Medical Abortion in BIHAR and JHARKHAND

A Study of Service Providers, Chemists, Women and Men

Ipas

Ipas works globally to increase women's ability to exercise their sexual and reproductive rights and to reduce abortion-related deaths and injuries. We seek to expand the availability, quality and sustainability of abortion and related reproductive-health services, as well as to improve the enabling environment. Ipas believes that no woman should have to risk her life or health because she lacks safe reproductive-health choices.

The Ipas India program, initiated in 2001, focuses on demonstrating scalable models for strengthening training systems and service delivery in primary health care settings for comprehensive abortion care. Ipas is also involved in researching abortion issues and promoting safe and appropriate early abortion technologies like manual vacuum aspiration (MVA) and medical abortion.

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1 The Community Health Department of the Seventh Day Adventist Hospital, Ranchi, works at the community level by providing comprehensive health care to urban slums. The department also provides consultancy for research, training, advocacy efforts and project monitoring.

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Executive Summary

Background

Worldwide, the drug combination of mifepristone and misoprostol is increasingly used for early termination of pregnancy, in a method known as "medical abortion." While misoprostol has long been available in India as a medication for gastric ulcers, mifepristone was registered for use as an abortifacient in early pregnancy only in 2002. After its registration, four pharmaceutical companies began marketing the drug.

At the time of this writing, medical abortion has not yet been introduced into India's public-sector health program. While there is ample clinic-based evidence of the efficacy, safety and acceptability of medical abortion in India, not much information exists about how key stakeholders perceive mifepristone and misoprostol or about the extent to which they have begun to be used. This study — done in the states of Bihar and Jharkhand, where maternal mortality remains high and the availability of safe abortion care is poor — aims to gauge knowledge of and opinions about the potential of medical abortion for early pregnancy termination among women and men in the community, service providers and chemists. It also aims to identify information and training needs for the key stakeholder groups.

Study Methods

Study methods included a survey of 221 service providers — including obstetrician-gynecologists (ob-gyns), physicians holding Bachelor of Medicine and Bachelor of Surgery degrees (MBBS) and practitioners of Indian Systems of Medicine (ISM) — and 209 chemists from 12 towns. An additional nine chemists and 11 providers were interviewed in-depth, and 12 focus group discussions (FGDs) with women and five FGDs with men were conducted across eight villages and one town.

Study Findings

The overwhelming majority of ob-gyns (94.8%) had heard of mifepristone and misoprostol (96.8%), and 75.8% were using one or both drugs in their practices, although use was occasional and not as the primary method of early abortion service provision. The majority of providers (94.3%) limited use of the drugs to less than six weeks of pregnancy duration (mifepristone is licensed for use up to 49 days, and scientific evidence has shown that it is effective even till 63 days). Use of mifepristone in the higher-than-necessary 600mg dosage was not uncommon (this increased costs to women), and 42.5% of ob-gyns routinely used ultrasound (which is not mandatory, according to the World Health Organization) to determine the completeness of the abortion. Knowledge about the drugs among the MBBS and ISM providers was poor, and use was reported by only 9.5%.

All providers insisted on signed consent from the woman's husband and/or other family members prior to providing a medical abortion.

While 60% of interviewed chemists were aware of mifepristone, only 35% of chemists (mostly large outlets) stocked the drug. Availability was significantly lower in Bihar than in Jharkhand. More chemists in Bihar than in Jharkhand (48% of those interviewed compared to 7%) reported selling the drugs at prices above the Maximum Retail Price. Misoprostol

This study aims to gauge knowledge and opinions of the potential of medical abortion for early pregnancy termination in two Indian states.

availability was higher than that of mifepristone in both states.

Sales volumes were low. Chemists' levels of knowledge about drug doses, pregnancy limits and side effects were also inadequate, although they tended to err on the side of caution. However, there was near universal knowledge among chemists that these were prescription drugs. Chemists reported that most sales of mifepristone were to customers carrying a prescription for it. Non-prescription sales did occur though in a small number of cases especially when the client was personally known. No chemist provided any written instructions to customers when dispensing the drugs.

All chemists also reported stocking other drugs that they sold to customers requesting a drug for delayed periods or abortion. These included oral contraceptives, emergency contraceptives, other hormonal preparations and homeopathic medicines. Ayurvedic drugs in particular were popular; many were preparations that were contraindicated for use in pregnancy but used strong mnemonic labeling to suggest an abortifacient use. Chemists reported a higher demand for these products than for mifepristone and misoprostol and some chemists did not perceive a very distinct efficacy advantage of mifepristone-misoprostol over these other abortifacient drugs.

As the community focus group discussions revealed, women often delayed seeking care for unwanted pregnancy beyond seven or eight weeks of pregnancy. The use of "oral medicines" or injections perceived to be abortifacients was mentioned as being common as a first line of action for unwanted pregnancy. The medicines were usually obtained from a nearby chemist, the village Rural Medical Practitioner (RMP) or even local grocery shops. Chemists were perceived as an important information source, and men reported relying on them for recommendations for the appropriate course of action in the case of unwanted pregnancy. Men played a significant role in the decision to terminate a pregnancy, choosing the providers, providing financial support, acting as proxy clients to obtain oral medications and sometimes accompanying the women to providers. Unmarried women seeking abortion were commonly stigmatized, except in some tribal villages in Jharkhand, and care-seeking for such women focused around maintaining secrecy.

There was no spontaneous mention of either mifepristone or misoprostol in the focus group discussions, nor did focus group participants demonstrate high familiarity with the drugs when presented with a vignette that described medical abortion using mifepristone-misoprostol. However, women expressed a keen interest to learn more. Opinions on the method reflected past experiences with other oral abortifacient drugs. Some women in particular were skeptical about the efficacy of these tablets, as, in their experiences, oral remedies were often ineffective or, in the case of more traditional ones, dangerous.

Potential barriers to using this method mentioned by participants included the fact that they are not effective beyond seven to eight weeks, the time and opportunity costs involved in making multiple doctor visits, and the difficulty in finding a specialist doctor in smaller towns and villages. Costs were perceived to be high and expected to be a barrier for poorer women. Perceived advantages included simplicity and the ease of maintaining secrecy for unmarried women. All participants emphasized the need for the drugs to be available as close to the community as possible.

Implications

The study findings point to several areas of needed action, primarily in the areas of

information dissemination, provider training, and drug accessibility.

All categories of stakeholders need accurate information on what medical abortion is, how it is to be used and what the legal requirements for service provision are. Such information would encourage its use among potentially legal providers who are not using it, increase confidence and comfort levels among those who are, and ensure that practice keeps pace with scientific knowledge. Women's ability to exercise choice depends on their access to accurate information. Similarly, the more information and understanding men have about medical abortion, the more likely it is that they will be facilitative rather than restrictive gatekeepers.

Information provided needs to go beyond information on medical abortion per se to include the legality of abortion, and how and where safe services can be accessed.

Providers need more training on appropriate use. Some critical changes in current practice that are warranted are a shift to using a single mifepristone tablet (instead of two or three) as per the recommendations of the national guidelines, and encouraging providers not to restrict use to pregnancy durations lower than those allowed by law or technical guidelines. The evidence base that encourages using protocols that decrease the number of mandated doctor visits and limits use of routine ultrasound also needs to be disseminated. Information updates are needed not only about medical abortion technology but about the MTP Act including the amendment in MTP rules that de-link provider and site certification for medical abortion service provision and the fact that spousal or family consent is not a requirement of the MTP Act.

Training in appropriate counseling that prepares women to understand the medical abortion process and to recognize warning signs of problems is important as well to ensure that women who experience complications *do* reach appropriate care.

Provider training needs to include values-clarification. Such training could also help minimize providers' insistence on spousal consent and denial of drugs on moral grounds or because the woman is of low literacy.

There is also an urgent need to introduce medical abortion drugs into the public-sector program using the opportunities afforded by RCH II program, as only when it is available at the primary health care level will the method be accessible to poor women who cannot afford the high cost of the drugs and private providers' services.

Steps need to be taken to work with chemists. As with any other restricted (Schedule H drugs), over-the-counter availability of mifepristone and misoprostol is a potential area of concern. However, banning chemists from making legal prescription sales would only restrict women's ability to access these drugs. It would be more effective to work with individual chemists and with local chemist and druggist associations to spread awareness of the MTP Act, the need for medical supervision and to encourage chemists to facilitate customer contact with an appropriate service provider prior to the purchase of the drugs. It is also important to provide chemists with client-education materials that they can dispense when clients ask for information on dealing with an unwanted pregnancy.

A wider range of trained providers is necessary. The closer and more accessible a trained provider is to women, the lesser the chances of drug misuse. The pool of trained, legal providers could be expanded rapidly by developing a medical-abortion-only certification cadre of MBBS doctors and by pilot-testing approaches that use nurse-midwives as service providers.

There is a need for accurate information on the innumerable alternative drugs being marketed as abortifacients. While there is potential to promote the use of medications that are scientifically proven to be effective, more important is the need to ensure that mifepristone and misoprostol, which are known to be effective and safe abortifacients, are not confused with the low-cost but questionably effective medications that abound in the market. Chemists also need to know the difference between emergency contraceptives, oral contraceptives and mifepristone-misoprostol.

Another positive step would be promotion of the use of pregnancy tests, to increase the number of abortions that take place early enough for these drugs to be effective.

Conclusion

Overall, at the time of the study, the use of mifepristone and misoprostol was not widespread in the areas of Bihar and Jharkhand, studied; however, given the vast unmet demand for safe abortion services in the two states, it is inevitable that with time the use will increase. But as demand increases within the context of high cost, poor availability of appropriate providers and provider-imposed barriers, the potential for inappropriate use, self-medication and use by informal untrained providers may also increase.

The current situation provides an important window of opportunity for appropriate action to respond to information needs, promote evidence-based practice and ensure the widespread availability of the drugs through trained, legal providers. This is the surest way to minimize the potential for misuse and ensure that medical abortion is within the reach of the women who need it most.

It is important to respond to information needs, promote evidence-based practice and ensure widespread availability of medical-abortion drugs.

Introduction

In April 2002, the Drug Controller of India licensed the use of mifepristone, thus paving the way for medical abortion for early pregnancy termination to become a viable option and expanding both women's and providers' choices. A decade of in-country experience with the drug through clinical trials has proved the efficacy, safety and acceptability of this technology (Banerjee and Tewari 2004, Coyaji 2000, Coyaji et al. 2001, Coyaji et al. 2002, Winikoff et al. 1997), and mifepristone had also been licensed for use in over 24 other countries at the time of its registration in India.

Following licensure of mifepristone, four pharmaceutical companies began marketing the drug in India. (As in other countries, misoprostol has been available as a medication for gastric ulcer for many years). Protocols and guidelines for appropriate use of mifepristone-misoprostol for medical abortion were developed only subsequently, at a national consortium led by the All India Institute of Medical Sciences and attended by experts from across the country and the world. Those guidelines were endorsed by the Government of India (Mittal 2004, AIIMS 2004). At the time of this writing, however, neither drug has been introduced into the public-sector program.

In India, mifepristone is licensed for use in the first 49 days of pregnancy. The product insert (which is in line with labeling approved by the United States Food and Drug Administration [US FDA]) recommends that it be used in a dose of 600mg. Technical guidelines issued by the World Health Organization in 2003, however, suggest that in keeping with recent evidence, the dose should be reduced to 200mg (WHO 2003). The national consortium guidelines also recommend use of 200mg of mifepristone orally followed 48 hours later by 400mcg of oral misoprostol.

The advent of medical abortion comes within the context of a fairly liberal abortion law, which has been in place since 1972. This law, known as the Medical Termination of Pregnancy (MTP) Act, allows abortion on medical grounds as well as in cases of fetal malformation and rape, and on mental health grounds (including in cases of contraceptive failure in married women). Spousal consent is not required. Legal abortion is, however, limited to ob-gyns or generalist providers (those holding the MBBS degree) who have undergone MTP training and have been certified. Not only the provider but also the site where the abortions are provided has to be certified. However, a subsequent (2003) modification of MTP regulations now allows an ob-gyn or certified MBBS doctor to provide medical abortion in any clinic (that is, without requiring the clinic to be a certified MTP center), provided s/he has a demonstrable referral link to a certified center for back-up care should the need arise.

It is well known that, on the ground, services do not conform to the law. Certified facilities are unevenly distributed, for example, not always functional, and suffer from infrastructure and equipment shortages, as well as a lack of trained providers. Outdated technologies like sharp curettage continue to be in widespread use, despite the availability of safer options like manual vacuum aspiration (MVA) (Duggal and Ramachandran 2004). While abortion-related maternal mortality has declined some-

The advent of medical abortion comes in the context of a fairly liberal abortion law, in place since 1972, but poor access to safe services.

what in recent years in some parts of the country, morbidity remains high (Ramachander and Pelto 2004). Even several decades after passage of the MTP law, awareness of it is poor (Malhotra et al. 2003, Elul et al. 2004), and access to safe abortion is out of reach for many women, especially the rural poor and socially vulnerable sub-groups like unmarried adolescents (Ganatra and Hirve 2002). Informal providers of abortion services exist in varying degrees throughout India; in some states – such as Rajasthan, Orissa and Madhya Pradesh – they may actually outnumber formal providers (Iyengar and Iyengar 2004, George 2003, CINI 2004).

In the states of Bihar and Jharkhand, where the present study takes place, legal abortion services are particularly inadequate. Although more than 10% of the country's population lives in these two states, only 1.2% of all certified abortion facilities are located there, for a ratio of one certified center per million population, or one center per 176,000 couples (Khan et al. 1999). The situation is particularly bad for the 75% of Bihar and Jharkhand's population which is rural. Less than 1% of the state's 2,200 functioning primary health centers currently provide MTP services. In addition, 95% of the centers do not have a doctor trained in MTP, and nearly all centers lack necessary equipment or even basic infrastructure like water and electricity (IIPS 2001). Bihar and Jharkhand have the largest absolute number of non-allopathic providers in the country, and it is likely that as in other states many will be providing abortion services.

In such a scenario, medical abortion has the potential to expand women's access to safe abortion services vastly. However, little has been documented about how drugs for medical abortion are being used, who is using them, and how women, service providers and other key stakeholders like chemists perceive them.

Study Objectives and Context

The main purpose of the study was to:

1. Gauge current knowledge of and opinions about the potential of medical abortion for early pregnancy termination among key stakeholders in Bihar and Jharkhand, including women and men in the community, service providers and chemists.

2. Identify information and training needs for the key stakeholder groups.

While medical abortion can be and is increasingly used as a method of abortion for the second trimester, this study limited itself to studying knowledge and use of mifepristone-misoprostol in early pregnancy.

The study took place within the context of Ipas' ongoing intervention efforts in the two states, which are focused on expanding access to comprehensive abortion care in the area by demonstrating successful service-delivery models in primary health care settings, increasing the number of trained and certified practitioners, and expanding utilization of appropriate technologies, including MVA and medical abortion.

The study is also a part of Ipas' larger effort to document the use of medical abortion in India, and includes similar studies in several other states as well as a qualitative study using in-depth interviews to study women's personal experiences with medical abortion.

