

Working Paper No. 41

**Developing Alternative Service
Delivery Strategies for MCH-FP
Services in Urban Areas:**

Findings from an Experiment

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CENTRE
FOR HEALTH AND
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Developing Alternative Service Delivery Strategies for MCH-FP Services in Urban Areas: Findings from an Experiment

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Foreword

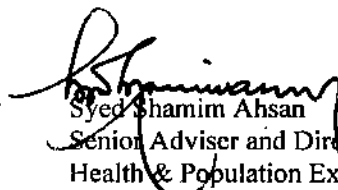
I am pleased to release these reports on urban Maternal and Child Health and Family Planning issues which are based on the operations research activities of the MCH-FP Extension Project (Urban) of the Centre. Over the years, the Centre has acquired a unique expertise on urban development matters that ranges from operations research on reproductive health, child survival and environmental issues to providing technical assistance for capacity building to service delivery organizations working in urban areas.

This work has produced important findings on the health conditions and needs of city dwellers, particularly the poor and those living in slums. The research has also identified service delivery areas in which improvements need to be made to enhance effectiveness. Together, these research findings have been translated into interventions currently being applied in government and non-government settings.

In order to carry out this innovative work, the Centre has established a partnership effort known as the Urban MCH-FP Initiative, with different ministries and agencies of the Government of Bangladesh and national non-government organizations, notably Concerned Women for Family Planning, a national NGO with wide experience in the delivery of MCH-FP services. The partnership receives financial and technical support from the United States Agency for International Development (USAID).

The overall goal of the partnership is to contribute to the reduction of mortality and fertility in urban areas. In practice, this joint work has already resulted in the development and design of interventions to improve access, coordination and sustainability of quality basic health services to urban dwellers with emphasis on the needs of the poor and those living in slum areas.

The Centre looks forward to continuing this collaboration and to assist in the wider dissemination and application of sustainable service delivery strategies in collaboration with providers in government, the NGOs and the private sector.



Syed Shamim Ahsan
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The experiment on alternative service delivery strategies for MCH-FP services in the urban areas was conducted by the Urban MCH-FP Extension Project of ICDDR,B's Health and Population Extension Division (HPED) in partnership with a leading national NGO 'Concerned Women for Family Planning' (CWFP) and various governmental agencies. We acknowledge with thanks the support and contribution of these partners. Very special appreciation is deserved by the CWFP Executive Director Ms. Mufaweza Khan and the CWFP programme managers and staff of the research areas. Without their precious guidance and advice, and- above all- earnest hard work, the experiment would hardly have attained any success.

Dissemination of the findings from various stages of the experiment was made at several occasions to inform and receive feedbacks from policy-makers, researchers and managers of Government of Bangladesh (GoB) and NGO MCH-FP programmes. Some important dissemination events were: presentation of the early findings at the

in-house seminar programme of the Urban MCH-FP Extension Project of ICDDR,B in May 1996; dissemination seminar organized for the MCH-FP programme implementors by CWFP in September 1996; presentation made on the initial findings at the ICDDR,B inter-divisional scientific forum in October 1996; sharing the experiences of the study with the NGO Forum in November 1996; and presentation on the findings in March 1997 at the Annual Scientific Conference (ASCON VI) of ICDDR,B in Dhaka. Finally, the overall experience with the experiment was shared in the Urban MCH-FP Extension Project's day-long Dissemination Seminar on "Lessons Learned and Programmatic Implications" held in July 1997.

Apart from such formal events, a number of GoB officials from the Directorate of Family Planning, Ministry of Health and Family Planning, Ministry of Local Government, Rural Development and Cooperatives, Dhaka City Corporation; representatives of various donor agencies, including USAID/Washington and Dhaka; and many NGO executives/programme managers undertook field visits to the experiment sites to acquire practical insights on the implementation process and effects of the experiment. The current study received invaluable feedback from all these occasions. The authors acknowledge their contribution with profuse thanks and deep gratitude. The authors also express their sincerest appreciation to Mr. Peter J. Connell, Chief of Party, Urban Service Delivery Partnership and Mr. Waliur Rahman, Chief of Party, Social Marketing Partnership of the USAID supported National Integrated Population and Health Programme (NIPHP) for their valuable comments on an earlier draft of this paper.

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Abstract

The "door step" distribution of contraceptives in Bangladesh, through two-monthly routine visits to the homes of all eligible couples by trained field workers, has been quite effective in increasing Contraceptive Prevalence Rate (CPR) and reducing fertility. However, the "door-step" delivery strategy is labour-intensive and costly. The priorities have now evolved to a stage that demands for more cost-effective service delivery strategies, not only for family planning services but for an essential package of services.

An experiment was initiated in January 1996 aiming at developing alternative (to door-step distribution) strategies for cost-effective delivery of health and family planning services in the urban areas, in partnership with relevant government agencies and the Concerned Women for Family Planning (CWFP). Two alternative strategies featured with withdrawal of home-based distribution were tested in two areas of Dhaka City. At Hazaribag of Ward 58, a range of MCH-FP services along with distribution of contraceptives were delivered from the static Primary Health Care Clinic (PHCC). At Gandaria of Ward 80, a transitional arrangement was made to provide pills and condoms to a group of clients at common sites known as Community Service Points (CSPs), which were an adaptation of the "cluster visitation" approach in the rural areas. Both strategies were complemented with targeted home visits by the field workers to non-users of family planning services.

The key results of the intervention were as follows:

- The CSPs did not prove to be an effective and required strategy in urban Dhaka. Without a range of essential health services to be obtained, women were not adequately motivated to come to the CSPs only for replenishment of pills and condoms.

The static clinic (PHCC)-based strategy produced an increase in contraceptive prevalence, especially with the use of clinical methods.

In both alternatives, there was increased use of commercial sources like pharmacies and shops, and in the clinic-based strategy at Hazaribag, also of Government and NGO clinics- for the FP methods.

Cost per couple year of protection (CYP) of the contraceptive services provided by CWFP under the static clinic-based strategy at the Hazaribag experimental area was lesser compared to that of the conventional door-step strategy at the Siddiquebazar comparison area.

The clinic-based strategy with targeted home visits for information and motivation was found to be more cost-effective for the urban areas. In urban Dhaka, door-step distribution of contraceptives can be replaced by a clinic-based service delivery strategy and targeted home visits by fewer field workers. The clinic-based service delivery strategy enables the providers to take a holistic approach in addressing clients' needs through provision of a range of essential health and family planning services.

1. Background: The Existing Service Delivery System

As an effective strategy to reduce the alarming population growth, since mid-1970s, extending family planning services to married women of reproductive age (15-49 years) on the basis of door-to-door community-based distribution (CBD), i.e., through distribution of contraceptive methods at the homes of the clients, became a national movement in Bangladesh. The socio-cultural environment was such that in a relatively conservative and largely rural population, most women were confined to their homes and were unable to seek services for themselves. Therefore, the family planning (FP) programmes adopted the supply-led strategy to ensure effective motivation and easy access of the fecund women to the FP methods and services, whose mobility was considered limited because of the country's overall socio-cultural and physical contexts.

A vast contingent of about 23,000 female field workers (Family Welfare Assistants) of the government programme, and another 12,000 field workers (FWs) within the FP programmes of the NGOs (non-government organizations) are presently employed to counsel, motivate and provide contraceptive services to the eligible couples (ELCOs) of the country. These FWs are supposed to visit routinely- once every two months- all the eligible women within their specified catchment areas (in general, 700-800 eligible women per FW). During the home visits to the clients, the FWs are designated to collect specific information on demographic (e.g. age of women, number of living children, births and deaths) and contraception status of the respective households, and provide information, motivation, commodities (pills, condoms, etc.), and counselling for FP services and selective mother and child health (MCH) care, like woman and child immunization, antenatal care, safe delivery, postnatal care, nutrition, and hygiene. Women motivated for clinical FP methods and MCH services are referred to the clinics. The field workers are overseen by some 4,500 male supervisors (Family Planning Inspectors) in the government programme, and 1,500 (mostly female) Supervisors in the NGO programmes. The usual supervisor-supervisee ratio is 1:5.

The above community-based outreach services are complemented with about 4,000 government and 200 NGO clinics that deliver clinical and non-clinical FP services, antenatal care, postnatal care, EPI services, and sick child and sick mother treatment by paramedics and health workers (Family Welfare Visitor and Medical Assistant in the government system respectively). Many of these clinics are also attended by doctor. With a view to enhance the accessibility of clients living far from the fixed-site (static) clinics, the satellite (outreach) clinic concept has been introduced in the 1980s. Satellite clinic or sub-centre is an outreach facility organized at a fixed day of week or month at some specific site/sites- relatively remote from the fixed-site clinic. Some 30,000 satellite clinics are organized every month within the government service delivery system. The NGOs also arrange satellite clinics in similar fashion. According to the existing demarcation of areas among the government and NGO programmes, the NGOs, in complementary and supplementary to the government programme, predominantly operate in the urban areas, and in some cases, under special consideration of the government, in selective rural areas having low FP performances.

Apart from the above MCH-FP service delivery systems, social marketing is in place in the country since 1974. Now under this programme contraceptive pills, condoms and Oral Rehydration Saline (ORS) are being sold through commercial outlets like pharmacies and grocery shops. Participation of the commercial sector in the MCH-FP activities is still limited to production and marketing of contraceptive pills by a pharmaceutical company (Organon), dispensing various MCH-FP commodities by numerous pharmacies and drug stores, providing curative care services by private practitioners and private clinics, with some clinics delivering menstrual regulation (MR) and permanent FP methods.

Door-step delivery of services is considered as the core strategy for providing MCH-FP services in the country. The role of the door-step service delivery strategy is widely recognized as the key factor in attainment of the remarkable success by the FP programmes in Bangladesh. Contraceptive use rose from seven per cent in the mid-seventies to the present level of 49 per

cent, and the total fertility rate declined from seven to 3.3 during this period (BDHS, 1996-97). The investment in such a large scale national programme was also tremendous. The priorities of the MCH-FP programmes have now evolved to a stage that emphasizes consolidation and continuation to sustain growth and expansion under resource constraints. The required direction is, therefore, to develop new service delivery strategies that enhance cost-effectiveness by producing maximum output with minimum costs and sustain programme performance.

