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ABBREVIATIONS

BCC	Behavioral Change Communication
BDHS	Bangladesh Demographic and Health Survey
CPS	Contraceptive Prevalence Survey
ESP	Essential Service Package
FGD	Focus Group Discussion
FP	Family Planning
FPI	Family Planning Inspector
FWA	Family Welfare Assistant
FWV	Family Welfare Visitor
HFWC	Health and Family Welfare Center
HA	Health Assistant
HIV/AIDS	Humane Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
MCH	Maternal and Child Health
NIPORT	National Institution for Population Research and Training
NSV	No Scalpel Vasectomy
RH	Reproductive Health
RTI	Reproductive Tract Infection
SACMO	Sub Assistant Community Medical Officer
STI	Sexually Transmitted Infection
UHC	Upazila Health Complex

EXECUTIVE SUMMARY

Over the last 30 years, Bangladesh national family planning program has mainly concentrate its promotional efforts on women to adopt family planning. Most of the grass root workers who are responsible for delivering family planning services are women. While the government policy has been effective in influencing women to accept contraceptive methods, men's role in family planning has been completely neglected. Similarly male reproductive health services are hardly available at Health and Family Welfare Centres (HFWCs), the lowest level of rural clinic for providing health and family planning services. This project's aim was to integrate male reproductive health services (RH) within the existing government female-focused health care delivery system.

The study was implemented by NIPORT in collaboration with the Directorate of Family Planning and Population Council over a period of two years. It used a quasi-experimental non-equivalent control group design, with eight HFWCs as intervention sites and four HFWCs as control sites. Service provider interviews, FGDs, inventory surveys, male and female exit client interviews, and client registers were used to collect the data. Interventions included RTI/STI training for service providers, awareness raising about male RTIs/STIs and availability of services through group discussions and distribution of BCC materials, and provision of RTI/STI services using syndromic approach.

Interventions resulted substantial rise of male clients (15 years +) in the experimental clinics from 131 to 337 clients per clinic per month. However, analysis revealed that nearly all the male clients seeking services from HFWCs came for the treatment of general health problems. Only a small number of male RTI/STI clients seeked services from the clinics. The RTI/STI client increased from monthly average of less than one client per clinic prior to intervention to more than five during the intervention. Although unexpected, a substantial rise in the number of female clients (15 years +) including RTI/STI also occurred due to the synergistic effects of interventions. The substantial increase in the clients (both men and women) increased utilization of the HFWC and thus help in reducing per client cost for treatment. The most common symptom of RTIs/STIs for which men sought service was urethral discharge. Because of certain limitation in the study increase in the condom use could not be assessed.

The hypothesis which were tested and the results obtained are listed below:

- The intervention will augment service providers' technical knowledge about male RH problems and syndromic management of RTIs/STIs. — Confirmed
- If services for RH of men are included within the female focused HFWCs and men are made aware of it, they will avail the services. — Confirmed
- Inclusion of RH services at HFWCs for men will not have any adverse effect upon the number or services of female clients seeking treatment from the same clinics. — Confirmed
- Interventions will lead to an increase in the number of male RTIs/STIs clients at experimental clinics. — Confirmed

• There is no need to alter the working hours of HFWCs to accommodate male clients, particularly RTIs/STIs cases.	Confirmed
• Interventions will help in increasing condom use and acceptance of NSV.	No training in NSV was given. Condom use could not be ascertained

The study thus concluded that reproductive health services for men could be easily integrated into the HFWCs without affecting the female and child focus of the clinics. Men were found to be willing to use the existing services within the existing timing of the clinics. Women did not show any apprehension in using the health services because of presence of male client. Service providers, however, need hands-on-training to diagnose and treat RTI/STI cases. To meet the requirements of the additional clients extra medicines have to be supplied. Finally, the augmentation of total number of patients at HFWC (males and females) will lead to more effective use of resources as utilization of health facilities will increase and the cost of treatment per patient will decrease.

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BACKGROUND

The overall objective of the study was to increase access to and acceptability of reproductive health services by men at Health and Family Welfare Centers (HFWCs) in Bangladesh. The study was conducted in collaboration with National Institute of Population Research and Training (NIPORT), Directorate of Family Planning and Population Council. NIPORT is a national institute of research and training under the Ministry of Health and Family Welfare. Directorate of Family Planning provides reproductive health services including family planning (FP) at the union level (lowest administrative unit covering 30,000 to 50,000 population) through its 3,700 HFWCs. These centers offer remedial and preventive services to mothers and children. Each HFWC is staffed by a Family Welfare Visitor (FWV) and a Sub-Assistant Community Medical Officer (SACMO). They are supported by five to seven Family Welfare Assistants (FWAs). FWVs are traditionally women who have received 18 months of basic training in reproductive and child health care and provide family planning and maternal and child health (MCH) services. SACMOs, on the other hand, are predominately men who have three years of basic training in reproductive health (RH), child health care and basic medical services. They provide general health care, child health care and treatment for minor ailments to both male and female clients.

The study activities began in November 2000 and were completed in December 2002. The study was carried out in the four major divisions of Bangladesh- Dhaka, Khulna, Rajshahi and Sylhet. The interventions were tested in twelve government health facilities. The target groups of the study were men of reproductive age and grass root level service providers. NIPORT and Directorate of Family Planning implemented the study with technical assistance from the Population Council.

STATEMENTS OF PROBLEM

Since the mid-1970s, Bangladesh national family planning program is primarily focusing on women motivating them to use modern contraceptive methods and encouraging them to seek services from the static clinics. In addition, female field workers were recruited to deliver contraceptive methods at homes. The program design did facilitate women's access to

information and medical care through clinics and home visits. In the process, medical needs of males were marginalized. Men now generally seek services from pharmacies, private practitioners and district hospitals. Studies showed that men ignore preventive steps and postpone seeking medical care for chronic health conditions. In cases of acute episodes of illnesses they even resort to self-medication. (Piet-Pelon and Rob 1997; Piet-Pelon, Rob and Khan 2000; Population Council 1996a).

Studies also revealed that men do suffer from various reproductive health problems (Piet-Pelon and Rob 1997; Population Council 1996a; Hussain et al. 1996). Nevertheless, they do not avail the services provided by HFWCs. Even for general health care, the majority of men do not seek services from HFWC. One of the reasons perhaps is due to the general perception that HFWC services are only for women and children not for men. To address this issue, Population Council in collaboration with NIPORT and Directorate of Family Planning, attempted to reach men through existing government staff at HFWC in 1997. A small-scale study conducted in one HFWC yielded promising results, but the findings were inconclusive for recommendations and changes. It showed that due to intervention the number of NSV and condom use have increased considerably in the intervention area. FWAs have also showed potential to reach male with BCC materials (Directorate of Family Planning, NIPORT and Population Council 1998).

A review of literature suggested lack of knowledge among men and women about STI/HIV/AIDS. According to the 1999-2000 BDHS, only 31 percent of ever-married women and 50 percent of currently married men have heard of HIV/AIDS (NIPORT, Mitra and Associate and ORC Macro 2001). However, only 24 percent of the women and 22 percent of the men said that they had talked with their spouses about HIV/AIDS. The findings also showed that 89 percent of the women and 81 percent of the men did not know of any sexually transmitted infections (STIs) other than AIDS. Although about six percent of the married women knew about STIs, they were not aware of any sign and symptom of STIs. Nine percent of men and two percent of women were able to cite two or more signs and symptoms of STIs. More than five percent of the men reported that they had STIs in the last year (NIPORT, Mitra and Associate and ORC Macro 2001).

The reported statistics relating to STIs awareness contradict the ground reality which indicate that STIs/RTIs is highly prevalent in the general population of Bangladesh. Hussain et al. 1996 reported that about 56 percent women in rural Bangladesh suffer from RTIs and among them, 21 percent with STIs. The high incidence of STIs among women is an indirect indicator of the high prevalence of these diseases among men (Population Council 1996b; Wasserheit et al. 1989; Hussain et al. 1996). A number of factors have contributed to the spread of STIs among men and women. To begin with, health and FP programs have failed to address the relations between men and women and to emphasize their shared responsibilities in sexual health well being (Asian-Pacific Resource and Research Centre for Women 1996). Moreover, women are generally ignorant about the signs and symptoms of male STIs, even though many men are engaged in risky sexual behaviors (Ashraf et al. 1999).

The prevalence of STI is also aggravated by the negative attitude and inefficiency of service providers (Khan et al. 1996). Contacting male partners is not a priority for the female field workers during their routine home visits. The majority of them consider it inappropriate to talk to males even about FP issues. They feel particularly uncomfortable in demonstrating and explaining male contraceptive methods. Family Planning Inspectors (FPIs) who are primarily responsible for contacting and providing men with correct information on male methods and for encouraging them to accept such methods have not been fulfilling their assigned responsibilities. Perhaps the negligence or reluctance is a result of female focused training and job orientation of the field workers (Khan et al. 1996). As a result, they have not been advised or educate about the importance of male involvement or encouraged to contact males by their supervisory officers (Population Council 1997).