Methodology

Components of the Study

The study had several different components, including:

1. Survey of chemists in selected towns in Bihar and Jharkhand
2. Survey of service providers in selected towns in Bihar and Jharkhand
3. Focus group discussions with men and women in the community
4. In-depth interviews with selected chemists and service providers

Study Area and Sample Selection

Survey of chemists and service providers

The survey of service providers and chemists was limited to urban areas (cities and towns), as most providers and chemists are concentrated in these areas. Both state capitals (Ranchi and Patna) were included. Ten other towns (five in Jharkhand and five in Bihar) were randomly selected from a list of district headquarters in the two states. Both the chemist and the service provider samples were drawn from the same 12 towns and cities.

Each of the selected towns was mapped into "market localities" using a list of commercial localities and major markets. Three to seven localities were selected at random in each town (based on town size) from among those listed. The survey team visited each of the selected localities, made a complete list of all chemists within the locality and categorized chemist outlets into large (three or more salespersons at counter), medium (two persons at sales counter) or small (one person at the counter).

The sample was selected from among the chemists listed using standard random-sample selection techniques. The list was generated to ensure adequate distribution between sizes of chemist outlets and towns. At least four chemists were selected per locality. All who agreed to be interviewed and who mentioned at least one drug (whether Ayurvedic, homeopathic or allopathic) that they believed was used for abortion or for treating delayed periods and which they were stocking or selling[2] were included. If the selected chemist did not deal with drugs for delayed periods or abortion, the next chemist on the list was substituted for him.

Only one out of every three chemists approached in Bihar met the enrollment criteria and agreed to participate. In Jharkhand, one out of every two chemists visited met the enrollment criteria and was included in the sample. The final sample size was 209.

Researchers identified probable abortion service providers based on information from chemists and other key informants in the selected locality and by visually scanning the selected locality for providers. Only providers thought to be ob-gyns, generalists (MBBS) or practitioners of "Indian Systems of Medicine" (ISM) were listed. Other community-based informal providers like birth attendants, herbalists, etc., were not included in the survey. A stratified random sample was selected from among those listed to ensure that both ob-gyns and other types of providers were represented. At least four providers were selected per locality. In all, 221 providers were interviewed.

2. Refers to chemist perception and has no reference to whether the drug in question is an actual abortifacient or not.

The survey of service providers and chemists was limited to urban areas as most providers and chemists are concentrated in these areas.

Focus group discussions

Eight villages (four each in Bihar and Jharkhand) and one town (Hazaribagh in Jharkhand) were purposively selected as sites for the community focus group discussions (FGDs) with both women and men. The study areas were chosen to complement the survey data collection and reflected the availability of community-based non-governmental organizations (NGOs) or other partners who could help the researchers identify and contact appropriate respondents for the study.[3] Two of the five villages were relatively inaccessible by road and far from a town. Two of the villages were situated in a tribal belt. In all, researchers conducted 12 FGDs with women and five with men.

In-depth interviews of service providers and chemists

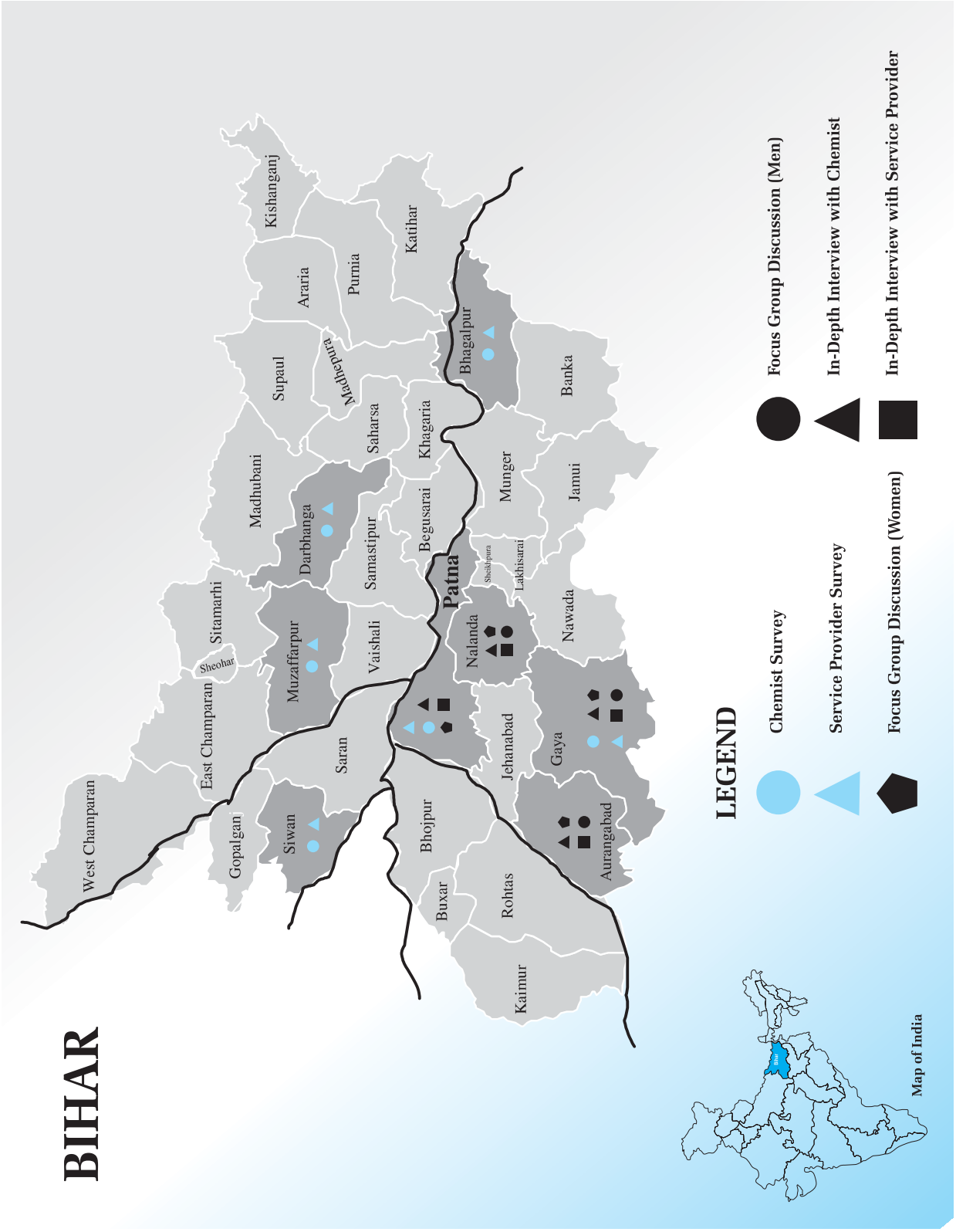
In addition to the 209 chemists included in the survey, nine more chemists were interviewed in-depth. Similarly, in addition to the 221 service providers sampled in the survey, 11 more were interviewed in-depth.

The service providers and chemists who took part in the in-depth interviews were drawn from either the same village or the nearest town to where the FGDs took place. The local NGO also helped researchers identify possible service providers and chemists in the area. The research team approached each potential service provider to confirm whether s/he was a) using either mifepristone or misoprostol in his/her practice and b) willing to spare the time for an in-depth interview. Similarly, only chemists stocking mifepristone or misoprostol were included in the in-depth interviews. Several chemists, especially in the Jamshedpur area, refused to participate, as they felt the researchers might be drug inspectors.

Figure 1 shows a map of the areas where the data collection (qualitative and quantitative) took place, and Table 1 lists the sample sizes for the different components of the study.

3. NGOs that provided logistical support in organizing the field work included Nav Bharat Jagriti Kendra (Ranchi), Krishi Gram Vikas Kendra (Saraikela), Jan Chetna Manch (Bokaro), OSERD (Gaya), Shanti Doot (Nalanda), IDF (Patna), and Daudnagar Organization for Rural Development (Aurangabad).

Figure 1: Maps of the areas covered by the study



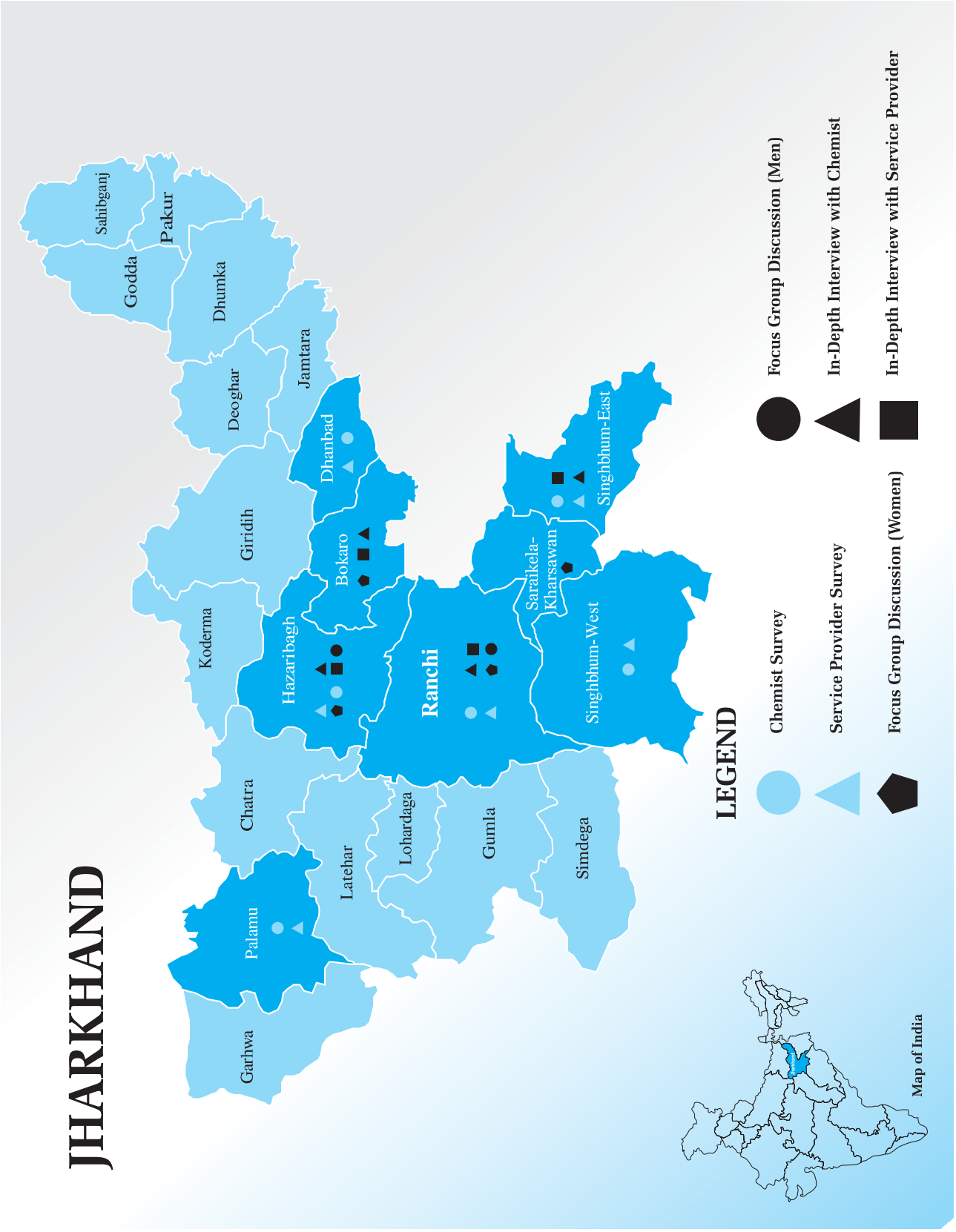

JHARKHAND
Sahibganj
Pakur
Godda
Dhumka
Jamtara
Deoghar
Dhanbad
Giridih
Bokaro
Koderma
Hazaribagh
Ranchi
Saraikela-Kharsawan
Singhbhum-East
Singhbhum-West
Chatra
Latehar
Lohardaga
Gumla
Simdega
Palamu
Garhwa
LEGEND
Chemist Survey
Service Provider Survey
Focus Group Discussion (Women)
Focus Group Discussion (Men)
In-Depth Interview with Chemist
In-Depth Interview with Service Provider
Map of India

Table 1: Sample size for the different study components

	Sample sizes for the different types of data					
	Survey*		Qualitative component			
	Chemists	Service providers	Chemists	Service providers	FGDs women	FGDs men
Districts in Bihar						
Patna	24	24	1	3	1(rural)	
Nalanda			1	1	1(rural)	1(rural)
Gaya	18	18	1	1	2(rural)	1(rural)
Darbhanga	18	19				
Aurangabad			1	1	1(rural)	1(rural)
Bhagalpur	17	18				
Siwan	12	15				
Muzaffarpur	12	16				
Districts in Jharkhand						
Ranchi	24	23	2	2	2(rural)	1(rural)
Hazaribagh	18	19	1	1	1(urban) 1(rural)	1(urban)
Saraikela					1(rural)	
Bokaro			1	1	2(rural)	
E Singhbhum	24	23	1	1		
W Singhbhum	12	11				
Palamu	12	16				
Dhanbad	18	19				
Total Sample	**209**	**221**	**9**	**11**	**12**	**5**

** All interviews done in District town*

Data-Collection Tools

Both the chemist survey and the interviews with service providers were conducted using pre-tested structured questionnaires developed by the Ipas research team. The questionnaires drew on the experiences of a similar small-scale exploratory study previously conducted by Ipas in Maharashtra and Rajasthan.

Similarly, pre-tested interview guidelines were used for the in-depth interviews with chemists and service providers and for the FGDs. The guidelines were prepared in English, translated into Hindi, and tested and modified during trial runs in several different locations in Bihar and Jharkhand.

The FGDs consisted both of a semi-structured discussion of abortion-seeking behavior in the community and a structured exercise in which a brief description of medical abortion technology as is commonly being used was presented to the participants as a vignette (Figure 2). After presentation of the vignette, researchers asked the participants a series of questions about how they felt about the method described. Interviewers were trained to present the vignette without suggesting either positive or negative aspects of the technology.

Data Collection

The field work took place during February-December 2004. Phase I included the survey of chemists and providers, and Phase II comprised the in-depth interviews and focus group discussions.

A team of data collectors from a market research agency (Market Pulse, New Delhi) was recruited to field the quantitative questionnaires for the chemists and service providers. The same team had worked with

Figure 2: The vignette

The actual vignette was presented in Hindi. This is an approximate translation.

I am going to tell you about a procedure for abortion that has been made available recently. In this procedure, abortion is done through pills. These pills can be taken till 7-8 weeks after the first day of the last menstrual period.

As per the law, these pills can be given only by a specialist (a woman's doctor or an MBBS doctor who has been specially trained). On the first day, the doctor gives one pill to the woman (specify by showing mifepristone) after which the woman can go back home. After two days, she again returns to the doctor. The doctor now gives her two other pills (specify by showing misoprostol). Abortion happens after that – in some women it takes place in a few hours whereas it may take a few days in other women. The process is like a natural miscarriage. There may be some pain and bleeding that will last for some days. The doctor generally asks the woman to come back again after 2 weeks for a checkup. If the abortion is found to be incomplete (this may happen in four or five women out of every hundred), the doctor will need to do a 'machine' abortion.

The tablets cost around 300-400 rupees. There may be other costs like doctor fees, tests etc.

Ipas on a similar survey earlier. Over several sessions prior to the start of the survey, the team received extensive training in the content of the questionnaire and the field protocol. The researchers maintained contact with the data collectors throughout the survey period.

