Piet-Pelon, Nancy J.; Rob, Ubaidur.: Integration of RTI Care into Existing Family Planning Services in Bangladesh : The Possible and the Practical. Social Change. Sept-Dec 1996. 26(3&4). p.186-195.

Integration of RTI Care into Existing Family Planning Services in Bangladesh : The Possible and the Practical

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In Bangladesh there is no national prevalence data on RTIs/STIs. The limited number of prevalence studies point to an alarmingly high number of women with confirmed infections. Both social conditions and traditional health practices for women favor a continued high prevalence of RTIs in Bangladesh. There is also limited information on treatment seeking behavior of women with infection. Findings suggest that Infected men sought treatment outside the immediate community, whereas women were limited to village-based practitioners. Service center assessments have consistently pointed to deficiencies which already effect safe, infection-free family planning services. These deficiencies could also impact on the provisions of RTI services. Because of the limited laboratory facilities in Bangladesh, the syndrome-based method has to be the method of choice for diagnosis and treatment - in spite of its shortcomings. As an essential element of improved reproductive health, the education of the client, as well as the diagnosis and treatment of RTIs must be undertaken. Assertive services are required which provide full information and treatment of all RTIs in a setting which is confidential, affordable and accessible.

Reproductive Tract Infections (RTIs) effect the lives of a majority of women of reproductive ace. These can be Sexually Transmitted Infections (STIs) or infections which are caused through unhygienic practices during menstruation, child birth or during the delivery of Family Planning services. Whatever the root cause, RTIs can be detrimental to a woman's reproductive health. The presence of infection increases the transmission of potentially fatal infections like HIV/AIDS. When left untreated, Pelvic Inflammatory Disease (PID) can develop which leads to infertility. Several serious conditions in pregnancy and childbirth are related to the presence of RTIs including neonatal pneumonia, eye infections in newborns, and intra uterine deaths.

In Bangladesh there is no national prevalence data on RTIs/STIs. However, the limited number of prevalence studies point to an alarmingly high number of women with confirmed infections. A clinic-based study found 60 percent of women suffering from RTIs, including nearly 4 percent with gonorrhea and less

than one percent syphilis (Chowdhury et al. 1995), while a rural study found 56 percent of women had RTIs of which 23 percent were STIs (Hossain et al., 1996). An earlier study in Matlab Thana found 22 percent of women who were family planning acceptors reported symptoms consistent with RTIs. On clinical examination, 68 percent of them were confirmed (Wasserheit et al. 1989).

Both social conditions and traditional health practices for women favor a continued high prevalence of RTIs in Bangladesh. The population is increasingly mobile, with rapid urbanization within the country and out-migration for workers to neighboring countries. Traditional health practices predominate during menstruation and child birth and are a source of infection.

When women have an RTI, the "culture of silence" and shame which accompany the condition negatively influences treatment seeking, behavior, as does access to services and costs (Hussain et al., 1996). Though some of the RTIs are not sexually transmitted, infected women may not know the difference and fail to seek treatment, thus suffering needless morbidity.

Family Planning programs can perform a critical role in providing information and clinical services to women who contract RTIs. There are five essential reasons: (1) Family Planning and RTIs services are required by the same client groups sexually active couples; (2) providers need the same skills for both types of clients; (3) both programs aim at modifying, sexual behavior; (4) condoms and other barrier methods are essential for the prevention of RTIs and can be used for pregnancy prevention; and, (5) since the RTIs can negatively affect the health of both a pregnant mother and her infant, the diagnosis and management during pregnancy is particularly important (Pachauri 1995).

This article will review the present situation in Bangladesh concerning RTIs/STIs. It will report on the diagnosis and treatment available in family planning service points; define an approach to RTI services; highlight the quality issues in the current family planning service program which affect RTI services and outline policy questions.

What is the need for RTI services?

There are three reasons to emphasize RTI services in Bangladesh today: (1) to improve the health of women of reproductive age; (2) to potentially change the current low continuation rates of family planning methods and, (3) to overcome low acceptance rates of IUDS. Though quite different reasons, these are inter-related.

