

# Are Providers Missing Opportunities To Address Reproductive Tract Infections? Experience from Bangladesh

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**Context:** Reproductive tract infections are a common problem among women of reproductive age in Bangladesh, and it would be helpful if the identification and treatment of these infections could be integrated in family planning and maternal and child health programs.

**Methods:** A total of 172 clients in 46 purposively selected family planning service facilities were interviewed, and their interaction with health care providers was observed during November and December of 1996. In addition, 112 doctors and family welfare visitors were interviewed at the end of the observation period.

**Results:** Seventy-seven percent of clients reported at least one symptom associated with reproductive tract infections at the time of the intake interview, but service providers only followed up on these complaints or obtained a comprehensive reproductive history in 22% of the cases: Twenty-one percent of symptomatic women were diagnosed with a reproductive tract infection, and one-third of these women received specific, as opposed to symptomatic, treatment. Of 18 women receiving a new IUD, only six were screened for reproductive tract infections. Providers explored the symptoms of only half of all women using the injectable who reported problems typical of reproductive tract infections. Pelvic examinations were performed on 40 out of 68 new family planning clients and on 21 out of 50 family planning clients making follow-up visits. During pelvic examinations, a speculum was used in 20 out of 35 exams in public clinics and 23 out of 33 exams in nongovernment clinics. During most pelvic examinations, providers did not follow basic practices for preventing infection.

**Conclusions:** Health service delivery in the observed clinics was driven by the client's primary reason for visiting. As a result of this singular focus, health care providers missed multiple opportunities to explore and address the needs of clients who reported symptoms of reproductive tract infection.

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Studies in India and Bangladesh confirm that reproductive tract infections are a common health problem among women of reproductive age: The reported prevalence of abnormal vaginal discharge has been as high as 97% in some rural communities, and it is estimated that more than 50% of women in these areas are suffering from some kind of reproductive tract infection.<sup>1</sup> A recent study of an urban reproductive health clinic in Bangladesh found the prevalence rate of bacterial vaginosis to be 44% among the clients.<sup>2</sup>

In India, bacterial vaginosis has been detected in 11-71% of women with abnormal vaginal discharge. Almost one-third of IUD users in India have been diagnosed with vaginitis, and 76% of these women had bacterial vaginosis.<sup>3</sup> A 3.8% prevalence of gonorrhea was found among women attending an urban reproductive health clinic in Bangladesh,<sup>4</sup> and a prevalence of 2% was found among women attending a gynecology clinic in India.<sup>5</sup>

When left untreated, some reproductive tract infections have a profound impact on

reproductive health. Bacterial vaginosis, the most common reproductive tract infection, can lead to premature delivery and low-birth-weight babies. Gonococcal and chlamydial cervicitis can cause pelvic inflammatory disease, which, left untreated, may lead to scarring and blockage of the fallopian tubes, ectopic pregnancy, infertility, fetal wastage, low-birth-weight babies and blindness in newborns. Finally, maternal syphilis infection often leads to congenital infection and malformation of the fetus, mental retardation and stillbirth.

Previous research conducted among 300 women in India who were diagnosed with acute or chronic pelvic inflammatory disease recorded the prevalence of *Chlamydia trachomatis* to be 6% in acute cases and 29% in chronic cases of pelvic inflammatory disease. Among 200 infertile women, the prevalence of chlamydia was observed to be 17% in primary infertility cases and 6% in secondary infertility cases.<sup>6</sup>

Reproductive tract infections, then, are significant in the context of family planning programs, and the population in

need of family planning services is at risk for contracting reproductive tract infections. Further, while side effects of contraceptive methods and other health reasons are the most common reasons women give for discontinuing such methods as the pill (24%), injectables (36%) or the IUD (35%),<sup>7</sup> some of these side effects are similar to the common symptoms of reproductive tract infections.