2. Introduction: Why Changes Required?

The door-step distribution strategy once deemed radical has now matured to a conventional approach and seems not conducive to the overall sustainability of the national MCH-FP programme for the two basic reasons discussed below:

2.1. Increasing Programme Costs

With the increase in the population size, health and family planning services will also have to be expanded. For example, to achieve the national goal of replacement fertility i.e., the total fertility rate (TFR) of 2.2, FP services will have to be extended from the current level of 27 million families to 40 million, contraceptive users have to be accordingly raised from 12 to 28 million, and contraceptive prevalence rate (CPR) must be enhanced to 70 per cent. Similarly, to attain the infant mortality rate (IMR) of 50 per 1,000 live births by the year 2005, the immunization coverage of infants has to be raised from the present rate of 4.2 million infants annually to approximately 6.3 million infants per year (Government of Bangladesh, 1994; Cunnane, 1995). Keeping the present service delivery strategies unchanged, the above expansions will require an incremental increase of US \$ 10 million every year in the country's MCH-FP programme costs alone, and amount to US \$ 220 million in 2005 from the present level of US \$ 120 million (Cunnane, 1995).

The national MCH-FP programme as of now is heavily dependent upon donor contributions (GoB share around 37 percent). In all likelihood, the

donor support would be stagnating as against the increasing funding needs. With the limited capability of generating revenues from internal sources, it would be hardly possible for the government to augment the necessary resources. Therefore, the need to develop cost-effective and sustainable service delivery alternatives has become crucial.

The share of the labour costs in the total programme costs has been found to be within 70 per cent to 80 per cent. The door-step delivery system (salary of the field workers) absorbs the major share (60 - 65 per cent) of all the programme costs. As such, any fund shrinkage is expected to affect this system the most. The programme will increasingly find it difficult to have enough workers to maintain the current couple-worker ratio. The door-step CBD has, therefore, evolved into an unaffordable approach to which alternatives that reduce costs and maximize outputs became necessary.

2.2. Low Effectiveness of the System

The current strategy requires that field workers visit each eligible couple once every two months, provide information, education and referral, supply pills and condoms to those who want them, and record demographic and contraception information in couple registers. The government and the donors also require all programmes with the FWs to make monthly reports on contraception prevalence rate (CPR) and method mix of their catchment area on the basis of data collected from each and every eligible couple. This makes it mandatory for the FWs to visit each and every couple routinely, (once every two months), even if such a visit is not needed. As a consequence of these constraints, the FW system, in its current formulation, has less scope for focussed attention toward 'special' segment of clients, say non-users.

Analyses of the field workers' observations conducted within the Needs Assessment Studies by the Urban Extension Project of the ICDDR,B showed that, in urban areas most FWs were responsible for 800 ELCOs or more. The mean number of visits undertaken daily by each field worker was observed to be 25. The average duration of the visits was about nine minutes;

however, half of the visits were of five minutes' or less duration. Sixty per cent time of the visits was involved with FP activity, mostly with re-supply of pill and condom (Arifeen and Mookherji, 1995). Though these women (sub-group of pill/condom users who depend on the FWs for home supplies) accounted for not more than 20 per cent of all the ELCOs and a fourth of the current users (Annex 6). Obviously, the high client load, and the routine tasks of re-supply and data gathering severely constrain the capacity of the FWs for providing sufficient counselling and monitoring of individual needs. The FWs thus became predisposed to function as re-supply agents to pill and condom users, and have less time to recruit new acceptors. The FWs were found to visit non-users, specially never users and women with no children less frequently. The baseline survey conducted at the outset of this experiment revealed that little less than half of the non-slum women and two out of every five slum women were not visited during the previous two months. The existence of significant intra-urban differentials indicated the need to target MCH and FP services, specially to the urban poor. Among the non-users, it was found important to target the past users, since about a third of them had reported to have discontinued due to side-effects, and the "unmet need" group constituted 17 per cent of all ELCOs and 35 per cent of the non-users (Arifeen and Mookherji, 1995).

Despite the overall success in contraceptive use in general, the door-step service delivery strategy proved to be detrimental to the potential switch of the pill and condom users to longer-acting and permanent clinical methods, and possible switch of these clients to commercial sources, like pharmacies and shops, for the necessary replenishment. Analyses of the Contraceptive Prevalence Surveys of 1983 and 1993-94, and the Bangladesh Fertility Survey-1989 revealed that, in 1993-94, the use of pills and condoms by the ELCOs rose to 20.4 per cent from that of 4.8 per cent in 1983. No such remarkable increase was, however, evident with the use of longer-acting and permanent clinical methods. Similarly, proportion of pill and condom users obtaining methods at homes from the FWs increased from 42 per cent in 1989 to 65 per cent in 1993-94. The home-based distribution strategy also appeared to limit the potentiality of addressing broader reproductive health needs of the clients,

as many of them continued to remain as 'passive users' of FP, being home-fed by the Fws.

3. Conceptualization and Design of Alternative Strategies for Urban MCH-FP Programmes: Issues to Consider

3.1. Prospects for Alternative Approaches in Urban Areas

In Bangladesh, the urban setting differs from the rural in having facilities providing contraceptives, by and large, within easy reach of most couples. Private sources, like pharmacies and shops, that sell pills and condoms are also abundant. In fact, it became evident from the baseline survey that the majority (56%) of the urban pill and condom users obtained their supplies from 'outside' sources, like pharmacies, shops, and clinics.

The baseline survey also showed that the majority of the clients receiving home-based replenishment from the FWs indicated that they would either go out themselves or send someone else to get the methods in the event that FWs ceased to supply pills and condoms at their door-steps. The traditional barriers to women in going out of their homes for seeking services from clinics also appear to be less of a problem in urban areas. Urban women in general are more mobile and many of them are working women. The urban population also has better access to multiple sources of information.

3.2. Further Considerations

The current door-step service delivery strategy had been in place for the last two decades. Both the clients and service providers are accustomed and dependent on this system. While recognizing the existence of a conducive environment for changing this system in the urban areas, it is also widely believed by many programme managers and decision-makers that a sudden withdrawal of the door-to-door CBD might affect CPR and other performance indicators. Although there is a common desire to implement alternative service delivery strategies that would have changed MCH-FP services' seeking behaviour of the passive clients (receiving services at home)

to pro-active clients, obtaining services from outside-of-home service delivery points, most want that to happen in a gradual manner.

Although FWs did not appear to be the most important source of pills and condoms in urban areas, they work as important sources of information. This was evident from the experience of the first National Immunization Days held on March and April 1995, when FWs were found to be the most common source of information about the campaign for slum women (Quaiyum et al., 1995). Any strategy involving withdrawal of the current FWs' system thus calls for alternative means of disseminating information.

An explicit goal of the national health programme has evolved to ensure reproductive health services to the population. This goal could probably be achieved in a cost-effective way through a highly utilized network of static clinics offering a range of essential health services. Baseline survey conducted by the current experiment indicated that, the delivery of a package of MCH-FP services- not just family planning- from static service delivery points, located at a reasonable distance, with working hours convenient for the urban clients were considered prerequisites for attracting and motivating clients to seek services (including resupply of contraceptives) from outside-of-home sources. The ultimate challenge is to identify efficient, cost-effective and sustainable ways of achieving this.

3.3. Conceptual Framework of the Alternative Strategies

For urban areas the possible alternatives could be to strengthen clinic services as the main hub of MCH-FP activities. This should involve the delivery of a package of essential health and family planning services through a network of static clinics used by clients who are to be informed, educated and motivated through a brief system of field/extension workers undertaking targeted home visits as per requirement of the programmes, and performing promotional and community mobilization activities.

Cost-effective and sustainable alternative strategies for delivery of MCH-FP services, therefore, were conceptualized involving:

- i. Availability of MCH and FP services from static clinics, sub-centres (outreach/satellite clinics), community-based service points, etc¹. organized as per convenience of the clients with regards to sites, timings, etc.
- ii. Redefining the role of the field workers involving total withdrawal of home-based distribution of contraceptives by them, and implementation of alternative strategies to inform and motivate clients to seek services from the static sources:
 - targeted home visits by fewer FWs to 'special' segment of clients
 - FWs to concentrate more on promotion of the clinics and clinical services, and providing necessary information, education, motivation and referral to the clients

1.Sub-centres (outreach/satellite clinics) in the urban areas are usually set up for the convenience of a sub-population who find it difficult to use a static clinic due to cultural or geographical barriers. The sub-centres are usually located at a pre-determined fixed site. They usually provide the same range of services as the static clinics and are only different from them in the reduced frequency of services (once every week/month).

Community Service Points (CSPs) are adapted urban version of the cluster visitation approach being piloted in rural areas. They are served by the FWs and provide supplies of pills and condoms and other services (like FP motivation, counselling, side-effect management, referral, health education) to a cluster of clients at a common site near their residence. Many of these clients might initially find it difficult to break their long standing dependence on FWs and seek services from static clinics. By organizing an intermediary service outlet within the community, the CSP was an attempt to help the clients break this dependence with relatively less botheration and start the process of motivating these clients to come out of their homes. This approach was conceptualized as a transitory arrangement that eventually was to be phased out and clients motivated to go to static clinics.

- community mobilization and IEC activities, using a brief system of community extension workers (or re-trained FWs).
- iii. Development of alternative (to the existing door-to-door 2-monthly registration) mechanisms of programme monitoring and evaluation.

4. The Alternative Service Delivery Strategies (ASDS) Intervention

Within the 'Urban Initiative' operations research effort, comprising several government agencies, NGOs and ICDDR,B's Urban MCH-FP Extension Project, two alternative strategies for delivery of MCH-FP services in urban areas were designed and tested:

- i. Service Delivery Strategy Based on Static Clinic and Targeted Home Visits
- ii. Service Delivery Strategy Based on Community Service Points and Targeted Home Visits.

4.1. Objectives

The overall objective of the Alternative Service Delivery Strategies (ASDS) intervention was to develop cost-effective ways of providing essential health and family planning services in the urban areas.

The specific objectives were, however to:

- test the feasibility of replacing door-step distribution of contraceptives with static clinic/ centre-based service delivery systems, without affecting the programme performance, and
- maximize output and effectiveness of the alternative service delivery systems.

