery, well after they had regained consciousness. However, only half the clients were checked by a provider before they were sent home. The proportion was higher in the PHCs (57 percent) and private hospitals (60 percent) than in the DHs (35 percent) and sub-divisional hospitals (33 percent).

In a high proportion of cases providers did not provide even minimum necessary information on post-surgical care to all the clients; only about half of those who used public facilities and two-thirds of those who went to private clinics were told to keep the stitched area clean and dry, and less than a quarter were told to rest for two days (although this proportion varied from 43 percent in the private facilities to 11 percent in the sub-divisional hospitals). Further, only 29 percent of the women who had undergone sterilization were told not to bathe for a day (it ranged from 43 percent in the private facilities to 20 percent in the SDHs).

Table 3.15 - Post-Surgery Care and Information						
Percentage distribution of clients by post-surgery care and information received according to the facilities they accessed for FS						
		District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
Time spent in facility after sterilization	4-6 hours	5.0	2.2	7.8	19.0	8.4
	7-24 hours	90.0	97.8	87.0	78.6	87.8
	More than a day	5.0	0.0	5.2	2.4	3.8
Provider checked patient before discharge		35.0	32.6	56.5	59.5	51.1
Provider told patient to	Perform light work only after 48 hours	25.0	10.9	24.0	35.7	23.7
	Keep stitches clean and dry	45.0	45.7	56.5	69.0	55.7
	Bathe only after 24 hours	30.0	19.6	27.9	42.9	29.0
	Return to the clinic if there is any missed period	15.0	6.5	10.4	4.8	9.2
Number of clients		20	46	154	42	262

An important indicator of the quality of post-surgical care is the extent of medical problems clients experienced. Around half of the women who went to DHs reported experiencing wound sepsis, problems with sutures or fever post-surgery (Table 3.16). In comparison, 17 percent from private hospital, nine percent from SDH and four

percent from PHC reported so. Furthermore, a quarter of women reported pain. The high percentage of women with problems could be the outcome of a lack of information given to women on the importance of post-surgical care and rest, or it could have been the result of the procedures or both factors may have contributed.

Table 3.16 - Experience of Post-Sterilization Complication
Percentage distribution of clients by post-surgery complication according to the facilities they access for FS, Bihar, 2013-14

Type of problems after sterilization	District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
Had wound sepsis, problem with sutures or fever	55.0	8.7	3.9	16.7	10.0
Pain	35.0	30.4	19.5	31.0	24.4
Wound sepsis (bleed or pus coming from incision)	25.0	2.2	0.6	0.0	2.7
Problem with sutures	30.0	6.5	2.6	14.3	7.3
Fever	5.0	0.0	0.6	0.0	0.8
Weakness	5.0	6.5	0.6	2.4	2.3
Other	10.0	4.3	9.1	14.3	9.2
Had any problem	55.0	30.4	24.0	42.9	30.5
Number of clients	20	46	154	42	262

According to the national guidelines, the first follow-up contact should be made within 48 hours of surgery, either at home by a female health worker or at a clinic by the client. In two-third of the cases, a health worker (ASHA or ANM) visited clients at home. This proportion was far higher for clients from PHCs (77 percent), compared to those who had visited a DH or private facility (40 percent) (Table 3.17). This is a clear indication that the front line workers like ASHAs and ANMs are not only mobilizing and accompanying clients to the facility, but also making home visits after sterilization which is a key component of quality, especially given the lacunae in counseling and information provided to women at a facility.

At the time of the survey, 18 percent of women reported that they had visited a health facility for follow-up, while 90 percent mentioned that they will do so in the near future mainly for removal of stitches.

Table 3.17 - Follow-up visit post-surgery
Percentage distribution of clients by follow-up visits according to the facilities they accessed for FS services, Bihar, 2013-14

	District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
ANM/health worker visited at home after sterilization	40.0	58.7	76.6	40.5	64.9
Client visited health facility for follow up	40.0	13.0	14.9	23.8	17.9
Client planned to visit health facility again for check up	90.0	84.8	91.6	90.5	90.1
Number of clients	20	46	154	42	262

3.2.4 Expenditure on Availing Female Sterilization

Women spent between Rs. 30 to Rs. 2,000 in availing sterilization services at public facilities, which is expected to be free.

Among other factors, the motivation to use sterilization services is affected by clients' out-of-pocket expenditure on the procedure. Even though clients are expected to receive sterilization services free of cost, only 15 percent of those who visited a DH were able to avail of free services, while one-third (33 percent) of clients who went to a private facility were able to do so. About 28 percent of those who visited a sub-divisional hospital or PHC received free services.

Women's average expenditure on the procedure was Rs. 456, although it ranged widely from a high of Rs. 683 at a private facility to almost half (Rs. 361) at a PHC. Interestingly, women who used a DH paid almost as much as at a private facility with the mean expense of Rs. 672. While clients incurred expenses in different categories, in a private hospital they spent the most on the operation, in the DH the highest on consultation costs, while "other charges" such as transportation and food, accounted for the bulk of expenditure among those who had gone to the district or sub-divisional hospital. With these out-of-pocket payments the idea of free services seem to be more notional than real.

Table 3.18 - Expenditure on Sterilization Services (Rs)					
	District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
Mean	672	482	361	683	456
Minimum - maximum	32-2,000	52-2,000	31-1,000	30-3,200	30-3,200
Number of clients	15	32	107	27	181

3.2.5 Client satisfaction

Despite limited information and services, the majority of the women reported providers to be friendly, expressed their intent to revisit the facility and would recommend to others. They also suggested improving the cleanliness, reduce waiting period and enhance care provided by doctors.

To gauge clients' overall satisfaction with the process, they were asked questions relating to their experience, such as how they would rate the behavior of the providers, whether they had been given enough time to discuss the procedure, whether they received enough information and how long they had to wait to be seen at the facility. They were also asked about their intention to visit the facility in the future and encourage their neighbors and friends to do so (Table 3.19).

Clients were largely satisfied with the behavior of the provider (93 percent) (a lower proportion at DH, about 75 percent, felt their provider was friendly) and with the time they had to discuss their procedure (86 percent). They also largely felt they had received the right amount of information for their needs (80 percent). Women's satisfaction levels on this was lower, however, among those who had visited a DH and SDHs, as only 70 percent and 63 percent, respectively, felt they had been given adequate information.

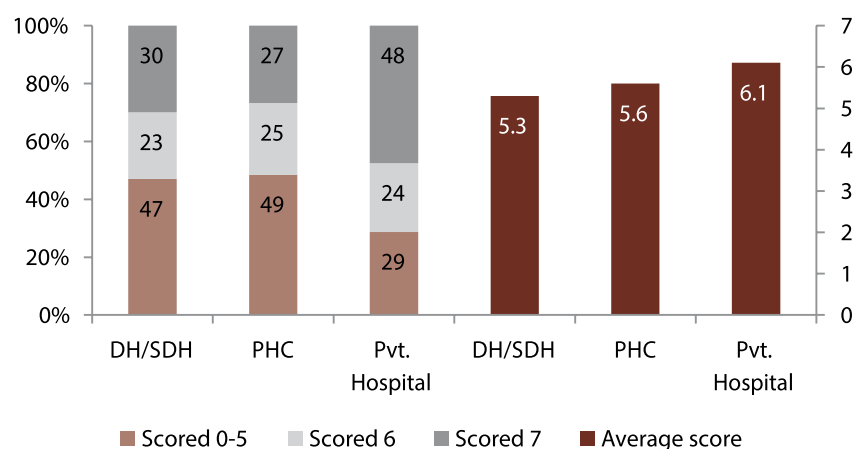
The long waiting period prior to surgery and the place in which women were made to wait were also important considerations. A fourth of the clients reported waiting for less than three hours, another 25 percent for three to four hours. A fifth of clients reported that they had to wait for seven or more hours for sterilization. As clients are required to come for the surgery on an empty stomach, long waiting hours with limited infrastructure is inconvenient and reflects in their responses regarding the appropriateness of waiting time. Overall, 61 percent

were satisfied with the waiting time, but almost half the clients who visited a PHC (46 percent) felt the wait had been too long.

