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Integration of Male and Female Reproductive Health Services in Bangladesh with an Emphasis on Increasing Male Participation and Awareness

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Abstract

Over the last 30 years, family planning programs in Bangladesh have primarily focused on women. While government policy has been effective in influencing women to accept contraceptive methods, the role of men in family planning has been completely ignored. The aim of this study was to integrate male reproductive health services within the existing female-focused health care delivery system. The study used a quasi-experimental, non-equivalent control group design with eight clinics as intervention sites and four clinics as control sites. Interventions included training for service providers, elevating awareness about reproductive tract infections (RTIs) and sexually transmitted infections (STIs), and providing RTI and STI health care services. Interventions resulted in a substantial rise of male clients in the experimental clinics. Nearly all male clients came in for treatment of general health problems. Only a small number of male clients requested RTI/STI services from the clinics. Urethral discharge was the most common complaint among males. An unexpected and substantial rise in the number of female clients was observed, most likely due to the synergistic effects of interventions.

Keywords

Sexually transmitted infections, reproductive health, integration and male services, health care in Bangladesh

Introduction

The decline of the total fertility rate from 6.5 to 3.3 and the increase in contraceptive prevalence rate from 7 to 54 during the past twenty-five years surprised many researchers both inside and outside of Bangladesh. The significant increase in contraceptive use and the decline in fertility have been credited to a successful family planning program. However, the national family planning program has several gaps. A major gap is related to involvement of men in the program (Donahoe, 1996; Ashraf et al. 1999).

Bangladeshi men are not traditionally aware of issues concerning their reproductive health (Hussain, Rahman and Begum, 1996). The majority of them have no knowledge of symptoms, transmission and prevention of reproductive tract infections (RTIs) and sexually transmitted diseases (STDs). Furthermore, most men do not have access to quality reproductive health care services (Piet-Pelon and Rob, 1997; Khan et al. 1996). In the rural area, existing service delivery systems do not cater to the needs of most men. Consequently, most men lack critical information on reproductive health issues (Population Council, 1996a; Rob et al. 2002). Like other developing countries, men are often the key decision-makers regarding reproductive and sexual health issues. In most cases men decide whether to engage in safe or risky sexual behaviors, and they also influence the couple's contraceptive decision-making process.

In Bangladesh, reproductive health programs have focused primarily on women. The Directorate of Family Planning, under the Ministry of Health and Family Welfare, provides basic health services to family members through 3,700 outpatient Health and Family Welfare Centers (HFWCs) at the union administrative level. At the sub-district administrative level there are 350 Upazila Health Complexes that have both inpatient and outpatient facilities that provide advanced medical care. Doctors, nurses and surgeons staff these complexes.

Studies reveal that men suffer from various reproductive health problems (Piet-Pelon, Rob and Khan, 2000). 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 (NIPORT, Mitra and Associates and ORC Macro 2000). Findings from 1999-2000 Bangladesh Demographic and Health Survey indicate that only 31 percent of ever-married women and 50 percent of currently married men have heard of AIDS. Only 23 percent said that they had talked with their spouses about HIV/AIDS. The findings also showed that approximately 89 percent of women and 81 percent of married men did not know of any sexually transmitted infections (STIs) other than AIDS (NIPORT, Mitra and Associates and ORC Macro 2000).

The data further indicate that men have substantial reproductive health needs that have not been addressed in the context of the current government health care delivery system in Bangladesh. Access to and uses of contraceptives are two such needs. In the process, medical needs of males are marginalized. Studies show that men ignore preventive steps and postpone seeking medical care for chronic health conditions. In cases of acute illness they even resort to self-medication (Piet-Pelon, Rob and Khan, 2000). Promoting awareness of HIV/AIDS and STIs and providing facilities for the diagnosis and treatment of these problems for males are other areas that are not dealt with by the existing government health system.

There is a growing understanding in the international public health community of the fundamental role that males play in the reproductive health decision-making process (Piet-Pelon, Rob and Khan, 2000). To address these issues, the National Institute of Population Research and Training (NIPORT), Directorate of Family Planning, and Population Council conducted an operations research project to investigate the feasibility of introducing reproductive health services for men in HFWCs. The study began in November 2000 and was completed in June 2003.

Objectives

The overall objective of the study was to increase access to and acceptability of reproductive and sexual health services for men at largely female-focused health service delivery centers. 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 behavioral change communication (BCC) materials to increase the acceptance of male family planning methods, including non-scalpel vasectomy from HFWC;
- encourage men to obtain and use family planning methods, including non-scalpel vasectomy from HFWC;
- provide RTI/STI services to men using syndromic approach at HFWCs; and
- assess the management, technical and financial implications of integrating male reproductive health services into the existing service delivery system.