During the last decades, extensive development of behavioral change communication (BCC) materials on FP including condom and vasectomy has taken place in Bangladesh. Very few of these materials, however, categorically focus on men's responsibilities in FP and reproductive health of couples. Research findings indicate that BCC materials could play a major role in motivating men, to assume responsibility in family planning (Ashraf et al. 1999). Findings from a case study in Philippines, confirmed that BCC materials helps in encouraging and sustaining male involvement in reproductive health (David 1996). The author suggested that program, policy and

legislation should encourage male involvement in reproductive and sexual health of the family. Findings from Zimbabwe indicated that men can be influenced with FP messages if appealing and appropriate communication channels are used especially if images of virility are incorporated into the messages (Kim et al. 1996). No such efforts to educate men on the importance of their role in reproductive health have been made in Bangladesh (Donahoe, 1996). The existing educational approaches and program activities, therefore, should be reviewed and modified, so that both partners could be reached with services. To ensure effective male participation in couple's reproductive health, it is necessary to provide men with adequate information about reproductive and sexual health through appropriately designed and culture sensitive BCC materials (Kim et al. 1996).

While training plays a major role in improving knowledge and skills of the service providers, it is often neglected in the public sector. The grass root level service providers lack practical experiences in identifying STI/RTI cases mainly because they had no scope to gain practical experiences or skills on STIs/RTIs during their basic training course. Because of this lack of knowledge, training and skills service providers are unable to treat STI/RTI cases even using syndromic approach (Khan et al. 1996; Donahoe 1996). Therefore, it is essential to provide hands-on-training and demonstrations to the providers in identifying and treating STI/RTI cases.

Like women, men have reproductive health concerns that undergo changes with time and phases of life cycle. The absence of adequate reproductive health education combined with the proliferation of traditional but unqualified healing practices have rendered men ignorant of the signs and symptoms of RTIs/STIs, as well as the modes of transmission and means of prevention. All these lead to disregard or non-use of available health services (Ashraf et. al 1999). Appropriate program efforts are needed to educate men about reproductive and sexual health, healthy practices, and the services available at different health facilities including HFWC. This may help in overcoming the limited use of existing facilities.

Health seeking behavior of men in Bangladesh needs to be changed or improved. Most of the time men procure medical services from quacks (unqualified medical practitioners), from pharmacists or draw on self-medication. Besides this, men are embarrassed to obtain services for

RTIs/STIs from the institutional facilities (Donahoe 1996; Ashraf et al. 1999). However, this situation has to be changed because there is growing realization that unless men are reached, program efforts in women's reproductive health will have limited impact (Directorate of Family Planning, NIPORT and Population Council 1998).

The present scenario calls for the design of appropriate interventions and action plans for effective involvement of men, their sustained participation in reproductive health of couples, and their acceptance of services from the existing government health facilities (Directorate of Family Planning, NIPORT and Population Council 1998; Ashraf et al. 1999). The current structure of the female-focused health service delivery system in Bangladesh offers little scope for dealing with the RH problems of men. The challenge is to find ways to cater men's need using the existing resources without adversely affecting accessibility and utilization of services by women. The present operations research project is build on the experiences of Population Council supported pilot OR study carried out under ANE OR/TA project on enhancing use of HFWC for providing male reproductive health services where some of the issues stated above were addressed (Directorate of Family Planning, NIPORT and Population Council 1998).

STUDY METHODOLOGY

Objectives

The overall objective of the study was to increase the access to and acceptability of reproductive and sexual health services by men at HFWCs which are largely female-focused health facilities. The specific objectives of the study were to:

- Increase access to reproductive health services for men at HFWCs with an emphasis on RTIs/STIs and sexual health counseling
- Modify existing BCC materials to increase the acceptance of male family planning methods, RH services and understand their RH responsibilities
- Encourage men to obtain and use male family planning method including NSV from HFWC
- Introduce provision of RTI/STI services to men using syndromic approach at HFWCs
- Assess the management, technical and financial implications of integrating male RH services into the existing service delivery system

Hypothesis

The following hypothesis have been tested in the study:

- The training will augment service providers' technical knowledge about male RH problems and management of RTIs/STIs using syndromic approach
- If services for men are made available at HFWCs and publicized availability of these services in the community, then men will avail the services
- The interventions to increase use of HFWCs by men will not have any adverse effect upon the number or services of female clients seeking treatment from the same clinics
- Provision of male reproductive and sexual health services at HFWC will increase use of the facilities by male clients including STI treatment
- BCC activities and counseling of men at the clinics as well as in community could lead to increased use of condom and NSV
- There is no need to alter the working hours/timing of HFWCs to accommodate male clients

Study Design

In the present study a quasi-experimental non-equivalent control group design was used with eight HFWCs selected as intervention sites and four selected as control sites. The experimental and control clinics were selected from the four largest administrative divisions of the country (two experimental and one control HFWC from each division). A three-member team visited the selected *upazilas* and identified the HFWCs for the study. The HFWCs were chosen purposively after considering criteria such as adequate staff, proximity to urban areas and established infrastructure. From the adjacent *upazila* a third HFWC, having almost identical characteristics as the experimental HFWCs, was identified and selected as a control site. A management committee was formed at the beginning of the project comprising of members from NIPORT, Directorate of Family Planning and Population Council to monitor the project activities.

Dependant Variable

The dependent variables considered for this study include: i) increase in the number of male clients seeking services from HFWC, ii) increase in the number of males who obtained RTI/STI services from the health facility, iii) increase in service provider's technical knowledge to identify and treat RTI/STI cases, and v) increased in the number of clients at HFWC who availed male family planning services.

Data Collection Technique

The study was conducted in three phases- situation analysis, implementation of interventions and impact assessment. Situation analysis took six months, interventions 12 months and impact assessment took another six months to complete. Situation analysis and impact evaluation were conducted through inventory survey, analysis of service statistics (client registers), exit interviews, focus group discussions (FGD), and pre and post intervention tests of the service providers for knowledge and management of RTI/STI cases. These were conducted in both the experimental and control areas. In addition, two review workshops were conducted with the program managers and service providers to review the project activities and to seek their suggestions, if any.

Inventory surveys

Inventory surveys were conducted in the eight experimental and four control HFWCs both before and after the intervention. Inventory surveys were conducted to assess the readiness of the health facilities to provide RTI/STI services. Data collection included availability of medicine for RTIs/STIs and infection prevention equipments such as sims speculum, cotton, and antiseptic agents in the center.

Service Statistics

Month wise service statistics were colleted from all the study clinics to estimate the total number of clients who availed any health services, number of RTI/STI clients examined, number of referrals made, number of clients obtained condom from the clinics, number of condoms distributed by the field workers and the number of partner management provided. The figures were obtained from the service registers maintained at the study centers and covered both before and after intervention period.

Exit Client Interview

Two hundred eighty six male (experimental 220 and control 66) and three hundred female (experimental 175 and control 125) exit-client interviews were conducted during the intervention period. Among the 286 male exit client interviews, 96 were conducted over the first nine months of the intervention period while the remaining 190 over the last three months of the

intervention period. All the 300 female exit client interviews were conducted during the last three months of the intervention period. The aims of the exit client interview were to assess quality of service provided at the centers, type of counseling provided by the service providers, opinions about the timing and provision of male-female services from the same clinic and the same time, and client feedback about their experiences at the centers. Enquiries were also made for the RH knowledge and practices of the patients, purpose of their visit at the HFWC and whether or not the patients suffered from RTIs/STIs in the last three months. The purpose of male exit client interviews over the period was to evaluate the service delivery in a continuous manner.

Focus Group Discussion

A total of seven (5 in experimental and 2 in control areas) and sixteen FGDs (8 each in experimental and control areas) were conducted with male before and after the intervention period respectively. The informants of the FGDs were community leaders and male members of the community. Four FGDs each in the experimental and control areas were conducted with adolescents in the post intervention period. The community leaders included teachers, businessmen, religious leaders and local political representatives while the other male informants included agricultural laborers, and/or general laborers. FGDs were conducted to collect information on community perceptions about the health centers, reasons why men do not seek treatment from HFWCs and suggestions on how to cater male clients' needs, particularly RTI/STI ones from the existing health service delivery system. The post intervention FGDs was conducted with community leaders and adolescents to assess their perceptions about the recent inclusion of male STI services in the HFWCs, reaction of men and women to these changes, quality of services provided from the HFWC and suggestions, if any.

Interview of Service Providers

Pre- and post-intervention interviews were conducted with 127 service providers and 163 field workers. Out of the 127 pre-intervention interviews, 29 were with the service providers (19 experimental and 10 control) and the rest 98 with the field workers (75 experimental and 23 control). Similarly, among the 163 post-intervention interviews, 33 (experimental 26 and control 7) were with the service providers and the rest 130 (experimental 86 and control 44) with the

field workers. Service providers were assessed for their knowledge of RTIs/STIs, retention of their knowledge after 12 months of training on the signs and symptoms of RTIs/STIs among male and female clients, their practices on partner management and sexual health counseling. Subjects were also asked about the supply of medicine and their suggestions on how to provide services to enhance males' access to and utilization of RH services. The same questionnaire was used both in the pre and post intervention surveys except that in the end line survey where some new questions were added on the provision of male RTI/STI services.

Review Workshop

Two review workshops were conducted with program managers and service providers. The workshops were conducted on 5th and 12th month of the intervention period. The objectives of the first workshop were to review the project activities, share experiences, assess performance, analyze difficulties faced, and discuss emerging issues. In this workshop all program managers from the respective UHC and senior officials from NIPORT and Population Council had participated. The objectives of the second review workshop were to share both positive and negative experiences from the field, provide suggestions to improve the program, and develop recommendations for extension of project activities in other areas. The participants of this review meeting were the program managers of all experimental UHC, senior project officials from NIPORT and Directorate of Family Planning and Population Council. In addition, one service provider from all 8 experimental clinics was also invited.