A majority of women said they intended to visit the health facility in the future and encourage friends and relatives to do the same (over 90 percent).

Table 3.19 - Clients' satisfaction					
Percentage distribution of clients by different indicators according to the facilities they accessed for FS, Bihar, 2013-14					
	District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
Providers' behavior friendly behavior	75.0	95.7	92.9	100.0	93.1
Enough time for discussion	80.0	76.1	89.0	85.7	85.5
Amount of information provided					
Too little	30.0	30.4	7.1	4.8	12.6
About right	70.0	63.0	85.1	83.3	79.8
Too much	0.0	2.2	4.5	11.9	5.0
Don't know	0.0	4.3	3.2	0.0	2.7
Time clients had to wait before surgery					
2 or less hours	30.0	30.4	25.3	23.8	26.3
3-4 hours	35.0	13.0	22.1	40.5	24.4
5-6 hours	15.0	39.1	29.9	19.0	28.6
7 or more hours	20.0	17.4	22.7	16.7	20.6
Perception about waiting time					
No waiting time; was seen immediately	5.0	0.0	3.2	9.5	3.8
Reasonable amount of time	65.0	73.9	51.3	59.5	57.6
Too long	30.0	26.1	45.5	31.0	38.5
Opinion about revisit					
Visit to this provider in future	85.0	91.3	93.5	95.2	92.7
Encourage neighbor/friend to visit this facility	75.0	82.6	92.9	95.2	90.1
Total	20	46	154	42	262

Figure 3.7 Clients' Satisfaction Index



Overall, for clients' satisfaction an index was developed based on the seven parameters (shown in Figure 3.7). A score of one was given for meeting the following categories of satisfaction: friendly behavior of the provider; enough time for discussion with the provider; sufficient information provided; fewer than five hours waiting time before surgery; no waiting time or reasonable amount of time; revisit to provider; if the client would encourage friends/neighbors to visit this facility; and '0' otherwise.

On average, DH/SDH scored 5.3 (out of seven), while private hospital 6.1. Furthermore, almost half of the clients from private hospital scored seven compared to 27 percent at PHC and 30 percent at DH/SDH.

Client's suggestion to improve quality of services

Clients had various suggestions to improve sterilization services (Table 3.20). These ranged from improving cleanliness (35 percent) to reducing waiting time (29 percent) and improving services by doctors (25 percent). Notably, a far higher proportion of clients who had visited a DH made these suggestions, with half of them recommending that doctors should provide better care and 45 percent saying that a cleaner environment with less waiting time were needed. These are the interesting suggestions for improvement despite the high proportions that reported they were "satisfied" with care.

Around one-fifth of those who had visited a DH also felt that care by other staff could be improved, although fewer clients who had visited other facilities (only seven percent overall) made this suggestion. Interestingly, privacy was not a big consideration for a majority of the clients; only a small proportion (three percent) suggested this aspect could be improved.

Table 3.20 - Client's Suggestions to Improve Sterilization Services
Percentage distribution of clients by suggestions according to the health facilities they accessed for FS, Bihar, 2013-14

	District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
More cleanliness	45.0	28.3	37.7	28.6	35.1
Reduced waiting time	45.0	26.1	29.2	23.8	29.0
Better care by doctor	50.0	32.6	20.8	21.4	25.2
Low cost	30.0	23.9	14.9	23.8	19.1
Better care by other staff	20.0	4.3	7.1	4.8	7.3
More privacy	0.0	2.2	3.2	2.4	2.7
Others	10.0	13.0	14.9	4.8	12.6
Number of clients	20	46	154	42	262

3.2.6 Access

For 85 percent of women, the facility was easily accessible.

Easy access to services is an important component of the quality of care experienced by clients. Accessibility was not much of a problem for the clients in this study as most of them (73 percent) could access their facility in less than half an hour (Table 3.21). When asked about easy access, 80 percent or more clients mentioned that facilities were easily accessible.

Table 3.21 - Access to Health Facility
Percentage distribution of clients by accessibility to health facilities accessed for FS, Bihar, 2013-14

	Type of Health Facility				
	District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
Facility easily accessible	80.0	80.4	85.7	90.5	85.1
Time taken to reach health facility					
0-15 minutes	35.0	26.1	39.0	35.7	35.9
16-30 minutes	35.0	43.5	38.3	23.8	36.6
31-45 minutes	20.0	13.0	12.3	23.8	14.9
46-60 minutes	10.0	2.2	4.5	11.9	5.7
More than an hour	0.0	15.2	5.8	4.8	6.9
Total number of clients	20	46	154	42	262

Around 80 percent of clients from public facilities mentioned that they went to the nearest facility for sterilization, whereas, only 60 percent of clients who accessed services from private facility said so. When asked about their reasons for choosing the facility they used, the quality and cost of the services it provided were the most important factors. While low cost was not a consideration among those who visited a private facility (only 12 percent mentioned low expenses as a reason for the choice), it was for half of those who chose to visit a DH.

Table 3.22 - Reasons for Choosing the Facility
Percentage distribution of clients by reasons for choosing facilities for FS, Bihar, 2013-14

	District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
Nearest facility from home	75.0	84.8	83.8	59.5	79.4
Reasons for choosing the facility					
Availability of good services	25.0	39.1	34.4	35.7	34.7
Less expensive	50.0	21.7	39.6	11.9	32.8
Good reputation	30.0	17.4	24.0	33.3	24.8
Like behavior of staff	10.0	28.3	18.2	28.6	21.0
Other	25.0	34.8	19.5	21.4	22.9
Number of clients	20	46	154	42	262

The health facility's reputation and the behavior of its staff (stated by around 20-25 percent of the clients) were also factors in how women selected which health center to use.

3.2.7 Socio-demographic profile of clients

More than half of the sterilization clients were in age group 25-29 years and four-fifth had three or more children.

While looking at different aspects of quality of care, it is also important to analyze the socio-demographic characteristics of the women who had availed of sterilization services. More than half of them (58 percent) were between 25 and 29 years old, while one-fourth was in the 30-34 year age group, and a small proportion (one percent) said they were younger than 20. Almost 80 percent of the women already had three or more children, with 58 percent saying they had at least two sons at the time of sterilization; a miniscule share (one percent) said they had no sons at the time of sterilization and 28 percent had one son. Bihar, where preference for a son is strong, women are coming for sterilization when their family is 'complete', which in most cases consists of at least a son. Furthermore, most of them are young and of high parity. Thus, sterilization with no or minimal use of spacing methods has a limited effect on health and demographic outcomes.

A substantial proportion of sterilization users were poor and marginalized: 47 percent reported having a Below Poverty Line (BPL) card (much lower proportion of 35 percent in private hospitals were BPL card holders), half had never been to school, and only 16 percent had more than eight years of schooling. Notably, the level of education was lower among women who visited a DH as three-fourths of them were either illiterate or had at most studied until class five. Women who went to private hospitals were also slightly more educated than those who sought services at public facilities.