Left untreated, RTIs can have a profound effect of women's health. Infections of the cervix by gonococcal and chlwnydial cervicitis can ascend in the reproductive tract and cause PID. PID can lead to ectopic pregnancy, infertility, foetal wastage, low birth weight babies or preventable blindness in newborns. Syphilitic infection of the mother can lead to congenital infection of the foetus and mental retardation. Bacterial vaginosis, can cause premature delivery and low birth weight babies.

What do we know about the Prevalence of RTIs in Bangladesh?

Three studies have been completed that determine the prevalence of RTIs and STIs in selected populations in Bangladesh. Each used a slightly different approach but arrived at similar levels of prevalence.

In Matlab Thana (Wasserheit 1989) a population-based study of nearly 3000 women was conducted. Twenty-two percent of the women reported symptoms of RTIs. When examined, 68 percent of those women had confirmed evidence of infection. Factors which influenced the presence of RTIs included IUD and tubectomy acceptance. More than one-third of IUD users and tubectomized women complained of symptoms while less than 10 percent of nonusers and approximately 15 percent of hormonal method users believed that an abnormality consistent with RTI was present. Examination-confirmed, symptomatic infection was also seven times as common among IUD users and tubectomized women as among non-users.

Health care users in a Bangladesh Women's Health Coalition Urban Clinic were studied to determine RTI prevalence (Chowdhury et al., 1995) The study sample included regular clients of the clinic and newly registered clients but excluded antenatal and lactating women. Mean age of marriage of the respondents was 15.5 years and age at first child birth was nearly 18. The early age of marriage and child birth indirectly reflects early initiation of sexual activity. Final diagnosis based on laboratory findings showed an RTI prevalence of 60 percent. Bacterial vaginosis was the most common type of infection. The prevalence of syphilis alone was 0.5 percent, of gonorrhea nearly 4 percent and a combination of syphilis and gonorrhea was found in 0.5 percent of cases.

Save the Children (USA) conducted two studies in a rural area. One study determined prevalence of RTIs, through clinical examination, and treatment seeking behavior. The second study used qualitative approaches to examine sexual behavior of the population (Hussain et al., 1996 and Naved 1996). In their sample of rural women, they found 56 percent prevalence of RTIs. Twenty-four percent of those were STIs. The majority of STIs were chlarnydia infections,

while gonorrhea was diagnosed in 1 percent of cases. There was no syphilis found.

The second Save the Children (USA) study sought in-depth information about sexual behavior as it relates to-RTIs. The respondents had many ideas about RTIs and how these are caused. Common beliefs include unhygienic practices like bathing in dirty water or using dirty clothes as reasons for RTIs. Few mentioned causal relationships between either child birth practices (i.e. manual manipulation of placenta introducing infection) or menstrual practices (i.e. using unwashed rags for sanitary protection) as potential infection transmitters. Though some certainly understood the relationship between RTIs and sexual life, none used preventive behavior (e.g. condoms or abstinence during infection) even when they knew they may be at risk.

These studies, though limited to small populations, are consistent in their findings and lead to a general conclusion that RTIs are a significant health problem for women of reproductive age. Save the Children (USA) concluded from their data that 1 in 2 women of reproductive age were RTI affected. They further suggested that if their findings were consistent for the country, 11 million women in Bangladesh could have RTIs.

Treatment Seeking Behavior of Women with RTI Conditions

There is limited information on treatment seeking, behavior of women with infection from the Save the Children (USA) study and BWHC.

In the Save the Children (USA) study treatment for RTIs had been sought by 67 percent of the women infected. A village health practitioner or a traditional method or "Bangla treatment" was selected by most women for treatment. Health and Family Welfare Centre (HFWC) or Thana Health Complex (THC) were used by only 11 percent of those who were treated.

The most important reason for choosing a particular treatment was husband suggested, followed by other family members suggested. Infected men sought treatment outside the immediate community, whereas women were limited to village-based practitioners.

More than one-third of women with symptoms did not seek treatment. For 35 percent of those respondents, the most important reason for not seeking treatment is belief in a natural cure. Twenty-eight percent felt it was not serious condition while an additional 7 percent said their husband's did not think it was a serious condition. Twenty six percent did not get treated because of economic reasons.