All qualitative data collection was done in partnership with the Seventh Day Adventist Hospital, Ranchi (SDA, Ranchi). The lead researchers at SDA, Ranchi, selected the interviewers. Both male and female interviewers, all with previous experience in qualitative data collection, were recruited. Because a high turnover rate was expected, more interviewers were trained than were needed for the study. In addition to interviewers, several young men and women (many of them students) who were well-versed in the local language were selected as note-takers/scribes. An extensive training session and pilot test were held at the start of the study.

A moderator accompanied by two note-takers conducted all FGDs. Two scribes were used to minimize data loss (as using a tape recorder was not feasible or appropriate). All but two of the FGDs were conducted in Hindi (the remaining two were conducted in a local dialect, Mundhari); notes were compared and compiled, translated into English and transcribed. Similarly, at least two people went together as a team for each in-depth interview, one to take notes and the other to focus on the interview per se. The chemist interviews were conducted in Hindi, while the service provider interviews were conducted in English and in some cases in Hindi as well.

Researchers explained to all potential participants the study, its purpose and the approximate time required for the interview; only those willing to participate were included. After the FGDs, a doctor or nurse who accompanied the field researchers answered participants' questions on abortion and related reproductive-health issues.

Data Management and Analysis

All the quantitative data were entered and cleaned in SPSS 11.5, which was also used for the analysis.

The qualitative-data-management software Atlas Ti was used to organize and code all textual data from the qualitative study, using a set of themes (codes) agreed upon by the research team. Matrices summarizing the information from the various codes were developed, and the main researchers involved in the qualitative study from both Ipas and SDA, Ranchi, met during two analysis workshops to discuss the matrices and review discrepancies and agreements in interpretation of findings.

Opinions About and Use of Medical Abortion by Service Providers

The overwhelming majority of ob-gyns across both Bihar and Jharkhand had heard of one or both drugs.

Profile of Surveyed Providers

Table 2 shows the distribution of 221 interviewed providers.

Table 2: Sample distribution of interviewed service providers

	Ob-gyns	Others	
		MBBS	ISM (Practitioners of "Indian Systems of Medicine")
Bihar	58	35	17
Jharkhand	58	39	14
TOTAL	**116**	**105**	

Ninety eight of 116 ob-gyns interviewed (93%) were women. Men outnumbered women among the non-ob-gyn providers interviewed; 94 (89.5%) of these were men. The ages ranged from 27-70 years, with most providers (44%) in the age group 35-45 years.

The average duration of the surveyed providers' medical practice was 15.3 years, but this varied widely from as little as one year, for freshly qualified graduates, to more than 45 years, for several ISM practitioners.

Forty of the interviewed providers worked exclusively in the public sector. Others worked in the private or NGO sector, though seven worked in both public and private hospitals.

While all providers interviewed had been mentioned by key informants as being abortion service providers, we did not probe details of abortion service provision other than in the context of medical-abortion drugs, and we did not ask whether the doctor and/or his/her clinic were legally certified.

Awareness of the Drugs

The overwhelming majority of ob-gyns (see Table 3) across both Bihar and Jharkhand had heard of one or both drugs. Awareness was much lower among other doctors.

Table 3: Proportion of providers who had heard of mifepristone-misoprostol as abortifacients

Drug	Ob-gyns n=116	Others n=105
Heard of mifepristone (generic or trade name)	94.8%	30.4%**
Heard of misoprostol (generic or trade name)	96.6%	26.7%**
Heard of both drugs	94.8%	24.8%**

*** indicates a significant difference with a p value < 0.05*

Table 4: Source from which the service provider first learned of mifepristone

Source of information	Ob-gyns n=110*	Others n=31*
Scientific journal/newsletter/academic publications	49 (44.5%)	13 (41.9%)
Medical representatives /dealer	82 (74.5%)	8 (25.8%)
Conference /CME /ob-gyn society	43 (39.1%)	10 (32.3%)
Professional colleagues	13 (11.8%)	17 (54.8%)
Product advertisements	2 (1.8%)	1 (3.2%)

** Only those who had heard of mifepristone.*
Multiple responses allowed, hence totals exceed 100%.

Marginally more MBBS and ISM doctors were aware of at least one of the drugs in Bihar (34.6%) as compared to Jharkhand (28.3%), but this difference was not statistically significant.

Sources of information

When asked the source of their information about mifepristone, doctors cited a multitude of sources from which they first learned of the drug. (See Table 4).

Company medical representatives were the primary source of information for the majority of ob-gyns, and more so in Jharkhand (mentioned by 85.2% of doctors) than in Bihar (mentioned by 64.3%). Irrespective of whether the medical representative was their first source of information, nearly all ob-gyns (92.9%) reported having received a promotional visit from a medical representative. Eighteen of the 80 (22.5%) doctors who received visits from company representatives also reported that the representatives left behind free drug samples.

On the other hand, other doctors most commonly learned of mifepristone through word-of-mouth information from colleagues. Only eight of the 32 non-ob-gyn providers said that company representatives were their primary source of information or that they had received promotional visits by medical representatives. Only two reported having been left a sample.

When asked if chemist shops in their neighborhood stocked mifepristone, only 27% of respondents said they knew that the drugs were being stocked. The others said they had no idea about chemist stocking. There was no significant difference in the responses of ob-gyns and other doctors on this question.

Use of Mifepristone and Misoprostol

Not all ob-gyns who were aware of one or both drugs used them in their practice. As seen in Table 5, actual use of either one or both drugs as an abortifacient was reported by 88 ob-gyns (76%).

Eleven of the 105 other doctors (nine MBBS and two Ayurvedic practitioners) reported using mifepristone or misoprostol. Since the majority of this group of providers were unlikely to be legal MTP providers, underreporting of use is also possible. The majority of doctors in this group (61.9%) did report using other medicines for treating delayed periods (most commonly progesterone or homeopathic medicines like Pulsetilla).

Table 5: Use of mifepristone-misoprostol by service providers

Drug use	Ob-gyns n=116	Others n=105
Ever-use of mifepristone	59.4%	9.5%**
Ever-use of misoprostol as abortifacient	70.7%	7.6%**
Ever-use of either drug as an abortifacient	75.8%	10.4%**
Use of misoprostol for other reproductive health indications (postpartum hemorrhage/induction of labor) but not abortion	14.7%	4.8%
Don't use the drugs per se but reported treating women who have taken the drug from chemist / other doctor	6.9%	1.9%

*** indicates a significant difference with a p value < 0.05*

The most common reason cited by the ob-gyns who were aware of but not using the drugs was that they were too expensive, thus women could not afford them, and/or that the provider did not feel convinced of their safety. Most of the non-ob-gyn providers talked of not being legally authorized as MTP providers, and a few mentioned that they did not have sufficient information on appropriate dosages and protocols.

Fifteen ob-gyns and three of the other practitioners indicated that they were planning to use one or both of these drugs in future. Nearly all also mentioned that they needed complete product literature first or that they would like to attend a seminar to learn about appropriate drug use.

Usage Practices

Detailed information about use of mifepristone and misoprostol was available from 89 doctors (80 of the 88 ob-gyns and 9 of the 11 MBBS/ISM doctors) who were using one or both drugs in their practice. The remaining 10 practitioners were not willing to discuss these details.

Most providers who said they were using the drugs in their practices were relatively new users (average 9.7 months, range 1-24 months).

Table 6: Drug combinations and dosages used

Drugs and dosage	Ob-gyns n=80	Others n=9
Using mifepristone followed by misoprostol		
600mg mifepristone followed by 400-800mcg misoprostol	31 (38.8%)	4
200mg mifepristone followed by 200-400mcg misoprostol	9 (11.3%)	2
300/400mg mifepristone followed by 200-800mcg misoprostol	21 (26.3%)	3
Other variations	4 (5%)	---
Using mifepristone alone (100-600mg)	2 (2.5%)	---
Using misoprostol alone	13 (16.3%)	---

Regimens

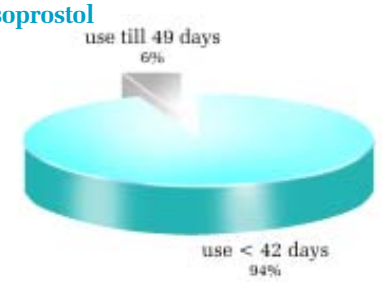
As seen in Table 6, use of mifepristone in the higher, 600mg dosage was common.

Misoprostol was generally administered orally although 24 doctors did mention at least occasional use of the vaginal route.

Pregnancy duration to which the drugs are used

As seen in Figure 3, the majority of all providers (94.3%) were conservative in their use of mifepristone and misoprostol, limiting their use to less than six weeks of pregnancy duration. Only five of the 89 (all ob-gyns) mentioned use to 49 days gestation; no one used it beyond that period.

Figure 3: Pregnancy duration to which service providers used mifepristone-misoprostol



Home or clinic

While most providers asked women to take both mifepristone and misoprostol at the clinic itself, as seen in Table 7, providers sometimes allowed women to take the drugs at home.

Table 7: Providers allowing women to take one or both of the drugs at home

	Ob-gyns n=80	Others n=9
Allows mifepristone to be taken at home	29 (36.3%)	7
Allows misoprostol to be taken at home	18 (22.5%)	6

Those who did not allow home use cited concerns about being able to identify side effects early and minimizing complications. Those who allowed home use felt the drugs were safe enough to be taken at home and cited the woman's convenience as a factor. Providers allowed mifepristone to be used at home more often than they did misoprostol. Some providers mentioned that this was because bleeding usually did not start until the misoprostol dose.

Routine ultrasound use

As seen in Table 8, routine use of ultrasound prior to administration of the drugs and afterwards to confirm the completeness of abortion (steps which are not mandatory, according to WHO) was not an uncommon practice.

Table 8: Routine use of ultrasound related to the use of mifepristone-misoprostol

Use of ultrasound with medical abortion	Ob-gyns n=80	Others n=9
To confirm gestational age	18 (22.5%)	4
To determine that pregnancy is intrauterine	11 (13.8%)	2
To confirm completeness of abortion	34 (42.5%)	5

Multiple responses allowed

Consent and counseling

Although the MTP Act requires consent only from the woman herself, as seen in Table 9, not a single provider gave medical-abortion tablets with the woman's consent alone. All providers mentioned that consent procedures were similar even if the abortion was done using curettage or suction.

Table 9: Consent prior to medical abortion

Written consent from	Ob-gyns n=80	Others n=9
Woman alone	None	None
Woman and husband	56 (70%)	5
Woman and any other family member	24 (30%)	4

Women were counseled about side effects and follow-up visits, but it was not common to provide a written, take-home instruction sheet; only 16 providers (16.2%) reported that they provided such material.

When asked what side effects they counseled women about, providers most commonly reported excessive bleeding, abdominal pain, nausea and vomiting. All but five providers asked women to come back to their clinics in case of problems. The five who did not said that they lacked sufficient facilities and so advised women to go directly to a referral center.

Most ob-gyns (77/80), as well as most other providers (8/9), advised women to return to their clinics for a follow-up appointment two weeks after administration of the drugs, but losses to follow up were common. The majority of providers (79.7%) reported that, in the last six months, half or more women had defaulted on follow-up visits.

Failures and complications

Few providers were willing to answer the question about how many of their own medical-abortion cases in the previous six months had been incomplete and required surgical intervention. The mean surgical-intervention rate as reported by the 51 providers who answered the question was 6% (range: 0-30%).

In addition, 16.3% (n=13) of ob-gyns reported that, in the previous six months, they had treated women who had taken the drugs on their own and had come to them with problems, most commonly excessive bleeding or incomplete abortion. One of the other providers, an MBBS physician, also reported this.

Costs

The majority of service providers (67/89) preferred to prescribe the drugs to their patients, who then purchased them from nearby chemists. The rest kept supplies in their clinics or hospitals. Two doctors reported using drugs given to them free as part of a research trial.

The median cost to the woman of a first-trimester evacuation abortion was Rs. 950[4] (range from Rs. 399-2000). The median cost of a medical abortion as reported by providers who provided the drugs themselves was Rs. 716 (range from Rs. 399-1000). Providers who prescribed the drugs for purchase from a chemist were asked to add expected drug costs to their own fees and estimate client costs. The median estimated cost for a medical abortion in such cases was Rs. 805 (range from Rs. 130-1200). The ranges were large, and differences were not significant. Costs were similar across Bihar and Jharkhand.

Medical abortion and choice

Only one MBBS doctor said he was using medical-abortion tablets as the only abortion method in his practice. All others were also using other methods of abortion.

Table 10: Other methods of early abortion used by providers using medical-abortion drugs

Abortion technologies used	Ob-gyns n=80	Others n=9
EVA	76 (95%)	5
MVA /MR	17 (21.3%)	3
D&C	29 (36.3%)	6

Most providers said they used medical abortion when there were no medical contraindications and the woman specifically asked for an abortion using drugs or was afraid of surgery. Only two doctors mentioned that women occasionally came to them specifically asking for either of the drugs by name.

Only two doctors said women occasionally came to them asking for either of the drugs by name.

4 At the time of writing one Indian Rupee was equivalent to US$ 0.23

Nearly 70% of providers said they did not use medical abortion if the literacy level of the woman was low.

Nearly 70% of providers mentioned that they did not use medical abortion if the literacy level of the woman was low. Some qualified this by saying that it was because they were unsure of the women's ability to follow the protocol or return for follow up.

Knowledge among Non-users

The 24 ob-gyns who were aware of one or both drugs but not using them in their practice were also asked questions on appropriate doses and pregnancy durations to which these drugs are effective. Their knowledge levels about the sequence of drugs, doses and pregnancy duration to which they were effective were similar to those of the ob-gyns who were using the drugs.

Knowledge levels among the 22 non-ob-gyns who were aware of but not using the drugs were more varied. Thirteen said that they did not know whether the drugs should be used singly or in combination. Of the nine who mentioned combination use, two MBBS providers and one ISM practitioner thought that misoprostol needed to be given first, not mifepristone. While 19 of the 22 thought the drugs were effective only for pregnancy duration of five weeks or less, two others thought that using the drugs up to even three months of pregnancy was also acceptable. One ISM provider seemed to have confused medical abortion with emergency contraception, citing that these drugs could be used up to 72 hours after intercourse.

Opinions about Medical Abortion

Access and availability

Both users and non-users of this technology were cautious about allowing wider access to the drugs. As expected, ob-gyns were more likely to feel that use should be restricted to the ob-gyn community (96.7% of respondents). A wider range of opinion was seen among the other categories of providers, with 15 of the 33 providers who were aware of these drugs feeling that access should be more broad-based and should include MBBS and ISM providers who have been trained in its use.

Nearly half (45.7%) of all doctors felt that mifepristone availability should be restricted to the doctors prescribing it and that the drug should not be available at chemists at all. Others gave a range of options, from availability by prescription at chemists, to limited outlets stocking the drug, to its being available in hospital pharmacies only. As could be expected, no one mentioned over-the-counter availability as desirable. There was no significant difference between the opinions of ob-gyns and other doctors in this respect.

Advantages and disadvantages

When asked about the dangers or disadvantages of medical abortion, 79.5% mentioned the risk of incomplete abortion, 39.7% the cost, and 8% the risks of its being misused by chemists and women as significant.

Information needs

Both users and non-users of the technology expressed a need for more information. In sum, 56% of all doctors felt they would benefit from receiving complete product information, and 36% felt a scientific seminar would be of use.

In-Depth Interviews with 11 Service Providers

In addition to the survey respondents, 11 providers who were current users of medical-abortion drugs in their practice were interviewed in-depth. The characteristics of these 11 providers are given in Table 11.