4.2. Intervention Description

The main activities of the intervention were to:

- i. determine the practical ways of withdrawing door-step distribution of contraceptives without affecting the overall CPR by (a) ensuring availability of MCH and FP services, including supply of commodities from static clinic and community service points, (b) managing the shift from the door-to-door CBD to the alternative service delivery strategies making all the necessary arrangements, and (c) identifying the 'targets' and planning targeted home visits aimed at sustained programme performance;
- ii. suggest the necessary changes required for the switch to the new alternatives along with modified reporting and programme monitoring system;
- iii. document the implications of the alternatives for the programme performances.

4.3. Intervention Details

4.3.1. Ensuring Availability of Services through Static Sites

i. Static Clinic (Primary Health Care Clinic): The PHCC strategy

This alternative strategy was experimented in one supervisory area (population: 20,000-25,000 approx.) of the Lalbag branch of CWFP in Ward 58 (northern part of the ward) at Hazaribag of Dhaka city. With respect to outreach CBD services, this area was solely served by the CWFP's five FWs. Among other government and NGO static clinics situated at the area, the CWFP runs a regular clinics at some distance from this site. Responding to the needs of Hazaribag, the CWFP opened a sub-centre (outreach clinic) in this area at the Hazaribag Community Centre. The sub-centre provided the same MCH and FP services as the regular clinic, except EPI, but only one day a week. EPI was available from a Dhaka City Corporation (DCC) centre located

in the same building. On an average sub-centre day, the sub-centre served about 30 clients although the number of clients was often as high as 50-60.

Based on projections presented in Annex 1, at least 300 clients needed to be served each week in the selected site. Obviously, the one day every week frequency of operations was not adequate to address this requirement. Therefore, the sub-centre at the Hazaribag Community Centre in January 1996 was developed into a regular clinic so as to function six days a week, while continuing to provide the same range of MCH-FP services. The upgraded sub-centre was named as Primary Health Care Centre (PHCC) (for staffing and service details, see Annex 3 and 4).

The CWFP also introduced evening sessions in the PHCC on an experimental basis (working three days a week) since March 1996, with a female paramedic and a male doctor. The focus was to provide general health and FP services for female and male, the latter to be provided by recruiting male doctors. In line with the CWFP policies of attaining some level of sustainability through cost recovery measures, clients were charged specific fees for the services rendered (Annex 5).

The FWs and the corresponding Field Supervisor and Branch Coordinator of the experimental area, the PHCC staff and the Operations Research Section (ORS) of the CWFP, with the assistance of the Urban MCH-FP Extension Project (UEP) of ICDDR,B, were responsible for implementation of the intervention (for details of the preparatory activities accomplished, see Annex 2). UEP along with CWFP's Head Office and ORS was responsible for overall design, planning, monitoring and evaluation of the intervention.

ii. Community Service Points: The CSP strategy

This alternative strategy was experimented in one supervisory area (population: 16,000-20,000) in Ward 80 under the CWFP's Gandaria branch which was also entirely served by the four FWs of the CWFP. This strategy was considered a transitional service delivery alternative, where in due course,

the delivery system would shifted towards clinic based approach that provided a comprehensive range of essential health and FP services.

Location, timing and schedule of the CSPs were determined by the corresponding FWs, Field Supervisor and Branch Coordinator based on mapping of the catchment area and needs of the locality assessed through the baseline survey. Three CSPs (located in easy accessible and convenient spots in the community) were initially organized in one FW's catchment area since March 1996, each to serve around 300 ELCOs. However, in the catchment area of one FW, an additional CSP was organized for a sweepers' colony, totaling to 13 CSPs in the whole testing area. Each FW attended one of her CSPs once a week (the one at the sweepers' colony operated once every month). Therefore, each CSP was to be open four days a month, and the FWs were to work three days a week at the CSPs. During the remaining days, the FWs were assigned to make home visits to the 'target' ELCOs, and to those clients who did not attend the CSPs as scheduled. The CSPs were planned to be phased out based on the periodic reviews of utilization of the CSPs by the clients, and time-to-time assessment of clients' needs.

Registration of the attending clients, resupply of pills and condoms, motivation for FP, health education, follow-up of side effects, counselling and referral were the functions being carried out by the designated FWs in the CSPs. As a measure of cost recovery, clients were charged specific fees for commodities/services rendered (Annex 5).

The CWFP Head Office, ORS, Gandaria branch of the CWFP and the UEP were jointly involved in design, planning, implementation, monitoring and evaluation of the intervention.

4.3.2. Targeted Home Visits

Both the alternative service delivery strategies were supplemented with targeted home visits by the FWs according to the schedules depicted below. The main idea was to completely stop distribution of pills and condoms at the

homes of the clients by the FWs and shift away from the normal routine home visits to all of the eligible women.

Round 1 (first 2 months):

The FWs of the respective experimental areas made the usual routine visits to all eligible couples during these two months. The FWs provided contraceptive resupply to their pill and condom clients, and informed them about future cessation of home supplies. All eligible couples were told about the new static service delivery points (PHCC/ CSPs) and the services that would be available from those facilities. The clients were motivated to go to the new sites or other available sources, as deemed convenient to them, for contraceptives and other MCH-FP services. Clients dependent on supplies from the FWs were the special focus during this round. These clients were issued with a client card and advised to have their subsequent replenishment from the PHCC/CSPs. All information, as commonly being collected by the FWs were recorded on the couple registration book (CRB), and the monthly reports were prepared as usual on the basis of CRB information.

At the end of this round, the FWs conducted case-load and case-mix analyses of the ELCOs on the basis of information collected from the CRB to assess what proportion of the clients were dependent on them for the home-based supply. They also made estimates of the 'unmet needs', young couple (<30 years) and newly-wed (within 1 year of marriage) non-users to prepare the work plan for the next round (Annex 6).

In this intervention the main focus was concentrated on FP performance. However, similar exercise regarding MCH performance was also possible with the corresponding information from the CRB.

Round 2 (month 3-4):

From this period onwards, contraceptive supply/resupply at the door-step of the clients was completely ceased. The CWFP FW-dependent supply method clients and non-users (including traditional method users) identified

from Round-1 CRB records were the targets for this round, i.e. only those clients were visited at their homes. Other clients who accepted permanent FP methods, and those contraceptors who obtained methods from clinics, pharmacies, shops, etc. at their own were not visited.

At the start of this round, the FWs received orientation to identify the single most important reason of not using any contraceptive method by a particular non-user. In parallel to the general motivation usually given by the FWs to the non-users, the FWs during this round collected necessary information to this end.

Pill/condom users who before the intervention were supplied at the homes by the FWs were visited to ascertain whether they had obtained their due resupplies appropriately either from the PHCC/CSP or from any other sources. In necessary cases, motivation was given to them for clinical methods. The monthly reports were completed on the basis of information of the target couples from Round-2, and for other couples from Round-1.

Round 3 (months 5-6):

During this round, the FWs visited the non-users only. As a result, they could allocate more time for providing necessary motivation to the non-users, and understanding the main reason for not resorting to any FP method. The monthly reporting was made on the basis of information of the visited couples from Round-3, and from Round-1 and Round-2, for other couples.

Based on the information collected during the second and third rounds on the non-users about their main reason for not using any FP method, at the end of this round, prioritization of the non-users were made on the basis of the frequency of the main reason for non-usage of FP (Annex 7), and systematic approaches (flow chart of information to receive from and provide to the targeted clients) to efficiently address and motivate the prioritized (target) non-users were developed in participatory workshops with the field staff of the experimental sites.

Round 4 (months 7-8):

During this round, all eligible couples were visited, as in Round-1. The main reason of visiting all the ELCOs and recording information on them was to assess the immediate effects of the alternative strategies on the contraception status of the population. Accordingly, information gathered was analyzed and reviewed. The monthly reports were completed on the basis of information from all couples in this round.

Special (Targeted) Home Visits (for 6 months):

Priority groups identified at the end of Round-3 were the targets of home visits during this period. The group-specific systematic approaches were followed to address these non-users. Thus, the FWs assumed somewhat the role of case workers. There were around 900 non-users in each of the experimental areas who were identified for special motivation. Work plans (schedule and frequency of the visits) were prepared by the FWs in consultation with the respective Field Supervisor in the review meetings of the field staff.

At this stage, the CWFP agreed to reduce on experimental basis the number of field workers from five to three at the at the Hazaribag experimental site, and from four to three at Gandaria, to conduct the special home visits. In the PHCC experimental area at Hazaribag, one Field Supervisor was re-assigned to look after two supervisory areas (i.e. 50 per cent of her time to allocate for the Hazaribag intervention area). Considering high client load in the day sessions, one redundant FW of Hazaribag was re-designated to assist the Health Worker at the PHCC during the day shifts. The monthly reports were made on the basis of information collected on the visited 'target' couples, and from Round-4 on all other couples.

Round 5 (2 months):

To understand the effects of the changes implemented so far and draw inferences on the experimentation and its future directions, all eligible

couples were again visited as in Round-4. All necessary information on them were collected, analyzed and reviewed. The monthly reports were completed on the basis of information gathered from visiting all couples during this round.

4.3.3. Modified Reporting System (MIS)

The management information system (MIS) for the intervention areas required some adjustments with the following two basic considerations in mind:

i. GoB and Donor Reporting Requirements

The GoB and donors require that service providers (those who have been allocated an area by the government for domiciliary services), on a monthly basis, report CPR and method mix of that area on the basis of data from each and every eligible couple collected every two months.

The modified reporting system in this intervention had been based on last available information on the clients, i.e. data on the targeted clients from the current round and on other clients from previous rounds. This change in reporting was necessary, because, contrary to the current provision of visiting all clients once in every two months- according to the design of the alternative home visitation strategy depicted above, all clients were not revisited within same interval.

ii. Local programme management needs

Routine information needs for local programme monitoring and planning included:

- percentage of clients utilizing services, and means of identifying 'targets' periodically.

Therefore, the following items were considered components of the management information system (MIS) of the intervention:

- PHCC/CSP activities were recorded in registers. In the CSPs, only a general register was used. In the PHCC, the following separate registers were maintained to record information: general, injectable, IUD, pills, condoms, and supplies. Cards were issued to the CWFP FW-dependent supply method contraceptors in the beginning of the intervention (in Round-1) to facilitate their easy identification at the PHCC/CSPs during the resupply. The PHCC/CSP performance was reported monthly using the CWFP's Monthly Clinic Reporting Form.
- Information on the ELCOs and activities of the FWs were recorded in the CRBs and reported in the current monthly formats. However, the data source used for reporting- as mentioned above- consisted of data collected from targeted clients during the current round, and data from other clients collected previously- during the last encounter. As an alternative or complement to these monthly reports, 6-monthly community-based sample surveys were conducted using a modified EPI Cluster Methodology to monitor the effects of the intervention in the community. Any programmes could adapt a similar methodology to monitor their performance in the locality- at a suitable to them interval of time- should a shift from the current home visit system was made.