Women did consult their husband in 47 percent of cases while they mentioned discussing the problem with TBAs in only 1 percent of cases and with GOB health workers in less than 1 percent.

Level of education made a great difference in treatment seeking behavior. More than 90 percent of women who were educated above primary level sought treatment while about 59 percent of women with no education did. Even educated women, however first seek treatment from Village Health Practitioners or a Bangla treatment, rather than government health services.

In the urban-based study of BWHC, all but four of the respondents had history of RTI during the past three months. Sixty-seven percent received no treatment. There is no information on what type of treatment was sought by the 33 percent who did received treatment. Respondents reported their husband's received treatment in only 49 cases. This is less than 8 percent of partners of women who reported previous RTIs. No further information was reported on type of treatment or who recommended that treatment.

The Quality of Delivery of Family Planning Services in the National Program

The symptoms of RTIs are similar to some side effects of certain methods of contraception -- particularly IUDs. In Bangladesh half of contraceptive users stop using within 12 months of starting; one-fifth of those who stop do so as a result of side effects or health concerns with the methods (BDHS 1993-94). As many as 30 percent of women cite this as the reason for discontinuing the use of IUD, while for injection the rate of discontinuation due to side effects or health concerns is 40 percent. When examined over a five year period, the incidence of discontinuation due to side effects or health concerns is even higher. Nearly 70 percent of IUD discontinuation is attributed to side effects/health concerns while the same reasons are cited in 66 percent of injection discontinuation cases.

Because Family Planning service providers have not been trained to diagnose and treat RTIs, the relationship between an existing RTI condition and side effects of contraception are not being effectively managed. Instead the client stops using a contraceptive because of side effects while the pre-existing RTI condition which may be causing the symptom is undiagnosed and not treated. Thus a client is left at even greater potential health risk. The RTI problem continues and can be exacerbated by an unwanted pregnancy because she is no longer actively contracepting.

There is sufficient evidence that Family Planning service providers, especially FWVS, are aware that their clients are in need of RTI services. As early as 1984, a

study of the GOB IUD program identified leukorrhoea as the most common complaint of IUD acceptors which can lead to serious side effects if left untreated. The interrelationship between acceptance of the IUD and RTI issues is drawn (Khan et al. 1984).

Throughout the years other studies, particularly related to IUD services, point to similar problems. The IUD Annual Evaluation 1990 (ACPR) lists "client side effects" as a major problem for IUD services. The study recommends that for the "... significant minority of clients (6 %) who complain of vaginal discharge, a detailed medical study of Reproductive Tract Infections (RTIs) might be useful. In the longer term, better training of FWVs in diagnosis and treatment of RTIs would be very beneficial."

A study designed to compare the three IUDs available in the national program (TCU 200, 380A and ML 375) reported that 49 percent of IUD acceptors experienced symptoms of Pelvic Inflammatory Disease during the three months prior to insertion (Akhter et al., 1996). Of those reporting symptoms, 71 percent mentioned white discharge while nearly 10 percent reported lower abdominal pain. Eighteen percent responded that they had a combination of symptoms.

In 1994 FWAs and FPIs were interviewed on their perceptions of the IUD acceptance decline (Nessa et al., 1994). One fourth of the FWAs cited white discharge and lower abdominal pain as reasons for a decrease in IUD acceptance. While one third of FPIs responded that non-specific side effects were the main reason for decrease in IUD acceptance, several also mentioned specific RTI related symptoms.

Other recent studies have focussed on clinical skills of FWVs and their training needs, as well as studies of facilities where clinical family planning services are provided (Subrata et al, 1996; Ahlborg and Akhand, 1996; Barkat et al., 1994). Though these studies had some different objectives, all were concerned with essential improvements in quality of services.

The consistent finding is that FWV skills are, at best, "moderately satisfactory" for clinical aspects of Family Planning service delivery. Skills vary widely and one evaluation particularly recommends that FWV basic clinical skills are in immediate need of improvement since only 12 percent could perform an adequate clinical assessment; 19 percent followed appropriate infection prevention practice; 7 percent performed all steps of IUD insertion correctly and 30 percent were able to provide appropriate injection services (Ahlborg and Akhand, 1996).