The large majority of the clients (90 percent) were Hindus, although 20 percent of the women who visited a DH were Muslims. Similarly, the vast majority of women (over 80 percent) were members of either scheduled caste, scheduled tribe or one of the "other backward classes", with more than half of them being from one of the "other backward classes".

Table 3.23 - Socio-demographic Characteristics of Female Sterilization Clients
Percentage distribution of clients by their background characteristics according to the health facilities they accessed for FS, Bihar, 2013-14

	District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
Current age					
Below 20	0.0	2.2	0.0	0.0	0.4
20-24	15.0	6.5	7.1	11.9	8.4
25-29	55.0	60.9	58.4	57.1	58.4
30-34	25.0	26.1	26.0	21.4	25.2
35+	5.0	4.3	8.4	9.5	7.6
Education					
Illiterate	40.0	50.0	57.8	47.6	53.4
1-5 class	35.0	17.4	10.4	14.3	14.1
6-8 class	15.0	13.0	16.2	19.0	16.0
9+ class	10.0	19.6	15.6	19.0	16.4
Children ever born					
2	20.0	21.7	19.5	21.4	20.2
3	35.0	30.4	37.7	52.4	38.5
4+	45.0	47.8	42.9	26.2	41.2
Number of boys ever born					
None	0.0	0.0	1.3	2.4	1.1
1	35.0	23.9	29.2	23.8	27.9
2	30.0	71.7	56.5	59.5	57.6
3	25.0	4.3	10.4	7.1	9.9
4+	10.0	0.0	2.6	7.1	3.4
Number of girls ever born					
None	35.0	13.0	9.7	16.7	13.4
1	20.0	37.0	42.2	50.0	40.8
2	25.0	28.3	28.6	21.4	27.1
3	5.0	17.4	12.3	7.1	11.8
4+	15.0	4.3	7.1	4.8	6.9
Religion					
Hindu	75.0	91.3	90.9	90.5	89.7
Muslim	20.0	2.2	9.1	9.5	8.8
Other	5.0	6.5	0.0	0.0	1.5

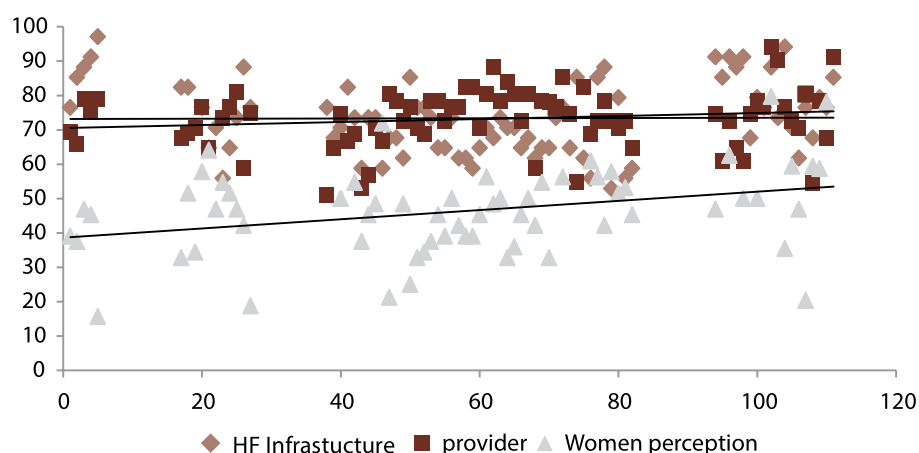
Table 3.23 - Socio-demographic Characteristics of Female Sterilization Clients
Percentage distribution of clients by their background characteristics according to the health facilities they accessed for FS, Bihar, 2013-14

	District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
Caste					
Schedule caste	10.0	13.0	21.4	26.2	19.8
Schedule tribe	10.0	6.5	12.3	4.8	9.9
Other backward class	50.0	58.7	52.6	42.9	51.9
General caste	20.0	21.7	13.0	26.2	17.2
Don't know	10.0	0.0	0.6	0.0	1.1
BPL card					
Yes	50.0	56.5	47.4	35.7	47.3
No	50.0	43.5	52.6	64.3	52.7
Total	20	46	154	42	262

3.3 On Aggregate

Framing the results in terms of overall aggregate measures of facility effort, provider competence and clients' experience, while disregarding the types of facilities, gives an interesting insight. The average trend for facility and provider effort is similar and higher than client experience. While earlier in the report the measure of client satisfaction was reported to be high, an index of client experience, assessed by quality of experience they actually had, was lower than the ratings given to providers for competence and facility structure. This cuts across all types of facilities, public and private, suggesting that the measures of quality of care need much more emphasis on understanding clients' actual experiences beyond conventional indicators of facility structure and provider competence.

Figure 3.8 Facility Score based on facility effort, provider competence and client experience



Chapter 4 – Quality of Care in the Provision of IUDs

Despite its known advantages, the use of IUDs continues to be low in Bihar. According to DLHS-3 (2007-08), only 0.4 percent women reported using IUD; and 49 percent of them are using this method for fewer than two years. Only 16 percent reported using it for more than four years. A lack of correct and complete information among the providers and clients, poor skills among providers and low emphasis on this method are considered to be major reasons for low use. It is found that often advantages are understated, while side effects are exaggerated. To bridge these gaps and provide quality IUD services to enhance early initiation and retention of IUD, the government of India has developed reference material for doctors and nursing staff (Gol, 2007). We have extensively used these materials to assess the quality in this study.

4.1 Facility preparedness to provide IUD

The Government of India's guidelines on IUD for doctors and nursing staff are used to assess the preparedness of public and private health facilities in Bihar to provide IUD services (GOI, 2007). This section describes the status of infrastructure and human resources specific to immediate (within 48 hours of delivery) and extended post-partum IUD (after six weeks of delivery).

4.1.1 Availability and knowledge of medical and paramedical staff at health facilities

DHs are well staffed to provide immediate and extended Post-Partum IUD; whereas SDH and PHCs are experiencing gaps, particularly in providing immediate PPIUD

Our study found that the DHs were fairly well staffed with trained medical providers to provide the IUD, as all five of them had at least one trained doctor and staff nurse or ANM to provide immediate and extended post-partum IUD (Table 4.1). Out of 11 SDHs, seven had at least one ANM or staff nurse trained in extended post-partum IUD, and eight had at least one trained in immediate post-partum IUD. However, despite conducting a large number of deliveries, less than half of the PHCs have a trained provider for immediate post-partum IUD services⁷.

Recognizing immediate PPIUD as a strategy to address unmet need for spacing, the government of Bihar has initiated training of providers.

Another gap is the absence of family planning counselors, particularly at PHCs. As mentioned in chapter three, only 11 percent of PHCs have counselors who could discuss family planning options and give clients appropriate and accurate information on various methods and side effects. As one provider noted, "The biggest challenge (in promoting) IUD are the myths surrounding IUD, such as that IUD can travel to other parts of the body." Several providers shared other widely prevalent fears, including that IUDs cause heavy bleeding, weight gain or cancer. Demystifying the method is a critical aspect of counseling, which is lacking in all types of facilities.