Data Processing and Analysis

The principal procedure for analysis of quantitative data was providing descriptive statistics on each variable collected during the study and compare the findings from experimental and control groups, both before and after intervention. The significance of the differences in proportion was tested using `Z' test while those of means by `t' test. Qualitative data analysis provided in-depth understanding of the perception of the community about the initiatives taken under the project, and patterns and relationship of the exploratory variables among the experimental and control areas. Direct quotes have been used whenever possible to strengthen and complement the observations made from the quantitative data.

Interventions

Broadly, four types of interventions were introduced in the experimental clinics. The control clinics received no such interventions. The interventions included:

- Theoretical and practical training of service providers on RTIs/STIs and its management using syndromic approach
- Inclusion of provision of RTI/STI services in the HFWCs
- Promotion of awareness about male RTIs/STIs and availability of RH services for males at HFWCs by group discussion with adult male and male adolescents and by developing and distributing BCC materials
- Mobilization of resources in term of additional drug supplies from the existing government resources

Workshop with Program Managers

To train the service providers properly and comprehensively, a training manual was developed. To develop this manual, a three-day workshop was held with program managers and NIPORT training staff. In the workshop contents of the manual was discussed and finalized. The training manual thus developed covered important theoretical aspects of ESP, safe motherhood, family planning, gender issues, syndromic management of RTIs/STIs, couple counseling, sexual health counseling, and the role men can play in couple's reproductive health care. Further, two orientation workshops were organized in the experimental areas to orient the district and *upazila* level managers about the study's objectives, design and proposed activities. It was felt that such orientation of Health and Family Planning officials will be useful in proper implementation of the project.

Training of Service Providers

Ninty-four Family Welfare Visitors (FWVs), Sub Assistant Community Medical Officers (SACMOs), Family Welfare Assistant (FWAs), and Health Assistant (HAs) from experimental area attended a five-day training course taught by district and *upazila* level officials. The course included three days of theoretical and two days of practical training on RTI/STI. The theoretical training mainly concentrated on the essential services package (ESP), safe motherhood, family planning, gender issues, syndromic management of RTIs/STIs, couple health counseling, sexual health counseling and the role men can play in couple's RH care. Practical training was given on

the diagnosis and management of RTI/STI cases. Lectures, demonstrations, role-plays and group discussions were used to conduct the training.

The practical training was conducted at *Upazila* Health Complex (UHC) by MO-MCH and UHFPO who were also the trainer for the theoretical part. As the STI patient load at UHC was very few, the practical training at the first stage was not satisfactory. Hence, after first review meeting it was decided that service providers should be given practical training again. Accordingly, all of them were taken to medical college hospital and a special five-day training course was organized at the Skin and Venereal Disease Department. This training substantially improved their ability to diagnose and treat RTIs/STIs cases.

Awareness Promotion

In the eight experimental areas, different approaches were used to make community members aware of the services availability for male clients at HFWC and to encourage them to use the available services. These approaches included:

- Group discussion
- Distribution of BCC materials
- Public announcement

Group Discussion

During the first eight months of the interventions, in each union six to eight group discussions were organized. Each union is administratively divided into three Wards, each ward consisting of 3-5 villages. Thus, an average two group discussions were held in each Ward per month. A total of 436 group discussions were organized in eight unions during the first eight months of intervention. Field workers organized meetings with approximately 20-30 participants each including local community leaders, religious leaders, adult males and male adolescents. FPIs and SACMOs conducted group discussions on STIs/RTIs, male responsibility in couples RH and availability of RTI/STI services for men at HFWCs.

Distribution of BCC Materials

A total of seven BCC materials were developed for distribution by modifying some existing materials. Five informative posters on male RH was designed to convey (a) signs and

symptoms of RTIs/STIs in males and females, (b) consequences and treatment of STIs, (c) availability of male RTI/STI services from the HFWC, (d) condom use and (e) no-scalpel vasectomy (NSV). Posters were displayed and leaflets and brochures were distributed at each experimental HFWC in addition to popular meeting places for men. Among the promotional materials, a special leaflet and a brochure were designed to explain the signs and symptoms of RTIs/STIs in male and female patients and their sequelae, and how men can play vital role in improving a couple's reproductive health. A signboard indicating that male reproductive health services were available was also placed in front of each clinic. Two flip charts developed by Population Council illustrating the signs and symptoms of RTIs/STIs were provided to the service providers in each experimental HFWC to use during service delivery and client's counseling. During the intervention period more than 30,000 BCC materials were distributed two times during the first quarter and third quarter.

Public Announcement

In four experimental areas, HAs rented loudspeakers for one day, rode through their respective unions in cycle rickshaws, and broadcasted messages about the availability of reproductive health services for males at the HFWCs. This form of promotion was conducted only once during the study. This resulted in sudden rush of clients at the HFWC. Service providers could not cope up with such client loads and demand of additional medicine. Hence, this approach of informing community members was discontinued.

Provision of RTIs/STIs and Other Reproductive Health Services

At the experimental HFWCs, RTI/STI patients (both men and women) were treated by FWVs and SACMOs. They counseled clients, and depending on the availability of medicines at the clinics, SACMOs/FWVs either handed out medication to the patients or wrote prescriptions for them to purchase medicines from pharmacies. Service providers also encouraged STI clients to bring their partners to the clinic for treatment and counseling. In addition, family planning methods were also offered from the clinics as usual. Field workers referred clients with complaints or signs and symptoms of RTIs/STIs to the HFWCs for treatment and counseling. Patients who required advanced medical care for RTIs/STIs were referred to the nearest UHC.

To make referral center responsive to clients, program managers from the UHC were involved in training of the service providers.

NIPORT had provided two RTI/STI registers to each HFWC to maintain information about the male and female clients who came to the clinic for seeking treatment. Information were recorded on the reasons for the client visit, symptoms presented, treatment received and the details of any referrals that were made. The registers were checked during monthly visits by NIPORT/ Population Council staff. However, because of various reasons, all the HFWCs were not covered every month. The data collected from the registers were analyzed and used in the impact evaluation.

Mobilization of Resources

During inventory survey many gaps at HFWC facilities were identified. One major problem was adequate supply of medicines, particularly those required for RTI/STI management. To address these issues and fulfill these needs, meetings of *upazila* and district level program managers were organized and to the extent possible, these requirements were met from the available resources at their end. Supply of drug for RTI/STI management however, remained a problem.

Monthly Field Visits

It was envisaged that members of the project staff from NIPORT, program managers from each *upazila*, and the Population Council staff will make monthly visits to each experimental HFWC to observe the delivery of RTI/STI services, to answer queries from service providers, to check information maintained in the RTI/STI client register, to resolve problems, if any and to fill up monitoring checklists. However, in reality it did not happen in every month. Many monitoring checklists remained incomplete either because scheduled visits were not made or service providers were not available during the field visit. Only 37 out of 88 monitoring checklists were filled up from September 2001 to May 2002. The information collected in the checklists included the total numbers of clients in a given month by age and sex, number of RTI/STI clients treated by sex, number of condom acceptors, observation on privacy maintained during consultation, partner management, group discussions conducted, and clients referred to

upazila/district hospitals. Besides this, observation on the cleanliness of the center, the opening and closing hours of the clinic, and the amount of attention given to clients' need were also explored.

LIMITATION OF THE STUDY

Since the study was conducted in the government setting and implemented by NIPORT, a government's training and research institution, some of the investigative processes could not be implemented properly. There was lack of coordination between NIPORT and Directorate of Family Planning. Although both of them are under the same ministry, administrative structure is different in each institution. For instance, monitoring visits were planned for every month but this schedule was not adhered to by the program managers. In addition, service statistics such as number of condom pieces distributed could not be collected because, workers and service providers both distribute condoms in the community but workers do not submit distribution statistics to the clinics. They directly report this information to *Upazila*. Under this project no effort was made to collect these information from *Upazila*.

Due to resource constrain some of the planned interventions such as NSV training of the service providers could not be implemented during the intervention period. Service statistics were not recorded at some clinic for a few months. In two clinics, service providers did not maintain the register properly for three months, as there was no incentive for this extra works. However, this problem was resolved once they were convinced to conduct this activities as a part of their regular work. Medicine for RTI/STI treatment was the main resource that clinics needed to sustain RTI/STI treatment. Program managers had agreed to supply medicines from *upazila* stores to meet the additional demands incurred during the intervention period. In spite of planning for this contingency, clinics ran out of medicine frequently and *upazila* authorities were unable to replenish stocks.

FINDINGS

Pre and Post Surveys of Providers

Background Characteristics of the Service Providers and Field Workers

A total of 127 service providers (FWV and SACMO) and field workers (FWA, HA, Assistant Health Inspector) were interviewed before the intervention. In the post intervention phase, 163 service providers and field workers were interviewed. The distribution of service providers and workers interviewed are given in Table 1. An analysis of the background characteristics of the providers' revealed no significant difference among the service providers of experimental and control areas in terms of age and types of training; the only difference observed in the length of services. The mean age of the service providers was 39 years in both experimental and control areas. Similarly, the mean age of field workers was around 39 years. On an average, service providers were posted at the facilities for three years while field workers were working in the area for more than 12 years.