Table 11: Number of service providers interviewed in-depth

Characteristic	Number
Sex:	
Female	10
Male	1
Qualification:	
MD/ DNB/ DGO (i.e., ob-gyn)	8
MBBS	2
Other (BA)	1
Area of Practice:	
Urban	9
Urban Slum	1
Rural	1
Type of Practice	
Private/NGO	8
Public	2
Other	1*

**The village RMP assists the local PHC doctor in his private practice during the day and sees patients independently in the evening.*

Use of the drugs

This group was similar to the survey respondents, in that most of them had begun using the drugs in the recent past, and their experience was limited to 6-10 women per month. The exception was one ob-gyn with a high MTP caseload who uses the drugs on 20-30 cases per month. All 11 providers also used other abortion methods — seven of them MVA, three of them EVA, and the RMP mentioning that he did the occasional D&C as well.

Although survey respondents had mentioned medical representatives as a common source of information, only one of those interviewed in-depth — the village RMP — mentioned this. He had overheard a medical representative detailing the drugs to his boss and then had read up about them in the drug index (MIMS) and incorporated them into his practice.

Other than the RMP, all other providers were well-versed in the protocols of use, including the fact that a 200mg dose is as effective as a 600mg one (this finding may also represent a bias in the way interviewees were selected). Though the RMP was aware of the recommended regimens, he admitted to using the drugs differently because he thought the different regimen both gave better results and better suited women's needs.

In addition to using them in early pregnancy, at least three practitioners mentioned that they use misoprostol after a second-trimester D&E to ensure complete expulsion of products of conception.

Choice

Most providers felt that few women know of these drugs and that only the occasional person has heard of them, either from a chemist or through a friend who has used the method in the past. The providers said, however, that some women do express a specific preference for an abortion using medicines, if possible. Providers felt that between 30-50% of their patients felt comfortable choosing this method. One doctor said that educated women preferred surgical abortion and that poorer clients preferred tablets; this may relate to the economic status of the women who come to the doctor, as she charges more for a surgical abortion than for a medical abortion.

Not all providers were convinced that medical abortion was better than the methods they were already using. One provider mentioned that she uses medical abortion only reluctantly, because the clinic where she works has already purchased these tablets and she needs to use them before their expiration date. Others were more optimistic but still felt that the fact that this method could not be used beyond seven to eight weeks and that it was not guaranteed to be successful limited its usefulness. Four of the providers, however, felt that the privacy the method offers and the fact that anesthesia is not required gave it an edge over other methods.

Most providers felt that few women know of these drugs and that only the occasional person has heard of them, either from a chemist or through a friend who has used the method in the past.

Two providers talked of their discomfort in actually having to see the products of conception when they did a D&C. It is possible that, for these providers, using medical abortion provided the additional advantage of distancing themselves from the abortion per se.

Providers felt that women too were fairly comfortable with the method, the experience of the women being largely a reflection of the provider's comfort and confidence in the method. As one reluctant medical abortion user put it, *"Since I am not very comfortable with prescribing this, I don't think my patients will be comfortable with this either."* In fact, this doctor actively discouraged abortion seekers from choosing this method by showing them the product literature (which she called the "risk bond") distributed by the manufacturer, which mentions that, the success rates are not 100%.

Unmarried women and medical abortion

Although the survey did not address the issue, the in-depth interviews brought into focus the role medical abortion plays for unmarried women, for whom maintaining secrecy may be especially important. Oral medication (whether it is Ayurvedic or allopathic) seems to be the first-line option for such women, who are apt to consult a service provider only if that option does not work. All providers mentioned that a number of unmarried women come to them after having taken some sort of medication obtained either directly from a chemist or from an RMP. One provider mentioned that oral abortifacients (it is not clear whether she was referring to mifepristone and misoprostol or Ayurvedic preparations) are available at grocery shops as well.

Two providers mentioned that they often treat unmarried women who take mifepristone that they obtain from a chemist shop and then come to the providers to confirm that the abortion is complete. In fact, awareness of mifepristone and misoprostol seems to be higher among unmarried young girls than among women in general. When asked about their familiarity with the drugs, one provider, who practices in a poor area of town and sees a high proportion of unmarried women, laughed and said, *"I am aware of these drugs, as is the whole town."*

Costs

Although survey data on costs were limited, the in-depth interviews provided some insights into how cost affects decisions to use the drugs. Most providers felt that the cost of mifepristone could prove to be a barrier for poorer patients, though the general opinion was that it was a good value for money.

While most did not directly address the issue of whether providers would find this method less profitable, there were several indirect indications of this feeling during the interviews. When asked about the future of this technology, at least three providers said that it could not substitute for D&C, EVA or MVA, as these methods were most doctors' *"bread and butter."*

For one gynecologist, cost considerations did not loom large, as she had a high caseload; thus, lower margins when providing medical abortion were offset by higher volumes. One mentioned that she provided the drugs herself (rather than prescribing them) and charged women the same amount of money whichever type of method they opted for; thus, neither her own nor the women's choice was based on economic considerations. The village RMP used the drugs in much higher doses and for longer periods than required (for example, one to two mifepristone tablets daily for two to three days), partly out of economic considerations.

Accessibility

The issue of control over access to the drugs recurred during the in-depth interviews. None of those interviewed were in favor of over-the-counter sale of mifepristone or misoprostol. All admitted that it did happen, however, and one or two felt that as the popularity of the drug increases, over-the-counter sales would increase as well. Everyone seemed to feel that the drugs should be restricted to those at least as qualified as themselves. Thus, the ob-gyns all spoke of the need to restrict access to the drugs to ob-gyns, and the MBBS doctors agreed that both ob-gyns and MBBS doctors should use it.

As one doctor expressed it:

> *"Do you think it would be proper to push these to patients from the hands of those who have very less knowledge about these drugs? These are not vitamin tablets or capsules, but these are abortifacients."*

The RMP, on the other hand, felt that:

> *"In India, we have very few MD/DGO doctors who can write this. And people do not go to them, they go to the village doctor. To go to the doctor with an MD, they have to go with the parents and will have to give more money; and with prescription to the druggist. This is a big problem. So we also need to prescribe it."*

However, he too felt that nurses or chemists should not use the drug:

> *"No, this is absolutely wrong; no chemist can give any medicine directly. He does not follow up. He does not know the doses. He will not know anything to do, when a complication arises."*

One provider suggested that drug inspectors could play a major role in controlling misuse, but most others acknowledged that the drug is difficult to control. As one ob-gyn expressed it, *"Who cares for the rules anyway?"*

All providers felt that the drugs should be restricted to those at least as qualified as themselves.

Key Findings

Use among ob-gyns

- The overwhelming majority of ob-gyns interviewed across the two states had heard of mifepristone (95%) and misoprostol (97%). Medical representatives of pharmaceutical companies constituted an important source from which ob-gyns first learned of mifepristone, though scientific conferences and journals also played a role.
- More than three-fourths (76%) of ob-gyns interviewed had used either one or both drugs in their practice. Of the ob-gyns using medical abortion, 81.3% used a mifepristone-misoprostol combination while 16.4% used misoprostol alone. Use of mifepristone in higher than minimally effective doses (i.e., 600mg instead of 200mg) was common.
- Actual use tended to be conservative, with most limiting their use of these drugs to pregnancy durations of less than six weeks (42 days).
- Use of routine ultrasound to confirm completion of abortion was not uncommon.
- Medical-abortion drugs were not used exclusively, and choice of abortion method was driven by providers' comfort level with the method, their perceptions of woman's suitability, and expressed needs on the part of the woman to avoid surgery.
- Although written, take-home instructions were not normally given, many providers expressed hesitation to use these drugs with low-literacy women.

Use among other providers

- Neither knowledge of nor actual use of the drugs was common among MBBS physicians or ISM practitioners. Less than 10% of doctors interviewed in this category reported use of these drugs. Knowledge was largely through word-of-mouth from colleagues, and inaccurate information on sequencing of drugs and doses was not uncommon.

Other issues

- Every single provider insisted on the written consent of the husband or another family member, in addition to that of the woman, prior to providing services.
- Most providers felt that access to the technology should be restricted to those at least as qualified as themselves. Most ob-gyns felt that the technology should be restricted to ob-gyns. Others felt that the pool of providers could be more broad-based. None were in favor of over-the-counter, unsupervised use.
- Nearly all expressed the need for accurate information.

Knowledge and Stocking of Abortifacient Drugs among Chemists

Familiarity with Mifepristone and Misoprostol

More than half of all chemists interviewed in both states were familiar with the drugs. As seen in Table 12, familiarity with mifepristone was higher (though not significantly) in Jharkhand. As expected, familiarity with misoprostol was higher than with mifepristone in both states.

Mifepristone and Misoprostol Stocking Pattern

As seen in Table 13, a significantly higher proportion of chemists in Jharkhand were stocking mifepristone as compared to Bihar. Misoprostol stocking was similar across the states and higher than for mifepristone.

The majority of chemists who stocked mifepristone (71/74) also stocked misoprostol.

Stocking patterns also varied considerably by the size of the chemist, with a higher probability of mifepristone being available at a larger chemist than in medium and small outlets.[5] (See Table 14).

Thus, as seen in Figure 4, a considerable gap remains between chemists' familiarity with the drugs and actual stocking. While nearly 60% of chemists were aware of mifepristone, only 74 chemists (35.4%) were stocking it. The gap was smaller for misoprostol. The main reason for chemists not wanting to stock mifepristone was in-

Table 12: Familiarity with mifepristone-misoprostol as abortifacients

Drug type	Bihar n=101	Jharkhand n=108	Overall n=209
Mifepristone (generic or trade name)	53.5%	65.7%	59.8%
Misoprostol (generic or trade name)	74.3%	70.4%	72.2%
Both mifepristone and misoprostol	47.5%	52.8%	50.2%

Table 13: State-level variation in stocking of mifepristone-misoprostol

Drug type	Bihar n=101	Jharkhand n=108	Overall n=209
Mifepristone (generic or trade name)	27.7%	42.6%**	35.4%
Misoprostol (generic or trade name)	51.5%	50%	50.7%
Both mifepristone and misoprostol	27.7%	39.8%	34%

*** indicates a significant difference with a p value < 0.05*

Table 14: Stocking of mifepristone-misoprostol by size of chemist outlet

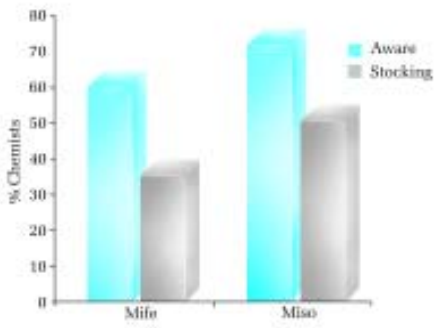
Drug type	Large chemists n = 68	Medium chemists n = 70	Small chemists n = 71
Mifepristone	64.7%**	22.9%	19.7%
Misoprostol	80.9%**	38.6%	33.8%
Both mifepristone and misoprostol	63.2%**	22.9%	16.9%

*** indicates a significant difference with a p value < 0.05*

5 Chemist outlets with 3, 2 and 1 staff at the counter were classified respectively as large, medium and small outlets.

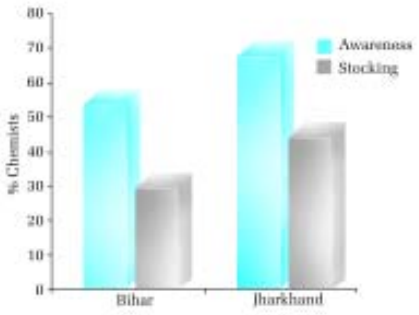
adequate demand or the fact that it was expensive. Fourteen chemists said they were willing to stock the drugs in the future, and two mentioned having been approached by company representatives for that purpose.

Figure 4: Awareness and stocking of mifepristone and misoprostol among chemists



The proportion of chemists stocking mifepristone was lower in Bihar than in Jharkhand, and the gap between chemists' awareness and actual stocking was wider (Figure 5). State-level variations in the gap between awareness and stocking of misoprostol were not seen.

Figure 5: Awareness and stocking of mifepristone in Bihar as compared to Jharkhand



Stocking of multiple brands of drugs was not common, probably because of slow customer off-take and, in the case of mifepristone, the high price. Of the 74 chemists stocking mifepristone, 47 (64%) carried only a single brand; 61% of the chemists stocking misoprostol carried only a single brand. MT Pill (stocked by 72% of chemists stocking mifepristone) and Misoprost (stocked by 43% of chemists stocking misoprostol) were the most commonly stocked mifepristone and misoprostol brands.

When asked where they purchase mifepristone, 96% of the chemists reported that they procured the drug from distributors or wholesalers, while 4% mentioned that they purchased the drug directly from the Clearing and Forwarding (C&F) agent of the pharmaceutical company.

Volume of sales

Sales volumes were not high, with chemists reporting an average (median) of two customers per week for mifepristone (range 1-21). The average (median) number of misoprostol customers was four per week, but the variation here was wider (range 1-286), with at least four chemists reporting sales to more than 100 customers per week. The estimates for misoprostol sales probably include sales for its other gynecological indications (for example, cervical priming).

When asked the price they charged for mifepristone tablets, 48% of the chemists in Bihar reported selling the drug at prices higher than the Maximum Retail Price (MRP). However, in Jharkhand only 6.9% chemists reported selling above the MRP of the brand in question. This variation could be because relatively fewer outlets in Bihar were stocking mifepristone brands compared to Jharkhand.

Customer Profile

Most chemists (66.2%) felt that their entire customer base consisted of customers buying the drugs for themselves or for a friend or family, but 9.5% of the chemists felt that the majority of their sales were to doctors buying the drugs for their clinics.

Most chemists felt that the majority of the non-doctor customers who came in to ask

Nearly half the chemists in Bihar reported selling mifepristone at prices higher than the Maximum Retail Price.

for the drugs were men, not women (see Table 15).

Table 15: Estimated proportion of customers buying mifepristone who are men

Chemist estimate of proportion of customers who are male	Frequency n=109
80% or more	36.7%
50-80%	17.4%
20-50%	4.6%
20% or less	9.2%
No response / Could not estimate	32.1%

Sale With or Without Prescription

When asked to estimate the proportion of their mifepristone customers who did not have a prescription, nearly a third of the respondents (32.1%) were unwilling to respond to the question. Of those who did, the overwhelming majority (77.1%) felt that 80% or more of all customers carried a prescription. In fact, 34 chemists (47% of those who answered the question) said that not a single mifepristone customer was without a prescription.

This may be an underestimate of the true proportion of non-prescription sales. When asked, at the end of the survey, about any specific rules or regulations pertaining to the sale of mifepristone, most chemists (92.9%) mentioned that mifepristone could not be sold without prescription. A similar proportion of chemists were aware that misoprostol is also a prescription drug.

It was also not unusual for customers to ask chemists to recommend an abortifacient drug or a medicine for delayed periods. In fact, 61.7% of chemists felt that more than half of all their customers asked for a drug to be recommended rather than asking for it by name. Chemists were not asked, however, about which drugs they recommend in such circumstances, so it is not possible to correlate this directly with mifepristone sales.

Information Provided to Customers

No chemist provided any written or printed instructions when dispensing mifepristone or misoprostol. However, 59 chemists (54.1%) indicated that they verbally instructed the customer to go to a doctor in case of problems. When asked to specify problems they instructed customers to consult doctors about, the chemists most commonly responded excessive bleeding, nausea and if the abortion does not take place. In addition, 31% mentioned that they indicate the timeframe within which the woman can expect the abortion to occur. Six chemists mentioned that they gave information on dosage.