⁷ The specific training for immediate post-partum is on the ability to handle the uterus during first 48 hours with care as it carries higher risk of device expulsion

Table 4.1 Trained Human Resources**Distribution of health facilities by availability of human resources trained to provide IUD, Bihar, 2013-14**

	District Hospital (No.)	Sub-Divisional Hospital (No.)	Primary Health Centre (%)	Private Hospital (No.)
At least one doctor trained in immediate post-partum IUD services	5	5	22.2	12
At least one nurse/ANM trained in immediate post-partum IUD	5	7	28.9	7
At least one doctor or nurse/ANM trained in immediate post-partum IUD	5	8	44.4	13
At least one doctor trained in extended post-partum IUD	5	3	46.7	15
At least one nurse/ANM trained in extended post-partum IUD	5	7	93.3	11
At least one doctor or nurse/ANM trained in extended post-partum IUD	5	7	93.3	16
Number of health facilities	5	11	45	18

Training of Health Providers

Half or fewer providers involved in counseling and insertion of IUDs have received training in last five years.

Previous studies have shown that the health providers in Bihar lack the current technical skills to effectively provide IUDs. Across the public and private facilities in our study, we found that that half or fewer providers involved in the provision of IUD had training on contraceptive technology updates, family planning counseling or clinical skills in the past five years (Table 4.2). Even among those who were involved in counseling, only a third in the PHCs and about half in the SDHs had received training on family planning counseling in the last five years.

Table 4.2 Training of Health Provider**Distribution of health providers by type of trainings received in last five years, Bihar, 2013-14**

Health providers who provide IUD	District Hospital (No.)	Sub-Divisional Hospital (%)	Primary Health Center (%)	Private Hospital (%)
Clinical skills on IUD	9	47.6	38.6	41.2
Infection prevention	6	61.9	40.6	38.2
Contraceptive technology updates	7	52.4	34.7	35.3
Family planning counseling	6	38.1	41.6	41.2
Number of providers	17	21	102	35
Health providers who are only counseling	District Hospital (No.)	Sub-Divisional Hospital (%)	Primary Health Center (%)	Private Hospital (No.)
Contraceptive technology updates	3	47.6	25.0	6
Family planning counseling	5	57.1	34.4	7
Number of providers	8	21	32	19

Counseling

Despite recognizing that lack of knowledge and myths are hindering the uptake of IUD, little attention is given on the method-specific counseling.

National guidelines on family planning counseling offers providers tips to follow, such as to ask about a patient's previous experience with family planning; to assess partner/family attitudes about family planning; to ask about her reproductive goal; to inquire as to if she is interested in a particular FP method; to help woman choose a method; to tell her about the selected method, including how it works, about the procedure, possible side effects, warning signals and follow-up dates, while interacting with women who might be considering an IUD.

We asked providers about the steps they follow while talking to a new, potential IUD user. About half of them from DHs and three-fourths from SDHs, PHCs and private hospitals mentioned that they initially ask about women's reproductive goals (Table 4.3). More than 80 percent mentioned providing information about different contraceptive methods, however only 40 percent of DH providers, 26 percent of SDHs and PHCs and 18 percent of private hospitals mentioned spontaneously that they explain about the side effects of a selected method. An even lesser proportion explained specific medical reasons that might require a patient to return. Thus, despite recognizing prevailing fears and myths resulting in low IUD use, little time is devoted to explaining a method, its pros and cons or to building women's confidence to make an effective choice for her life.

Table 4.3 - Counseling of FP Clients
Percentage of health providers involved in counseling or provision of IUD by steps they follow while talking to a potential FP clients according to the facilities, Bihar, 2014-15

	District Hospital	Sub-Divisional Hospital	Primary Health Centre	Private Hospital
Asked about their reproductive goal	56.0	78.6	76.1	72.7
Provide information about different FP methods	84.0	83.3	93.3	87.3
Discuss clients FP preferences	68.0	66.7	53.7	70.9
Help client to select a suitable method	32.0	45.2	46.3	52.7
Explain the way to use selected method	12.0	26.2	37.3	29.1
Explain the side effect of methods	40.0	26.2	26.1	18.2
Explain specific medical reason to return	20.0	4.8	3.7	10.9
Number of health providers	25	42	134	55

Knowledge and practices

There are gaps in knowledge and practices in the provision of IUD. Only a third mentioned that they screen for infection before inserting IUD.

Among the health providers involved in counseling about and providing IUDs, only a third or fewer were aware that women do not require their partner's consent for IUD insertion. This misperception has been found in other studies (Calhoun, et al. 2014), and can impede service utilization as some women may decide to use the method without knowledge or consent of their partners. However, the encouraging finding is that the majority of the providers know they need to ask about timing of menses before providing or recommending this method (Table 4.4).

Table 4.4 - Knowledge and practices of Health Provider on IUD
Distribution of health providers by knowledge and practices they follow for clients interested in initiating IUD according to the facilities at which they are located, Bihar, 2013-14

Involved in counseling or providing IUD	District Hospital (%)	Sub-Divisional Hospital (%)	Primary Health Centre (%)	Private Hospital (%)
Aware that partner consent not required for insertion of IUD	36.0	16.7	20.1	23.6
Ask about timing of menses	92.0	81.0	90.3	83.6
Number of providers who are counseling or providing IUD	25	42	134	55
Health providers who provide IUD	District Hospital (No.)	Sub-Divisional Hospital (%)	Primary Health Centre (%)	Private Hospital (%)
Examine or test to exclude pregnancy before insertion of IUD	14	76.2	76.5	74.3
Screen for any infection before insertion of IUD	7	28.6	21.6	22.9
Inform about follow-up visit after first menses	10	66.7	46.1	51.4
Knew medical conditions under which not to offer IUD	17	95.2	98.0	88.6
Number of providers who provide IUD	17	21	102	35

In order to understand the steps providers follow before and after inserting an IUD, we asked a series of questions to those who were providing the method. Three-fourths mentioned that they examine or test to exclude pregnancy before insertion. However, only seven out of 17 in DHs and fewer than 30 percent providers from SDHs, PHCs and private hospitals spontaneously mentioned about screening for any infection, a critical step in ensuring quality. Moreover, only 10 of 17 in DHs, two-thirds in SDHs and around half in PHCs and private hospitals mentioned that they inform clients that they must visit after their first menses for check-up.

4.1.2 Equipment and supplies

All five DHs were stocked with the necessary equipment required for providing IUD services (Table 4.5). In comparison, some of the critical equipment, such as a speculum, cheatle forceps, anterior vaginal wall retractor and uterine sound were not available in 20 to 40 percent PHCs and in three to four SDHs (out of 11). Some of these items were also missing from one or two private hospitals. In addition, there were some gaps in supplies, particularly at PHCs and SDHs. In 10 to 15 percent of PHCs gloves, dry gauge/cotton swabs and urine pregnancy test kits were not in stock. In two SDHs (out of 11), one DH and five private hospitals (out of 18), IUD was out of stock at the time of survey.