Table 1: Number of service providers and field workers interviewed before and after the intervention by experimental and control areas

	Service providers			Field workers		
	Experimental	Control	All	Experimental	Control	All
Pre-test	19	10	29	75	23	98
Post-test	26	7	33	86	44	130

The number of the service providers and field workers interviewed before and after the intervention varied in both experimental and control areas. The reasons may be due to inclusion/transfer of service providers and field workers in the study areas or they were not available during interview before the intervention or may be some of them transferred after the intervention started.

Knowledge on RTIs/STIs

The majority of the service providers (95 percent) and workers (94 percent) had received basic training on reproductive health issues. Interviews of the service providers and field workers showed that 100 percent of the service providers and 91 percent of field workers had heard of RTIs/STIs before intervention. After intervention, this awareness increased to 100 percent for the field workers of experimental area.

Further analysis of the data on the knowledge of service providers about STI/RTI is given in Table 2. The data suggest that before intervention, the three commonly known STIs -- syphilis, gonorrhea and HIV/AIDS-- were universally known to the service providers working in both experimental and control areas. But, very few of them knew about other STIs. In the experimental area, knowledge of the service providers about other STIs improved significantly after training. Most of them besides syphilis, gonorrhoea and HIV/AIDS could also mention Chalamydia, Trichomoniasis and Genital Herpes. No such change was observed in the control area (see Table 2).

Table 2: Distribution of service providers who can mention names of STIs

Name of STIs	Experimental			Control		
	Before Intervention	After Intervention	Z Value	Before Intervention	After Intervention	Z Value
Syphilis	19	26	0.00	10	7	0.00
Gonorrhea	18	26	1.20	9	7	0.10
AIDS	18	21	1.36	10	5	1.81
Chlamydia	0	20	5.19**	0	0	0.00
Genital herpes	0	22	5.67**	0	0	0.00
Chancroid	2	21	4.71**	0	3	2.28*
Trichomoniasis	3	22	4.65**	1	0	0.41
N	**19**	**26**		**10**	**7**	

**Significant at 0.001 percent level, * Significant at 0.01 percent level

This finding supported by the hypothesis that service provider's knowledge can be improved by training. However, there was some dropping of knowledge on the name of STI in the control area. This may be due to two reasons, inclusion/transfer of service providers in the control area or the lack of probing by the investigators (Table 2). Proportion test shows that improvement in the knowledge of providers about STIs were statistically significant ($p<.001$).

Although the service providers were able to name some of the STIs, they were mostly ignorant about the causes of STIs before the intervention. Both service providers and field workers had little knowledge about the origins of STIs and many held misconceptions about the causes. For example, about 12 percent of the field workers believed that RTI/STI can be transmitted through use of infected persons cloths or uncleanness. There was no major difference in the understanding of the transmission and prevention of STIs among service providers from both the experimental and control areas. Moreover, the majority of service providers and field workers confused STIs with HIV/AIDS, particularly in regards to consequences.

Table 3 presents service providers' and field workers' knowledge of the signs and symptoms of RTIs/STIs. Findings indicate that knowledge of both the service providers and the field workers had significantly increased due to the intervention (training) and also that they had retained the knowledge at a reasonable level, even nine months after training. Proportion test shows that improvement in the knowledge of providers about STIs were statistically significant ($p<.001$). As expected, knowledge of the service providers and field workers of control areas did not change significantly. In fact, in few cases a lesser number of service provider were recorded having knowledge about STIs in post intervention period than pre intervention period. This is mainly because of small number of providers and arrival of new providers due to transfer.

Table 3: Number of service providers and field workers who know the signs and symptoms of male STIs/RTIs

Signs and Symptoms of RTIs/STIs	Service Provider						Field Worker					
	Experimental			Control			Experimental			Control		
	BI	AI	Z Value	BI	AI	Z Value	BI	AI	Z Value	BI	AI	Z Value
Pus discharge from urethra	7	25	4.46**	4	2	2.09*	13	80	9.63**	1	22	3.89*
Ulcer on penis	2	18	3.97**	3	0	5.00**	1	48	7.48**	1	4	0.73
Ulcer on genital region	6	20	3.06**	6	2	1.28	15	40	3.30**	2	1	1.40
Burning sensation during urination	10	21	2.03*	7	2	1.69	16	78	8.76**	3	11	1.18
Pain in testis	7	20	2.75*	4	0	1.96*	10	45	5.05**	2	3	0.29
Warts on genital region	4	5	0.15	1	1	1.75	0	20	4.46**	0	0	0.00
Semen discharge from the penis	10	22	2.37*	7	5	0.06	27	80	7.38**	7	31	3.42*
Itching in genital region	9	22	2.78*	5	1	1.53	23	64	5.26**	3	2	1.26
N	**19**	**26**		**10**	**7**		**69**	**86**		**21**	**40**	

(BI=Before Intervention and AI=After Intervention)
**Significant at P<0.001 percent level, * Significant at P<0.01 percent level

The above analysis shows that training had increased knowledge of the service providers and field workers about the signs and symptom of STIs/RTIs which could help them in identifying the diseases for treatment. As no data was collected on the use of syndromic approach or knowledge of treatment for different types of STIs, it is difficult to comment on its correct use. However, with all these limitations the findings confirm the hypothesis that training will increase provider's knowledge about RTI/STIs and they could identify the disease on the basis of symptoms.

Before intervention most service providers were either unclear or completely unaware of the health consequences of untreated STIs and RTIs. For example, about 60 percent of the field workers reported death as a consequence of RTIs/STIs. Perhaps they confused it with HIV/AIDS. The service providers and field workers were well informed about transmission and prevention of HIV/AIDS even before the introduction of intervention. Table 4 shows that the majority of the service providers and field workers were aware of at least three major routes of HIV transmission and how to prevent them.

Table 4: Percent of service providers who know about transmission and prevention of HIV/AIDS

Route of transmissions	Experimental				Control			
	Transmission		Prevention		Transmission		Prevention	
	SP	FW	SP	FW	SP	FW	SP	FW
Sex with infected persons	74	53	79	57	80	61	100	83
Transfusion of infected blood	74	56	63	37	80	57	70	48
Use of infected syringe and needle	74	71	58	72	90	74	60	52
Mother to child transmission	21	28	0	1	30	9	0	0
Intercourse without condom	11	9	63	71	0	0	30	48
Sex with CSWs	21	45	0	0	20	70	0	0
Do not know	5	4	5	3	0	4	0	0
N	**19**	**75**	**19**	**75**	**10**	**23**	**10**	**23**

SP=Service Provider and FW=Field Worker

Providers Practices

Use of Syndromic Approach for Treating RTI/STI Clients

WHO approved syndromic approach was utilized to treat RTI/STI clients in each facility. However, the study did not evaluate the effectiveness and appropriate use of the approach by the service providers. The most common RTI/STI treatment for men was prescription of antibiotics when available. Since medicine was often unavailable, patients were given prescription to purchase the medicines from the market. The study did not attempt to measure treatment compliance for purchase of medicine or its proper use. While the study demonstrates that the service providers of HFWC can be trained to use syndromic approach for the management of STI/RTI, it is important to evaluate correct and appropriate use of the technique by the service provider. For this, further research is recommended.

Partner Management

During interview service providers in the experimental areas reported that they advised partner management to all clients suffering from STIs. However, considering the fact that they may not like to bring their partners for examination, partner management was conducted by asking the client to bring the partner to the clinic and by writing a prescription for the partner treatment. However, compliance on the treatment and prescription were also not examined by the study.

Counseling on Sexual Health

Several service providers in the experimental (11 percent) and control areas (20 percent) were uncomfortable in discussing RTIs/STIs and other sensitive sexual health issues with their clients before the intervention. The number of such uncomfortable service providers dropped to zero in the experimental clinics and increased to 29 percent in control area after the intervention. The increased number of uncomfortable service providers in the control area may be due to the inclusion of new service providers in the interview in the post-test (Table 5).

Table 5: Percent distribution of service providers whether feels comfortable in discussing sex and sexuality with clients

	Experimental		Control	
	Pre. I	Post. I	Pre. I	Post. I
Very comfortable	63	39	70	-
Comfortable	26	61	10	71
Not comfortable	11	-	20	29
N	**19**	**26**	**10**	**7**

Pre. I = Pre-Intervention and Post. I=Post-Intervention

Service Statistics

Client Load

To assess impact of intervention on utilization of HFWCs, particularly by male clients service statistics were compiled to calculate the numbers of clients received services from the selected HFWCs before and after the intervention period. Service statistics for the six months (January 2001 to June 2001) were collected from all the experimental and control HFWCs before the implementation of interventions and 12 months (July 2001 to June 2002) after the introduction of interventions.

The distribution of clients by age and sex is given in Table 6. Findings indicates that during the six months pre intervention period, a total of 38,527 clients (803 clients/clinic/month) received services from the experimental clinics. The figure increased to 59,943 (1,249 clients/clinic/month) and 68,908 (1,434 clients/month/clinic) in the first six and second six months respectively after the intervention. In the control areas, the corresponding figures were calculated to be 22,569 clients (940 clients/clinic/month), 20,737 (864 clients/clinic/month) and 30,152 (1,256 clients/month/clinic) respectively. The increased number of clients in the control area in the second six months is mainly due to the increase number of clients of 0-14 years. Break up of these figures by adult male, adult female, total adult patients and 0-14 years aged group patients are given in Table 6.