Periodic census (may be every 3-yearly or so) for updating denominator information may also be required. For the purpose of target-oriented service delivery strategies, information on all eligible couples should be required at a reasonable interval (may be once a year or so). 'Targets' are nothing fixed, and are subject to changes with time, and focus of the programmes. Cost-effective ways of how to do this, in absence of the regular routine visits to all the ELCOs by FWs, is the concern of high importance. Involvement of nominally paid community volunteers (local young people, college students) could be explored in future. In this intervention, as a simple methodology, home visit to all ELCOs of the catchment areas by the fewer FWs after every six months was followed to identify the 'targets' (in this case, the FP non-users), and pursue targeted home visits.

5. The Research Design

The intervention used both non-experimental and quasi-experimental designs to address the following research questions and assess the selected indicators. Two supervisory areas (each from Siddiquebazar and Wari branches of the CWFP) served as comparison areas. The outcome indicators were compared between the intervention and control areas (pretest-posttest control group design), and process and output indicators were measured in the intervention areas only (pretest-posttest design, with or without time series).

5.1. Research Questions

The main research questions addressed in the experiment were:

- i. *How did the shift from a door-step CBD to CSP/clinic-based (PHCC) strategy of delivering services effect contraceptive prevalence and method-mix?*
 - a. The expected drop in CPR, if any, would be within 10 percentage points
 - b. The CPR would return to pre-intervention level within a short period, say within six months
 - c. The proportion of clients using clinical methods was expected to increase

INDICATORS: CPR

Method mix

Source mix (use rate of various sources for contraceptive supplies)

- ii. *Did CSP/PHCC-based strategy of delivering MCH-FP services with targeted home visits result in more effective services and increased utilization of services ?*
 - a. Was there an absolute increase in the number of contraceptive users?

- b. Was there an absolute increase in the use of FP clinical methods?
- c. Was there an absolute increase in the use of private sources for methods?
- d. Was there an increase in utilization of the PHCC/CSPs for MCH-FP services?
- e. Was there an increase in utilization of the PHCC afternoon sessions?
- f. Was there an increase in utilization of the PHCC by male clients?

INDICATORS: Percentage of new acceptors among non-users
 Use rate of contraceptives (CPR)
 Use rate of clinical/non-clinical contraceptives
 Use rate of CSP/clinics as the source of methods
 Use rate of private sources for methods
 Service-specific utilization trend for CSP/PHCC
 (FP, Maternal Health, Child Health, etc.)
 Number of clients using afternoon clinic services
 Number of male clients using clinic services

- iii. *How did the CSP/PHCC-based system of delivering services compare with door-step delivery of contraceptives in terms of costs?*
 - a. Was there an absolute increase/decrease in the programme costs due to the changed strategies?
 - b. What were the cost recovery potentials of the alternative strategies?

INDICATORS: Costs per CYP
 Cost Recovery Ratio

5.2. Indicators and the Evaluation Plan

The indicators used for evaluating the intervention effects along with the measurement plans are provided below:

PROCESS INDICATORS

INDICATORS	MEASUREMENT
- Number of PHCC/CSP sessions held - Number of clients attending PHCC/CSP	Monthly review of service records

OUTPUT INDICATORS

INDICATORS	MEASUREMENT
SERVICE RECORD-BASED INDICATORS	PRE AND POSTTEST, AND TIME-SERIES DESIGN
- Service-specific utilization trend of the PHCC/CSPs - Number of clients using PHCC evening sessions and services - Targeting of FP non-users and implementation of targeted home visits	Monthly review of service records of PHCC/CSPs and field workers

OUTCOME INDICATORS

INDICATORS	MEASUREMENT
POPULATION SURVEY-BASED INDICATORS:	PRE AND POSTTEST CONTROL GROUP DESIGN
- Changes in CPR - Use rate of clinical/nonclinical FP methods - Use rate of PHCC/CSPs and other clinics, and private facilities as source of methods	6-monthly sample surveys in the two intervention and two comparison sites
SERVICE RECORD-BASED INDICATORS	PRE AND POSTTEST CONTROL GROUP DESIGN
- Method-mix - Source of methods - Number of new acceptors among non-users	Monthly review of service records of PHCC/CSPs and field worker

INDICATORS	MEASUREMENT
COST INDICATORS	POSTTEST CONTROL GROUP DESIGN
- Costs per CYP - Cost Recovery	Annual review of income-expenditure records

5.3. Design of the Sample Survey

Calculation of the sample size for the population-based sample survey conducted every six months is provided below. The first such survey was carried out during January-February 1996 as the baseline assessments, the second one during the mid-term evaluation conducted in July-August 1996 to assess the initial effects of the intervention; and the latest one, as part of the final evaluation of the intervention took place in April-May 1997.

Population Size: 5,000 ELCOs

Confidence Level: 95%

Indicators	Expected Rate (P)	Precision of Estimate	Sample Size Design Effect: 1.5
CPR	50%	± 2.5%	1763
		± 5.0%	536
		± 7.5%	248
		± 10.0%	141
Use rate of clinical contraceptives	15%	± 2.5%	1016
		± 5.0%	284
		± 7.5%	129
		± 10.0%	74
Use rate of clinics as source of methods	25%	± 2.5%	1406
		± 5.0%	408
		± 7.5%	188

Indicators	Expected Rate (P)	Precision of Estimate	Sample Size Design Effect: 1.5
		$\pm 10.0\%$	107
Use rate of private sources for methods	10%	$\pm 2.5\%$	747
		$\pm 5.0\%$	203
		$\pm 7.5\%$	92
		$\pm 10.0\%$	51
Proportion of clients paying for methods	50%	$\pm 2.5\%$	1763
		$\pm 5.0\%$	536
		$\pm 7.5\%$	248
		$\pm 10.0\%$	141

Acceptable precision levels for each of the above five indicators have been highlighted: the first and the last ones with a precision of $\pm 7.5\%$, and all the remaining with precision of $\pm 5\%$.

It appeared that a sample of about 400 would be adequate to measure all the indicators at the acceptable precision levels at the 95% confidence level.

It was, therefore, proposed that a sample size of 400 be used for collecting data from each of the experimental and comparison areas. Independent samples were drawn in each survey.

A cluster-sample methodology was used. The selected intervention and comparison areas were divided into number of clusters corresponding to the number of CRBs of the FWs (each CRB contained 80-100 ELCOs). Each cluster had a measure of size based on the estimated size of resident households (from CRB). This was the sampling frame from which periodic samples were drawn for each area.

A two-stage cluster approach was adopted for selecting the samples. In the first stage, 40 clusters were systematically selected using probability proportional size (PPS). The interviewers then selected 10 ELCOs for interviewing from each of the 40 selected clusters using a standardized methodology.

6. Results

6.1. Utilization of the Community Service Points (CSPs)

Findings regarding utilization of the community service points (CSPs) have been provided in Table 1. Thirteen CSPs were organized in Gandaria in the beginning of the intervention. Each CSP was meant to cover some 300 eligible couples (ELCOs). On an average a field worker (FW) ran three CSPs and conducted each of her CSP one day every week. Accordingly, 69 CSP sessions were organized during the first two months (March-April 1996) of field-testing of this alternative service delivery strategy. But review of the CSP use by the clients revealed that, on an average only three clients attended each CSP session. Users not dependent on FWs for their FP methods were found not likely to attend the CSPs. In spite of repeated motivation, the non-users showed no interest to attend the CSPs. Thus the CSPs did not appear to be an effective strategy to attract the FP non-users, and was thought to be more appropriate for re-supplying the pill and condom users who before the intervention-strategy of cessation of home based distribution were dependent on the FWs for their replenishment of pills and condoms. Therefore, six CSPs were phased out, and the total number of CSPs was reduced to seven. Per this re-structuring, one CSP was planned to serve some 100 pill and condom users every month. This arrangement continued for four months from May to August 1996. Utilization of CSPs increased a bit and attained a level of four clients per CSP session. The attendance of the clients at the CSPs was still low.

Table 1: Utilization of Community Service Points (CSPs) at Gandaria
March 1996 - May 1997

	Mar-Apr,96	May-Aug,96	Sep,96-Feb,97	Mar-May,97
No. of CSPs	13	7	3	3
No. of sessions held	69	92	44	26
Total clients served	216	384	466	335
Average clients per session	3	4	11	13
No. of clients supplied with pills/condoms	201 (93%)	365 (95%)	438 (94%)	297 (89%)

Only 14 per cent of the pill and condom users who were previously dependent on home supplies by the FWs were found using the CSPs every month. It was not considered cost-effective for a FW to serve only four clients throughout a CSP day. On the basis of the review of the mid-term evaluation findings (conducted during July-August 1996), decision was taken to further phase out another four CSPs and scale down the number to three. Two CSPs were planned to function on weekly, while the third (the one to serve a special segment of socially disadvantaged clients- sweepers) on monthly basis, totalling to nine CSP sessions every month on average. The changes resulted in enhanced average utilization of the CSPs. The number rose to 11 clients per CSP session. However, the absolute number of clients attending the CSPs every month still showed some decrease. In all cases, pill and condom supply was found to be the most common service provided from the CSPs. The overall experience indicated that urban women were willing to travel to

outside sources for pills and condoms. But without additional services to be obtained, they were not adequately motivated to come to the CSPs only for replenishment of contraceptive supplies.

Beginning March 1997, CWFP decided to hold two sub-centers (satellite clinic sessions) at the intervention site, instead of the previous schedule of one per week. Since then, two CSPs were being organized jointly with the satellite clinic sessions. The third special CSP, hold once in a month continued to function as before. The early findings with this approach showed better prospects (mean attendance per CSP session increased to 13) of the satellite clinic sessions to replenish the segment of pill and condom users who opted to be resupplied by the CWFP sources in absence of the door-step CBD by the field workers.