Table 4.5 - Equipment and Supplies				
Distribution of health facilities by availability of functional equipment, Bihar, 2013-14				
	District Hospital (No.)	Sub-Divisional Hospital (No.)	Primary Health Centre (%)	Private Hospital (No.)
Examination table	5	10	86.7	18
Spotlight	5	11	84.4	18
Speculum	5	8	82.2	17
Cheatle's forceps	5	6	73.3	16
Anterior vaginal wall retractor	5	7	68.9	16
Uterine sound	5	8	60.0	15
Gloves	5	10	91.1	18
Dry gauge/cotton swabs	5	10	84.4	17
IUD in stock	4	9	97.8	13
Urine pregnancy test kit	5	10	88.9	14
Number of health facilities	5	11	45	18

4.2 Experience of IUD clients

We conducted exit interviews with women who had opted for an IUD to better understand their experience as well as the quality of care at different types of health facilities. Compared to female sterilizations, fewer women come to PHCs, SDHs, DHs and private hospitals for availing IUD services as the overall use of IUDs is low. Our intention was to interview at least three women who had come for IUD insertion or follow-up at each facility. Despite spending more than a week at each health center, we achieved a sample of only 167 women in 79 facilities, of which 123 women had come for an IUD or decided to use this method after an initial visit. Meanwhile, 44 women came for follow-up visits and of them, 12 wanted their IUD removed, 27 had a problem with the IUD and five were there for a follow-up visit without any problems to report.

This section presents the experiences of 167 IUD clients captured when they left the facility.

4.2.1 Knowledge of different family planning methods

Knowledge of different family planning methods is limited beyond a few methods

Women are in a better position to make an informed choice about whether/when to start and continue using contraceptives when they are aware of a range of family planning methods and well-informed about side effects associated with various methods. Among the women who visited the health facilities under study for IUD services, around 90 percent spontaneously mentioned sterilization and IUDs as the contraceptive methods they were aware of (Table 4.6). Almost three-fourths of them were knowledgeable about the pill, but less than half mentioned condoms. Overall, women were ill-informed about other family planning methods, with less than a third mentioning male sterilization (30 percent) and injectibles (28 percent) as other options.

Since knowledge can be directly related to use, this also creates an interesting paradigm for use centered on one or two methods. It also suggests that women are offered limited options from which to choose. This is clearly in contradiction to the providers' response on informing women about different family planning methods (see Table 4.3). With limited awareness of different methods, providers have a clear counseling role to suggest different options to women, and help them make informed decisions around their use. The women users at private facilities did not differ much in their method awareness.

Table 4.6 - Knowledge of Contraceptives
Percentage distribution of clients by knowledge of different methods (spontaneous), Bihar, 2013-14

	District Hospital/ Sub-Divisional Hospital	Primary Health Centre	Private Hospital
Female sterilization	83.7	90.2	92.3
Male sterilization	26.5	26.8	46.2
IUD/Cu-T	89.8	86.6	88.5
OCP	71.4	75.6	65.4
Condom/Nirodh	51.0	42.7	42.3
Injectable	30.6	23.2	38.5
Rhythm method	10.2	12.2	11.5
Did not know any method	6.1	1.2	0.0
Total number of IUD clients	50	88	29

4.2.2 Method-specific counseling and services

As mentioned in the national guidelines, a woman should be informed about how a method works, its potential side effects, the features which may make it appropriate for specific needs and how it can be consistently and correctly used. The guidelines also indicated that the counseling and service needs of a client interested in initiating IUD are different from those who have come for follow-up with or without problems. Based on the guidelines, we created a minimum information and care index consisting of the following items:

Initiate IUD <ul style="list-style-type: none"> • Provider asked about purpose of visit • Asked about family size • Told about functioning of IUD • Informed about possible side effects • Informed about actions to be taken in case of problems • Informed about follow-up visit • Conducted pelvic examination • Provided method or referral or prescription 	Only 5 percent received all these (n=123)
Removal of IUD <ul style="list-style-type: none"> • Provider asked about purpose of visit • Asked about time of use • Asked about reasons for removal 	Nine out of 12 clients received these
Follow-up with problem <ul style="list-style-type: none"> • Provider asked about purpose of visit • Asked about time of use • Asked about problem • Provider told about solution 	26 out of 27 clients received all these
Follow-up without problem <ul style="list-style-type: none"> • Provider asked about purpose of visit • Asked about time of use • Asked about problem 	All five clients received all these

In the Bihar health facilities we studied, we found that providers were attentive to women who needed an IUD removed or who came for a follow-up visit, but failed to give comprehensive counseling and care to those considering IUD insertion.

Table 4.7 presents details on the IUD-specific counseling components women received at health facilities. Eighty-five percent or more of the women surveyed reported that providers asked about the purpose of their visit and family size. However, only around two-thirds mentioned that they were told about the functioning of the IUD. An even lesser proportion was informed about side effects and follow-up visit, which are major challenges in ensuring quality. Despite having family planning counselors, less than half of the clients at DH and SDH reported that they were given information about possible side effects, action to be taken in case of any problem and timing for follow-up visit. This pattern was similar in both public and private facilities, and also aligned with what providers reported spontaneously about the steps they take.

Table 4.7 - Method-specific Counseling			
Percentage of IUD clients by counseling components received at the facility, Bihar, 2013-14			
	District Hospital/ Sub-Divisional Hospital	Primary Health Centre	Private Hospital
Asked about purpose of visit	85.0	95.2	100.0
Asked about family size	100.0	93.5	100.0
Told about functioning of IUD	72.5	64.5	71.4
Informed about side effects	42.5	29.0	33.3
Informed about actions to be taken in case of problems	47.5	53.2	66.7
Informed about follow-up visit	45.0	41.9	47.6
Total number of IUD clients	40	62	21

4.2.3 Screening for infection and provision of method

Only a small proportion of clients, particularly at public facilities, reported undergoing internal pelvic examination before insertion of IUD.

It is important that women who plan to have an IUD inserted undergo an internal pelvic examination prior to the procedure to see if they are medically eligible for it. Our study showed that only a small proportion of clients – 25 percent at DH/SDH, 8 percent PHC and 43 percent private hospital – reported undergoing such an examination. This was evident from providers' data as well and presents a significant challenge in ensuring the quality of care.

Among those who came to initiate IUD, 90 percent at DH/SDH, 76 percent at PHC and private hospital received a method, referral or prescription. Half of those who did not receive any of these were not given a reason for not receiving the method.

4.2.4 Satisfaction

There are several aspects to client satisfaction including convenient timing, privacy, asking questions, level of comfort and provider's behavior. Table 4.8 presents data on these indicators. Around 95 percent clients from public facilities considered facility timing convenient. When asked about waiting time, 28 to 29 percent informed that they were attended immediately, while 66 to 68 percent reported it to be reasonable. Interestingly, among those who came to private facilities 45 percent mentioned that the waiting time was too long. When asked about privacy, 70 to 80 percent from both public and private facilities reported that counseling/consultation happened

in front of other people. Less than a third mentioned that providers asked them if they have any question. A similar proportion mentioned that the provider did not listen or paid some attention to their question. Despite these, more than 90 percent clients considered providers' behavior as friendly. On discussion, 87 to 97 percent mentioned that the time given for discussion and information was sufficient.