Study Design

A quasi-experimental, non-equivalent control group design was used. Eight HFWCs were selected as intervention sites. Four HFWCs were selected as control clinics. Each clinic was chosen purposively after considering criteria such as established infrastructure, proximity to urban areas, adequate staff and paved road links with a sub-district headquarter. Data were collected through face-to-face interviews, inventory survey, and focus group discussions in both experimental and control study areas. Focus group discussions were conducted with community leaders and adolescents to examine their perception and opinions about male RTI/STI services. In total, 286 male clients were interviewed to collect detailed information about reproductive health knowledge and practices, quality of services provided at the centers, purpose of visit, prevalence of RTI/STIs, and opinions about the timing and service delivery options (male-female services together). During the intervention period, monthly service statistics were collected to assess the impact of the interventions.

Interventions: Four types of interventions were introduced in the experimental clinics. The control clinics received no such interventions. Interventions entailed: 1) training service providers on RTIs/STIs management using a syndromic (syndrome based) approach, 2) providing RTI/STI services, 3) promoting awareness of male RTIs/STIs and

availability of services for males at HFWCs, and 4) increasing drug supplies from government resources.

Training of service providers: To train 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. The completed manual included information about the essential services package, safe motherhood, family planning, gender issues, syndromic management of RTIs/STIs, couple counseling, sexual health counseling, and the role of men in couple's reproductive health care.

Ninety-four Family Welfare Visitors (FWVs), Sub Assistant Community Medical Officers (SACMOs), Family Welfare Assistants (FWAs) and Health Assistant (HAs) attended a five-day training course taught by district and sub-district level officials. The course included three days of theoretical and two days of practical training on RTI/STI. The theoretical training mainly concentrated on an essential services package, safe motherhood, family planning, gender issues, syndromic management of RTI/STIs, couple and sexual health counseling, and the role of men in couple's reproductive health care. Practical training was given on diagnosis and management of RTI/STI cases. Lectures, demonstrations, role-playing, and group discussions were used to conduct the training (Rob et al. 2002). To improve their ability to diagnose and treat RTI/STIs, program managers and service providers from the experimental areas attended a five-day clinical training program at skin and venereal disease departments at a nearby medical college.

Awareness promotion: Different approaches were used to make community members aware of the interventions and encourage receiving the available services. These included group discussions with community members, distribution of BCC materials, and public announcements in four experimental clinic areas for one day to increase awareness. Field workers organized the meetings with local community leaders, religious leaders, and adult and adolescent males. A total of 436 group discussions were organized in the project areas during the first eight months of intervention.

A total of seven BCC materials were developed for distribution by modifying some existing educational materials. Five posters were produced that discussed the availability of services at HFWC, condom use, signs and symptoms of STIs, the consequences and treatment of STIs, and non-scalpel vasectomy. A leaflet and brochure, explaining male reproductive health problems and male responsibility, were also developed. More than 30,000 BCC materials were distributed two times during the first and third quarters of the intervention period.

In half of the experimental clinic areas, health workers broadcasted messages about the availability of reproductive health services for males at the government clinics in their respective unions. Miking was conducted only one time. This resulted in a sudden rush of clients at clinics, and service providers were unable to cope with the increased client load and demand for additional medicines.

***Treatment and referral*:** FWVs and SACMOs provided syndromic management to both men and women for RTI/STIs. Service providers counseled clients and, depending on the availability of medicines at the centers, they either provided patients with medications or wrote prescriptions for the clients to purchase medicines from outside pharmacies. Male

STI clients were encouraged to bring their partners to the centers for treatment and counseling. In addition, clinics offered contraceptive methods.

When available, the most common RTI/STI treatment for men and women was antibiotics. Since medicines were unavailable most of the time, service providers wrote prescriptions for clients to procure the medicines from local pharmacies. The study did not, however, determine treatment compliance for both medicines and prescriptions. When field workers did find clients complaining about signs and symptoms consistent with RTI/STI, they referred those clients to the clinics for treatment and counseling. Patients who required advanced medical care for RTIs/STIs were referred to the nearest sub-district health centers.

***Mobilization of resources*:** During the inventory survey, many gaps at HFWC facilities were identified. A major problem was an adequate supply of medicines, particularly those required for STI/RTI management. To address these issues and fulfill needs, meetings with sub-district and district level program managers were organized. And to the greatest extent possible, requirements for drugs and supplies were met from available resources. Supply of drugs for STI/RTI management, however, remained problematic.