6.2. Utilization of Primary Health Care Clinic (PHCC)

Details on utilization of the PHCC under the clinic-based service delivery alternative by types of clients and services are presented in Tables 2 and 3. The last column in the tables represents the utilization during last two months (April and May 1997) in contrast to the corresponding quarterly amounts shown in all other columns. The PHCC started conducting evening sessions in every alternate working day of the week since April of last year. The overall trend, both with regard to clients' attendance and services' utilization was found to be increasing. On an average, the number of clients' attendance in each PHCC day and evening session had stabilized to 23-25 and 11-13 clients, respectively. This could be considered quite a high attendance for a clinic serving roughly a ward, i.e. a population of around 40 to 50 thousand people. Moreover, this was not the only clinic at the locality. A DCC dispensary and an immunization centre, a government FP clinic, and a couple of other NGO clinics have also been functioning at a close proximity. For the two CWFP clinics operating at a distance from the PHCC – the Rayerbazar branch clinic (serving a catchment population of about 100

thousand)² and the Lalbag branch clinic (serving a catchment population of 150 thousand and considered as one of the highly utilized CWFP clinics), the average attendance per clinic day was around 25 and 45, respectively. High utilization of the PHCC becomes more obvious when considered that, unlike the Rayerbazar and the Lalbag branch clinics, the PHCC did not provide children and women with immunization services, which usually constitute a good share (10-20%) of the clients served by Rayerbazar and Lalbag clinics. The reason for not providing immunization services at the PHCC was the functioning of a DCC immunization centre housed next door to the PHCC at the same building (Hazaribag Community Centre).

2 There is actually no formal concept of any catchment population for a clinic. The figures quoted here are the populations of the respective areas served by the CWFP clinic and the CWFP outreach activities in the community.

Table 2: Client Attendance at Primary Health Care Clinic (PHCC) at Hazaribag

		Jan- Mar,96	Apr- Jun,96	July- Sep,96	Oct- Dec,96	Jan- Mar,97	Apr- May,97
No. of sessions held	Day	38	69	74	73	69	47
	Eve.	-	36	37	36	35	23
Total clients served	Day	679	1553	1566	1671	1748	1102
	Eve.	-	169	362	483	465	242
Average clients per session	Day	18	23	21	23	25	23
	Eve.	-	5	10	13	13	11
Total women (> 15 yrs) served	Day	609	1389	1418	1396	1452	866
	Eve.	-	87	195	244	204	98
Total children (< 5 yrs) served	Day	60	152	129	192	185	175
	Eve.	-	65	98	134	146	74
Total men (> 15 yrs) served	Day	0	0	2	20	42	24
	Eve.	-	3	13	20	26	18
Other (5-15 yrs) clients served	Day	10	12	13	63	69	60
	Eve.	-	10	56	85	89	52

Table 3: Utilization of Primary Health Care Clinic (PHCC) at Hazaribag by Services

		Jan- Mar,96	Apr- Jun,96	July- Sep,96	Oct- Dec,96	Jan- Mar,97	Apr- May,97
Total FP services		626	1493	1450	1443	1480	876
Maternal health care		105	386	439	510	613	396
Child health care		64	217	239	286	340	255
Pathological tests and other services		-	189	558	536	664	336
<u>Selective FP services</u>							
Pill	New	21	46	44	58	59	37
	Follow-up	50	156	110	102	107	53
Condom	New	6	35	66	76	91	73
	Follow-up	3	55	53	37	37	28
Injectable	New	92	178	156	105	103	62
	Follow-up	302	438	516	521	497	302
IUD	New	7	71	66	50	28	21
	Follow-up	13	69	89	76	63	34

It was quite encouraging to find that, more males were attending the PHCC clinics, both at the day and evening sessions. Utilization of almost all the MCH-FP services provided from the PHCC registered increase. As seen from the above tables, taking supply of pills and condoms from the PHCC, and utilization of clinical methods also increased. However, in general for almost all the services- the increase in utilization was much higher during the initial months of the intervention. This might be explained by the effect of what is known as 'appear demand' high utilization of the clinic by the people of the peripheral areas in the initial period of regular functioning of the PHCC, and then after a certain time the demands for the services had shown signs of stabilization.

6.3. Change in CPR and Method-mix of Contraceptors

Contrary to the common preemption that the CPR might go down due to the shift from the door-step distribution, the CPR had actually found to have increased over the testing period. This had been revealed from both the data sources- records of the service providers and the population-based sample surveys. As seen from Table 4 and 6, in the CSP strategy site at Gandaria, the CPR increased from the pre-intervention level of 55 per cent to 57 per cent in May 1997. During the July-August 1996 evaluation of the intervention however, the CPR decreased slightly (by two percentage points). The population-based surveys showed a bit different level: it increased from the pre-intervention CPR of 55 per cent to 56 per cent according to both July-August 1996 and April-May 1997 assessments.

Table 4: Change in CPR and Method-mix in Intervention Areas (Source: Service Records)

	In Percentage					
	PHCC (Hazaribag)			CSP (Gandaria)		
	Pre-intervention	During intervention		Pre-intervention	During intervention	
	N=4236	Aug,96 N=4255	May,97 N=4134	N=3708	Aug,96 N=3717	May,97 N=3395
CPR	63	67	68	55	53	57
<u>FP Methods</u>	n=2673	n=2834	n=2792	n=2025	n=1951	n=1923
Pill/Condom	68	65	68	72	72	74
Injection/IUD	19	23	21	10	10	9
Norplant	1	1	1	-	-	1
Sterilization	12	11	10	18	18	16

Table 5: Change in CPR and Method-mix in Comparison Areas (Source: Service Records)
In Percentage

	SIDDIQUEBAZAR			WARI		
	Pre- intervention	During intervention		Pre- intervention	During intervention	
	N=6027	Aug,96 N=6108	May,97 N=6008	N=4262	Aug,96 N=4381	May,97 N=4292
CPR	60	63	63	61	62	63
<u>FP Methods</u>	n=3612	n=3827	n=3758	n=2603	n=2717	n=2722
Pill/Condom	68	71	71	72	72	73
Injection/IUD	14	12	12	13	13	12
Norplant	1	1	1	-	-	1
Sterilization	17	16	16	15	15	14

Table 6: Change in CPR and Method-mix in Intervention Areas (Source: Sample Surveys)
In Percentage

	PHCC (Hazaribag)			CSP (Gandaria)		
	Baseline survey	Surveys during intervention		Baseline survey	Surveys during intervention	
	n=400	Aug,96 n=400	May,97 n=400	n=400	Aug,96 n=400	May,97 n=400
CPR	60	61	64	55	56	56
<u>FP Methods</u>	n=240	n=245	n=255	n=219	n=223	n=225
Pill/Condom	70	68	64	72	77	73
Injection/IUD	19	20	26	13	10	13
Norplant	1	2	0	1	0	0
Sterilization	10	10	10	14	13	14

Table 7: Change in CPR and Method-mix in Comparison Areas (Source: Sample Surveys)
In Percentage

	SIDDIQUEBAZAR			WARI		
	Baseline survey	Surveys during intervention		Baseline survey	Surveys during intervention	
	n = 400	Aug,96 n = 400	May,97 n = 400	n = 400	Aug,96 n = 400	May,97 n = 400
CPR	61	60	61	60	63	61
<u>FP Methods</u>	n = 245	n = 239	n = 242	n = 241	n = 251	n = 242
Pill/Condom	68	75	67	71	69	69
InjectionN/IUD	14	9	16	13	15	14
Norplant	1	1	0	0	1	0
Sterilization	17	16	17	16	15	17

In the PHCC strategy site at Hazaribag, as per the service records, considerable increase of CPR during the testing period took place: it increased from 63 per cent in the pre-intervention period to 67 per cent during the July-August 1996 mid-term evaluation, and to 68 per cent in the final evaluation conducted in April-May this year. The corresponding population-based sample survey CPRs were 60 per cent, 61 per cent and 64 per cent, respectively. The CPRs at the comparison areas, as shown in Table 5 and 7, also indicated some increase. However, the change was more prominent in the PHCC intervention area.

The PHCC-based alternative service delivery strategy also demonstrated the increased utilization of clinical methods. Per the service records, in comparison to the pre-intervention relative share of the clinical methods in the total method mix being 32 per cent, it was 35 per cent in the mid-term, and 32 per cent during the final evaluation. Although the

proportions of the clinical FP methods were found equal during the pre-intervention and post-intervention (May 1997) assessments, the absolute number of clinical method users was, however, much higher in May 1997 than that of the pre-intervention time. The absolute number of clinical method users was 855 in the pre-intervention period, 992 in August 1996 mid-term evaluation, and 893 in the May 1997 final evaluation. The incremental increase in the absolute number of the temporary clinical method users (injectable, IUD and Norplant), over the pre-intervention level was 27 per cent in August 1996 and 15 per cent in May 1997. The more prominent rise during the initial six months of the clinic-based strategy might be due to immediate switch of the most potential cases, who were using pills and condoms during the door-step CBD mainly for the ease of getting them at the homes, to clinical methods. A sharp increase in the use of clinical methods in the PHCC intervention site, compared to that of the CSP intervention site and the comparison areas, was also revealed from the population-based sample surveys.

6.4. Change in Source mix of Contraceptives

Table 8 and 10 show that, in both the alternative strategies (CSP and PHCC), the proportion of contraceptors obtaining methods from the commercial sources like pharmacies, drug stores, grocery shops, had increased. In all the intervention and comparison areas, during the pre-intervention time, with minor variations by and large, equal proportion of the users obtained methods from three major sources: field workers, and the two 'outside-of-home' sources, such as pharmacies/shops and clinics. But after the intervention, at Hazaribag, half of the users were getting their methods from clinics (mostly from GoB and NGO clinics at the locality), while another half from pharmacies and shops. One of every seven pill and condom users who before the intervention received the supply from the FWs, were found to have replenished from clinics. At Gandaria, a fourth of them (and 10 to 12 per cent of all the pill/condom users of the area) obtained methods from the CSPs. Three of every five contraceptors obtained their supply from pharmacies and shops there.