Table 4.8 - Client Satisfaction				
Percentage of IUD clients by satisfaction indicators, Bihar, 2013-14				
		District Hospital/ Sub-Divisional Hospital	Primary Health Centre	Private Hospital
Facility timing convenient		96.0	95.5	79.3
Feeling about waiting time	No waiting time	28.0	29.5	20.7
	Reasonable amount of time	68.0	65.9	34.5
	Too long	4.0	3.4	44.8
Provider met in front of other people		70.0	79.5	72.4
Used counseling material		26.0	2.3	3.4
Provider asked client if she has a question		32.0	27.3	31.0
Client felt comfortable in asking question		64.0	70.5	55.2
Provider listen to questions properly	Did not listen / pay attention	2.0	2.3	3.4
	Listened / paid some attention	32.0	34.1	27.6
	Listened well / full attention	40.0	45.5	44.8
	Client did not ask	26.0	18.2	24.1
Provider behavior was friendly		92.0	95.5	96.6
Time for discussion was sufficient		88.0	87.5	96.6
Information given was sufficient	Too little	6.0	9.1	10.3
	About right	84.0	86.4	79.3
	Too much	6.0	1.1	10.3
	Don't know	4.0	3.4	0.0
Total number of clients		50	88	29

4.2.5 Profile of clients

Women who were seeking IUDs were clearly younger and of lower parity than those who came for sterilization. Over three-fourths of the clients (79 percent) were in the 20-29 age group. Of these, almost two-fifths were aged between 25 and 29, with the next largest group (37 percent) being in the 20-24 age range. At the time of the interview, 29 percent had a child, 35 percent had two children, while another 35 percent had three or more children.

In terms of educational status, overall only a third had studied until ninth class or higher. The proportion of such clients at private facilities was two-thirds, compared to 27 to 28 percent at public facilities.

Almost half of the clients were from Other Backward Class, closely followed by 'general caste' at DH/SDH and private hospitals. At PHCs, a quarter of the IUD users were from Scheduled Caste, while a fifth from 'general caste'. Further, 42 percent of all the clients opting for an IUD were poor, and possessed a BPL card.

Table 4.9 - Background characteristics of IUD clients
Percentage distribution of clients availed IUD services by background characteristics, Bihar, 2013-14

		District Hospital/ Sub-Divisional Hospital	Primary Health Centre	Private Hospital	Total
Current age	20-24	36.0	38.6	34.5	37.1
	25-29	44.0	37.5	51.7	41.9
	30-34	12.0	21.6	3.4	15.6
	35+	8.0	2.3	10.3	5.4
Number of children ever born	None	6.0	0.0	0.0	1.8
	1	36.0	21.6	37.9	28.7
	2	22.0	40.9	37.9	34.7
	3	20.0	19.3	10.3	18.0
	4+	16.0	18.2	13.8	16.8
Number of boys ever born	None	24.0	11.4	31.0	18.6
	1	42.0	52.3	51.7	49.1
	2	28.0	29.5	13.8	26.3
	3	6.0	3.4	0.0	3.6
	4+	0.0	3.4	3.4	2.4
Education	Illiterate	28.0	40.9	13.8	32.3
	1-5 class	10.0	18.2	17.2	15.6
	6-8 class	34.0	13.6	3.4	18.0
	9+ class	28.0	27.3	65.5	34.1
Number of girls ever born	None	34.0	28.4	24.1	29.3
	1	42.0	45.5	48.3	44.9
	2	18.0	15.9	17.2	16.8
	3	4.0	6.8	10.3	6.6
	4+	2.0	3.4	0.0	2.4
Religion	Hindu	78.0	84.1	93.1	83.8
	Muslim	20.0	15.9	6.9	15.6
	Other	2.0	0.0	0.0	0.6
Caste/tribe	Scheduled caste	12.0	25.0	17.2	19.8
	Scheduled tribe	2.0	3.4	0.0	2.4
	Other backward class	46.0	51.1	44.8	48.5
	General caste	40.0	20.5	37.9	29.3
Have BPL card	Yes	36.0	48.9	31.0	41.9
Total number of IUD clients		50	88	29	167

Chapter 5 – Conclusions and Recommendations

The November 2014 deaths of 16 women at a sterilization camp in the state of Chhattisgarh, which also left several other women in critical condition, spotlighted the stark reality around the quality of care in family planning (PFI, 2014). While the investigations continue it is evident that negligence around care and counseling, even for simple procedures, can have dire consequences. These concerns were paramount in 1994 when 180 countries, including India, were signatories to the Program of Action of the International Conference on Population and Development (ICPD) in Cairo. More recently India signed FP2020, which emphasizes on individuals' rights to decide, free from coercion, whether, when and how many children they wish to give birth to (FP2020 Principles of Rights and Empowerment). The commitment made then and now is to ensure that women have the ability and the right to make informed choices to enable them to fully achieve their reproductive and sexual health desires. In practical terms this means that each woman has the right to be provided clear and medically accurate information, including the risks and benefits of a range of methods, to be able to choose, free from coercion, the method she feels is best suitable for her life and receives that method from competent providers following standard protocol while maintaining privacy and confidentiality.

The government of Bihar has made great strides in ensuring access to family planning services in areas where they were previously lacking. Particular efforts since the launch of National Rural Health Mission in 2005, have included strengthening Bihar's health infrastructure, enhancing human resources and public-private partnerships and introducing incentive-based schemes to induce demand for family planning services. Recently, the government created positions for family planning counselors at DHs and SDHs and instituted training for doctors and ANMs on immediate and extended postpartum IUD and female sterilization.

The overall findings from our study reflect both achievements and gaps in quality of care in the provision of IUD and female sterilization in Bihar. We used women's actual experiences of care as a critical lens through which to examine the provider's effort and outcomes for the women, after she visited the health facility –a testimony to what information, counseling and care she received. Below we highlight our overarching conclusions from this study.

Health facilities lack private spaces to deliver family planning services compromising the dignity of clients and the quality of services.

Through our survey, we found that health facilities lacked appropriate spaces necessary, including a lack of adequate seating arrangement, clean and functional toilets and privacy during counseling, examination and surgery. These are non-compromising aspects of quality of care as they affect the level of comfort a woman has when she deals with private and sometimes sensitive issues around her reproductive health. The findings show that while certain aspects of physical infrastructure, such as electricity and water supply, have improved in health facilities there is a gap in critical and gender-sensitive spaces, such as the waiting area, counseling and examination rooms, especially at PHCs. Despite a high presence of women in the health facilities for family planning and other services, fewer than half of the facilities had separate functional toilets for women. A third of the facilities did not have designated examination rooms or areas, which could provide privacy; and most of these facilities did not have counseling rooms. In the absence of consulting and examination rooms, the consultation is quick and often cursory as it is compounded by a high client load and limited waiting space, particularly in public facilities. Privacy was also compromised during surgery. In several facilities doors of the OTs were open and window panes broken. While the client load for female sterilization and delivery has increased,

the quantity of beds has not kept pace with this demand for services. Several public facilities including DHs do not have enough beds to accommodate all the sterilization clients. The situation is particularly grave in PHCs as most of these facilities only have six to nine beds. After surgery, often clients were made to lie down on mats and sheets, which did not meet basic hygiene standards.

Few facilities have the minimum required supply of drugs and equipment to effectively provide sterilization and IUD services.

Our analysis focused on the basic minimum equipment and drugs that are essential for health facilities to stock – even though national government guidelines for both types of inventory are more extensive. Few facilities covered under the study had all the minimum necessary equipment, drugs and supplies to provide sterilization and IUD services. Some simple items, such as Cheatle's forceps, scissors, puncture-proof box for needles and a blood pressure apparatus were missing at some facilities. Emergency and post-operative drugs were also lacking. Similarly, some of the critical equipment required for IUD insertion/removal such as speculum, anterior vaginal wall retractor and uterine sound were not available in most PHCs and SDHs. Gloves, dry gauge/cotton swabs and urine pregnancy test kits were also out of stock in some of the facilities at the time of survey.

Many health providers and counselors have limited interpersonal skills and professional training to deliver quality family planning services to women.