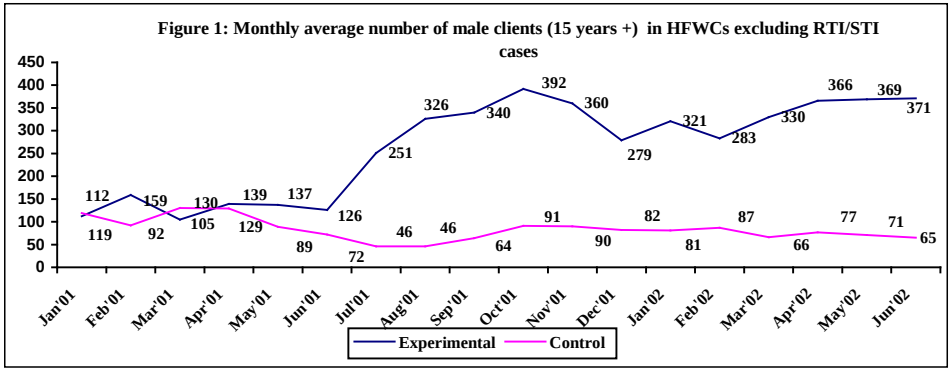
Table 6: Distribution of all clients including RTI/STI by age and sex

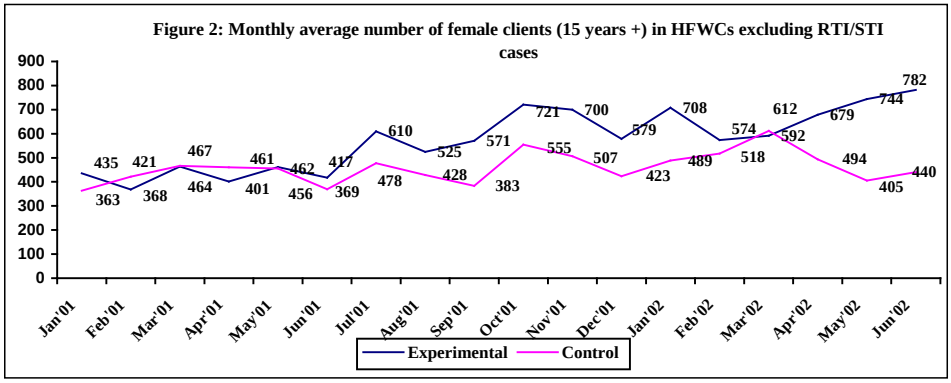
	Experimental			Control		
	Pre six months	1st six months post intervention	2nd six months post intervention	Pre six months	1st six months post intervention	2nd six months post intervention
Number of patients served※						
Adult male (15 years +)	6,262	15,861	16,578	2,524	1,673	1,786
Adult female (15 years +)	20,415	30,136	33,249	10,143	11,082	11,831
Total adult (15 years +)	26,677	45,994	49,827	12,667	12,755	13,617
Total children aged (0-14)	11,850	13,949	19,081	9,902	7,982	16,535
Total clients (all age)	38,527	59,943	68,908	22,569	20,737	30,152
Monthly average clients per clinic※						
Adult male (15 years +)	131	330**	345**	105	70	74
Adult female (15 years +)	425	628**	693**	423	462	493
Total adult (15 years +)	556	958	1,038	528	531	567
Total children aged (0-14)	247	291	398	413	333	689**
Total clients (all age)	803	1,249	1,436	941	864	1,256

※Number of patients and average are based on 8 clinics in experimental area and 4 clinics in control area.
** t test was significant at P<0.001 percent level

The analysis shows that the total number of male clients (15 years +) attending the experimental HFWCs increased substantially after the intervention. For instance, average number of male clients per month per clinic increased by three folds, from 131 to 330 in the first six months of intervention and remained at 345 per month per clinic during the second six months of intervention. The change in the average number of male clients per month per clinic was statistically significant ($t = 7.51$, $p < .001$).

In contrast to this, in control areas the corresponding figure during the pre intervention period was 105, it decreased to 70 during the first six month and remained almost at the same level (74) over the second six months of the intervention period (Table 6). This confirm the hypothesis that by adding STI/RTI services in HFWC and encouraging males to utilize the available services from HFWC, the number of male patients will increase significantly.





What is further encouraging to note that during the same period, the number of adult female patients and children (0-14 years) also increased substantially. The findings presented in Table 6 show that average adult female patients load increased from 425 to 628 and 693 per month during the first and second six month of the intervention. The difference in the average of pre and post female clients is statistically significant (t= 4.652, p< .001). No such significant increase was observed in the control areas. This conforms the hypothesis that presence of male

patients or provision of services to men at the same time from the same clinic will not affect service provision to female patient adversely (Figure 1 and Figure 2).

The study further shows that in general the interventions helped in increasing utilization of the clinics and the monthly average number of patients increased from 803 patients per clinic per month to 1436 patients in the intervention clinics. In other words, one year after intervention overall utilization of clinics increased by 79 percent. The corresponding increase for adult population (15 years +) was still high (87 percent). The control clinic also registered some increase in the number of patients served during the second six months of the intervention period from 941 to 1256 but this increase was mainly because of a steep increase of clients from age group 0-14 years. The increase in the number of adult patients was very modest (7 percent) (Table 6). The reason for such increase in the child patients is not clear.

Number of RTI/STI Cases

Analysis suggests that most of the adult male (98 percent) and adult female (98 percent) clients came to the HFWCs for the treatment of general health problems (Figure 3). Only about 2 percent of the patients sought treatment for STIs/RTIs problems. However, the data presented in Table 7 and Figure 4 demonstrate that in the experimental clinics, the number of male clients treated for RTIs/STIs symptoms increased from 44 to 263 in the first six months of intervention. In the second six months, the number of patients remained stable around 255. Interestingly, the corresponding increase in female patients was still higher – from 37 in the six month pre intervention period to 469 and then 624 during the first and second six months post intervention period.

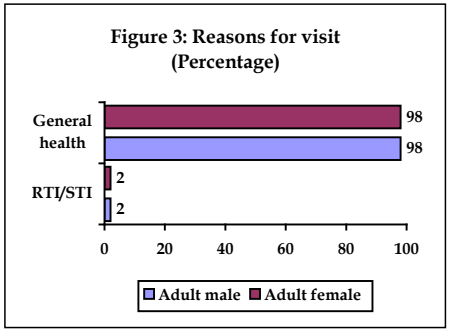
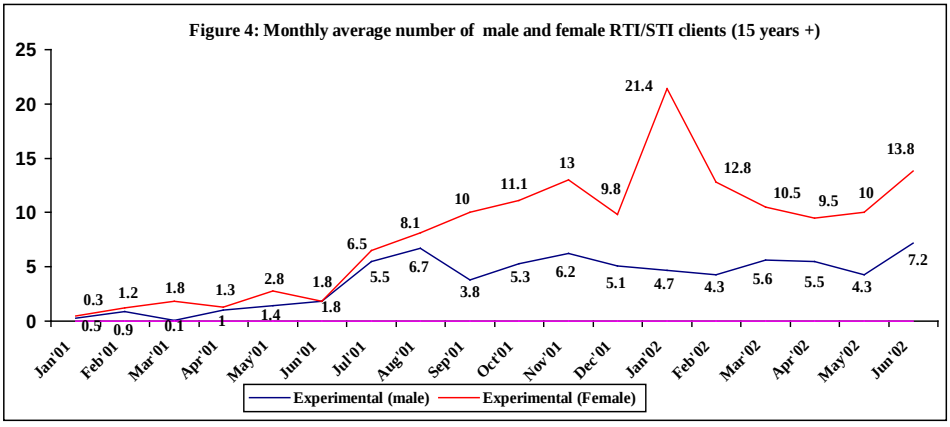


Table 7: Distribution of STI/RTI patients treated before and after intervention

	Experimental			Control		
	Pre six months	1st six months post intervention	2nd six months post intervention	Pre six months	1st six months post intervention	2nd six months post intervention
Total number of RTI/STI patients treated (15 years +)※						
Adult male	44	263	255	-	-	-
Adult female	37	469	623	-	-	-
Total clients	81	732	878	-	-	-
Monthly average clients per clinics (15 years +)※						
Adult male	0.9	5.5**	5.3**	-	-	-
Adult female	0.8	9.8**	13.0**	-	-	-
Total clients	1.7	15.3**	18.3**	-	-	-

※Number and average based on 8 clinics in experimental area and 4 clinics in control area.
'-' indicates not reported by the service providers nor found in the service register.
** t test was significant at P<0.001 percent level

Further analysis indicates that these clinics were treating on average one male and one female RTI/STI client per month before the intervention. This monthly average increased to more than 5 males and 13 female patients after the intervention (Table 7 and Figure 4). No such change was observed in the control clinics. During the study period, none of the control clinics received any RTI/STI patient. The study thus confirmed the hypothesis that if RTI/STI services are introduced in the HFWC and males are informed about it, they will avail these services. The findings further indicate that women will also benefit from these interventions and seek treatment for RTI/STI problems.



Symptoms Reported by Male RTI/STI Clients

It was very difficult to get a complete picture of patients complaints from the service register as service providers have written too many complains together. Moreover, sometimes they have written the diagnosis such as STI. However, analysis of the service register for the 518 male clients showed that urethral discharge (82 percent), penile ulcerative problems (11 percent), and other problems such as burning sensation and painful urination (22 percent) were the more frequently treated STI/RTI symptoms.