In another study (Barkat et al., 1994), findings on service provider skills were similar. Medical history taking is an essential element for providing clinical contraception. In HFWCs, service providers asked about vaginal bleeding, vaginal discharge and abdominal pain in only 8 percent of cases. A pelvic exam was performed in only 25 percent of cases. In higher order service points, THCs and MCWCs, the service providers more consistently asked the essential questions about vaginal conditions. However, the performance of pelvic examination was done in only 20 percent in the MCWCs (even less than in the HFWC) and in 73 percent of the THCs. In Model Clinics, where optimal services should be expected, the performance of a pelvic exam was done in only 17 percent of cases.

FWVs are quite aware of their own deficiencies in clinical skills. When asked what skills they needed immediate training for, more than 90 percent responded RTI diagnosis and treatment. Only 2.5 percent felt competent to handle RTIs with their present training (Ahlborg and Akhand, 1996).

Service center assessments have consistently pointed to deficiencies which already effect safe, infection-free Family Planning services. These deficiencies could also impact on the provisions of RTI services. For example, less than 30 percent of HFWCs have an operating autoclave to sterilize instruments. Only 55 percent had another method of sterilizing instruments safely (e.g. boiler). Antibiotics, essential for the treatment of infection, were available in only 40 percent of the HFWCs.

To provide RTI services, privacy is required to conduct physical examinations and to provide counseling for clients. Only 18 percent of HFWCs have a separate medical examination room. Cleanliness is maintained in only 43 percent of the examination areas, a finding of great significance as it points directly to facilities as a place where infections may be spread rather than detected and cured.

Taken together, these findings indicate that Family Planning services may be causing harm to clients. There are several ways harm is being caused: (1) By failing to diagnose and treat RTIs prior to IUD insertion or MR procedures, pre-existing conditions can be exacerbated. (2) Diagnosing an RTI but failing to treat it because the medications are not available. (3) Diagnosing an RTI but not providing the needed counseling on safe sexual behavior e.g., use of condoms during treatment, necessity of treatment of partner. If this is not done, the treated client can be immediately reinfected by an untreated spouse or partner. (4) Performing pelvic examinations, required prior to IUD, Norplant or sterilization services, in conditions where asepsis is not maintained can introduce an infection in a previously healthy woman.

What Constitutes Appropriate RTI services?

There are two critical elements which need to be included in appropriate RTI services. First, IEC which includes basic health education on all modes of infection transmission (sexual and non-sexual), and sensitive counseling for clients with STIs. The counseling information encompasses safe sexual behavior, as well as partner management, and treatment compliance of both partners. Second, diagnosis and treatment of infections in a confidential setting.

IEC, particularly health education, needs to be provided in diverse settings. It is essential to reach young women with lessons in hygiene and care during menstruation. Pregnant women, TBAs and other birth attendants, need information on infection transmission during child birth. In short, everyone who is a service provider needs to seek opportunities to inform women of all ages about these infections and their prevention.

IEC at a clinic level is essential to determine whether women have RTIs which they are not discussing. It is not unusual for women to "suffer in silence" either because the RTI is so common they feel it is "normal", or because they are ashamed. In order to help women, service providers have to adopt a proactive approach. Most RTIs are not sexually transmitted, but caused by unhygienic practices. Clients need to understand that concept first and then learn how to care for themselves more carefully.

Counseling when an RTI is diagnosed as an STI is the most difficult. Yet if it is not done, the client may not understand the importance of safe sexual practice. Nor will she be able to convince her partner to use condoms and seek treatment. This will mean that she is constantly at risk of reinfection and increased morbidity.

The clinical services for diagnosis and treatment of RTIs is commonly based on a WHO developed syndrome-based approach. This is appropriate in a service site where laboratory facilities are not available. Syndromic management is based on identifying consistent groups of symptoms and easily recognized signs - syndromes and providing treatment which will deal with the majority of organisms responsible for producing each syndrome.... It has resulted in adequate treatment of more infected cases. It is relatively simple and cost-effective (Pachauri 1995).