Reproductive tract infections can also be caused by unhygienic medical procedures. Previous studies have documented that IUD users and women who have had tubal ligations are four times as likely as nonusers to report abnormal vaginal discharge or lower abdominal pain, while users of hormonal methods were 1.6 times as likely as nonusers to report these symptoms. Among women who had a confirmed reproductive tract infection, 24% had had a tubal ligation and 22% were IUD users, compared to infection rates of 6% in users of hormonal contraception and 4% among nonusers. This suggests that women in Bangladesh who have had a tubal ligation and women who use an IUD are seven times as likely as nonusers to develop reproductive tract infections.<sup>8</sup>

Situation analyses previously conducted in Bangladesh to evaluate the quality of contraceptive service delivery have identified serious gaps in staff training and

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placement, in equipment and supplies, and in facility maintenance. Breaches in protocol for infection prevention have been routinely observed, particularly when providers were inserting IUDs: Service providers washed their hands before a pelvic examination in only 33% of observed cases, and a sterile speculum was used in only 33% of IUD insertions.<sup>9</sup>

There is wide variation among maternal and child health service delivery points in Bangladesh. Higher tier facilities are situated at the district level and include model clinics and maternal and child welfare centers. Model clinics are centers attached to teaching hospitals that offer comprehensive maternal and child health and family planning services. Maternal and child welfare centers are small hospitals (with 10 or 12 beds) located in government headquarters that provide childbirth services, prenatal and postnatal care and family planning services. They are staffed by trained paramedics and midwives and generally supervised by female medical officers (doctors). The Maternal and Child Health Training Institute in Dhaka is also a higher tier facility, with inpatient and outpatient services.

Lower tier service delivery points are located at or below the thana level,\* and these include thana health complexes, family welfare centers and satellite clinics. Thana health complexes are hospitals with about 31 beds located in government headquarters. They generally have maternal and child health and family planning units that are staffed by family welfare visitors, who are supervised by medical officers, usually male doctors. Family welfare centers provide maternal and child health and family planning services on an outpatient basis at the union level.† They are generally staffed by a female welfare visitor and supervised by a medical assistant. Satellite clinics are the mobile service units of the family welfare centers. Family welfare visitors normally use them to provide maternal and child health and family planning services, as well as health and nutrition education once a month in suitable community locations.

The quality of service delivery varies widely: In general, lower tier service delivery points do not comply with aseptic measures as successfully as higher tier service delivery points. Previous research determined that noncompliance with anti-septic procedures was most prevalent among service providers in the family welfare centers. There were also considerable differences in the ways that women who wanted an IUD were served at different

types of facilities. Eighty-three percent of providers in model clinics asked patients about a history of vaginal bleeding and discharge, compared with 8% of providers in family welfare centers. Likewise, providers asked about pelvic pain in 60% of maternal and child welfare centers, compared with just 8% of family welfare centers.<sup>10</sup>

Previous research suggests that the majority of service providers, particularly family welfare visitors, neglect to obtain adequate patient histories and lack skill in some of the basic features of a clinical exam, including the palpation of the abdomen of a pregnant woman to determine fetal position and pregnancy size and duration.<sup>11</sup>

The poor quality of care observed in lower tier facilities may be related to differences in the number of clients served by different facility types. Previous maternal and child health and family planning situation analyses covering all types of service delivery points in the Rajshahi Division revealed that fixed facilities were underutilized, with only 10–12 clients per day. On the other hand, the satellite clinics, which are held once a month in one room of a simple village home, had an average of 28 visits per day, which made it difficult to provide proper service to the clients.<sup>12</sup>

The essential equipment required for family planning service delivery was not always available in the satellite clinics. Further, in about a quarter of all cases, the service providers did not know how to maintain some of their equipment adequately. For example, 39% of family welfare centers had equipment for sterilizing instruments, but 60% of these were not in working condition.<sup>13</sup>

One of the principal challenges for the national family planning and maternal and child health program in Bangladesh is to integrate services required in the reproductive health agenda, such as the management of reproductive tract infections, into existing family planning programs. Family planning programs are the only parts of the current health infrastructure in Bangladesh that consistently reach women.<sup>14</sup> Since women are already visiting family planning programs for services, it is logical to consider the potential of such providers for the integration of services for reproductive tract infections.