Data from the facility audit reveals that all the DHs have at least one doctor trained to perform mini-laparotomy, the procedure used for female sterilization in Bihar; while around two-thirds of SDHs and PHCs have trained doctors for this. In the situation of shortfall, the district authority mobilizes trained doctors from other public and private facilities to ensure that surgeries are conducted at least once a week. However, this presents its own challenges, including long waiting hours. In some instances, the designated surgery day is cancelled if there are too few clients. Discussions with providers also indicated gaps in the availability of support staff for these surgeries. Most of the PHCs did not have enough nurses/ANMs to attend clients post-surgery, particularly, if they need to stay at night in the facility. This shortage is often met by deputing ANMs from sub-centers.

Most of the facilities have trained providers to insert IUDs during the extended post-partum period. However, there is a gap in providers trained to provide immediate post-partum IUD, particularly at PHCs. This may result in missing women who desire an IUD but are unable to return to the facility after a few weeks. Furthermore, only a third of the facilities has the family planning counselor, and is placed at DHs and SDHs on a priority basis. As more and more deliveries are happening at PHCs, a lack of counselors and providers trained in post-partum IUD insertion is a missed opportunity.

For this study, we examined the level and extent of family planning training providers had received over the last five years. About half or fewer of the health providers involved in providing IUD services had received clinical training on IUD. A similar proportion involved in counseling had received training on contraceptive technology updates and family planning counseling, during the same period. The data on knowledge and practices of providers and experience of women indicates even larger gaps.

Unsanitary conditions at most facilities demonstrate a disregard for infection prevention.

Most of the facilities use landfills for waste disposal, followed by outsourcing to a waste management agency. However, in nearly a third of the facilities, hospital waste, particularly syringes, cotton and bandages were found scattered on the floor. Moreover, owing to a high caseload and little attention from providers and clients, there were minimal efforts to maintain cleanliness in public facilities. Several facilities had blood and fluid stains on the floor and walls. In addition, we noted multiple times that the staff were dressed in plain clothes and shoes and walked freely in and out of the OT while procedures were underway. At times, family members were also called in the OT to carry women to the recovery room/area after sterilization surgery. These observations suggest

that preventing infection is not a priority in health care facilities nor is it understood as a component of delivering quality care.

Women want cleaner facilities with better interaction and care from providers.

More than two-thirds of the women who accessed sterilization were first time family planning users. While three-fourths of them were informed about follow-up visits, less than a third were told about problems associated with surgery. Only a third were told about laboratory test results. Less than one-third were able to converse with their providers in private before the surgery and this proportion was lower in the SDHs. The situation was similar in private hospitals.

Overall, interpersonal interactions between health providers and clients – a key aspect of quality of care – are not emphasized. Providers make little time to spend with women. This study showed that only in a few cases did the provider encourage questions from the clients prior to surgery, and only half the clients felt comfortable asking questions. Women had similar experiences post-surgery; half of the women at PHCs and a third at DHs and SDHs reported that they were checked before being discharged. However, a substantial portion of them were not provided basic counseling on rest, when to bathe and how to keep the stitches clean and dry.

Despite these oversights, nine out of ten women reported that they would visit the provider again, and a slightly smaller proportion of women mentioned that they would encourage neighbor/friend to visit the facility. However, when asked how sterilization services could be made better, half of the women from DHs suggested improving cleanliness, reducing waiting time and improving care given by doctors. These were the top three suggestions at other facilities as well.

Experiences of women who had come for IUD services were not substantially different from women who sought sterilization. Among those who had come for an IUD insertion, a negligible proportion received the minimum required method-specific counseling such as information on how the IUD functions, possible side effects and the required follow-up visit; and services such as a pelvic examination. This indicates the extent to which opportunities to ensure early initiation and continuation of the method are being missed. Nevertheless, among those who had come for a follow-up, with or without problems, the majority received the minimum required information and services.

Overall, we found that the quality of women's experiences was much lower than how health facilities', as well as the providers' knowledge and practices, were rated. This suggests disconnect between how the health system ranks the quality of care it provides and how women experience services within the system.

Recommendations

Based on these findings and consultations with state- and national-level stakeholders, we recommend the following short- and medium-term interventions that are critical to improve quality of care:

- Every health facility must provide designated waiting areas as well as clean, private operating, recovery, consultation rooms and toilets. Strengthening infrastructure will require increased investment and exploration of possible alternative options such as public-private partnerships, community ownerships and social auditing as mechanisms for the upkeep and maintenance of a public health system responsive to women's needs and expectations.
- Procurement and supply chains at both the state and district levels need to be strengthened. This should be complemented with better management of the inventory of drugs and equipment at the facility level. Existing good practices around vaccine procurement and supplies can be leveraged for this. Further, computerizing indent and supply and regular tracking could streamline the process and address gaps in availability of drug, equipment and supplies.
- It is vital to build a gendered perspective, as well as the appropriate skills and knowledge among health care providers. This will help ensure that they appreciate the rights and entitlements of women, understand why women need family planning information and why providing method-specific counseling is essential in aiding women's ability to make informed choices about their reproductive health. The gendered perspective and skills will also help strengthen interpersonal relation between the client and the provider. Often, providers receive training on different aspects of services, such as counseling, contraceptive technology update, clinical training on IUD insertion, mini-laparotomy and infection prevention at different time points. It is, therefore, critical to integrate a gendered perspective component in all these aspects of skill building.
- Reference material, such as Standards on Female and Male Sterilization and Reference manuals on IUD for medical officer and nursing staff should be made accessible to health providers at all relevant facilities in the local language.
- Data driven planning is critical and should be facilitated and periodically reviewed at the facility level. Monitoring and survey data should be reviewed with service providers and facility managers to assess gaps and opportunities, and develop plan of action. This is likely to increase ownership and can be used as an accountability tool for subsequent monitoring. Program management units with support from civil society organizations can lead this process.
- Districts' planning process must also track and monitor resources being invested into quality improvements. There needs to be quality monitoring tools to assess how much districts are investing in improvements in family planning services.
- The expectations and experiences of women need to be included in the monitoring of quality of care. This could be done through periodic exit interviews and/or observation. Involvement of civil society organizations to conduct external monitoring and facilitate facility-level discussion and planning can be a concrete step in this direction.
- Women and community members need to be better educated on what defines quality care in health facilities. They should know what they are entitled to, the manner in which these services are delivered and be able to rate the facilities and make the system more accountable to the people it serves. Strengthening community and facility-level committees (village health and sanitation committees and rogi kalyan samities) with women's increased involvement is a very tangible way to enhance people's participation in the health care they receive.
- A district quality assurance committee should be activated.
- Vacant family planning counseling positions need to be filled on contractual or regular basis to effectively address women's family planning needs, which is not occurring at present.