Condom Use

Service statistics maintained at the HFWCs could not provide information on condom distribution. It was largely because of two reasons. Service providers feel discouraged to take condom from UHC, as they have to purchase it by their own money and subsequently recover the price by selling it to their clients. Providers do not feel comfortable in blocking their money by buying condom in advance. While they keep few condoms handy, these are only for display or "show" purposes. Furthermore, field workers report to the FPI and UHC and not to the HFWC about the distribution of condoms. Therefore, it was problematic to ascertain the exact number of condoms distributed in the project areas. No effort or arrangement was made to collect this information under the present project. However, analysis of exit client data showed that about 5 percent of the male clients came to the HFWC for family planning methods. This is an interesting observation as men rarely go to HFWC for condom collection. In case of control clinic, only one percent exit clients had come to collect condom. Considering the small number of case both in the experimental and control groups it is difficult to conclude that the difference between experimental and control was statistically significant.

FGD revealed widespread prevalence of misconceptions about male contraceptive methods. The majority of the informants in the FGD believed that family planning is a woman's issue. Some even considered the use of condom as a sin. One informant said:

> *"Let me tell you about my experience. I have been married for 10 years. I have five children and may Allah keep all of them in good health! I have never used any natural or artificial contraceptive method. Using condom will keep the wife dissatisfied and unhappy. Moreover, discharging semen somewhere else (outside the woman's body) is a Gunnah (sin). You know, it is(meant receiving semen)*

actually wife's Haaqk (right). I cannot adopt any FP method. She (my wife) may use some methods but I will not. If she use some method, it is her sin not mine."

Observations from Exit Client Interviews

Background Characteristics of the Exit Clients

A total of 286 male (220 experimental, 66 control) and 300 female (175 experimental and 125 control) clients were interviewed at the clinics after they had received the services. All these interviews were conducted after implementing the interventions and were spread over several months. Findings presented in Table 8 shows that there is no significant difference in the age, marital status, educational status and occupation of the clients between experimental and control areas. The mean age of the male clients was 35 years in the experimental areas and 33 years in the control areas. The mean year of schooling was six and five years in experimental control areas respectively. The most common occupation of males was farming followed by business and students. Approximately two-third of male exit clients were married (Table 8). For details of female clients, please see Table 8.

Table 8: Background characteristics of male (M) and female (F) exit clients (percentage)

Characteristics	Experimental		Control	
	M %	F %	M %	F %
Age				
>20	13	10	17	8
20-29	28	47	26	50
30-39	21	32	27	30
40-49	22	11	21	12
50 & above	16	-	9	-
Mean	35	28	33	28
SD	14	7	12	7
Education				
None	25	49	29	54
1-5	21	31	26	30
6-10	41	18	36	13
11-12	9	2	3	3
>12	4	-	6	-
Mean	6	3	5	3
SD	5	4	5	3
Occupation				
Service	11	2	12	2
Business	20	.6	20	2
Farmer	33	-	35	-
Day labor	14	3	12	2
Student	16	1	14	.8
Unemployed	6	-	9	-
Housewife	-	86	-	91
Maid servants		7	-	2
Marital Status				
Married	70	89	65	92
Unmarried	29	2	33	2
Widow	1	5	2	2
Divorced	-	2	-	2
Separated	-	2	-	2
N	**220**	**175**	**66**	**125**

Purpose of Current HFWC Visit

Analysis of the data from exit interviews showed that more than 90 percent of male clients visit to HFWC for general health care (Table 9). It is observed that while none of the male client in the control areas came for RTIs/STIs treatment, 20 male clients (about 9 percent,

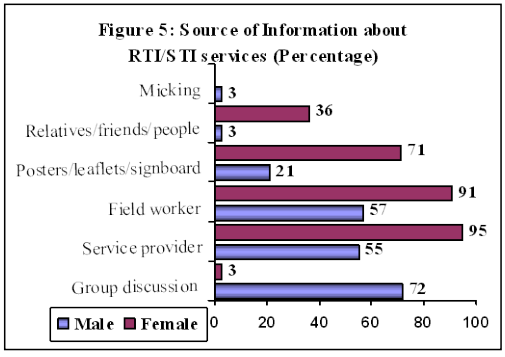
N=220) in the experimental areas came with RTIs/STIs related problems such as urethral discharge (2.7 percent), frequent urination (3.2 percent) and soreness of the penis (2.3 percent). About 5 percent of the male clients in the experimental area as compared to 1 percent in the control area mentioned family planning as the reason for visiting HFWCs. The remaining male clients (86 percent) have come for general health problems. Among the female exit clients approximately 45 percent had come for treatment of general health problems, about 22 percent for taking contraceptive supply while the remaining 33 percent had come for the treatment of RTI/STI related symptoms. In contrast, in the control area about 64 percent of the female clients come for general health problems and 18 percent each for RTI/STI treatment and collection of FP methods (Table 9).

Table 9: Percent distribution of clients by reasons for current visit to HFWC

	Experimental		Control	
	Male	Female	Male	Female
Symptoms consistent with RTI/STI	9	33	-	18
Collection of FP method	5	22	1	18
Problems with general health	86	45	99	64
N	**220**	**175**	**66**	**125**

Sources of Information on RTI/STI Services

Male and female clients learned about the availability of STI/RTIs services at HFWC from different sources. Among the 220 exit male clients interviewed in the experimental areas, 191 (87 percent) had heard about the availability of RTI/STI treatment at the HFWCs. Findings presented in Figure 5 suggested that the common sources of information for males were group discussion (72 percent), field workers (57 percent), service providers (55 percent), and BCC materials like posters, leaflets and signboards (21 percent). On the other hand, among the 201 female exit clients who heard of RTI/STI services, more than 90 percent had heard about it from service providers (95 percent) and field worker (91 percent).



While asking about the poster and signboard separately about the availability of RTI/STI services from the HFWC, about 87 percent of the male and 58 percent of the female clients mentioned that they had seen the poster or signboard about the services. In male FGDs several informant suggested that the use of poster and billboards in public places, community meetings, motivating by male workers and distribution of leaflets with important messages would enhance the utilization of HWFC services by men. They regarded announcements made over loudspeakers as an effective means of awareness raising. One of the informants said:

> *" Encouraging people to use HFWC is not difficult. Made services available and then inform the community people. If needed do miking or hang poster. You will see, you will get so many clients that providing services will be difficult."*

Treatment Seeking Behavior of Male Clients

In the exit interview, all male clients were asked whether they or their wives had experienced any symptom of STIs/RTIs (signs and symptoms were mentioned) in the past three months and if yes how they managed it. Table 10 suggests that males in both experimental and control areas suffered from RTI/STI. Out of the total 219 male exit interviews in the experimental area 119 (54 percent) mentioned one or the other symptoms of RTI/STI. The corresponding percentage in case of control area was 86 percent. However, approximately half of them did not use any clinical services for treatment. About 50 percent of those who sought services, went to qualified providers including doctor, SACMO and FWV. Health seeking behaviors of these men's are presented in Table 10. The analysis indicates that symptoms like pus discharge from urethra and ulcer in the penis are taken more seriously and more than 60 percent of them sought treatment. In case of other symptoms, less care is taken and often less than half sought medical treatment. The analysis also shows that only between 20-30 percent sought treatment from a qualified person. The sensitivity attached with STI often discourage people to seek medical treatment from government clinics. Many of providers are known to the clients. Hence they use private sources for treatment, often untrained traditional health providers. Similar kind of treatment seeking behavior was observed in the control area. These findings are also substantiated by the informants in FGDs. As one of the male informants during a pre-intervention said:

"Most victims tried to hide the "secret disease" and sought treatment secretly from a village doctor, a kabiraj or purchased medicines from the pharmacy without any prescriptions. If they are not cured then they go to a qualified doctor or to a hospital. By the time it became worst."

No significant difference was observed between clients of experimental and control clinics in their health seeking behaviour after the intervention.

Table 10: Percent distribution of male exit clients who experienced RTIs/STIs symptoms in the previous three months and their treatment seeking behavior

Signs and symptoms	Experimental			Control		
	Percent suffered	Percent received treatment*	Percent consulted qualified providers *	Percent suffered	Percent received treatment*	Percent consulted qualified providers *
Semen discharge from the penis	16 (219)	47 (35)	26 (16)	17 (66)	45(11)	27 (5)
Pus discharge through urethra	5 (219)	58 (11)	36 (6)	6 (66)	75(4)	25 (3)
Burning sensation during urination	15 (219)	55 (33)	21 (18)	19 (66)	31(13)	23 (4)
Pain during intercourse	6 (219)	38 (13)	15 (5)	8 (66)	40(5)	20 (2)
Ulcer in the penis	4 (219)	75 (9)	44 (7)	15 (66)	60(10)	-
Pain in the testis	8 (219)	33 (18)	22 (6)	21 (66)	43(14)	36 (6)
N	**219**			**66**		

Figures in parenthesis show the number of base cases
* Percentage is based on the number who suffered with the problem

Quality of Services

Quality of care provided by HFWCs was assessed through regular monitoring visits, inventory survey and feedback from the exit clients. In addition, perception of community members about health services was also assessed.

Inventory surveys revealed that most of the medical instruments and supplies such as sims speculum, holding forceps, gali pot, instrument tray, gloves, torch light, cotton, lifter, autoclave, boiling pot, stove, bleaching powder, dettol/savlon and kerosene oil were available in both the experimental and control clinics in adequate quantities for the examination of RTI/STI patients. Some of the service providers reported that recurrent items (savlon, cotton, kerosene, etc.) were frequently out of stock but they rarely need these to diagnose RTI/STI cases in case of male clients.