This article examines the family planning service delivery process in Bangladesh, with particular attention to the management of reproductive tract infections during reproductive health service delivery at public and private clinics.‡ Our purpose was to determine the present quality of services for reproductive tract

infection and to identify areas where these services could be improved.

## Methods

### *Selection of Service Delivery Points*

Our study was conducted at different levels of service delivery points within the Dhaka district—thana health complexes, family welfare centers, satellite clinics, maternal and child welfare centers, model clinics attached to medical colleges and selected private clinics. The service delivery points were selected purposively, based on their utilization statistics.

Monthly performance reports of 104 clinics within the Dhaka district were obtained from the government of Bangladesh. We rejected 20 clinics that reported seeing fewer than 100 clients per month and nine clinics that were located so far away that they could not be visited on a day trip (i.e., the evaluation staff could not get there and come back on the same day). Based on usage rates for the previous three-month period, the research team visited the 75 busiest clinics to assess their functionality. Despite their recent utilization patterns, 29 of the clinics were rejected for our study because they were closed or because the provider was absent. Ultimately, 46 family planning providers were included in the study.

Of the 46 locations, seven were thana health complexes, 10 were family welfare centers, 10 were satellite clinics, seven were large facilities (such as model clinics, maternal and child welfare centers and the Maternal and Child Health Training Institute) and 12 were private clinics. Each location was visited on three consecutive days during November or December of 1996.

We instructed interviewers at each of the locations to select five clients from each of the following categories: new users of contraception; women having a routine contraceptive follow-up exam; women complaining of side effects from their contraceptive method; clients with prenatal or postnatal needs; and other reproductive health clients. (The latter were primarily women who came for reproductive health services not related to family planning or pregnancy. This category included women who complained of vaginal infection.)

\*The thana is an administrative unit that serves a population of about 300,000 and provides basic health and social services to rural communities.

†A union is the smallest administrative unit of the country, with an average population of 24,000.

‡In this article, "private" clinics and providers refers to those run by nongovernmental organizations.

**Table 1. Percentage of clients reporting symptom of reproductive tract infection, by type of symptom, according to reason for visiting service delivery point**

Symptom	Total (N=172)	Reason				
		New contra- ceptive acceptor (N=43)	Follow-up or complication (N=80)	Prenatal (N=30)	Postnatal (N=11)	Other (N=8)
Unusual vaginal discharge	62	42	76 (76)	50	50 (10)	100
Lower abdominal pain	52	30	58 (77)	57	56 (9)	88
Heavy bleeding	21	5	34 (75)	3	33 (9)	25
Genital ulcer	6	0	4 (73)	13	11 (9)	25
Vaginal itching	23	12	29 (74)	27	10	38
Burning urination	25	21	22 (74)	30	30 (10)	50
Painful coitus	28	21	28 (73)	38	14 (8)	38
Any symptom	77	51	89	77	73	100

Note: Respondents could give more than one answer and not all respondents provided information about all symptoms. Numbers in parentheses are denominators.

Before selecting the clients, interviewers examined the total number and type of clients registered at each clinic. The teams of interviewers tried to interview all clients in each category consecutively until their quota was filled. However, the target was not met in most cases, primarily because the client load was low in most clinics (particularly those in rural areas) and because some clients refused to participate. During the observation period, most clinics did not see more than a single person in any given category type, except clients who used the pill and the injectable.

A total of 112 providers and 172 clients were interviewed, and 170 service delivery processes were observed, at 46 different locations. In addition, a basic inventory and examination of physical facilities was conducted in 45 of the 46 clinics.

### Service Providers

Family welfare visitors were the main service providers in almost all locations. All family welfare visitors were female and had, on average, 10 years of general education and 18 months of basic training in maternal and child health care and family planning. In addition, family welfare visitors receive periodic training on family planning and menstrual regulation. They provide all types of contraceptives (except for the injectable and sterilization), menstrual regulation and basic maternal and child health services. Doctors in these environments, the majority of whom were male, are primarily responsible for providing sterilization and the injectable and serve as technical consultants for the family welfare visitors.