On probing, when asked whether they advise consulting a doctor prior to starting the tablets, almost all chemists (91.7%) said that they did emphasize this, irrespective of whether the client had a prescription.

Most chemists (70.6%, n=77) indicated that customers never return to them for advice if they develop problems after using mifepristone or misoprostol. When the 32 who said that customers sometimes come back to them for advice were asked what their advice was, 27 mentioned that they ask the customers to go to a doctor; three mentioned that they asked clients to take double doses of the tablets.

Product Knowledge of Chemists

Drug protocol

When chemists stocking one or both drugs were asked whether they thought the drugs needed to be prescribed alone or in combination, 51 (46.8%) felt that both mifepristone and misoprostol needed to be used, 39 (35.8%) felt that misoprostol alone was adequate, and 5 (4.6%) felt that mifepristone could be used by itself. Eight felt that the drugs could be used singly as well as in combination, and six felt that the drugs needed to be used singly but that either mifepristone or misoprostol could be used.

Table 16 outlines the specific dosage of drugs that chemists thought appropriate.

Table 16: Drug doses chemists believed to be effective

Dosage of mifepristone and misoprostol	No. of chemists n= 109
200mg mifepristone followed by 400-800mcg misoprostol	15.6%
400mg mifepristone followed by 400-800mcg misoprostol	6.4%
600mg mifepristone followed by 400-800mcg misoprostol	9.2%
200-600mg mifepristone taken alone	6.4%
200mcg misoprostol taken alone	1.8%
Other variations	3.6%
Could not specify doses	**51.3%**

Totals more than 100%, as multiple responses were allowed.

Thirty chemists mentioned that misoprostol should be taken vaginally, rather than orally. Seven chemists mentioned that mifepristone too was usually prescribed vaginally, not orally.

Pregnancy duration to which drugs can be used

Most chemists were unable to answer the question on the pregnancy duration to which the drugs could be used (Table 17). Those who did felt largely that the drug should not be used beyond 45 days after the Last Menstrual Period (LMP), and most responses clustered around the 30-day period.

The other responses included two chemists who thought misoprostol should be used like an emergency contraceptive (that is, within 72 hours of sex) and two chemists who thought mifepristone should be used in this way.

Perceived effectiveness of mifepristone and misoprostol

More than two-thirds of chemists (67%) thought that the drugs — whether used in combination or alone — were successful in more than 80% of cases in which they were used. Only eight chemists (7.4%) felt that the tablets worked in fewer than 50% of cases.

Knowledge of side effects

When asked what the side effects of these drugs were, the majority of chemists were unable to list any. Among the chemists who mentioned side effects, excessive bleeding was the most common response for both the combination regimen and for use of mifepristone alone. However, nausea and vomiting was thought to be the most common side effect when misoprostol is used alone.

Table 17: Chemist perceptions of pregnancy duration to which drug/s should be used

Pregnancy duration to which drug/s can be used	Mife-Miso combination n=59*	Misoprostol alone n=53*	Mifepristone alone n=19*
Till 45 days from LMP	16 (27%)	2 (4%)	1 (5%)
Till 60 days from LMP	15 (25%)	—	4 (21%)
Till 90 days from LMP	6 (10%)	—	1 (5%)
Other (as an emergency contraceptive)	—	2 (4%)	2 (11%)
Can't say	22 (37%)	49 (92%)	11 (58%)

**Chemists who thought this drug or combination was appropriate to use as an abortifacient. Some chemists felt that the drugs could be used singly as well as in combination; hence the overall n>109.*

Table 18: Chemist perception of side effects of mifepristone and misoprostol

Perceived side effect	Mife-Miso combination n=59*	Mifepristone alone n=19*	Misoprostol alone n=53*
Excessive bleeding	11 (18.6%)	2	9 (16.9%)
Headache	8 (13.6%)	2	6 (11.3%)
Nausea /vomiting	8 (13.6)%	1	11 (20.7%)
Others	8 (13.6%)	3	2 (3.7%)
No side effects mentioned	43	14	31

**Chemists who thought this drug or combination was appropriate to use as an abortifacient. Totals may exceed 100%, as multiple responses were allowed.*

Figure 6 presents chemists' level of knowledge about the drugs. More than two-thirds of the surveyed chemists did not have correct information regarding pregnancy limits, dosage and side effects of mifepristone and misoprostol usage.

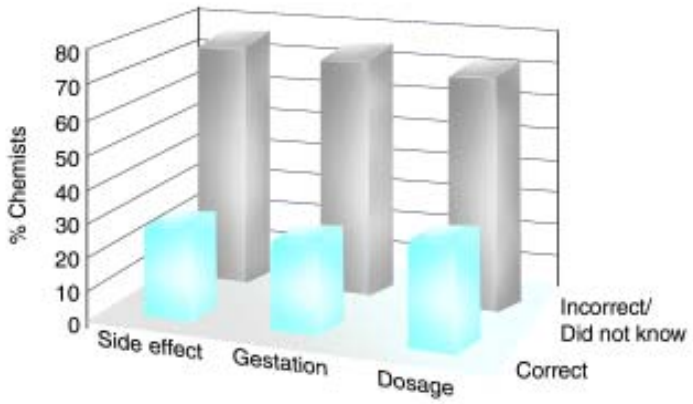
Opinions on Medical-Abortion Drugs

When asked what they thought the future trends were likely to be for the sale of mifepristone and misoprostol, many chemists (43.1%) did not want to express an opinion either way. A quarter of the chemists, however, perceived that use of mifepristone and misoprostol will increase because of the method's effectiveness, because it has fewer side effects than surgical methods, and because it is useful for unmarried women. A further 11% of the chemists felt that use of the drugs will be dependent on doctor prescription trends, and about 8% of the surveyed chemists were of the opinion that mifepristone and misoprostol use will remain limited because of the availability of cheaper alternatives.

Use of Other Drugs for Delayed Periods or Inducing Abortion

Apart from mifepristone and misoprostol, all the chemists interviewed reported stocking or selling at least one other drug for delayed periods or abortion. When asked to list other drugs sold for this purpose, the chemists listed a variety of Ayurvedic medications, hormonal preparations and even oral contraceptives and emergency contraceptives. Table 19 indicates drugs that chemists said they use.

Figure 6: Knowledge gap among chemists



When asked about the side effects of these drugs, most chemists could not list any.

Table 19: Drugs sold by chemists for delayed periods /abortion

	Chemists stocking n= 209
Ayurvedic / homeopathic drugs	75.1%
Emergency contraceptives*	13.8%
Oral contraceptives*	13.8%
Prostaglandin injections	8.6%
Other hormonal preparations	4.8%

** Only includes those who sold these for treating a delayed period or as an abortifacient. Totals may exceed 100%, as multiple responses were allowed.*

Chemists mentioned more than 50 Ayurvedic drugs that they sometimes sell for delayed menstruation or abortion. Table 20 lists the most commonly stocked.

Table 20: Ayurvedic drugs for abortions

	Chemists stocking n=209
Gynomic Forte	52.6%
R P Forte	23.0%
E P Forte[6]	15.8%
Remens	12.0%
Loy Forte	11.5%

In-Depth Interviews with Selected Chemists

In addition to the survey respondents, nine more chemists took part in in-depth interviews. Table 21 provides a profile of these nine respondents.

Table 21: Profile of chemists interviewed in-depth

Characteristic	Number
Sex:	
Male	9
Owning /working in shop:	
Shop Owner	9
Years since starting shop:	
20 years	4
10- 20 years	4
< 10 years	1
Size of the shop :	
Medium (2 counter staff)	7
Small (1 counter staff)	2
Location of the shop / outlet :	
Main market	7
Residential area	1
Village	1

Stocking of mifepristone and misoprostol

Six chemists mentioned that they had been retailing mifepristone and misoprostol tablets since the launch of mifepristone, the others were relatively new stockers (one year or less). Stocking levels varied from one chemist who said he keeps all four brands of mifepristone and misoprostol to one chemist who said he did not stock the drugs but supplied the tablets on customer demand. MT Pill was the most commonly mentioned brand.

Chemists' opinion of the demand for mifepristone varied greatly, with one chemist in Biharshariff pointing to the mifepristone and misoprostol in his shop and saying, *"People do not buy expensive drugs; the pack is lying here for two months,"* to the other extreme, with a chemist in Gaya mentioning sales of up to 10 tablets a month. As reflected in the survey results, chemists felt that they sold more misoprostol than mifepristone tablets.

Other drugs for delayed periods or abortion

All chemists also kept a range of Ayurvedic drugs (Gynomic Forte, RP Forte, Gynaplus and Mensolex were frequently mentioned), which they prescribed when periods were delayed or for an abortion per se. A number of chemists also mentioned oral contraceptive pills and emergency contraceptives

[6] Refers to Erca P Forte, E Pco Forte and similar drugs branded as Ayurvedic and not the banned hormonal EP Forte tablets.

A number of chemists also mentioned oral contraceptive pills and emergency contraceptives as being abortifacients.

as being abortifacients. When asked about his stocking of drugs for delayed periods, the chemist at Aurangabad remarked, *"Kitna naam ginaye madam, bahut rakhte hai aur jyada Ayurvedic hota hai" ("How many names can I count? I keep so many. Most are Ayurvedic").*

All chemists were in agreement that sales of and demand for mifepristone and misoprostol were low relative to the demand for other "abortifacients." A chemist in Ranchi explained the popularity of the Ayurvedic drug Gynomic Forte as follows: *"This is hot in the market; it sells like hot cakes everywhere in Ranchi. Everyone knows about this drug."* The higher demand for Ayurvedic tablets seems to be driven by their lower cost.

During the course of the survey as well as the in-depth interviews, researchers purchased from chemists as many different brands of Ayurvedic and homeopathic products as possible. Appendix 1 includes a classification of the information provided in the labels of 24 most commonly used brands. None of the labels mentioned abortion as an indication, though some brands use very clear mnemonic branding – for example names like "Abornil" and "DNC" — to suggest that they are abortifacients. Some of the drugs were specifically contraindicated for pregnancy. EP Forte product samples collected from the market indicated that there are several Ayurvedic preparations with similar-sounding names: the team came across two brands labeled as "ERCA P. Forte" and "E PCO Forte." It appears that Ayurvedic pharmaceutical companies are labeling these drugs so that the brands resemble and sound like the now banned hormonal preparation "EP Forte," in order to leverage the large-scale awareness the original allopathic product had before it was banned.

Customer profile

Chemists mentioned that most of their customers were from nearby areas. This is probably because the wide dispersion of outlets carrying drugs means that customers rarely need to go long distances to access a chemist outlet stocking abortion drugs.

All the respondents who were interviewed in-depth reiterated the survey finding that most customers who come to buy abortifacient drugs are men. Even men are shy about asking for such drugs, they said. One chemist mentioned that they come to the shop only when other customers are not around. It is hard for the chemists to judge who the men are buying the drugs for. As one said,

"Everyone who comes to buy the medicine says that he wants the medicines for his wife. Now, I cannot tell whether that is his wife or friend!"

Similarly, some chemists felt that some of the men were servants sent by rich clients who did not themselves want to be seen at the chemist shop.

Chemist-client interactions

Most clients who ask for mifepristone or misoprostol in particular come with a prescription, although occasionally a client may come with a drug wrapper, empty packet or brand name written on a piece of paper *("Chutki")*, based on the recommendation of an earlier client who has used these tablets successfully.

However, except for the one chemist outlet located very near an NGO providing abortion services, all others indicated that most clients (estimates range from 60-90%) coming to them for drugs for abortion have neither a prescription nor the name of a specific drug in mind. Poorer clients were more likely to come directly, without having first visited a doctor. Many ask for tablets for a *"menstrual cycle that has stopped."* Others are more direct and explain that their wives don't want to continue the pregnancy *("Baccha therne nahin dena hai")* and ask for medicines to drop the pregnancy *("girane walla dawai")* or for cleaning *("safaiya")*.

A few clients may ask for a specific drug, but most ask the chemist to suggest an appropriate drug, by saying, for example, *"Give me medicines according to your best understanding" ("Aap apna samajh se dein")*.

The in-depth interviews tried to uncover how chemists recommend an abortifacient to customers seeking their advice. A clear and consistent pattern emerged, with the chemists' decision apparently depending on several factors.

1. Understanding of whether the client is pregnant and duration of pregnancy:

At least three of the chemists reported that they ask clients to do a urine test to confirm pregnancy before taking any medicines. These chemists often sell the pregnancy test

strips to clients. Others said that they ask the client to estimate the duration of pregnancy but admitted that they have to rely on the client's estimation. Several chemists may be aware of the distinction between irregularities in menstruation (delayed periods) and an actual pregnancy; they felt that most of the Ayurvedic or hormonal drugs in their stock worked only in cases when the woman was not pregnant. Some others, though, believed that these other drugs were effective as abortifacients, too, if used early enough in pregnancy.

Though one chemist mentioned that he provided mifepristone or misoprostol up to three months LMP, most limited use of these drugs to within two months of a missed period, believing that they were ineffective or risky beyond that period.

2. Belief in the relative efficacy of the drugs:

Some chemists felt that mifepristone and misoprostol were more "guaranteed" drugs than other abortifacients. However, the belief that mifepristone is better was based on different factors for different chemists. Some felt that, as mifepristone is a more expensive drug, it has to be better than the cheaper products. One felt that mifepristone has the backing of a more reputed company; *"Gynoplus no guarantee. MT Pill has Cipla guarantee."* Another chemist mentioned that he has seen the drug work well in the case of three or four customers whom he knew personally.

Overall, chemists perceived mifepristone and misoprostol differently from the other drugs they stock, but the difference was not very distinct for several chemists, who appeared to recognize only a marginal variation in efficacy. For example:

"Mife-miso is good but Gynomic Forte also effective, as there is demand for the product."

"Mife-miso has nearly 100% guarantee, but others are also 50-70%."

"All drugs effective for 3 months."

3. Economic considerations:

This factor usually overrode all others. Nearly all chemists reported deciding on which drug to prescribe based on their estimate of the customer's ability to pay. Poorer clients were invariably prescribed cheaper Ayurvedic preparations, and richer ones were offered mifepristone and/or misoprostol. The bottom line for most chemists was to ensure that no one went away from the shop without buying a medicine. As some chemists said, *"We see pockets first,"* or, *"If rich, we give MT Pill; otherwise Ayurvedic"* or, *" It's just like gambling. It all depends on what they want and can afford."*

The decision-making process was best captured by the explanation provided by the chemist at Jamshedpur:

"I am a businessman, and I have to see to the needs according to their pockets. I assess them with how they look; I mean their dress-up and the way they talk. Whom I consider to be poor, I give them drugs which cost Rs. 40-50. And whom I consider being rich and can afford, I cannot give them cheap drugs because they won't believe in it. So my recommendation completely depends on their pockets."

4. Whether or not the chemist knows the client personally:

Chemists' recommendations to known customers were often at variance with what they advised others. They were more willing to provide drugs without prescription and to discuss alternatives with regular customers than with others.