Table 8: Change of Source-mix in Intervention Areas (Source: Service Records)

Source of FP methods	In Percentage					
	PHCC (HAZARIBAG)			CSP (GANDARIA)		
	Pre-intervention	During intervention		Pre-intervention	During intervention	
	n = 2673	Aug,96 n = 2834	May,97 n = 2792	n = 2025	Aug,96 n = 1951	May,97 n = 1923
Field worker	25	-	-	34	-	-
CSP	-	-	-	-	14	10
Pharmacy/Shop	42	49	50	38	57	64
PHCC	-	11	12	-	-	-
Clinic	33	40	38	28	29	26

Table 9: Change of Source-mix in Comparison Areas (Source: Service Records)

Source of FP methods	In Percentage					
	SIDDIQUEBAZAR			WARI		
	Pre-intervention	During intervention		Pre-intervention	During intervention	
	n = 3612	Aug, 96 n = 3827	May, 97 n = 3758	n = 2603	Aug, 96 n = 2603	May, 97 n = 2722
Field worker	40	34	37	36	35	35
Pharmacy/Shop	29	37	35	36	37	38
Clinic	31	29	28	28	28	27

Table 10: Change of Source-mix in Intervention Areas (Source: Survey Results)

Source of FP methods	In Percentage					
	PHCC (Hazaribag)			CSP (Gandaria)		
	Baseline survey	Surveys during intervention		Baseline survey	Surveys during intervention	
	n = 240	Aug, 96 n = 245	May, 97 n = 255	n = 219	Aug, 96 n = 223	May, 97 n = 225
Field worker	25	-	-	34	-	-
CSP	-	-	-	-	13	11
Pharmacy/Shop	42	49	51	38	57	63
PHCC	-	13	12	-	-	-
Clinic	33	38	37	28	30	26

Table 11: Change of Source-mix in Comparison Areas (Source: Survey Results)

Source of FP methods	In Percentage					
	SIDDIQUEBAZAR			WARI		
	Baseline survey	Surveys during intervention		Baseline survey	Surveys during intervention	
	n = 245	Aug,96 n = 239	May,97 n = 242	n = 241	Aug,96 n = 251	May,97 n = 241
Field worker	34	48	34	32	20	27
Pharmacy/Shop	33	27	33	39	49	42
Clinic	33	25	33	29	31	31

Table 9 and 11 show that, the relative share of commercial sources (pharmacies, shops) registered some increase in the comparison areas as well. It was probably due to the general guideline of the CWFP, pursued by all its branches since early 1996, to reduce dependence of the FP users on the FWs. However, the alternatives to the door-step distribution seemed to facilitate the switch of the pill/condom users to commercial sources remarkably, thereby reducing the dependence of those users on 'subsidized sources'.

The proportion of fixed-site clinics as source of methods decreased in all the research areas except in Hazaribag. Under the PHCC strategy, use of clinical sources for the FP methods showed a considerable increase: from the pre-intervention level of 33 per cent to that of 49 per cent after the intervention. Similar trends were also evident from the population-based sample surveys.

6.5. Cohort Analysis on Drop outs and New Acceptance

As mentioned earlier, the primary focus of the intervention at this stage was family planning. The experiment aimed at testing alternatives to the current home-based distribution, provided those would not affect the FP indicators, more precisely the CPR. It was assumed that, the CPR could go down because of the possible drop-out among the users who were to be directly affected by the departure from the current door-step distribution strategy. Special provision for targeting the non-users was, therefore, made within the intervention to offset the whatever decrease in the CPR (due to drop-outs of the current users because of the change) through new recruits.

The withdrawal of door-step supply was supposed to affect primarily the FP use status of those pill and condom users who were getting their replenishment from the field workers at their homes. Therefore it was felt necessary and interesting to follow this particular cohort of users throughout the intervention and record the changes that took place with them in their contraception status. Logically three conditions were presumed to happen with these users.

First, despite the cessation of the home-based supply they could still remain to continue as pill/condom users, obtaining their required re-supply from the out-of-home sources (pharmacies, shops, PHCC/CSPs, other clinics).

Second, a part of them could have switched to clinical methods from the realization that, since they were taking the trouble of going out of the homes for obtainment of the methods, it was probably more convenient for them to resort to longer-acting methods, to avoid frequent travelling outside for necessary replenishment. Two other important factors could also play role in this process: once the field workers were no more under the obligation of door-step distribution, and hence not to be evaluated by the number of pills and condoms distributed, they must had better reasons for promoting clinical methods; and the pill/condom clients who once went to the clinics for the re-supply must had received motivation from the clinic staff more in favour of the clinical methods.

Thirdly, obviously a part of these users, especially perhaps the least motivated ones, could simply drop-out and become non-users of FP for not getting the persuasion and supply from the field workers.

Another situation was possible, not because of the intervention but because of the urban specificity, a segment of these pill/condom users would have migrated out of the intervention area (change residence), leaving them impossible to trail.

Table 12: Before-after Contraception Status of Cohort of Pill/Condom Users in PHCC (Hazaribag) Intervention Area (April-May 1997 Evaluation)

Residence Location	After-intervention contraception status of pill/condom users supplied by FWs at home previous to intervention			
	Total such couples	Still user (%)	Drop out (%)	Out-migration (%)
Non-slum	521	66(6)	11	23
Slum	148	64(3)	5	31
Total	669	65(5)	10	25

Figures within brackets indicate percentage of switch to clinical methods

Table13: Before-after Contraception Status of Cohort of Pill/Condom Users in CSP (Gandaria) Intervention Area (April-May 1997 Evaluation)

Residence Location	After-intervention contraception status of pill/condom users supplied by FWs at home previous to intervention			
	Total such couples	Still user (%)	Drop out (%)	Out-migration (%)
Non-slum	550	59(2)	22	19
Slum	134	45(5)	37	18
Total	684	57(3)	25	18

Figures within brackets indicate percentage of switch to clinical methods

Results of the analyses on contraception status of the cohort of field worker-dependent pill and condom users in the intervention areas are presented in Table 12 and 13. The analyses had been shown by slum/non-slum sub-population to better understand the effects with respect to location of residence (proxy indicator for socioeconomic status) of the corresponding users.

As it is revealed from the above tables, during the intervention, 11 per cent (57 users) of non-slum and five per cent (7 users) of slum, i.e. 10 per cent (64 users) of the cohort of 669 users who before the intervention were dependent on door-step supply of pill/condom by the field workers, dropped out at the Hazaribag site. In Gandaria the corresponding figures were 22 per cent (121 users) for non-slum clients, 37 per cent (50 users) for slum clients, totalling to 25 per cent (171 users) of the whole cohort of 684 such users. The drop-out rate was comparatively much lesser in the PHCC (Hazaribag) alternative strategy.

During the intervention, 66 per cent (344 users) of the non-slum and 64 per cent (95 users) of the slum cohort were found to continue using FP methods at Hazaribag, despite cessation of the door-step supply. Of these 439 still-users, 35 were found to have switched to clinical methods. In the CSP strategy at Gandaria, the usage retainment rate was 59 per cent (324 users) for the non-slum and 45 per cent (60 users) for the slum segments. But the aggregate of switch to clinical methods was lower by half (18 cases) in contrast to that of Hazaribag.

The cohort of non-users identified at the outset of the intervention was similarly followed throughout the experimentation period to assess the effect of the alternative strategies (targeted home visits) on new acceptance. Broadly two conditions were presumed to happen with these couples: either they could turn into FP method users as a result of the special focus of the intervention on the non-users, alternatively they could still remain to continue as non-users, despite the intervention efforts. Another situation was possible, as mentioned earlier, not because of the intervention, but because of the urban specificity, a segment of these non-users could migrate out of the intervention area (change residence) leaving them impossible to follow-up.

The results of the analyses of contraception status of the cohort of non-users in the PHCC (Hazaribag) and CSP(Gandaria) experimental areas have been shown in Table 14 and 15.

Table 14: Before-after Contraception Status of Cohort of Previous FP Non-users in PHCC (Hazaribag) Intervention Area (April-May 1997 Evaluation)

Residence Location	After-intervention contraception status of the previous FP non-users			
	Total such couples	Still non-user (%)	New acceptor (%)	Out-migration (%)
Non slum	1169	49	34	17
Slum	394	47	25	28
Total	1563	49	31	20

Table 15: Before-after Contraception Status of Cohort of Previous FP Non-users in CSP (Gandaria) Intervention Area (April-May 1997 Evaluation)

Residence Location	Present contraception status of the previous FP non-users			
	Total such couples	Still non-user (%)	New acceptor (%)	Out-migration (%)
Non-slum	1167	57	27	16
Slum	516	50	28	22
Total	1683	55	27	18

As seen from these tables, the new acceptance rate was more at the PHCC (Hazaribag) area, both in relative (by 4 percentage points) and absolute terms (485 at Hazaribag as against 454 at Gandaria), compared to that in the CSP (Gandaria) intervention site. The rate of new acceptance was, however, little more for the non-slum segment in the PHCC intervention site, and the other way round for the slum segment in the CSP intervention area.

It appears from the presentations in Table 12 through 15 that, in both the intervention sites, the absolute number of new acceptors was much higher than the corresponding drop-outs. Therefore, there is every reason to conclude that the changes administered through the alternative strategies in no way did appear detrimental to the CPR of the testing areas. Contrary to the conventional belief that the CPR may decrease; in fact, there was an increase of the CPR in the intervention sites, despite the shift from door-step CBD and introduction of alternative service delivery strategies. Focus on the non-users of FP with systematic approach and intensive motivation produced better results in recruiting new acceptors which, in turn, proved to be contributory to the enhancement of contraceptive use in the experimental areas.

This quantitative growth of the CPR in the PHCC-based strategy at Hazaribag, in conjunction with the change in method mix in favour of clinical methods, and change in source mix in favour of commercial and fixed-site clinic sources for the FP methods, clearly indicated at the comparative advantage of the clinic-based strategy in terms of sustainable programme performance over the other variants of service delivery.

6.6. Additional Analyses

It is generally apprehended that withdrawal from the door-step distribution, and diversion from the bi-monthly routine visits by the FWs to the ELCOs may lead to negative effects on utilization of clinical services for MCH care and other services, recruitment of new acceptors for FP, and result in higher usage failure rate (non-compliance with appropriate use of FP methods by the users), and discontinuation of FP method use. The experiment with alternative service delivery strategies, therefore, made some rudimentary investigations into these important programmatic aspects. The necessary monitoring of these factors was done through the population-based sample surveys. Initial results of these additional analyses are provided below. However, more solid probe of the corresponding issues may be required in future, to better understand the implications of the alternative approaches for these important aspects.