Findings

Background of the service providers and workers: A total of 127 service providers and field workers were interviewed before the intervention. In the post intervention phase, interviews were done with 163 service providers and workers. Service providers at both experimental and control areas did not differ significantly in terms of age and type of training. Mean age of service providers was 39 years in both experimental and control areas. Mean age of field workers was around 39 years. On average, service providers were posted at the facility for 3 years, and field workers were working in the area for more than 12 years.

Knowledge and skills of the service providers: Interviews with the service providers showed that all providers had heard about some types RTI/STI before the intervention. Prior to intervention, syphilis, gonorrhea and HIV/AIDS were frequently mentioned STIs by the service providers in both experimental and control areas. After intervention, most of the providers working in the experimental areas were able to mention names of other kinds of STIs like Chalamidia, Trichomonisasi, Herpes and Chancroid. But service providers working in control areas could not mention any other types of STI (table 1).

Table 2 illustrates the improvement of service provider's and field worker's knowledge with regard to the detection of RTI/STIs signs and symptoms. Findings suggest that knowledge of the service providers and workers significantly improved after training. And they were able to retain knowledge at a reasonable level at the end of the intervention period. As expected, knowledge of the service providers and field workers in control areas did not improve significantly.

Table 1. Distribution of service providers who can mention names of STI

Name of STI	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**	

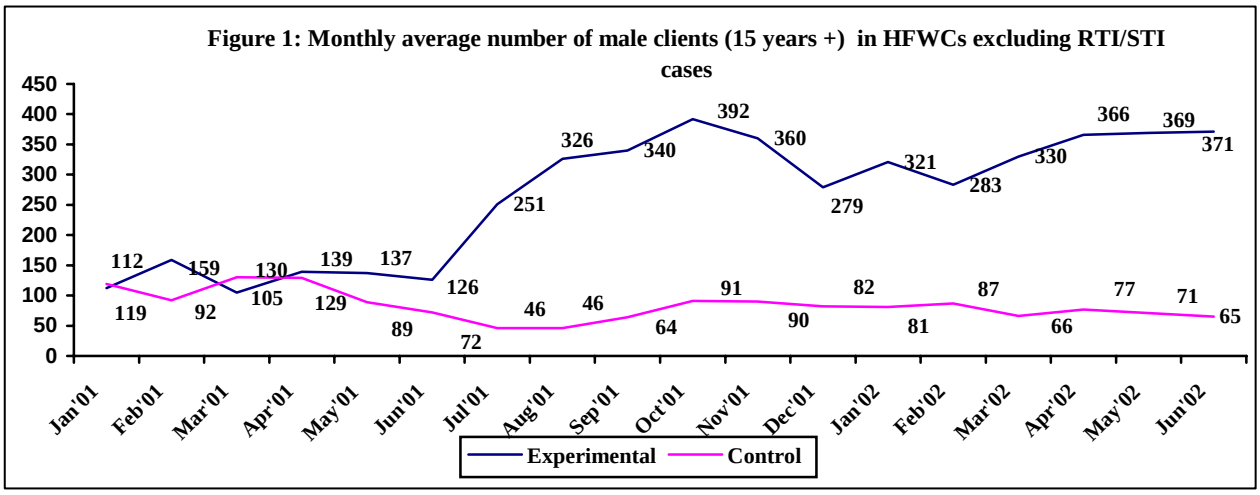
**Significant at 0.001 percent level, * Significant at 0.01 percent level

Table 2. Number of service providers who know the signs and symptoms of male STIs/RTIs

Signs and Symptoms of RTIs/STIs	Service Provider					
	Experimental			Control		
	BI	AI	Z Value	BI	AI	Z Value
Pus discharge from urethra	7	25	4.46**	4	2	2.09*
Ulcer on penis	2	18	3.97**	3	0	5.00**
Ulcer on genital region	6	20	3.06**	6	2	1.28
Burning sensation during urination	10	21	2.03*	7	2	1.69
Pain in testis	7	20	2.75*	4	0	1.96*
Warts on genital region	4	5	0.15	1	1	1.75
Semen discharge from the penis	10	22	2.37*	7	5	0.06
Itching in genital region	9	22	2.78*	5	1	1.53
N	**19**	**26**		**10**	**7**	