One approach to service delivery is suggested in **Table 1:**

Using the syndrome-based approach the service provider learns to determine the presence or absence of infection on the basis of a series of behavioral questions

and a clinical examination without the laboratory back up. This method is effective if the clinician is well-trained and has developed a skilled "clinical eye". However, it is possible to come to an incorrect diagnosis and either treat women who actually have no infection or under-diagnose and leave untreated women who do have an infection. In the BVMC study, the service providers diagnosed 40 percent more women as having RTIs than were confirmed by the laboratory testing. The implication is that these women all have been treated unnecessarily if only the syndromic approach was used (Chowdhury et al., 1995).

TABLE 1: Services for the prevention and treatment of RTIs and STIs at different levels of the health services system

Household Level	HFWC and Satellite Clinic	THC and MCWC	District Hospital and Model Clinic
Sexuality and gender information, education and counseling for adolescents, youth, men and women Household-based condom distribution	Sexuality and gender information, education and counseling for adolescents, youth, men and women Provision of condoms Pilot testing of the syndromic approach Referral of women with vaginal discharge, lower abdominal pain and genital ulcers, and men with urethral discharge, genital ulcers, and swelling in the scrotum or groin Partner notification and referral Routine prophylaxis for gonococcal infections of the newborn	Sexuality and gender information, education and counseling for adolescents, youth, men and women Provision of condoms Pilot testing of the syndromic approach Diagnosis and treatment of some infections and referral of others Partner notification treatment and referral Routine syphilis testing in antenatal women Management of referred cases and feedback to referral source Routine prophylaxis for gonococcal infections of the newborn	Sexuality and gender information, education and counseling for adolescents, youth, men and women Provision of condoms Pilot testing of the syndromic approach Laboratory diagnosis and treatment Partner notification treatment and referral Routine syphilis testing in antenatal women Management of referred cases and feedback to referral source Routine prophylaxis for gonococcal infections of newborn

Adapted from Pachauri (1995)

Because of the limited laboratory facilities in Bangladesh, the syndrome-based method has to be the method of choice for diagnosis and treatment -- in spite of its shortcomings. Yet the question of creating drug-resistant strains of RTIs by the inappropriate use of antibiotics is an essential consideration and cannot be ignored. The bacteria which cause these infections have proven their ability to mutate and change as drugs are developed to combat them. Their remarkable properties have allowed them to survive, change and continue to infect populations in spite of increasingly sophisticated drug-therapy. In Bangladesh where antibiotics are used without careful discrimination, the opportunity for

the bacteria to become resistant to available drugs should be of great concern to service providers.

The Policy Questions

As an essential element of improved reproductive health, the education of the client, as well as the diagnosis and treatment of RTIs must be undertaken. The Family Planning clinic-based service delivery program is an entry point for both education and services. Another potential entry point is during ante-natal and postnatal care which is performed in the same facilities and by the same providers as the clinical Family Planning program.

Questions which require the attention of policy makers and program managers in the Bangladesh national program include:

1) Who will become the primary service provider for providing information and counseling, as well as diagnosis and treatment of RTIs? How will this service provider need to be trained/re-trained to perform these new functions?

2) Will services be provided at HFWCs or will these service points only offer initial screening and referral to higher order services? If diagnosis and treatment is to be done at HFWCs, what equipment and essential supplies will be needed?

3) What will the GOB policy be on bearing the costs of RTI treatment? Will this be provided free or will the client have to pay for the essential treatment medications?

4) Of the various programs under reproductive health which include many essential health programs, how important is the RTI program? What level of emphasis should it have in the constellation of services being offered at GOB service points?

5) Can the RTI prevention and treatment program be linked to the HIV/AIDS work which is on-going in Bangladesh? Can these have a synergistic relationship which can increase the impact of each program?

With RTI prevalence figures in limited urban and rural settings at over 50 percent, the country does not have the luxury of developing conservative services which are quietly established and passive in their approach. Assertive services are required which provide full information and treatment of all RTIs in a setting which is confidential, affordable and accessible.