### Data Collection

The interviewers were trained medical officers and social scientists. They used a structured questionnaire for interviews with clients and providers and completed

a checklist for observing the service delivery process and evaluating the inventory and physical facilities. The questionnaire, checklists and guidelines were developed in collaboration with AVSC International and Associates in Training and Management, and were field-tested and edited by the authors before the study began.

Clients were told about the purpose of the study, and the interviews were conducted with informed consent. Clients were not notified that observers would not intervene in their treatment, even if it were found lacking. If a client refused to be interviewed or objected to the presence of a member of the research team during service delivery, she was dropped from the study and another respondent was selected from the same service category. Clients were interviewed by a female social scientist prior to a clinical exam, which was observed by a medical officer. Medical officers then followed a client throughout the service delivery procedure. In addition to following their checklists, the medical officers took notes on the service delivery process, to record deviations from the protocol for a particular service and to record observations that could not be captured by the checklist. To verify a provider's skills in identifying clinical signs during the pelvic examination, the medical officers asked the providers about the findings of the pelvic examination and tried to look for signs of reproductive tract infection, to see if the service provider has been able to detect them.

In the early stages of data collection, researchers made an effort to intervene when the provider's skills were lacking, but it created tension and made further data collection difficult. To avoid client confusion, staff conflict and the disruption of the client-provider relationship, the medical officers on the research team were instructed not to intervene with an exam unless there was a life-threatening situation.

To minimize influence on the actual service delivery process, the doctors and family welfare visitors at each service delivery point were interviewed by the medical officers on the last day of observation. During these interviews, medical officers used their notes to clarify specific service delivery issues or to evaluate deviations from the protocol. For example, if a service provider had treated a woman with an IUD who complained of abdominal pain or vaginal discharge without performing a pelvic examination, the interviewer asked the provider why she did not perform the examination.

## Results

### Client-Provider Interaction

• *Prevalence of symptoms.* All 172 clients interviewed were married women aged 14–40; 50% of these women were aged 20–29. Eighty-one percent of the clients reported experiencing at least one symptom associated with reproductive tract infections during the three months prior to the interview. Seventy-seven percent of all clients reported at least one such symptom at the time of interview: 62% vaginal discharge, 52% lower abdominal pain, 28% painful coitus, 25% a burning sensation during urination, 23% vaginal itching, 21% heavy bleeding and 6% a genital ulcer (Table 1).

More than 70% of the clients came to health centers for family planning services; only 5% said they needed other reproductive health care (not shown). However, 51% of new contraceptive users and 89% of family planning follow-up clients reported at least one symptom of reproductive tract infection on the day of the interview. All clients who came for other reproductive health service reported abnormal vaginal discharge (Table 1).

A large percentage of clients who reported unusual vaginal discharge (64%), lower abdominal pain (56%), painful coitus (86%) and urinary problems (90%) to the interviewer did not spontaneously state their complaints to their provider (Table 2). Women were more likely to report problems related to menstruation or vaginal bleeding than problems such as vaginal discharge, genital ulcer or itching. Women were most likely to spontaneously report symptoms of reproductive tract infections if they had said that they were visiting a health care provider because they were experiencing side effects from their contraceptive method (not shown).

• *Frequency of obtaining reproductive history.* Because family planning providers must screen potential users of family planning

**Table 2. Number of women reporting symptoms of reproductive tract infection, by whom they reported symptoms to, and of symptoms reported to interviewers, percentage reported to provider, all according to symptom (N=172)**

Symptom	Reported to interviewer	Reported to provider	% reported to provider
Unusual vaginal discharge	104	38	36.5
Lower abdominal pain	87	38	43.7
Genital itching	38	8	21.1
Genital ulcer	70	0	0.0
Painful coitus	44	6	13.6
Burning sensation during urination	41	4	9.8
Menstrual problems/vaginal bleeding	34	24	70.6

Note: see note to Table 1.

methods for contraindications, it is essential that they obtain a comprehensive reproductive history for each client. Our observations revealed that service providers seldom obtained comprehensive information from new family planning clients, and focused mainly on their menstrual and obstetric history: Fifty-two of 68 new family planning clients were asked about the date of their last menstrual period, but only 23 were asked about the duration of the last menstrual period, and only one patient was queried in a comprehensive way about her menstrual history.