Table 16: Clients Who Reported to Have Visited Clinics During Last Six Months from Interviewing and Reasons of Visits (Source: Sample Surveys)

	In Percentage							
	PHCC (Hazaribag)		CSP (Gandaria)		Siddiquebazar		Wari	
	Before inter- vention	After inter- vention	Before inter- vention	After inter- vention	Before inter- vention	After inter- vention	Before inter- vention	After inter- vention
Visited Clinics	55	59	55	57	60	63	61	65
<u>Reasons</u>								
FP Services	18	31	7	20	6	6	7	7
EPI Services	11	12	6	15	10	18	7	16
Child Health	33	43	31	51	39	58	30	56
Mat Health	63	70	57	57	57	63	49	33
Other	3	5	4	6	4	8	6	

Multiple reasons were possible. 'Other' included accompanying somebody to clinics.

As reported by the clients (Table 16), clinic utilization in the intervention and comparison areas did not indicate any major decrease. The increase in clinic utilization by the women during the reference period was comparatively moderate at the CSP (Gandaria) intervention site. This might be due to the reason that a segment of these respondents might have visited CSPs for pills and condoms which did not come into this reporting. The CSPs, served by FWs, were not considered clinical outlets.

Regarding the reason of visiting the clinics for FP services, as opposed to the status quo in the comparison areas, remarkable increase in both the intervention areas was evident during the experimentation period: by 13 percentage points from the pre-intervention level.

The percentage of women seeking maternal care from the clinics during the testing period was found to increase in PHCC strategy at Hazaribag and at the Siddiquebazar comparison area. However, the level remained same in Gandaria, and registered a considerable decrease in Wari. Utilization of the clinics for EPI (child immunization) services and child health care increased in all the research areas. Propensity of increase in these services was much prominent in CSP strategy at Gandaria, as well as in both the non-experimental sites: Siddiquebazar and Wari. The findings depicted above did not indicate to any discernable decrease in utilization of clinical MCH-FP services in the intervention areas.

As revealed from Table 17, with regards to the discontinuation of FP method use, roughly one out of every four eligible women of both the intervention and comparison sites, during the last population-based sample survey conducted in April-May 1997, reported to have stopped using contraceptives. However, 52 per cent of these past users dropped out in Hazaribag, and 43 per cent in Gandaria intervention sites during 1996-1997 period, i.e. while the experiment was on. The corresponding drop-out rates at the two comparison areas were 54 per cent and 52 per cent respectively, at Siddiquebazar and Wari. The alternative strategies apparently demonstrated

no additional negative effect on the drop-out rates compared to the non-intervention areas.

The number of contraceptors who reported to have experienced pregnancy in spite of using any FP method ranged within 3-4 per cent of the total ELCOs and 5-8 per cent of the FP users. Sixteen such cases were reported in Hazaribag, 17 in Gandaria, 15 in Siddiquebazar and 12 in Wari. However, these failures due to non compliance of the appropriate utilization of the respective methods, during the testing period, were a little bit higher at the experimental sites than the corresponding levels at the comparison areas. But it is really hard to derive any firm inference about the negative effects of the alternative strategies on 'method failure', based on these small number of cases and the negligible differences.

Of all the modern temporary method users of the experimental areas, 40 per cent of the Norplant/IUD users, 72 per cent of the injectable users, and 56 per cent of the pill/condom users adopted method during the experimentation period in the PHCC (Hazaribag) strategy area. In Gandaria, the respective levels were: 20 per cent for Norplant/IUD, 51 per cent for injectable and 63 per cent for pill/condom. As regards the new acceptance rates in the comparison areas, no major variations were evident there among themselves, and also in comparison to the Gandaria intervention area. Although no discernable differences were found from the acceptance pattern of FP methods in the experimental areas, the acceptance of clinical methods seemed to be comparatively higher within the clinic-based strategy at Hazaribag.

Table 17: Discontinuation of FP Method Use, Usage Failure and Continuation Rate of FP Method Use as Reported by the Clients (Source: Sample Survey)

In Percentage

	PHCC (Hazaribag)	CSP (Gandaria)	Siddiquebazar	Wari
Discontinued <u>using FP method</u>	n = 75	n = 74	n = 69	n = 73
before intervention	48	57	46	48
during intervention				
in 1996	39	24	39	36
in 1997	13	19	15	16
Reported FP <u>usage failure</u>	n = 16	n = 17	n = 15	n = 12
before intervention	69	63	73	75
during intervention	31	37	27	25
Continuation rate <u>of FP method</u>				
- Norplant/IUD	n = 25	n = 13	n = 21	n = 15
more than 18 months	60	80	73	87
7 to 18 months	22	10	13	7
up to 6 months	18	10	14	6
- Injectable	n = 41	n = 17	n = 19	n = 18
more than 18 months	28	49	53	47
7 to 18 months	50	24	32	39
up to 6 months	22	27	15	14
- Pill/Condom	n = 163	n = 165	n = 164	n = 167
more than 18 months	44	37	53	47
7 to 18 months	17	28	16	20
up to 6 months	39	35	31	33

The average continuation period for the Norplant/IUD method users was calculated to be 32 months, 38 months, 37 months and 35 months in Hazaribag, Gandaria, Siddiquebazar and Wari areas, respectively. The same for injectable was 18, 17, 29 and 13 months; and for pill/condom 23, 25, 31 and 25 months, respectively.

The above community-based analyses support that, less intensive counselling as a result of departure from routine home visits to all the ELCOs of the intervention areas, did not appear to have led to undesirable consequences in programme performance regarding clinic utilization, discontinuation of FP methods, method failure due to non-compliance, and continuation rates of the FP methods.

6.7. Cost Analyses

The cost implications of the alternative strategies in comparison to the conventional door-step CBD are analyzed below. The cost analyses have mainly been done with respect to the changes in the total recurrent costs of the programmes, cost per contraception year protection, and cost recovery potentials of the various strategies.

As it is revealed from Table 18, transition from the door-step to a clinic-based service delivery strategy, because of necessary strengthening of the clinic facility, led to some increase in the programme costs at the initial. This even called for some capital investments. The PHCC was a satellite clinic. Capital investment to a tune of about Tk. 60,000.00 was required to procure some medical equipment, furniture, etc. to upgrade it into a regular clinic.

Here in this analysis, we could not consider the capital costs because all information regarding the same were not readily available for the Gandaria and Siddiquebazar clinics which were functioning since a long time. Many of the capital items in these two clinics were received as grants during the last 5-6 or even more years, and as such no monetary value was attached to those. It was not possible to assess their initial book values and the corresponding

present values after due consideration of depreciation and discounting. In future, an appropriate accounting system needs to be developed to this end. Secondly, Wari was not included in the cost analyses. Two other interventions of the Urban MCH-FP Extension Project, each on cost management and pricing, were under field-testing there. This obviously influenced the income-expenditure streams of the Wari programme, and made it incomparable in cost-revenue terms with the other research programmes.

Table 18 reflects that, relative share of clinic-related costs (staff costs, drugs and clinical supplies costs), because of strengthened clinic activities, increased in the clinic-based strategy at Hazaribag, in comparison to the programme costs of the CSP/home-based strategy. The CSP based strategy was, in fact, a modification of the existing door-step distribution which required no extra resource. But the PHCC-based strategy called for additional recurrent costs. For example, appointment of the doctor and other personnel (paramedic, aya) for the evening clinic and enhanced use of clinic services necessitated more expenses for drugs and clinical supplies. With reduction in the field staff, however, programme costs of the clinic-based strategy indicated signs of decrease.

Table 18: CWFP Programme Costs (Recurrent) and Cost Recovery Ratios in Intervention and Comparison Areas

Cost Items	Intervention Areas				Comparison Area	
	Hazaribag (PHCC)		Gandaria (CSPs)		Siddiquebazar	
	Aug '96	May '97	Aug '96	May '97	Aug '96	May '97
- Salary of field staff	18360.00	10614.00	17221.00	15288.00	25526.00	24912.00
- Salary of clinic staff	16400.00	19160.00	2896.00	4056.00	3607.00	3788.00
- Salary of administrative and support staff	4117.00	5645.00	4090.00	5774.00	5374.00	4860.00
- Cost of drugs and clinical supplies	2500.00	2500.00	458.00	633.00	472.00	524.00
- Other overhead costs	3000.00	3000.00	5096.00	7295.00	4248.00	6324.00
Total Costs	44377.00	40919.00	29761.00	33046.00	39227.00	40408.00
Cost Recovery	4539.00	6940.00	1579.00	3106.00	2416.00	3621.00
Cost Recovery Ratio (%)	10	17	5	9	6	9

Note: Salary of field staff included salary of the Field Workers and Supervisor working in the corresponding research areas. The decrease in the respective amounts of the intervention areas were due to some reduction of field staff.

Salary of clinic staff included salary of the Paramedic, Health Worker, and Aya. For Gandaria and Siddiquebazar, one branch clinic served various supervisory areas (each of the intervention and comparison areas was one such supervisory area). Therefore, the total clinic salary costs of these branches were equally distributed among the respective supervisory areas.

For the Primary Health Care Clinic (PHCC) in Hazaribag, clinic salary costs constituted salary of Doctor, Paramedics, Health Workers, and Ayas. The staff salary costs were high at the PHCC because of strengthened clinic-based activities (such as evening clinics, recruitment of the doctor).

Salary of administrative staff included salary of the Coordinator, Office Secretary, Peon, Guard, etc. attached to the branch office of the CWFP. Each branch office constituted a static (branch) clinic and several supervisory areas (the Gandaria CWFP branch was made up of 4 supervisory areas in 1996, and 3 in 1997. The Siddiquebazar branch office had 3 such supervisory areas during the reference periods). The salary costs of the branch administrative staff were also equally distributed among the corresponding supervisory areas.

Similarly, costs of drugs and clinical supplies (like cotton, savlon, etc.) incurred at the branch clinic were equally distributed among the supervisory areas in case of Gandaria and Siddiquebazar. However, for the PHCC, the drugs and clinic costs were those spent at that clinic. Again, due to higher utilization of clinic services, perhaps as a result of the clinic-based service delivery strategy, the corresponding costs were found much higher for the PHCC than in Gandaria and Siddiquebazar. These costs did not include the cost of contraceptive commodities.

Other overhead costs included rents of the branch offices/clinics, costs of utility, stationery, travel etc. These costs too were equally distributed among the supervisory areas under the Gandaria and Siddiquebazar branches. The PHCC is located in the Hazaribag Community Centre and is rent free. However, for the sake of comparability in analyses, an opportunity cost of Tk. 2500.00 per month was assigned to the PHCC as rental fees.