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Appendix A

Table A1– Indicators used for calculating Quality of Care Score for Female Sterilization

Level	Indicator	Score
Health facility level (34 indicators)	<p>Physical infrastructure</p> <ol style="list-style-type: none"> 1. Designated waiting area with sitting arrangement 2. Separate FP counseling room/area 3. Separate examination room 4. Generator/invertor in working condition 5. Separate toilet for female clients 6. Availability of running water throughout the day 7. Operation Theatre in use 8. Running water in OT 9. Blood and urine test facility 10. Enough bed for each client <p>Functional Equipment</p> <ol style="list-style-type: none"> 11. BP apparatus with stethoscope 12. Availability of autoclave 13. Availability of Puncture-proof box for needles 14. Availability of Mini laparotomy kit 15. Availability of Cheatle's forceps 16. Availability of scissors 17. Availability of spotlight <p>Drugs and supply</p> <ol style="list-style-type: none"> 18. Anesthesia drugs 19. Post operating drugs 20. All 12 items available in emergency drug tray 21. Availability of dry gauge/cotton swabs 22. Availability of gloves 23. Availability of bleaching powder 24. Availability of Providine Iodine 25. Availability of surgical blade 26. Availability of Catgut chromic 27. Availability of silk/cotton thread <p>Infection Prevention practice</p> <ol style="list-style-type: none"> 28. Floors and walls have blood and body fluid stains 29. Availability of infection prevention guideline <p>Record keeping</p> <ol style="list-style-type: none"> 30. Availability of sterilization protocol 31. Availability of record keeping for sterilization <p>Human resource</p> <ol style="list-style-type: none"> 32. Doctor trained in Minilap 33. At least one Staff Nurse/ANM/LHV available round the clock 34. Availability of FP counselor 	Score given 1 for 'yes' and 0 for 'no'

Service provider level (17 indicators)	<p>Knowledge</p> <ol style="list-style-type: none"> 1. Aware that partner consent is not required for FS 2. Aware that minimum age should be 22 years for FS 3. Aware that couple should have at least one child before FS 4. Aware to delay FS in case of pregnancy 5. Aware to delay FS in case of irregular menstrual bleeding 6. Aware to delay FS in case of puerperal sepsis 7. Aware to delay FS in case of post abortion sepsis 8. Aware to delay FS in case of postpartum hemorrhage 9. Aware to delay FS in case of current STI 10. Aware to delay FS in case of current PID 11. Knowledge of PPFS (within a week) <p>Attitude</p> <ol style="list-style-type: none"> 12. Do not meet the client in the presence of other clients 13. Always talk to the person accompanying the client 14. Always ensure privacy during examination 15. Always explain to the client what is going during the examination 16. Always usually explain the results of the examination 17. Always keep information about client confidential 	Score given 1 for 'yes' and 0 for 'no'
Client's perception on QoC for FS (16 indicators)	<ol style="list-style-type: none"> 1. Knew or provider told that sterilization is a permanent method 2. Provider told about side effects of sterilization 3. Provider told about follow up visits 4. Provider told to revisit in case of specific medical problem 5. Provider talked in private 6. Provider given consent form to read and signature 7. Client read consent form or asked someone to read it to them 8. Provider encouraged client to ask questions 9. Client felt comfortable asking questions 10. Provider tested blood/urine before FS 11. Provider told the result of blood/urine test 12. Provider checked before discharge 13. Provider given advice to do light work after 48 hours of FS 14. Provider told to keep stitches clean 15. Provider told to bathe after 24 hours 16. Provider told to come in case MC not returned 	Score given 1 for 'yes' and 0 for 'no'

Appendix B

Table A2– Quality of Care Score
Score of individual facilities based on health facility infrastructure, providers' knowledge and clients' perception, Bihar, 2013-14

	Score (Normalized)			
Type of facility	Health facility	Provider	Women perception	Overall score
DH	76.47	69.41	39.06	61.59
DH	85.29	65.88	37.5	62.83
DH	85.29	78.82	46.88	70.26
DH	91.18	75.29	45.31	70.52
DH	94.12	78.82	15.63	62.79
Sub - Divisional Hospital / RH	79.41	67.65	32.81	59.9
Sub - Divisional Hospital / RH	82.35	69.12	51.56	67.61
Sub - Divisional Hospital / RH	70.59	70.59	34.38	58.46
Sub - Divisional Hospital / RH	73.53	76.47	57.81	69.2
Sub - Divisional Hospital / RH	61.76	64.71	64.06	63.45
Sub - Divisional Hospital / RH	73.53		46.88	40.09
Sub - Divisional Hospital / RH	52.94	73.53	54.69	60.33
Sub - Divisional Hospital / RH	64.71	76.47	51.56	64.18
Sub - Divisional Hospital / RH	73.53	80.88	46.88	67.03
Sub - Divisional Hospital / RH	85.29	58.82	42.19	62.04
Sub - Divisional Hospital / RH	73.53	75	18.75	55.7
BPHCs	76.47	50.98		42.44
BPHCs	67.65	64.71		44.07
BPHCs	70.59	74.51	50	64.97
BPHCs	82.35	66.67		49.62
BPHCs	73.53	68.63	54.69	65.55
BPHCs	58.82	52.94	37.5	49.71
BPHCs	70.59	56.86	45.31	57.53
BPHCs	70.59	70.59	48.44	63.14
BPHCs	58.82	66.67	71.88	65.72
BPHCs	67.65	80.39	21.25	56.37
BPHCs	67.65	78.43		48.64
BPHCs	61.76	72.55	48.44	60.86
BPHCs	85.29	76.47	25	62.19
BPHCs	76.47	70.59	32.81	59.9

BPHCs	76.47	68.63	34.38	59.76
BPHCs	73.53	78.43	37.5	63.09
BPHCs	61.76	78.43	45.31	61.77
BPHCs	61.76	72.55	39.06	57.73
BPHCs	70.59	76.47	50	65.62
BPHCs	58.82	76.47	42.19	59.1
BPHCs	58.82	82.35	39.06	60.02
BPHCs	55.88	82.35	39.06	59.04
BPHCs	61.76	70.59	45.31	59.16
BPHCs	67.65	80.39	56.25	68.03
BPHCs	64.71	88.24	48.44	67.06
BPHCs	70.59	78.43	50	66.27
BPHCs	67.65	83.82	32.81	61.37
BPHCs	70.59	80.39	35.94	62.24
BPHCs	61.76	72.55	45.31	59.82
BPHCs	64.71	80.39	50	64.97
BPHCs	58.82	58.82	42.19	53.22
BPHCs	64.71	78.43	54.69	65.88
BPHCs	64.71	77.94	32.81	58.43
BPHCs	70.59	76.47		48.97
BPHCs	73.53	85.29	56.25	71.62
BPHCs	64.71	74.51		46.36
BPHCs	82.35	54.9		45.71
BPHCs	58.82	82.35		47.01
BPHCs	52.94	68.63	60.94	60.77
BPHCs	82.35	72.55	56.25	70.31
BPHCs	85.29	78.43	42.19	68.57
BPHCs	50	72.55	57.81	60.06
BPHCs	76.47	70.59	51.56	66.14
BPHCs	52.94	72.55	53.13	59.48
BPHCs	55.88	64.71	45.31	55.24
Private Hospital	91.18	74.51	46.88	70.78
Private Hospital	85.29	60.78		48.64
Private Hospital	91.18	72.55	62.5	75.33
Private Hospital	91.18	64.71		51.91
Private Hospital	94.12	60.78	50	68.23
Private Hospital	70.59	74.51		48.32
Private Hospital	79.41	78.43	50	69.21
Private Hospital	76.47	76.47		50.93
Private Hospital	85.29	94.12	79.69	86.28
Private Hospital	73.53	90.2		54.52

Private Hospital	97.06	76.47	35.42	69.58
Private Hospital	73.53	72.55	59.38	68.42
Private Hospital	61.76	70.59	46.88	59.68
Private Hospital	79.41	80.39	20.31	59.98
Private Hospital	64.71	54.41	59.38	59.44
Private Hospital	79.41	78.43	58.75	72.13
Private Hospital	76.47	67.65	78.13	74.01
Private Hospital	85.29	91.18		58.76