The IUD service delivery protocol requires providers to screen clients for history of blood loss and symptoms of reproductive tract infections, including vaginal discharge and lower abdominal pain. However, of 18 cases where providers fit a client with an IUD for the first time, they asked relevant questions only six times (Table 3), and only once did a provider explore the high-risk sexual behavior of a spouse. Providers asked only 15 of the 68 new family planning clients about a history of reproductive tract infections.

Service providers seemed most aware

**Table 3. Number of new family planning clients reporting various symptoms of reproductive tract infection, and number of times that clinician asked about symptoms and risks, all by contraceptive method selected**

Symptoms and topics	Total (N=68)	IUD (N=18)	Injectable (N=25)	Implant (N=6)	Pill (N=8)	Female sterilization (N=11)
<b>Symptom</b>						
Unusual vaginal discharge	8	3	2	2	0	1
Lower abdominal pain	11	5	4	1	0	1
Painful coitus	3	1	2	0	0	0
Burning sensation during urination	5	1	3	0	1	0
Genital itching	2	1	1	0	0	0
Genital ulcer	0	0	0	0	0	0
<b>Clinician's discussion</b>						
Asked about no symptoms	53	12	21	4	7	9
Asked about at least one symptom	15	6	4	2	1	2
Asked about husband's sexual behavior	2	1	1	0	0	0

of a relationship between reproductive tract infections and the IUD and were less likely to consider reproductive tract infections when dealing with the complications of other methods. When women who had IUDs sought health care because they were experiencing side effects or having a routine follow-up appointment, providers generally asked them about vaginal discharge, lower abdominal pain, menstrual problems and vaginal bleeding. But women who used other contraceptive methods were not similarly queried. Among women who relied on the injectable for their contraceptive method and reported to the interviewer unusual vaginal discharge, lower abdominal pain or menstrual problems, only half were asked for more information about these symptoms by the providers. And of women who recently had given birth, providers often asked the date and place of the last delivery but rarely explored the presence of foul-smelling discharge and vaginal bleeding: Eight of 11 postnatal clients reported at least one such symptom during their interview, but providers commented on or explored the symptoms in only three cases.

When the reproductive history was being taken, providers maintained audi-

**•Counseling and privacy.** Ideally, counseling plays a role in all reproductive health services, particularly in terms of managing and avoiding reproductive tract infection. Of the 68 women who received a contraceptive method for the first time, 52 received some counseling, although most clients did not get complete information on side effects, complications and follow-up.

When the reproductive history was being taken, providers maintained audi-

**Table 4. Number of clients, and number who received a pelvic examination, by type of service received, according to type of visit**

Type of service	New visit		Follow-up visit	
	Total	Exam performed	Total	Exam performed
Family planning	68	40	50	21
IUD	18	17	20	15
Injectable	25	11	20	4
Implant	6	3	3	0
Pill	8	0	7	2
Female sterilization	11	9	0	0
Prenatal	30	1	0	0
Postnatal	11	2	0	0
Other reproductive health service	10	0	0	0

tory privacy in only half the cases. This lack of privacy may affect women's willingness to discuss sensitive subjects like reproductive tract infections. The providers' general focus on the primary reason for the client's visit may also inhibit effective communication between the client and the service provider about the presence of other reproductive health problems.

**•Provision of pelvic examination.** A pelvic examination is the basic screening tool for most reproductive health care and is an essential tool for identifying and treating reproductive tract infections. Ideally, a pelvic examination should be performed for all new contraceptive users, as well as for women who experience contraceptive side effects and other reproductive health problems. A complete pelvic examination includes visual inspection, speculum examination and bimanual examination to assess uterine size, tenderness or the presence of any abnormalities.