However, the most interesting differential in recommendations came in response to the question on what chemists would

advise a family member or close friend who needed to have an abortion. Except for one, who claimed his advice was the same no matter to whom, all others said that, for a family member, they would never want to take a risk and would always advise visiting a doctor before taking any kind of medication. One chemist explained the divergence of advice as, *"Our people are ours" ("Apna, apna hota hai").*

Observation of customer-client interface

Twice, during the course of the in-depth interviews, clients came in to ask for mifepristone-misoprostol or other drugs for abortion, thus allowing the interviewers to observe the transactional process first-hand.

In the first instance, at Gaya, an old lady came with a prescription for one mifepristone and two misoprostol tablets. While handing the prescription to the chemist, she asked him, *"Safai ke liye hai na?" ("Is it for abortion?")*. The chemist confirmed that they were and handed over the tablets. He gave the client no further instructions or explanations.

In contrast to this direct transaction, during an interview at Hazaribagh, a male customer walked in and informed the chemist that his wife was pregnant and wanted to abort. The man said that he *"needed some good medicine for the purpose."* The chemist asked him *"How many months have passed?"* The man confirmed that a little less than one-and-a-half months had passed since the day of the missed period. The chemist told the man to return in the evening for the medicine and instructions on how to use it. The chemist later explained to the interviewers that he would be recommending the mifepristone-misoprostol combination, as the customer was known to him personally.

The fact that we happened to witness two instances of transactions involving abortifacient drugs during the course of just nine interviews seems to indicate that there *is* a demand for these tablets. The two transactions we witnessed cover the spectrum from a prescription-supported mifepristone-misoprostol purchase to a customer walking in to seek the chemist's recommendation for an abortion drug.

Drug substitution

Interviewers asked the chemists what they would do if they did not have the drug a customer requested or had a prescription for. Several said that, in such circumstances, they substitute other drugs. Again, the substitution in such cases is based on financial rationale, that is, the chemist would attempt to provide a drug of equivalent cost.

The Bokaro chemist explained his impression of drug substitution as follows:

"See, my clients have no idea about the drugs, names, their effectiveness. It all depends on their financial condition. When I substitute one drug for another, they never say a thing because they know that only the name is different, or the company making the drug is different, but the purpose of the medicine — be it from whatever company — is the same, and all my clients are well aware of it."

Accordingly, several chemists said that when clients come in with a prescription for mifepristone and it is not in stock, they have no option but to turn the client away, as there are no drugs in that price range that can be substituted.

Recommendations and advice in cases of failure or complications

Chemists' opinions were divided on the question of whether customers return to

Chemists' recommendations to known customers or family members were often at variance with what they advised others.

provide feedback on the efficacy of drugs that the chemist provides. Most chemists felt that customers do not come back if the tablets are successful, but at least six reported that, when the medicines don't work, clients do come back to report the failure and/or ask advice on next steps. Most chemists first recommend an alternative line of treatment — especially if the initial medicines taken were Ayurvedic or hormonal; if that too fails, they suggest a visit to the doctor. For example:

"Take raw turmeric in boiled milk. If that fails too, then go to lady doc."

"First we give Gynomic Forte; if it does not work, we give Aromic Forte. If that does not work, we give misoprostol then mifepristone, and finally we suggest go to madam (i.e., nearby gynecologist)."

When a patient comes back to report a complication such as excessive bleeding with mifepristone, most chemists advise the patient to visit a doctor, although one chemist (whose knowledge of the drugs and protocols was very accurate) said he offers treatment if he thinks the problems are minor (for example, antispasmodics for pain). Survey results confirmed this finding.

Chemists' knowledge and information needs

Most chemists felt that they did not have adequate knowledge about mifepristone and misoprostol. One chemist felt that his low knowledge of the products was due to their low sales. Another said that he did not try to find additional information on the product. Chemists mentioned medical representatives and doctor prescriptions as their primary source of product information.

All chemists interviewed felt that their current knowledge levels about mifepristone and misoprostol are inadequate and expressed a strong interest in learning more about the side effects of the drugs, legal issues, efficacy and mechanisms of action. Chemists preferred to have face-to-face oral information-sharing followed by pamphlets as a means of providing them information.

Key Findings

Mifepristone and misoprostol

- While 60% of chemists were aware of mifepristone, only 35% of outlets stocked the drug. Significantly fewer chemists stocked mifepristone in Bihar than in Jharkhand and across both states, stocking of mifepristone was lower than that of misoprostol. Larger chemists were more likely to stock mifepristone than medium or small outlets.
- Chemists reported an average of two customers per week for mifepristone and four customers per week for misoprostol.
- Chemists said 90% of sales were to non-physicians and that the majority of customers were men. Most sales were reported to be to those carrying a prescription, but over-the-counter sales were also reported in a small number of cases.
- More chemists in Bihar than in Jharkhand (48% of those interviewed compared to 7%) reported selling mifepristone above the Maximum Retail Price for the drug.
- Chemists' knowledge of mifepristone and misoprostol was very low. Most chemists were unable to answer questions on dosage, gestation or side effects etc., of these two drugs. However, chemists who responded to questions about gestation limits and effectiveness erred on the side of caution.

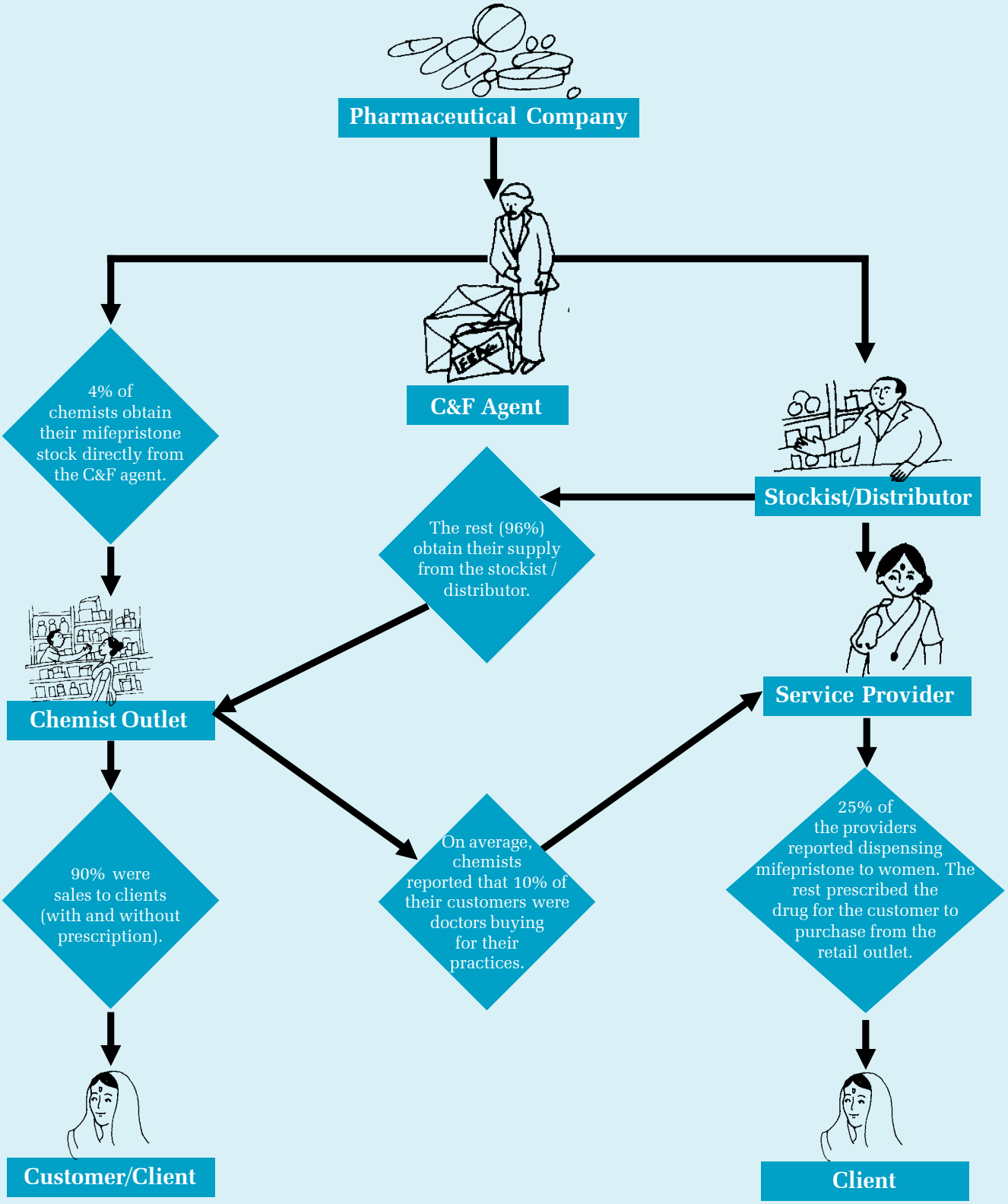
Other abortifacients

- Chemists also mentioned an extensive array (> 50 brands) of Ayurvedic, homeopathic and other allopathic drugs as drugs for treating delayed periods and/or termination of pregnancy.
- Chemists reported higher demand for these products than for mifepristone and misoprostol.
- While some chemists felt that mifepristone-misoprostol were better than other abortifacient drugs because they were more expensive or because they were manufactured by a large pharmaceutical company, others felt that the efficacy of all drugs was similar.

Chemist-client interface

- Chemists were a key information source for customers seeking an abortifacient or a medicine to induce menstruation. Most (62%) chemists said that a majority of their customers asked them to recommend a drug.
- Chemists responses, when asked to recommend a drug, depended largely on their perception of the clients' economic status and whether or not they knew the client personally.
- No chemist provided any written instructions or information when dispensing mifepristone or misoprostol.

Supply Chain of Mifepristone



The Potential of Medical Abortion — Community Opinions

The focus group discussions revealed a wealth of information about care-seeking in pregnancy. This chapter, however, highlights only abortion and abortion-related decision-making relevant to the context of medical abortion.

Participant Characteristics

All participants in the women's FGDs were married and had at least one living child. In all 12 FGDs, the majority of women were members of self-help groups run by the local NGO that provided logistical support to the study. Thus, these women were likely to be more vocal and better informed than members of the larger community. Each FGD had 10-12 participants.

Men's FGDs included 8-10 participants, chosen from among those expected to be knowledgeable and willing to speak on the issue. All participants were married and had at least one living child.

The Context of Abortion Care-seeking

Delayed periods and recognition of pregnancy

Women who were able to read the calendar relied on the English or Hindu calendar to determine the date of their menstruation and whether periods were delayed. Women who were unable to read the calendar relied on moon phases. Participants in the men's FGDs also mentioned these methods but went on to say that men do not remember these dates and that keeping track of them is the women's responsibility.

Women were aware that delayed periods could occur for reasons other than pregnancy and that, in most cases, the first appropriate response is simply to wait. The waiting period mentioned ranged from a few days to as long as two months. Medications women tried in order to bring on a delayed period included *Ashoka Risht* (Ayurvedic Syrup, see Appendix 1), juice of Mehendi flower mixed with sugar, and, in one village, a herbal powder prepared by a local *Vaid* (herbalist) lady.

Women said that they usually suspect that they are pregnant when menstruation does not resume and when other symptoms like vomiting, loss of appetite, change in food habits, etc., become evident. Most women felt that it is generally not until seven to eight weeks after a missed period that a woman decides that she is definitely pregnant. Men said that they do not generally realize that their wives are pregnant until the pregnancy becomes visible or until their wives (or, in some cases, the men's mothers) pass on the news to them.

Use of pregnancy tests does not appear to be common except in some urban areas. Participants of a focus group discussion in one town with relatively good access to local health facilities said that doctors use pregnancy tests before performing abortions. In the same town, men also spoke about the use of pregnancy tests, going as far as to say that 25% of women (and almost all who are well-off) get the test done.

Use of home remedies

In both the towns and villages, home remedies were commonly tried as a first step before seeking formal care. Even men were able to list a few of the more common home remedies. Table 22 lists the home remedies mentioned in the FGDs as being in common use.

Table 22: Home / traditional remedies used to deal with unwanted pregnancy

Description
Palm tree: Either the hair from the root or an extract of the flower
Boiled banana flower
Tender root of bamboo Bamboo syrup: Fresh bamboo shoot cleaned and cut in small pieces then soaked in water for 1 hour and then boiled in 1 liter water till deep red in color. Known to be effective till 2 months.
Juice of pineapple leaf
Sitting on an inverted stool used by husband's elder brother. The leg of the stool is inserted into the vagina. Sitting on the stool of the husband's elder brother is equivalent to committing a sin. This leads to the pregnancy being aborted.
Halwa of turmeric and jaggery (100 gms 2 times a day for 3 days)
Juice of leaf of the herb Harshingar
Mixture of turmeric and quick lime
Raw turmeric in boiled milk

Use of other medications

The use of "oral medicines" or injections perceived to be abortifacients was not uncommon. The medicines (pills or syrups) were usually obtained from a nearby chemist (medical shop). In one village near Gaya, where the nearest medical shop was 8-10 km away, a local RMP visited the village daily to treat minor ailments and carried a range of medicines with him, including tablets for abortion. In some areas where local medical shops did not exist, such drugs were also available at local grocery shops. (See Appendix 1 for a description of commonly mentioned drugs.)

It is generally the men who go to the medical shops — husbands in the case of married men and boyfriends in the case of unmarried girls. Men said they generally go to the chemist, describe the problem and rely on the chemist to prescribe the appropriate medicine. Some men said they may even approach the local chemist not to obtain a medicine but to ask his advice on the right doctor to consult for an abortion. Sometimes women (especially the unmarried) may also go directly or send a female friend to obtain EP Forte from chemists. The birth attendant *(dai)* also sometimes visits the chemist on behalf of a community woman. Chemists generally make their recommendations based on how well they know the client. In several FGDs, though, women expressed some cynicism with oral medications and their efficacy.

Abortion providers

The FGDs in all the villages listed at least one local, village-based provider for abortion services — either an RMP, the birth attendant *(dai)* or in a few cases an Auxiliary Nurse Midwife (ANM). RMPs (most of whom were men) generally used medicines or injections; *dais* often used massage in addition to herbal medicines or roots inserted vaginally; and ANMs were known to use a glycerin-coated catheter or a laminaria tent. Women were able to describe these methods; men were usually unaware of the specifics.

All groups were also able to mention a doctor provider in the nearby town. Most

women mentioned a hospital abortion as being one done by a "machine" or as a "*dhulai,*" and most believed it to be an effective method. Men usually spoke in terms of a "D&C."

If home remedies and/or oral abortifacients did not work, help was usually sought from a local RMP, a *dai* or a hospital. Who chooses what type of provider depends largely on the context of services available within or near the town or village. There is a preference for formal private providers if cost is not an issue. Both men and women said that hospitals are preferred to informal providers, if they are available within reasonable distance.

Financial issues

Men were expected to pay the costs of their wives' abortions, and all the men in the FGDs said they did. As expected, the range of opinion was more varied in the women's FGDs. While it was acknowledged that some men do provide needed financial support, others who refuse to bear the expenses were labeled as *"cruel."* In such cases, women still go ahead with the abortion, using money that they have saved from household expenses or from savings kept aside for buying cosmetics or clothes. Women in the tribal villages appeared to be more independent, had more control over money and usually earned independent income through selling country liquor. If needed, they sold off some of their goats in order to raise money for the abortion.

Actual costs varied widely across the FGDs, but costs of oral drugs were lower than those of injections, and the *dai* and local RMP were cheaper than a hospital-based provider. *Dais* often accepted payment in kind instead of cash. When available, government services were perceived to be low-cost, though several groups spoke of corruption in the system that added to costs (for example, at some hospitals women needed to pay to buy drugs that hospitals obtained free of cost). A surgical abortion was reported to cost anywhere between Rs. 100-1000 with higher charges for unmarried women.