Those who participated in the FGDs before the intervention in both experimental and control areas reported that the services offered at HFWCs were mostly unsatisfactory except for family planning services. According to them men do not go to HFWCs for treatment because of the lack of medicine, absence of doctor, rudeness or impoliteness of service provider, irregular clinic timing maintained by service providers, unhygienic environment and scarcity of male treatment facilities. After the intervention, however, an informants of experimental area pointed out that the quality of services was generally good but the main drawback was lack of qualified doctors. One informant said:

Table 11: Percent distribution of opinions of male and female exit clients about the service delivery

Issues of concern	Experimental		Control	
	Male	Female	Male	Female
	Yes	Yes	Yes	Yes
Service provider listen client problems with attention	99	98	97	90
Maintained privacy during consultation	84	86	94	86
Service provider behavior was good	99	99	98	86
Clinic was clean	98	99	85	98
Water supply was good	96	46	89	26
Toilet was clean	29	-	35	-
Existing time was suitable for male	97	-	97	-
Service can be given to both male and female together from the same clinic	99	91	74	22
Client was satisfied with the services	97	97	97	86
N	**220**	**175**	**66**	**125**

> "*If a MBBS/good doctor is present at HFWCs, then the situation will improve regardless of the availability of medicine. At least they will get examination and free prescription from a qualified doctor. They can always buy the medicine from the market."*

At the monthly visits, it was observed that the service providers maintained privacy and confidentiality during consultation in the experimental areas. Examination rooms in the experimental HFWCs were also found to be clean. In contrast, the situation in the control area as reported by a community leader was not satisfactory. According to him:

> *"This HFWC is in a terrible condition, doctors have awful manners (or lack communication skills), people can not get any medicine and the centers never open on time or remain open on schedule."*

These some what isolated comments from FGD, however, it should be taken with caution as the responses from the exit interviews from both the areas were quite positive about the quality. The majority of the male and female exit clients from both the experimental and control areas acknowledged that whatever services they receive were good. A series of questions were asked to gather their opinions about the quality of services they received from the HFWC. As Table 11 reveals, the clients expressed satisfaction from amount of attention they received from the providers, provider's manners, and maintenance of privacy and overall management of the clinic. However, water supply and cleanliness of the toilet remained a major problem for all the clinics in both experimental and control areas. On all of these parameters responses of the clients from the experimental and control groups did not differ significantly. The findings thus remain inconclusive about the impact of intervention on quality of services. It is also not surprising as broader aspects of quality of care was not the focus of the study.

Timing of HFWCs

About 97 percent of the male clients in the experimental and control areas reported that the present timing of the clinic was convenient for them and that there was no need to change it (Table 11). Informants in the FGDs after implementation of the interventions gave similar feedback. Moreover, informants in the FGDs emphasized that the quality of services and credibility of the provider were the central issues rather than the 'timing'. One informant commented:

> *"What's the use of having a timetable? If we don't get proper treatment and medicine, what's the use if the providers' attend clinic timely? If service is good, and provided by qualified doctor anytime men can go for the services."*

However, a few informants in both the experimental and control areas felt that the timing could be extended from 2:30 pm to 5:00 pm. A few adolescent informants also suggested to keep the HFWC open till 5 pm. The findings thus indicate that to include male RH services at HFWC and enhance utilization of the services, any adjustment or change in clinic timing is not required.

Acceptability of Male Clients at HFWCs

It is worthwhile to mention that all men (100 percent) and 91 percent of the female clients in the experimental areas reported that the presence of opposite sex clients in the clinic did not

make them uncomfortable in any way. Similarly, about 74 percent of the male and 22 percent of the female clients in the control areas gave their approval to the inclusion of services for male clients (Table 11). This positive reaction particularly in experimental area is a sign of community endorsement for integrating male services within female focused service delivery system. This was also supported by the FGDs findings. One male informant said:

> *"What is the problem? If male-female can take service together from big hospital, why they will not be able to do the same from HFWC? I didn't see any problem. I send my wife and relatives to take services from the same clinic."*

One female client echoed similar feeling and said:

> "*This center is not only for us (meaning for female). If males come, what is our problem? They will take their service we will take ours. I also bring my husband here. I don't bother who said what."*

A relatively much larger percent (91 percent) of women from experimental area as compared to control area (22 percent) approving inclusion of services for male clients indicates that as long as services of men and women has not been integrated, women might have some hesitation but once they experience it (as in experimental area), most of their hesitation disappear. All these findings support the hypothesis that male and female services could be provided from the same clinic and it will not adversely affect the number of female clients seeking services from HFWCs. Rather as we observed earlier will make HFWC more cost effective and efficient.

Findings from Review Workshops

Two review workshops, one each in the first and last quarter of intervention period was held with program managers and service providers to know their reaction and experience of providing male RH services. Participants discussed their experiences with the project management. The review meetings were conducted in participatory

Box 1: Decisions taken in the first review workshop

- Introduce service registers at the experimental HFWCs.
- The *upazila* teams should develop the BCC materials at the earliest.
- Service providers need more training on the diagnosis and treatment of RTI/STIs at a teaching hospital.
- At least 50 group discussions should be organized in each experimental union.
- The monitoring checklist needs to be finalized at the earliest.

approach. In the first review meeting after 3 months of interventions, all efforts was made to examine scope and possibility of improvements in implementing the interventions. During this meeting many important decisions were taken to improve delivery of the male RH services (see Box 1). One of the crucial decisions was practical reorientation of the providers at teaching hospital. Providers strongly felt that their practical training at *upazila*, because of low turnover of STI patients, was not sufficient to provide STI services to clients. Further, to strengthen educational effort, during this first review meeting, the *upazila* managers had took the responsibility to develop the BCC materials.

The second review workshop was held in July 2002 at the NIPORT Headquarter in Dhaka. Approximately, 50 participants representing HFWCs providers, program managers from Directorate of Family Planning, senior government officials from the Ministry, and the project teams from NIPORT and the Population Council attended the workshop. The objectives of the workshop were to share the experiences, lessons learned so far and action to be taken to further improve the performance. This meeting was held in the third quarter of the intervention period when the activities were coming to an end. The recommendations made by the participants included: adequate medicine should be available at each clinic, along with theoretical training clinical training is essential and a reorientation should be in build in the program, group discussion is an effective tool to raise awareness about the RTI/STI issues and there is no need of changing clinic time to cater RH services to males (Box 2).

Box 2: Observation made in the second review workshop

- Number of males and couples coming for RTI/STI services increased at the intervention HFWCs.
- Targeted BCC activities were effective in raising awareness and increasing attendance at the HFWCs.
- Shortage of medicines and logistics for RTI/STI services at the clinics.
- Refresher training on clinical issues is needed for the service providers.

SUMMARY OF THE RESULTS OF HYPOTHESIS TESTED

Table 12 presents the results of the test of hypotheses that were focus of the study and were used to select the study design and contents of the interventions. Findings presented in this report suggest that service providers' knowledge can be improved through training. Moreover, if services for male are included at HFWCs and publicized, men will avail these services, especially for treatment of RTIs/STIs problems. The study also established that the inclusion of

male RTI/STI services into the HFWC, primarily a female-focused service delivery centers, will not have a negative effect on the number of female clients and service provided to them. Instead as the study shows, it leads to an increase in utilization of the HFWCs by female clients and thus increasing the efficiency and utilization of HFWCs. Further, the timing of the clinics need not require to be changed as the visiting hours suited to most of the men and presence of patients from opposite sex did not make uncomfortable either to men or women.

Table 12: Summary of the results of hypothesis tested

Hypotheses	Status
• The intervention will augment service providers' technical knowledge about male RH problems and syndromic management of RTIs/STIs.	Confirmed
• If services for RH of men are included within the female focused HFWCs and men are made aware of it, they will avail the services.	Confirmed
• Inclusion of RH services at HFWCs for men will not have any adverse effect upon the number or services of female clients seeking treatment from the same clinics.	Confirmed
• Interventions will lead to an increase in the number of male RTIs/STIs clients at experimental clinics.	Confirmed
• There is no need to alter the working hours of HFWCs to accommodate male clients, particularly RTIs/STIs cases.	Confirmed
• Interventions will help in increasing condom use and acceptance of NSV.	No training in NSV was given. Condom use could not be ascertained

UTILIZATION OF THE STUDY FINDINGS

Dissemination seminars were held in October 2002 and June 2003 to share the findings of the project. Senior officials of the Ministry of Health and Family Welfare, reproductive health experts, development partners, representatives from NGOs and civil society were present at these seminars. The Minister and the Secretary of the Ministry of Health and Family Welfare were also present in one of the seminars.

The results of the study confirmed the possibility of integrating male services, particularly for treatment of RTIs/STIs, in the existing female-focused service delivery system. The research demonstrated that men would use the services provided in the HFWC if they were aware of them. It also indicated that paramedics can be trained to provide preliminary RTI/STI services using syndromic approach. In response to the encouraging study findings, the Secretary, Ministry of Health and Family Welfare has asked NIPORT, a government research and training institution and who carried out the present study, to expand provision of RTI/STI services for

men in 100-150 HFWCs. At the same time, Population Council has been requested to provide technical assistance in scaling up the program (See letter in Appendix).