Of the 68 women we observed receiving a contraceptive method for the first time, only 40 had a pelvic examination (Table 4). Of the 18 women who received a new IUD, 17 received a complete pelvic examination,\* but in two cases an IUD was inserted without a bimanual examination being done. Only half of the women obtaining a new contraceptive method received a complete pelvic examination. Among 50 clients who came for routine follow-up exams or because they complained of side effects, 21 received a pelvic examination, and nearly 75% of these women used an IUD. None of the clients who came with other reproductive health problems received a pelvic examination. In the majority of interviews, the

\* The protocol for a complete pelvic examination requires that the provider explain the procedure to the client, take necessary aseptic precautions and perform a visual inspection, a speculum examination and a bimanual examination.

**Table 5. Number of pelvic examinations in which particular procedures were followed, by type of facility**

Procedure	Governmental (N=35)	Nongovernmental (N=33)
Swabbed external genitalia	22	29
Practiced aseptic technique during swabbing	7	18
Did speculum examination	20	23
Did speculum examination prior to bimanual examination	5	15
Did bimanual examination	25	22
Checked for discharge	15	22
Checked for tenderness	13	16
Checked for cervical abnormalities	16	25
Practiced infection prevention		
Washed hands	15	22
Wore gloves during speculum examination	17	8
Used high-level disinfected speculum	18	23
Took precautions against exposure to body fluids	10	21

Note: Pelvic examinations were performed in 35 of 98 observed visits at government facilities and in 33 of 52 observed visits at nongovernmental facilities.

providers did not give any reason for not performing a pelvic examination in cases where it was clinically warranted.

The quality of pelvic examinations varied widely between locations, and 22 of the 46 providers observed did not perform all steps correctly. There was general disregard for clients' comfort and inattention to the essential steps, allowing potential transmission of infection and overlooking existing reproductive health problems. In private clinics, the majority of providers swabbed the external genitalia of their clients before conducting a pelvic exam (Table 5): Of 33 pelvic exams, swabbing was done in 29 cases, and aseptic technique was used in 18 cases. In public clinics (such as model clinics, thana health complexes and family welfare centers), 35 pelvic exams were observed; swabbing was done in 22 cases, but aseptic technique was followed in only seven (Table 5). Variations in aseptic technique included swabbing by hand (without gloves or with gloves), use of one swab for both internal and external genitalia, and not swabbing from inside to outside the genitalia. Any of these practices enhance the risk of reproductive tract infection.

A speculum was used in 20 of 35 observed pelvic exams in public clinics and in 23 of 33 pelvic exams in private clinics. However, a speculum examination was done prior to a bimanual pelvic examination more often in private clinics than in public ones. This practice may make it difficult for the provider to detect abnormal vaginal discharge. Private providers looked for dis-

charge, tenderness and cervical abnormalities more often than did public providers.

Overall, infection prevention practices were better in private clinics than in public clinics. About two-thirds of providers in private clinics practiced regular hand-washing, compared with fewer than half of providers in public clinics. While the use of a speculum that has been boiled or chemically disinfected should be universal, this was not the case in public

clinics (Table 5).

The techniques of pelvic examination, as it is currently practiced in both public and private facilities in Bangladesh, are in need of improvement. Following a step-by-step protocol, as well as taking precautions against iatrogenic infection, are essential. In locations where more than one service of a category was observed, there was very little variation in client management.

#### *Reproductive Tract Infection Management*

Out of 172 clients who were interviewed, 77% reported at least one symptom indicative of a reproductive tract infection. Observation of the service delivery process revealed that providers detected reproductive tract infections in only 21% of these women. One-third received specific treatment,\* and the rest got only symptomatic treatment.† Treatment for the client's partner was provided in two cases.