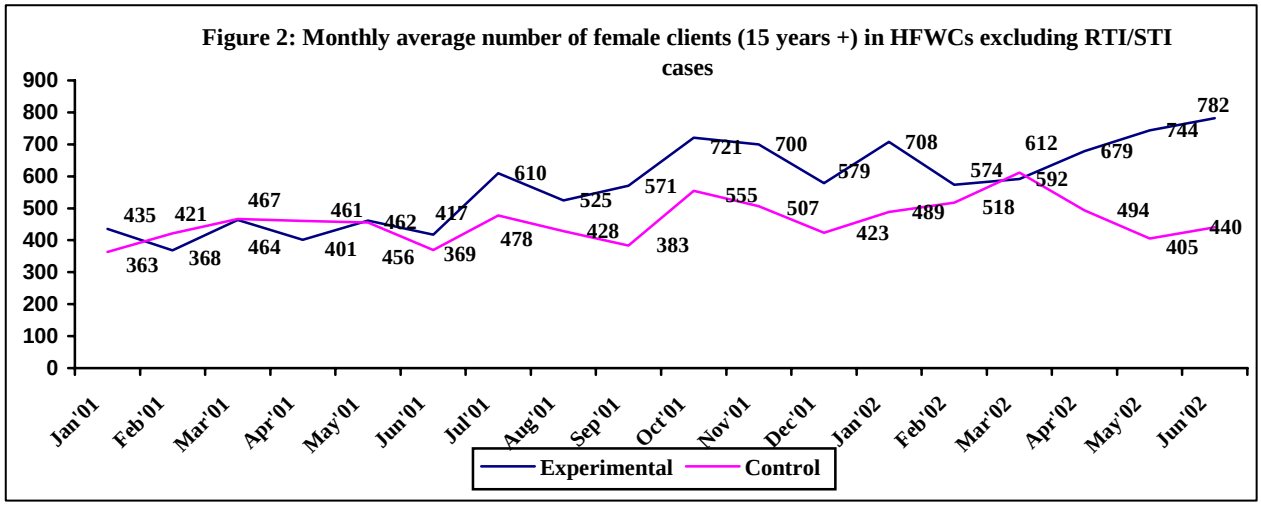
(BI=Before Intervention and AI=After Intervention)
**Significant at P<0.001 percent level, * Significant at P<0.01 percent level

The service statistics were compiled to calculate the numbers of clients who received services from HFWC before and after the intervention. Six month service statistics (January 2001 to June 2001) were collected from all twelve HFWCs before interventions began. Twelve month service statistics (July 2001 to June 2002) were also collected after the intervention period. Figures 1 and 2 show the comparative number of clients who attended the clinics before and after interventions and their monthly average.



The number of male clients attending the control clinics remained almost unchanged during the first six months. The number of male clients increased substantially during the second six months of the intervention period. In the first six months of the intervention phase, numbers of male clients (15 years +) significantly increased in the experimental clinics as compared to the control clinics. This pattern continued during the second six months (see figure 1).

Female clients attending HFWCs in the control clinics remained almost unchanged during first six months but clients also increased gradually during other phases of the intervention period (figure 2).



However, data presented in table 3 demonstrate that the total number of male clients treated for RTI/STI symptoms increased from 44 to 263 in the first six months of intervention. In the second six months of intervention the number of patients remained stable at around 255. Interestingly, the corresponding increase in female patients was

even greater, from 37 to 469 in the six months of intervention period, and from 469 to 623 during the second six months of intervention period.

Table 3 shows that experimental clinics were treating less than one male client per month before the intervention, increasing to more than 5 after the intervention. The number of female RTI/STI clients attending the intervention clinics also increased considerably during the intervention period. The number female clients with the symptoms of RTI/STI increased from less than one per month at the beginning of the intervention to 13 per month at the end of the intervention period.

Table 3: Distribution of STI/RTI patients treated before and after intervention

	Experimental					
	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 or found in the service register.

** t test was significant at P<0.001 percent level

There was no reporting of RTI/STI clients in the control clinics before or after the intervention period although the register contains columns to report that information. There could be three reasons for such non-reporting of STI/RTI cases: (1) service providers did not receive such patients, (2) they did not record the case in the register and/or (c) lack of capacity to diagnose the RTI/STI cases.

It was difficult to get a complete picture of patient complaints from service records as service providers wrote too many complaints. Analysis of the service register for the 518 male clients showed that urethral discharge (82 percent), ulcerative problems (11 percent), and other problems such as burning sensation and painful urination (22 percent)

were the most frequently treated STI/RTI symptoms among males during the intervention.

Several service providers in both the experimental (11 percent) and control area (20 percent) were uncomfortable to discuss openly about RTI/STI and other sensitive issues with the clients before the intervention. The corresponding percentage reduced to zero in experimental and increased to 29 percent in control areas after intervention.