Since then several meetings have been held with the concerned departments about expanding male reproductive health services. Directorate of Family Planning has agreed to bear some of the costs of the services such as IEC program, cost of medicine, etc. However, to carryout some of the interventions such as training of service providers, need allocation of additional resources. Directorate is trying to generate this fund by negotiating with international bilateral agency and is hopeful to initiate the activity soon. The government decision to accept financial responsibility is a progress towards self-reliant with minimum donor assistance. The Ministry of Health and Family Welfare intends to include male health services to all HFWCs if the initial 100-150 HFWCs show significant improvements in service delivery.

CONCLUSIONS AND RECOMMENDATIONS

The findings of this operations research project provide valuable insights into the possibility of meeting reproductive health needs of men by enhancing utilization of HFWCs both by women and men. Pre intervention data from both experimental and control areas showed that though few men were using the HFWCs, their visit was limited to seek services only for general health problems. Number of such male clients was also quite small as HFWC is primarily recognized as women health facility. Study revealed that utilization of HFWC by men could be increased substantially if treatment of RTIs/STIs services are made available and through IEC activities men are encouraged to use these services. Apart from an increase in the number of male clients, the unexpected rise in the number of female clients indicates that both male and female patients could be served from the same facility and such programmatic change in delivery of services would not have any adverse effect on women's accessibility and utilization of health services. In fact, it contributes positively as increase in the number of female clients at HFWCs imply a more effective utilization of health facilities and a corresponding decrease in the cost of treatment per client. Thus the findings indicate that enhance utilization of HFWCs by men and introduction of RTIs/STIs services at the clinics can be achieved without imposing any heavy burdens on government resources. For instance, most of the day-to-day medical tools (except medicine and lab tests) required for the diagnosis and treatment are available in the centers.

Financial assistance is mainly required for training of staff which can be easily carried out at the government facilities under the management of existing government staff. Some additional resources are also required to ensure availability of medicine at the clinics to manage STI/RTI cases. Further, findings attest that the inclusion of male clients will require very little modification in the delivery system as neither separate timing nor separate facilities are needed to include male RH services at HFWCs. This demonstrates a win-win situation for all the concerned parties – women, men and the program managers.

However, some notes of caution is also essential before scaling up this program at national or sub-national level. The study demonstrated that service providers could be trained on STIs/RTIs management. However, only theoretical training is not sufficient for effective RTI/STI service delivery. A good clinical training and demonstration are essential to diagnose and treat RTI/STI clients using syndromic approach. The practical training should be conducted at a place where there is enough RTI/STI cases to observe and practice syndromic approach for the management of STI/RTI patients. Usually, appropriate clients may not be available during a short training period. A note of caution should also be made that this study did not have adequate information to judge how far after the training the providers were using the syndromic approach systematically and the prescribed algorithm were followed.

The study revealed that before training service providers' knowledge of STIs was limited to only syphilis, gonorrhea and HIV/AIDS. They were hardly familiar with other STIs. Because of the publicity given to HIV/AIDS as a sexually transmitted infection, many service providers presumed that the transmission, prevention and sequelae of all STIs are similar to that of HIV/AIDS. For example, many service providers thought that STI/RTI could lead to death. This underlines the need of providers' training to clearly understand the distinction between HIV/AIDS and other STIs/RTIs. It was also observed that a considerable number of service providers were reluctant to address sexual issues during client counseling. The findings suggest that service providers require training in communication skills to make them an effective counselor and to discuss sex and sexuality more proactively. This can't be achieved by organizing one short training covering several topics. They will need several short reorientations and supportive supervision in carrying out effective communication and counseling session.

Since HFWCs continue to focus mainly on mothers and children, the inclusion of male clients in such centers require targeted BCC materials. Likewise, the availability of the new services has to be publicized in the community. The BCC materials can disseminate information about the services as well as raise awareness about the sings and symptoms of RTI/STI, its sequelae and the necessary interventions. The study confirmed that, focused awareness promotion activities were successful in increasing the number of male clients at HFWCs for seeking treatment of both general health as well as for STI/RTI problems. Increased clients load for STI/RTI treatment had created demand for additional medicines. However, as often the required medicines for RTI/STI treatment remained short supply, the clients were prescribed medicines to purchase from market. In the present study, it was not possible to assess their compliance either for the use of medicine or partner management. It is recommended that these issues should be carefully evaluated during scaling up of the interventions.

Both because of resource constrain and certain procedural problems, the study could not assess increase in the male contraceptive method, particularly condom use. Because of resource constrain training of NSV was not given. In case of condoms, the program demands from the HFWC staff to pay in advance for the condom given to them from *upazila* store and later recover the cost from their clients by selling it. The HFWC staffs do not want to block their money by paying cost of condom in advance and hence mostly condom at the HFWC was available for demonstration only and not for distribution. In the present study no effort was made to collect information on condom distribution by the field workers who report the distribution statistics to family planning inspectors and to *upazila* officials. It is recommended that while scaling up these issues should be given more attention to assess impact of intervention on male methods, particularly condom use.

To conclude, the study despite of these notes of caution, as a whole provides several promising clues for programmatic action.

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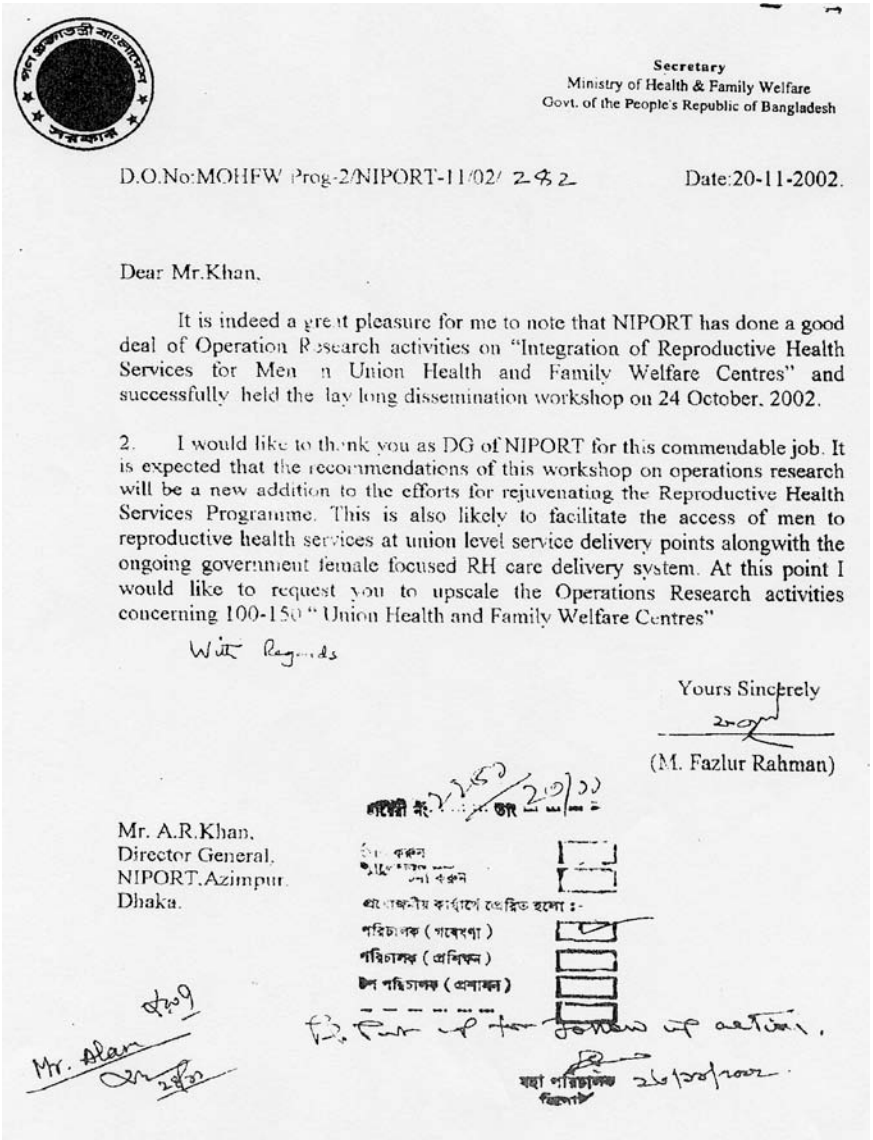
APPENDIX



Secretary
Ministry of Health & Family Welfare
Govt. of the People's Republic of Bangladesh

D.O.No:MOHFW Prog-2/NIPORT-11/02/ 282 Date:20-11-2002.

Dear Mr.Khan,

It is indeed a great pleasure for me to note that NIPORT has done a good deal of Operation Research activities on "Integration of Reproductive Health Services for Men in Union Health and Family Welfare Centres" and successfully held the lay long dissemination workshop on 24 October, 2002.

2. I would like to thank you as DG of NIPORT for this commendable job. It is expected that the recommendations of this workshop on operations research will be a new addition to the efforts for rejuvenating the Reproductive Health Services Programme. This is also likely to facilitate the access of men to reproductive health services at union level service delivery points alongwith the ongoing government female focused RH care delivery system. At this point I would like to request you to upscale the Operations Research activities concerning 100-150 " Union Health and Family Welfare Centres"

With Regards

Yours Sincerely

(M. Fazlur Rahman)

Mr. A.R.Khan,
Director General,
NIPORT,Azimpur.
Dhaka.