There was universal agreement that costs depend on pregnancy duration and rose by the month. Many local private providers varied their charges based on clients' ability to pay. Tribal women, though poorer, were often charged more, as they rarely negotiate costs. One provider in a large town was reported to have a manager who had discussions with the client and fixed appropriate fees. She was also, however, known to do abortions for free for those who were unable to afford it.

Role of men

Apart from financial support and their role in obtaining drugs, men across all five groups said that they helped women in decision-making about unwanted pregnancy. Women generally characterized men's role in decision-making in stronger terms, saying that men had the primary say in this decision as well as in determining which provider they go to. Men also reported that they usually accompanied their wives to the abortion provider. Women said this less often, but both agreed that providers offered better and faster treatment if husbands accompanied the women.

Unmarried women and unwanted pregnancy

The stigma attached to unmarried women becoming pregnant and the need for secrecy and preservation of family honor in these circumstances were themes repeated across all the discussions with both men and women. In one FGD, it was said that it was not uncommon for men folk in the family to think of killing the girl and that the unmarried girl was actually killed or committed suicide in about 25% of the cases.

Participants (especially women) themselves were judgmental about pregnancies in unmarried girls, and, in at least three of the FGDs, such girls (and their partners) were referred to as "*culprits*."

This theme was discussed somewhat differently, however, in the two FGDs in the tribal village near Ranchi. Here, while stigma was acknowledged, it was dealt with differently than in most other communities. Instead of remaining hidden in the family, the issue was usually discussed in the village *Panchayat* and among village elders. If at all possible, the boy and girl were married. If the boy did not belong to the local or nearby community or was unavailable (as sometimes happened when girls who migrated to the city for work became pregnant there), then the girl was allowed to have an abortion. If the pregnancy was far advanced, she was even allowed to bear the child. A fine was collected from both the boy's and the girl's families, and the money was put into the village coffers.

In all other FGDs, participants talked of the need to abort as early as possible, with the choice of provider being determined by the need to maintain secrecy. Cost considerations, which played a role in other decisions, took a back seat. In some areas, the emphasis was on going to good hospitals in towns (far away) in order to minimize the chances of complications; it was felt that it would be more difficult to keep the abortion secret if complications occurred. In some areas, people mentioned that local unqualified providers like RMPs were also popular in such cases, as they tended to be discreet. A first attempt to end the pregnancy using oral medications obtained from the chemist (with the boyfriend going to chemist) was mentioned in several FGDs with women.

Complications

Complications with traditional medicines were well known. In six of the eight villages where we had discussions with women, participants were able to recount a recent death from an abortion complication, usually from excessive bleeding after an attempted abortion with a traditional method. The men in the FGDs were usually not aware of potential complications, and only in one village was there any mention of severe complications and possibility of death.

Medical Abortion — Reactions to the Vignette

Familiarity with the drugs

Neither mifepristone nor misoprostol was ever spontaneously mentioned during the interviews. In the FGDs, even after the drugs and method were explained during the vignette, familiarity with them was mentioned in only two groups. In one FGD with men, a participant mentioned that he thought these drugs were available at nearby chemists. And in the FGD with women in the same village, one participant said that she had heard of someone who had had an abortion with a process that sounded similar to the process being described in the vignette. One participant in Hazaribagh said that she had actually used these drugs twice before, without success, but she did not provide any further details. (We did not probe her personal experience any further because of the FGD setting.)

Medical abortion in comparison to other methods of abortion

After listening to the vignette about how these drugs work and are to be taken, the FGD participants were asked their opinions on the same. Women were more hesitant than men to express outright opinions. As one woman put it, *"Aap kah rahe to, achha hee hota hoga" ("If you are telling us about it, then it must be good").*

Men generally compared the method to "D&C" (the term was used generically to

Participants said unmarried pregnant women need to abort early and maintain secrecy.

refer to all types of surgical abortions), and in five of the six groups, the group opinion was that this new method would be better. In only one group discussion was the issue of these being relatively new tablets brought up. In this group, men said that there is always hesitancy to try new medicines and that it might be a while before they found acceptance.

"These are English (English being a reference to Western) medicines. English medicines always have side effects."

– Participant in FGD with men in Gaya

In the discussions with women, the tablets were always compared to other oral abortifacients that they knew of. Opinions of the method were colored by their experiences with other oral medicines, and it was assumed that these medicines would be similar. Thus, many groups expressed the opinion that tablets are not usually effective and that abortion using a "machine" is far superior. One group mentioned that inserting medicines into the vagina is more effective than taking them orally.

"I don't know why, but medicines are not that effective. Abortion by a machine gives a better result".

–Participant in FGD with women in Bokaro

"Nowadays everyone in the village is scared to eat medicine, as a lot of ladies are dying in trying to do so. Hence most of them go to the hospital."

–Participant in FGD with women in Kudagraha

"Dawa khane se garbari hota hai "("Eating tablets causes problems.")

- Participant in FGD with women in Patna

Fear of possible side effects concerned some women. In one group, several participants said that these tablets may leave heat in the body and that the effects of the drug may remain in the blood for many years. But the biggest fear for both men and women was that there was no 100% guarantee of a complete abortion (that is, even the medically negligible failure rate was thought to be too high). Both men and women felt that if there was any possibility of having to have a surgical abortion after taking the tablets, then it might be better to have one to start with.

"When we take medicines, we feel that a part of the fetus is still left behind."

– Participant in FGD with women in Bokaro

However, across all groups, participants felt that using this method might be simpler and provide greater privacy (especially if multiple doctor visits were not required). They also thought that it would be of great use when secrecy was important, especially for unmarried women. Men in one discussion group saw the fact that use of the method does not require hospitalization as a major advantage.

Medical abortion and costs

Opinions on the costs of medical abortion were mixed. Especially in the discussions with men, there was acknowledgment that any type of abortion costs money and that this method was likely to be no more expensive than any others. Some men and some women acknowledged that the tablets would be affordable for people who were well-off but too expensive for poorer members of the community. Some participants acknowledged that overall costs might be the same for a hospital abortion and an abortion using these tablets. An important point of distinction, however, was that the tablets are not perceived as hospital procedures and are not expected to cost as much. In one group discussion, women compared the tablets to injections, saying people would more readily pay a higher price for injections than for tablets.

A comparison with other oral medicines was also inevitable. In several groups, it was mentioned that other Ayurvedic preparations were available for a fraction of the cost. Even if the other preparations were less likely to be successful, their low cost still made it viable for them to be tried as first-line drugs.

Other barriers

Many participants, both men and women, thought that the protocol requirement for more than one visit to the doctor was problematic. Participants in some groups accepted this as a practical necessity, but they also acknowledged that if the doctor were not located nearby (that is, in the same village), the multiple visits would be hard to manage. Women also described the difficulties in making doctor visits during plantation season, when workloads are already high and stopping work means losing income.

The other major barrier mentioned by men in two groups and women in three groups was the fact that mifepristone and misoprostol are to be used for the first seven to eight weeks after a missed period. Both men and women felt that few women would be sure that they were pregnant that early.

"It is a very good thing. But who will know of her pregnancy at seven weeks?"

– Participant in FGD with men in Gaya

Accessibility of drugs

Both men and women felt that in order for medical abortion to be a viable alternative to going to a distant hospital, it needed to be available as close to their communities as possible. This was mentioned in all 17 FGDs. Participants felt that the drugs should be available through local doctors (participants used the term "doctor" in a broad sense, encompassing RMPs) and at chemist shops. One man explained why the drugs needed to be available at chemists by saying, "*A specialist. Asambhav! It is just not possible here!*"

Information needs

For all the expressed reservations or fears, across all groups, women were keen to learn more about the method and especially to know where the drugs could be obtained. Men did not express their needs for information directly to interviewers. However, when asked where they would go to find out more about the drugs if they needed to, men in all groups mentioned the local chemist or medical shop or the local village doctor. In one group, newspapers were mentioned, as were medical representatives.

Key Findings

Abortion care-seeking

- Well-off women in towns used pregnancy tests, but for most others, care-seeking for unwanted pregnancy was often delayed to beyond seven or eight weeks from a missed period. This was because of a combination of factors, ranging from delayed recognition, a waiting period for menstruation to resume, and trial of home remedies or herbal preparations.
- The use of "oral medicines" or injections perceived to be abortifacients was not uncommon as a first line of action for an unwanted pregnancy. The medicines were usually obtained from a nearby chemist, the village RMP or even local grocery shops.
- Chemists served as an important information source. Men reported relying on chemists for recommendations of abortifacient drugs, as well as for advice on the appropriate course of action in the case of an unwanted pregnancy.
- Men played a significant role in the decision to terminate a pregnancy, choosing the providers, providing financial support and acting as proxy clients to obtain oral medications. Men reported that accompanying their wives to providers was usual. Women, on the other hand, felt that men did not always accompany them, but both mentioned that women receive prompt and better care if accompanied by their husbands.
- Stigmatization of unmarried abortion seekers was common except in some tribal villages.

Reactions to vignette describing mifepristone-misoprostol medical abortion

- No spontaneous mention of these drugs occurred during the FGDs. Only a few participants said that they were familiar with the drugs, even after presentation of the vignette. Women were keen to learn more about the method; men did not express this need directly.
- Opinions reflected past experiences with other oral abortifacient drugs. Many women in particular were skeptical about the efficacy of the tablets, as in their experiences, oral remedies were often ineffective or, in the case of more traditional remedies, dangerous.
- Potential barriers to using this method that were mentioned include the fact that they are not effective beyond seven to eight weeks, the time and opportunity costs involved in making multiple doctor visits, and the difficulty in finding a specialist doctor who could provide abortion by this method.
- Costs were perceived to be high and expected to be a barrier for poor women.
- Perceived advantages included simplicity and the ease of maintaining secrecy for unmarried women.
- All participants emphasized the need for the drugs to be available as close to the community as possible.

Putting It All Together—Implications of the Findings

While anecdotal reports suggest that the use of medical abortion in India has been increasing rapidly, this study, conducted two to two-and-a-half years after mifepristone was licensed, did not find evidence of widespread availability or use of mifepristone and misoprostol in the study area of Bihar and Jharkhand.

Awareness of the drugs among ob-gyns was near universal and somewhat higher than was indicated by a survey of family planning providers across the two states done around the same time (Patel 2005). Ever-use among the ob-gyns was also high, but most used the drugs infrequently and usually only when women specifically asked to avoid surgery. Practices were not always in keeping with guidelines; the use of higher-than-necessary doses of mifepristone, routine use of ultrasound to confirm completion of procedure, and inadequate provision of information to women were common. Nearly one in six ob-gyns who used medical abortion used only misoprostol rather than mifepristone-misoprostol.

Very few other practitioners reported using these drugs, and their level of knowledge about them was also low.

Availability of mifepristone at chemist shops was largely limited to larger outlets (invariably situated in cities or large towns) and was particularly low in Bihar. Sales volumes, as reported by most chemists, were not very high. While over-the-counter sales were also reported to occur, most transactions appeared to be prescription-driven. There could be underreporting, but these findings are largely corroborated by the fact that awareness of the drugs among men and women in the community was also low.

The study identified a number of factors that may be acting as barriers to access.

Cost

While mifepristone costs in India are lower than in many other countries, the price is still out of reach for many poorer women in the poorest states of India, with a per capita income of Rs. 6006 per year (2001 data of undivided Bihar and Jharkhand). In the study, the fact that many providers who participated in the study reported prescribing two or even three tablets of mifepristone, instead of one, dramatically increased costs. In Bihar at least, costs increased further as a result of chemists selling the drug at prices higher than the MRP. Time and opportunity costs of three doctor visits and private provider fees act as additional burdens.

Even when, in real terms, the cost of mifepristone-misoprostol was similar to the cost of safe abortion through other means, the method was perceived to be far more expensive. Many women and men in the study found it hard to equate the cost of "*tablets*" with the cost of what was seen as a "*hospital procedure*."

Poor women were disadvantaged in other, indirect ways, as well. For example, many providers did not prescribe these drugs to low-literacy women (who are invariably also poor), as they perceived such women as being incapable of following the required protocol or feared that they would not return for follow-up examinations. With 66% of the female population in Bihar and 60% of the female population in Jharkhand being illiterate (Census of India 2001), such provider bias can restrict access greatly.

Medical-abortion practices were not always in keeping with national or international guidelines.

On the other hand, providers were often concerned by the fact that, since the major cost of a medical abortion is the drugs themselves, using this method may mean a loss of their own income. This concern probably translated into hesitancy to use medical abortion, over-medicalization (for example, addition of procedures like ultrasound), and being in favor of strict drug controls and limiting drug access.

Lack of physical access to trained providers

The MTP Act restricts use of medical-abortion technology to ob-gyns or MTP-certified generalists, but, as the community discussions revealed, such providers are hard to find in rural areas or smaller towns of Bihar and Jharkhand.

Existence of other drugs and medicines

The demand for and the use of oral medications for menstruation induction and/or abortion are commonplace in Bihar and Jharkhand. Availability of such products is widespread, and most chemists sell such medications. While hormonal preparations, oral contraceptives and even emergency contraceptives were sometimes sold as abortifacients, most common were the inexpensive Ayurvedic preparations labeled as being contraindicated in pregnancy or for use for secondary amenorrhea in non-pregnant women but suggestively named to hint at an abortifacient use.

As the study revealed, perceptions of the efficacy, usefulness and affordability of medical abortion are influenced by previous experiences with and perceptions of these other medications.

Thus, for many women, ineffectiveness of such medications used in the past or complications experienced from the more traditional medicines were interpreted as being an inherent problem of *all* oral medicines. For others (including many men and chemists), the fact that these alternative medicines were cheaper (mifepristone is 8-10 times more expensive than most such products) and were perceived to have fewer side effects overrode efficacy concerns and enhanced their appeal as drugs of first line of action.

Role of chemists

The study also revealed that, as far as the community is concerned, chemists *are* seen as being "medical persons" and are often consulted for advice on appropriate actions to take in the event of a missed period or unwanted pregnancy. This is probably because they are assumed to have that knowledge, because they are close to the local community, alternatives are not available and because they do not charge for advice. Even clients who come with prescriptions often relied on chemists to confirm instructions on how to use the drugs, though, unfortunately — as this study showed — chemists' knowledge is poor.

Mifepristone-misoprostol sales were largely reported to be prescription sales because most non-prescription clients coming to the chemists were poor and many chemists assumed that they would be unable to or unwilling to pay for expensive drugs as a first line of treatment. Additionally, not all chemists were convinced of the comparative advantage of mifepristone-misoprostol relative to inexpensive alternatives, and many were unwilling to risk possible failure or complications. Awareness of the rules relating to the drugs and publicity around potential misuse has also been high. Thus, when chemists sold these drugs without a prescription, it was usually to clients known to them personally and usually after asking the pregnancy duration. Thus, at the time of the study widespread over-the-counter use of mifepristone-misoprostol did not seem to be taking place. However, the increasing use of alternative and often ineffective drugs sold as

abortifacients contributes to a needless increase in time taken to obtain appropriate care.