Field workers referred most of the RTI/STI cases to clinics. Each month, there were 1-3 referrals from each field workers and 1 - 5 patients sent to sub-district hospitals from the HFWCs for further treatment. The most common reason for referring clients to sub-district level hospitals was non-responsive to treatment. In one clinic, clients expressed their dissatisfaction with the services they received at the clinic.

Findings from exit client interviews: A total of 286 male clients were interviewed from all the clinics after they received services. 77 percent were from the experimental clinics and 23 percent were from the control clinics. Interviews were conducted during the intervention period and were spread out over several months. There was no significant difference in the age distribution, education and occupation of the clients between experimental and control clinics. Mean age of clients was 35 years in the experimental area and 33 years in the control area. The mean years of schooling were six and five years respectively. Most of the male clients were engaged in farming and small business.

Analysis of the exit client interviews show that while none of the male clients in the control area came for RTI/STI related problems, 20 male clients (9 percent) in the experimental area came for RTI/STI related problems such as urethral discharge (2.7 percent), frequent urination (3.2 percent) and soreness of the penis (2.3 percent). About five percent of clients mentioned family planning as the reason for visiting the health centers both in experimental and control areas. Among the female exit clients, approximately 45 percent came for treatment for general health problems, about 22 percent for taking contraceptive supply, while the remaining 33 came for the treatment of RTI/ STI related symptoms. In contrast, in the control area about 64 percent of the female clients came for general health problems and 18 percent each for RTI/ STI treatment and collection of contraceptive methods.

Among the 220 male clients in the experimental areas, 87 percent heard about the availability of STI service at the local HFWC. The most common sources of information were group discussion (72 percent), field workers (57 percent), service providers (55 percent), and BCC 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 heard about it from service providers and field workers.

Male clients were asked whether they or their wives had experienced symptoms of STIs/RTIs (signs and symptoms were mentioned) in the past three months and how they managed their problems. Table 4 presents the findings of the male clients, detailing what they suffered from, how many of them took treatment and from whom they sought treatment in both experimental and control areas. No significant differences were observed between clients of experimental and control clinics in their health seeking behavior after the intervention.

Table 4: 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

Regular monitoring visits, inventory survey, and feedback from the exit clients were the methods used to assess the quality of care provided by HFWCs. During monthly visits, it was observed that the service provider maintained privacy and confidentiality during consultation. Examination rooms were found to be clean in the all cases. Almost all clients in the experimental areas, as well as in the control area, mentioned that the services provided to them were good. Service providers were given high marks by clients with regard to their attention to problems, sensitivity to maintaining a client's privacy, and ability to provide services. However, water supply and cleanliness of the toilet remained a major problem for both experimental and control areas. The reasons for positive answers about the quality issues in the control area may be the high quality of services provided by the service providers or the cultural norms of the society where people feel uncomfortable about saying anything negative about individuals who just provided them services.

Monitoring visits and inventory surveys revealed that the instruments (e.g., speculum, antiseptic, cotton) available in the centers were sufficient to examine RTI/STI patients. However, in most cases they rarely used these instruments to diagnose RTI/STI cases. Service providers treated the clients by observing their symptoms. The study did not,

however, evaluate the effectiveness and appropriate use of the approach by the service providers.

About 97 percent of the male clients in the experimental area reported that the present operating time of the health centers is convenient for them and there is no need to extent the timing of the centers. It is worthwhile to mention that about 100 percent of the male and 91 percent of the female clients in the experimental area reported that they did not feel uncomfortable due to the presence of opposite sex clients. About 74 percent of male clients and 22 percent of female clients in the control area reported similarly.

Conclusions

The findings of this research project provide valuable insights that can be used to address the reproductive health needs of men. The study concludes that reproductive health services for men could easily be integrated into the service delivery centers without affecting the female and child focus of the clinics. Moreover, most of the female clients are not bothered by the presence of males in the centers. Women Service providers can be effectively trained in STI/RTI recognition and management, and such trained women can deliver health care to male clients. Both clinical and theoretical training are essential to enable the service providers to diagnose and treat RTI/STI clients effectively and efficiently. Targeted awareness promotion activities are successful in increasing the number of males coming to the HFWCs for health care, particularly for RTI/STI. Among them group discussions are most useful for providing information on the availability of services from the centers. Males mostly suffered from urethral discharge and burning sensation during urination. To meet the requirements of additional clients, extra medicines must be supplied. Finally, an increase in the total number of male and female patients utilizing HFWC services will lead to a more cost-effective use of resources as the cost of treatment per patient will decrease.

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