Among the 18 new IUD clients, providers detected reproductive tract infections in seven cases, but only two received specific treatment. One woman had an IUD inserted despite the presence of infection, and another infected woman received an alternate contraceptive method. Five clients in this group did not receive a contraceptive method or any treatment for their infection.

Of the 29 women using hormonal family planning methods who had scheduled a routine follow-up exam, 15 were diagnosed with reproductive tract infections by their providers, but only three women received specific treatment. In six cases, the contraceptive method was changed from the injectable to condoms, and in one case all method use was discontinued. Ten clients came for other reproductive health services, and providers detected reproductive tract infections in five of these

women. Three of these clients received specific treatment, one was referred to another clinic and one got symptomatic treatment. Although four of the postnatal women reported symptoms of a reproductive tract infection, none received any treatment.

#### *Staff and Facilities*

All the clinics except two had a separate area for pelvic examinations that established adequate visual privacy, but 20 lacked a substantial light source and performed pelvic examinations under natural light. Many clinics also lacked a minimum amount of basic equipment, including disinfecting agents: Thirty-six clinics did not have a single complete set of instruments, and only 13 clinics had a regular supply of detergent.

All providers had some professional training and clinical experience. They were generally aware of reproductive tract infections and could relate such infections to sexual behavior, but none connected infections to poor infection prevention practices. It is possible that providers only associate reproductive tract infections with clients who have sexually transmitted diseases and do not realize that other women can be at risk. Providers were aware of the need for partner management and counseling, but the fact that most of them did not act on this knowledge may be due to the lack of current service delivery guidelines that specifically mention screening and treatment for reproductive tract infections.

#### **Discussion**

Reproductive tract infections are important health problems that affect women of reproductive age but that often remain unexplored in the current service delivery system. The women whom we observed in Bangladesh do not hesitate to discuss these problems in a clinical setting when the provider initiates such a discussion. However, despite the fact that most of the clinics we observed had trained staff, space, equipment and other necessary facilities for the diagnosis and treatment of reproductive tract infections, providers seldom explored relevant symptoms with their clients.

Our research identifies a number of missed opportunities and gaps in the knowledge and practice of these providers: Clinicians failed to elicit necessary reproductive health information from clients, across all types of clinics. Further, the pattern of client-provider interaction stayed focused on the initial reason for the woman's visit and rarely look beyond fertility regulation or pregnancy care.

In the current service delivery system

\*Specific treatment includes provision of antibiotics, antifungal drugs and metronidazole.

†Symptomatic treatment includes provision of analgesic drugs, antihistamines and vitamins.

in Bangladesh, there are no separate resources devoted to identifying or treating reproductive tract infections. The current medical protocol for caring for family planning clients provides natural opportunities to explore and address issues related to reproductive tract infection, via adequate pelvic examinations and infection prevention. The providers we observed failed to follow the appropriate protocols and aseptic precautions during pelvic examination, which not only made it difficult for them to detect reproductive tract infections but also enhanced iatrogenic risks. The gaps in provider knowledge, attitudes and practice suggest that there is some need for further training on issues related to reproductive health, including reproductive tract infections.

The basic building blocks for reproductive tract infection services are already present in the maternal and child health care delivery system in Bangladesh. Service delivery protocols should be revised so that each medical appointment is seen as an opportunity for interaction between the client and the provider. The policy challenge will be to change the attitudes of providers toward the purpose of a family planning visit, improve providers' skills in eliciting information from their clients and create a physical environment that enhances effective client-provider interaction. Existing training programs, with adequate support for and supervision of providers, can be utilized to implement these changes.

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## Resumen

**Contexto:** Las infecciones del aparato reproductivo constituyen un problema común para las mujeres en edad reproductiva de Bangladesh y sería útil si se puede integrar la identificación y el tratamiento de las infecciones del aparato reproductivo en los programas de planificación familiar y de atención de salud materno-infantil.

**Métodos:** Se entrevistó a un total de 172 personas de 46 instalaciones especialmente seleccionadas de servicios de planificación familiar, y se observó su tratamiento en estos lugares durante noviembre y diciembre de 1996. Además, al finalizar el período de observación, se entrevistó a 112 médicos y visitadores de bienestar social.