Delayed abortion care-seeking

While women, even rural or illiterate women, were able to determine the date of a missed period, they were also aware that a delay can occur for a number of reasons other than pregnancy. So women in the study area often delayed care seeking to seven to eight weeks or beyond until other signs of pregnancy become evident, using home remedies or other low-cost medications in the interim. On the other hand, while the Drug Controller of India license allows use of mifepristone to 49 days LMP, most providers interviewed limited their use to 42 days or six weeks. Practice thus restricts the usefulness of the technology in a way it should not.

Men as gatekeepers to access

Women's limited mobility, the fact that mifepristone in particular is not cheap, and the fact that men often act as proxy clients in obtaining medications from chemists or local doctors means that for many women in the study area (except those in tribal villages), access to the drugs is largely mediated through men's role as gatekeepers. This is likely to be true across most of Bihar and Jharkhand. Men participants in the group discussions appeared to make their decisions largely on cost considerations and on advice received from local doctors or chemists.

Their gatekeeper role was enhanced by the provider practice of insisting on spousal or family consent. Though in violation of the MTP Act, this is not an uncommon precondition to abortion service provision across the country (Duggal and Barge 2004). This not only makes access difficult for women who do not have family support for their decisions but also restricts access for the unmarried and overrides the perceived advantages of confidentiality that this method offers.

The Potential for the Future

Women who participated in the study did see many advantages in this method (including privacy, ease, ability to avoid hospitalization), as did providers. All expressed a keenness to learn more. Most of the barriers or concerns listed above are not inherent to the technology itself but are related instead to the way it is perceived and used, as well as to the circumstances and context in which abortion care-seeking occurs in Bihar and Jharkhand.

Given the vast unmet demand for safe abortion services in the two states, it is inevitable that with time mifepristone-misoprostol use will increase.

But as demand increases within the context of high cost, poor availability of appropriate providers and provider-imposed barriers, the potential for inappropriate use, self-medication and use by informal untrained providers is also likely to increase. As prescription sales increase with time and customer demand rises, it is likely that chemists' own perceptions will change and that non-prescription sales will be likely to increase as well. We did not include informal providers in the survey, but the in-depth interview with one rural RMP suggested that the use of these drugs by informal providers is occurring and may increase with time. That the situation may change rapidly was also indicated by the fact that several providers reported having women (especially unmarried young girls who are otherwise socially stigmatized) come to them after having taken mifepristone and or misoprostol from an informal provider or chemist.

For many women, access to medical-abortion drugs is mediated through men's role as gatekeepers.

Recommendations

Some suggested strategies for immediate action, based on the study findings summarized above, include the following:

Enhancing knowledge and promoting evidence-based practice among providers

Dissemination of accurate information about medical abortion, its safety and guidelines for use is needed to encourage its use among potentially legal providers who are not using it, to increase confidence and comfort levels among those who are using it and to ensure that practice keeps pace with scientific knowledge.

While information on recommended sequencing, doses and standard protocols is needed for all, some critical information gaps that need to be filled are,

- 200mg of mifepristone is an effective dose and the one recommended in the government-approved guidelines. (The shift to 200mg use may also require action to lobby for appropriate change in the label inserts of mifepristone tablets.)
- Mifepristone-misoprostol is licensed for use to 49 days (seven weeks) LMP by the Drug Controller of India. However, even this is not in keeping with the most current scientific evidence about the efficacy of medical abortion, as reflected in the national consortium guidelines' recommendation of use to 56 days and the WHO guidelines' endorsement of use to 63 days.

The Indian guidelines also allow for home use[7] of misoprostol when circumstances warrant, and this practice, already used by some ob-gyns in the study, needs to be encouraged, provided women who are given this option do have 24-hour access to back-up care.

While providers may remain reluctant to decrease the routine use of ultrasound, the evidence base that exists and the WHO guidelines that state that its use should not be mandatory need to be widely disseminated.

Information updates are needed not only about medical-abortion technology but also about the MTP Act provisions. In particular, the study findings suggest a need to disseminate information about the 2003 amendment in MTP rules that de-links provider and site certification for medical abortion service provision, and about the fact that the MTP Act does not require spousal or family consent.

Making the drugs available in the public sector

There is also an urgent need to introduce medical-abortion drugs into the public-sector program. This can be a considerable challenge given the lack of primary health care infrastructure in these two states. The poor utilization of public services based on past experiences will be difficult to overcome. However, only when medical abortion is available at the primary health care level will it be potentially accessible to poorer women who cannot afford the high cost of the drugs and private providers' services. The renewed commitments to safe abortion care in the RCH II provide an important opportunity for action.

7 Home use is *not the same* as over-the-counter use. It means that women who have had an initial contact with an appropriate service provider are offered the option of taking the misoprostol tablets (taken on day 3) at home, instead of having to return to the doctor's clinic for the same. They then return for a follow-up visit two weeks later. The WHO guidelines address misoprostol home use, and the guidelines developed by the national consortium in India also endorse the administration of misoprostol tablets at home for some women provided 24-hour access to care is available.

Reducing provider bias and respecting women's need for information

There is no evidence that low-literacy (i.e., poor) women cannot use medical abortion successfully. Similarly, the insistence on spousal consent is not always due to not knowing the law but a reflection of provider attitude. Values-clarification training for providers addressing these and similar issues may help promote non-judgmental service provision.

While the problems women face in making multiple visits and returning for follow up will remain difficult to address, appropriate counseling that prepares women to recognize warning signs of problems can help increase the chances that women with complications *do* reach care.

Enhancing chemist awareness, changing practices and promoting accountability

Over-the-counter availability of Schedule H (restricted) drugs is a common problem in Bihar and Jharkhand as in the rest of India and not restricted to abortifacient drugs. Ensuring that sales guidelines for Schedule H drugs are followed is important though challenging, and over-the-counter and otherwise inappropriate use of mifepristone remains an area of potential concern. However, chemists *are* legally allowed to sell the drug on prescription, and attempts to ban the drugs from chemists altogether will only restrict women's ability to access them.

It is important to work with individual chemists, as well as through local chemist and druggist associations, to spread awareness of the appropriate use of mifepristone and misoprostol and the need for medical advice. It is also important to encourage chemists to facilitate customers' contact with an appropriate service provider prior to the purchase of the drugs. Producing written take-home sheets of easy-to-read client-education material that chemists can provide at the time of drug sale may also be useful, as currently no information is being provided.

Chemists themselves need accurate knowledge on the difference between emergency contraceptives and abortifacients and the fact that many drugs being currently sold as abortifacients are ineffective.

Expanding drug availability by increasing the pool of legally trained and accessible providers

While the MTP Act stipulates that medical abortion, like any other abortion, can be provided only by an ob-gyn or certified MBBS provider, the study showed very few MBBS physicians aware of the technology. There is potential to develop a cadre of MBBS physicians trained and certified specifically to provide medical-abortion services. As the training and service-delivery requirements for medical abortion are far less than those for an abortion by other means, a rapid expansion of trained and legal providers could be achieved using this strategy.

Medical abortion is also simple enough to be provided by an even broader range of providers—for example, by nurse-midwives. This has proved successful in several settings (for example, South Africa recently amended its law to allow it). Availability of nurse-midwives exceeds that of ob-gyns in Bihar and Jharkhand by a ratio of 23:1, so efforts to pilot-test this approach and to lobby for suitable change in the legal statutes are warranted.

Meeting information needs of women and gatekeepers

As long as information remains limited to providers, women's ability to exercise choice is limited. They need to know what medical abortion is, what it costs, how it is used, what the potential complications are, and how and where they can access back-up care should the need arise. Similarly, the

Medical abortion is simple enough to be provided by a broad range of providers – for example, by nurse-midwives.

Meeting needs for information and access is the best way to ensure that medical abortion reaches the women who need it most.

more information and understanding men have about medical abortion, the more likely it is that they will be facilitative rather than restrictive gatekeepers.

Information needs for women too go beyond the need for information on medical abortion per se. They include the need for information on the legality of abortion, how and where safe services can be accessed, and their rights under the MTP Act.

Promoting the use of pregnancy tests

Encouraging the use of inexpensive and easily available pregnancy tests, promoting their use even among informal providers like RMPs, and encouraging chemists to stock and promote these tests can help shift abortion care-seeking to earlier in pregnancy.

Need for research and accurate information on other abortifacients being used

While the majority of alternative drugs being sold as abortifacients are unlikely to be effective if a woman is pregnant, it is possible that some of these drugs (especially the Ayurvedic ones) do have abortifacient properties. There is a need to research this and, where accurate information exists, to bring it into the mainstream public-health knowledge base.

But more importantly, there is also a need to ensure that mifepristone and misoprostol, which are known to be effective and safe abortifacients, are not seen as synonymous (either by women or by chemists or informal providers) with the other low-cost but questionably effective medications that abound in the market.

Possibility of misoprostol alone for abortion

Providers in the study who used misoprostol alone may have been doing so because of the high price of mifepristone, its limited availability or lack of awareness of the two-drug regimen. While efficacy of the drug alone for early abortion is lower than that of mifepristone-misoprostol, it does work and evidence for appropriate doses and regimens is growing (Shannon and Winikoff 2004). It is possible that in future this may be an alternative to consider when costs and other factors make it difficult to use mifepristone.

Promoting choice and the broader context of safe abortion care

The study showed that individual women's needs are different in different contexts, that many women have strong preferences and that no one technology can meet the needs of all women. Thus, promotion of medical-abortion drugs should complement the promotion of other safe and effective technologies (such as manual vacuum aspiration).

Conclusion

The use of medical abortion in Bihar and Jharkhand will only increase with time, as is happening in many other parts of the country. The fact that use is still limited in Bihar and Jharkhand provides an immense window of opportunity to meet information needs, promote evidence-based practice, and ensure the widespread availability of the drugs through trained and legal providers. Attending to these needs is the surest way to minimize the potential for misuse and to ensure that this safe and effective method reaches the women who need it most.

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Abbreviations/Acronyms used in the report

AIIMS:	All India Institute of Medical Sciences
ANM:	Auxiliary Nurse Midwife
B/J:	Bihar & Jharkhand
C&F:	Clearing & Forwarding agent
CME:	Continuing Medical Education
D&C:	Dilatation & Curettage
D&E:	Dilatation & Evacuation
DCI:	Drug Controller of India
DGO:	Diploma in Obstetrics and Gynecology
DNB:	Diplomate of the National Board
EVA:	Electric Vacuum Aspiration
FGD:	Focus Group Discussion
ISM:	Indian / Indigenous Systems of Medicine
LMP:	Last Menstrual Period
MBBS:	Bachelor of Medicine and Bachelor of Surgery
MD:	Doctor of Medicine
MIMS:	Monthly Index of Medical Specialties
MR:	Menstrual Regulation
MRP:	Maximum Retail Price
MTP:	Medical Termination of Pregnancy
MVA:	Manual Vacuum Aspiration
NGO:	Non-Governmental Organization
RCH II:	Reproductive and Child Health Program, II
RMP:	Rural Medical Practitioner
SDA:	Seventh Day Adventist Hospital, Ranchi
SPSS:	Statistical Package for Social Sciences
WHO:	World Health Organization

Appendix 1

Other Drugs for Delayed Periods and Abortions

S.NO.	BRAND NAME	KEY INGREDIENTS	PRESCRIBED DOSAGE	LABEL DETAILS
1	Gynomic Forte	Gaajar Beej, Kanyasara, Ramantha	As directed by physician	Contraindicated for pregnancy
2	R. P. Forte	Kapas Root, Eliya, Hirabol	2 capsules twice daily/as directed by physician	Contraindicated for pregnancy
3	ERCA P. Forte	Prepared Abroma Augusta Extract	As directed by physician	Contraindicated for pregnancy
4	E PCO. Forte	Ext.Gaajar Beej, Kapas Root, Mooli beej, Ulatkambal, Claviceps Purburea	As directed by physician	Contraindicated for pregnancy
5	Remens	Gloriosa Superba,Moringa Oleifera	1 capsule twice a day/as directed by physician	Indication of menstrual disorder
6	Oremens	Abroma Extract, Glorieosa Superba, Soda Biboras	1 capsule twice a day	Indication of menstrual disorder and contraindicated for pregnancy
7	M.C. ON	Termilia Arjuna, Piper Lengum, Nigella-Sativa	2 capsules twice a day/ as directed by physician	Indication of menstrual disorder
8	Mensforte	Purified Suhaga, Ghrit Kumari, Kapas Mool	1 capsule twice a day for 3 days/as directed by physician	Contraindicated for pregnancy
9	Abornil	Gajar Beej, Ashoka, Kumarjka	1 tab twice daily/ as directed by physician	Contraindicated for pregnancy
10	DNC	Turpeth Root, Harakoses, Bharainge	No details	Contraindicated for pregnancy
11	Regulin Forte	Extract Papeeta Beej, Extract Kalihari, Extract Kapas Mool	As directed by physician	No details
12	M. P. Forte	Kapas Root, Hirakashis, Hirabol	2 capsules twice a day for 3 days	No details
13	Mensoon	Nigella Sativa, Melia Azatiract, Ferula Asafoetida	As directed by physician	No details
14	Mensuline	Trigonella foenum, Daucus carota, Apium graveolens	1 capsule twice a day for two days	No details
15	Regu -30	Rajhpravartani Vati, Kumari Extract, Kapas Mool	1 capsule twice a day for 3 days	Indication of menstrual disorder and contraindicated for pregnancy
16	M.C. Cap	Sohaga, Musbeer, Bharang	2 capsules 3 times a day/as directed by physician	Indication of menstrual disorder
17	Mensorite	Ferry Sulphas, Piper Nigrum, Daucus Carota	1 capsule twice a day/ as directed by physician	No details
18	W. Y. Forte	Abroma Augusta, Conessie Seeda, Zingiber Officinal	1 tab 3 times a day/ as directed by physician	Contraindicated for pregnancy
19	Mensolin	Secale Cor, Gossypium, Abroma Augusta	30 drops 3 times a day/ as directed by the physician	Contraindicated for pregnancy
20	Mensoline Forte	Plumbago Zeylanica, Randia Dumetorum, Anbroma Augusta	1 capsule twice a day/ as directed by physician	No details
21	Ashoka Risht	Ashokchhal, Nagarmotha	2 tablespoons with equal quantity of water	Contraindicated for pregnancy
22	Mensolin Forte	Gajar Beej Satva, Alwa, Kasis	1 capsule twice a day for 3 days	Contraindicated for pregnancy

Appendix 2

Maximum retail price of mifepristone and misoprostol

Manufacturer	Mifepristone			Misoprostol		
	Pack configuration	Price per pack	Price per tablet	Pack configuration	Price per pack	Price per tablet
German Remedies	3 tab x 200mg	Rs. 975	Rs. 325	4 x 200mcg	Rs. 66	Rs. 16.50
Sun Pharma	3 tab x 200mg	Rs. 975	Rs. 325	2 x 200mcg	Rs. 30	Rs. 15
Cipla Ltd.	3 tab x 200mg	Rs. 930	Rs. 310	4 x 200mcg	Rs. 60	Rs. 15
Zydus Alidac	3 tab x 200mg	Rs. 930	Rs. 310	4 x 200mcg	Rs. 60	Rs. 15

Trade margin for mifepristone and misoprostol

Particulars	Mifepristone	Misoprostol
Clearing and Forwarding (C&F) agent margin	3%	3%
Stockist / distributor margin	10%	10%
Chemist margin	20%	20%
Discount on MRP provided by distributor for direct supplies to doctors	8 - 10%	NA

Source: Price data compiled during sample collection from trade sources at the time of survey.

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