**Resultados:** El 77% de las clientas entrevistadas indicó que en ese momento, tenían por lo menos un síntoma relacionado con una infección del aparato reproductivo; no obstante, los proveedores hicieron el seguimiento u obtuvieron el historial clínico reproductivo global de estas personas solamente en el 22% de los casos: el 21% de las mujeres con síntomas fueron diagnosticadas con una infección del aparato reproductivo, y un tercio de estas mujeres recibieron un tratamiento apropiado. De las 18 mujeres que acudieron para recibir un DIU nuevo, solamente a seis se les examinó para saber si tenían alguna infección en el aparato reproductivo. Los proveedores examinaron los síntomas de solamente la mitad de las mujeres usuarias de los inyectables que indicaron problemas típicos de infección del aparato reproductivo. Se realizaron exámenes de la pelvis a 49 de las 68 nuevas clientas de los servicios de planificación familiar, y a 21 de las 50 que acudieron para visitas de seguimiento. Durante los exámenes pélvicos, se utilizó un espéculo en 25 de los 35 exámenes realizados en las clínicas públicas, y en 23 de los 33 exámenes realizados en clínicas no gubernamentales. Durante la mayoría de los exámenes pélvicos, los proveedores no realizaron las prácticas básicas

de rigor para prevenir las infecciones.

**Conclusiones:** La prestación de los servicios de salud en las clínicas observadas se orientó para atender la razón fundamental de la visita de las clientas. Como resultado de este enfoque singular, los proveedores de servicios perdieron múltiples oportunidades de explorar y abordar las necesidades de las clientas que indicaron que tenían síntomas de infecciones del aparato reproductivo.

## Résumé

**Contexte:** Les infections de l'appareil reproducteur constituent un problème fréquent parmi la population féminine en âge de procréer au Bangladesh. L'intégration de l'identification et le traitement de ces infections aux programmes de planning familial et de santé de la mère et de l'enfant serait utile.

**Méthodes:** Un total de 172 clientes de 46 centres de prestations de planning familial choisis à dessein ont été interviewées en novembre et décembre 1996, et leur interaction avec les prestataires de soins a été observée. Au terme de la période d'observation, 112 médecins et visiteurs pour le bien-être familial ont également été interviewés.

**Résultats:** Soixante-dix-sept pour cent des clientes ont signalé au moins un symptôme associé aux infections de l'appareil reproducteur au moment de l'interview initial, mais les prestataires ne se sont inquiétés de ces plaintes ou n'ont approfondi les antécédents de famille complets que dans 22% des cas; 21% des femmes symptomatiques ont été diagnostiquées comme souffrant d'une infection de l'appareil reproducteur et un tiers d'entre elles ont reçu un traitement spécifique, par opposition à symptomatique. Sur les 18 femmes ayant reçu un nouveau stérilet, le dépistage d'infections de l'appareil reproducteur n'a été effectué que sur six. Les prestataires ont exploré les symptômes de la moitié seulement des femmes pratiquant une méthode injectable et ayant fait état de problèmes typiques aux infections de l'appareil reproducteur. Un examen pelvien a été effectué sur 49 des 68 nouvelles clientes désireuses de services de planning familial et sur 21 des 50 clientes existantes en visite de suivi. Ces examens ont impliqué l'emploi d'un spéculum dans 20 cas sur 35 dans les cliniques publiques, et dans 23 cas sur 33 dans les établissements privés. Durant la plupart des examens, les prestataires n'ont pas observé les pratiques élémentaires de prévention des infections.

**Conclusions:** La prestation de services de santé dans les cliniques observées est apparue motivée par la raison principale de la visite de chaque cliente. Conséquence de cette approche, les prestataires ont manqué de nombreuses occasions d'explorer les besoins des clientes ayant fait état de symptômes propres aux infections de l'appareil reproducteur et d'y répondre.