The CWFP like many other NGOs, charges user fee for FP commodities and other clinic services. Enhanced use of the PHCC, caused by the clinic-based approach was supposed to increase recovery of the programme recurrent costs. As it is revealed from Table 18 that although the price levels were similar and the programme costs were higher at the Hazaribag clinic-based alternative, the cost recovery ratios were much higher there: 10 per cent in August 1996 and 17 per cent in May 1997. However, at Gandaria and Siddiquebazar, the corresponding cost recovery ratios were around 5 per cent and 9 per cent, respectively. The clinic-based service delivery strategy demonstrated higher cost-recovery potentials compared to the other service delivery approaches at Gandaria and Siddiquebazar.

To examine the cost-effectiveness of the FP services delivered within the alternative service delivery strategies tested in Hazaribag and Gandaria, in comparison to that of the conventional door-step CBD at Siddiquebazar, analysis of cost per contraception year protection (CYP) was conducted. The intervention was under full-scale field-testing for about 15 months. It was, therefore, thought rational to limit the cost-effectiveness analysis to immediate outcome effect like CYP, instead of going for higher-level impact indicators of programme-outcome like cost per birth averted. And also, the cost-effectiveness analysis was confined to only the FP effects of the programme. MCH effects of the programmes were not included at this stage of the evaluation, since FP indicators were the main focus of assessing the effects of the alternative strategies. However, the increased utilization of the maternal and child health care services at the PHCC obviously have led to higher cost-effectiveness of these services.

Details of the various types of services provided at the community and from the clinics, along with apportioning of the programme costs and FP outputs produced have been provided at the end in Annex 8-10. Results of the cost-effectiveness analysis are shown in Table 19. As we see from here, cost per CYP in the clinic-based strategy at Hazaribag was found to be lesser in both the evaluations compared to the other two service delivery options. These assessments of the CYP costs had been made on the basis of the services

provided exclusively by the CWFP providers at the community/clinic, and with consideration of all the recurrent costs, including the contraceptive commodities' costs.

What was most important to find from the cost analyses was that, higher cost-effectiveness of the clinic-based strategy could only be assured through: reduction in programme costs, enhanced utilization of the clinic services, and offering of high-impact less-costly services from the clinics (for example, in case of FP services, IUD as opposed to injectable).

Table 19: Cost-effectiveness (Cost per CYP) Analysis of CWFP Programme in Intervention and Comparison Areas

Types of FP Outputs and Corresponding CYP ¹⁾	Intervention Areas				Comparison Area	
	Hazaribag (PHCC)		Gandaria (CSPs)		Siddiquebazar	
	Aug '96	May '97	Aug '96	May '97	Aug '96	May '97
- Pill	4.5	3.7	12.0	8.0	46.8	51.8
- Condom	0.4	0.4	1.1	1.0	5.9	6.0
- Injectable	47.0	44.0	13.3	15.3	13.8	10.0
- IUD	47.5	37.5	2.5	2.5	0	2.5
Total CYP	99.4	85.6	28.9	26.8	66.5	70.3
Cost per CYP (Taka)	254.6	253.9	607.7	713.6	346.6	336.0
Cost per CYP (in Taka) inclusive of FP Commodities' Costs ²⁾	349.9	343.8	727.9	838.4	464.6	447.9

¹⁾ Conversion factors for 1 CYP: 13 cycles of pill/ 120 pieces of condom/ 4 doses of injectable/ 0.4 IUD

²⁾ Commodities' cost per CYP (Source- FPLM): Pill- Tk. 104.00 (@ Tk. 8.00 per cycle), Condom- Tk. 150.00 (@ Tk. 1.25 per piece), Injectable- Tk. 152.00 (@Tk. 38.00 on average per dose), and IUD- Tk. 15.00 (@Tk. 38.00 per IUD)

7. Discussion

Although the experiment was initiated in January 1996, it was, in fact, under full scale implementation since April 1996. The alternative strategies piloted in the intervention were replacing a system that had been in place since last two decades. Policy-makers, programme managers, providers, clients all were quite habituated with the existing service delivery approaches. Therefore, there were hesitation and concerns regarding the results of the experiment with alternative service delivery strategies. But the above findings showed that the experiment did not yield any results detrimental to the overall performance of the MCH-FP programmes.

Despite repeated reminders of the field workers, the total number of clients attending the community service points did not increase. Urban women were found willing to travel to outside sources. But they were probably not adequately motivated to attend the CSPs only for pills and condoms. There are numerous pharmacies and shops in the urban areas that dispense pills/condoms. Therefore, a range of MCH-FP services, not just pill and condom supply, provided from the outside service delivery points seemed to work as a better motivating factor for urban women to come out to these facilities and ensure their better use. This was evident from the signs of improvement in the average attendance during March-May 1997, when the CSPs begun to be jointly organized with the satellite (outreach) clinics. The transitory alternative strategy based on the CSPs did not appear to be an effective and required option for urban Dhaka.

Utilization of the PHCC in terms of the number of clients attended and services availed from both, the day and the afternoon/evening sessions was found to be increasing. The number of male clients attending the PHCC day and evening sessions was increasing too. The PHCC-based strategy showed an increase in the utilization of clinical FP methods, like injectables and IUD. The method mix of the contraceptors in the PHCC-based service delivery site indicated considerable changes in favour of clinical contraceptives. This should facilitate attain sustainable demographic effects by the programme.

In both the alternative strategies, the proportion of clients obtaining their method from the commercial sources and static clinics had remarkably gone up. Clients were found becoming more pro-active in seeking MCH-FP services.

The total withdrawal of the door-step distribution of pills and condoms by the field workers to the clients did not affect the contraceptive prevalence rate of the experiment sites. In contrary, the CPR registered increase, especially in the PHCC-based alternative strategy.

An important feature of the alternative approaches was targeted home visits by the field workers to the FP non-users and providing them more time and effective motivation with a systematic approach. Follow-up of the cohort of non-users showed that, a third of the 1563 non-users accepted FP during the experimentation in the PHCC site at Hazaribag and a fourth of the 1683 non-users in the CSP site at Gandaria. Thus, the focus on the non-users produced encouraging results in recruiting new acceptors.

It is generally thought that any shift from the door-step distribution would hamper most directly the contraception status of those clients who are dependent on home-based pill/condom supply. The cohort analysis conducted to examine this aspect revealed that , in the PHCC-based strategy, during the field-testing period (January 1996 - May 1997) 10 per cent of those 669 clients had dropped out. In the CSP-based alternative, a fourth of such 684 clients discontinued FP use. The PHCC alternative appeared to be a better way of shifting from the door-step CBD with minimal loss in continuation of contraceptive use by the field worker-dependent pill/condom users. The net effects of the above drop-outs and new recruitment were contributory to enhancement of overall contraceptive use, since the numbers of new acceptance far outweighed those of drop-outs.

It is often argued that the cessation of distribution of pill and condoms at the door-steps and shift from the two-monthly regular routine visits to each and every eligible couples would result in less-intensive motivation for clinical

FP methods and other MCH services, and less-frequent counselling for the couples currently using pills/condoms. All this, in turn, must lead to reduced utilization of clinical MCH-FP services, higher method failure due to non-compliance with appropriate usage of pill/condom and other methods, and higher discontinuation. However, primary investigations into clinic utilization by the number of clients and by the types of MCH-FP services, 'method failure' and continuation of FP methods did not point at any discernable difference in these indicators across the experimental and non-experimental areas. The experiment did not seem to have affected these important aspects of the programmes.

7.1. Conclusion and Policy Recommendations

The findings of the experiment reveal that the PHCC-based strategy is an effective alternative to the door-step CBD. Replacement of the door-step distribution strategy with clinic-based service delivery alternative seems feasible in urban areas without affecting the MCH-FP programme performances. It is possible to make the field workers' system more effective through re-defining their role and rationalization/balancing of the system according to the changed needs for outreach activities as required by the clinic-based system (promotion and marketing of the clinic services, targeting of clients etc.).

In urban Dhaka, door-step distribution of contraceptives can be replaced by clinic-based service delivery strategies. The clinic-based system enables a holistic approach towards addressing client needs through a package of essential services.

7.2. Lessons Learned

There was considerable concern of whether the programme was mature enough for a change in service delivery infrastructure, and whether the

change would affect the performance. Repeated discussions with programme managers and policy-makers were required in making decisions to formulate the design. Participation of service providers is essential in designing an alternative service delivery system; their knowledge of the community and clientele population is valuable.

Designing an alternative system requires an organizational climate that is open to change and is concerned about the welfare of the community. The course of the intervention forced senior management to confront difficult and controversial decisions, such as reduction of staff members, many of whom have served the organization for decades and were responsible for the past successes. The required decision and action necessitated boldness and realistic attitude toward the forthcoming financial scenario and programmatic needs.

The alternative service delivery system requires a new type of management information system. Withdrawal of home delivery of services means that door-to-door enumeration of eligible couples will no longer be possible. Discussions at the policy levels are required to prioritize some important indicators, and decide on alternative information collection such as through sample surveys (may be once every 1-2 years).

The current MIS itself should be restructured to link clinic and field information systems that accommodate client-centeredness, continuity of care and urban-specific situations, such as high mobility and migration. Further work is necessary to design easy, practical and cost-effective procedures of defining and identifying the 'targets'.

Cost-effectiveness of the clinic-based service delivery strategy ultimately depends on higher utilization of services provided from clinic. This indicates the necessity for an effective mechanism to promote clinic services. The role of effective and appropriate IEC, and community mobilization should be of paramount importance in this respect.

7.3. Further Steps Required

The previous door-to-door delivery of contraceptives and information services by a group of field (outreach) workers will have to be replaced with appropriate IEC activities that ensure information flow among the population. Urban residents need to be informed of when to seek what type of services, and where they can avail of them. They also need to be motivated to contribute toward sustaining the NGO/subsidized clinics in the community. For these, a communication strategy will need to be designed to provide information and to market specific facilities from which a range of services are available. The design will require to be based on needs assessments that describe health information gaps in the community, trace the flow of information, identify and analyze local networks and focal points/persons that can ensure information flow.

Some form of community mobilization activities will be needed to be carried out, to incorporate the perspectives of urban consumers into contributing and sustaining the health facilities designed to serve their needs. Participation of key community groups in planning and programming of health and family planning service delivery needs to be explored further.

Refinement of the system to define and identify 'targets' per requirements of the programme and with minimum costs needs to be continued, together with cost-effective ways of addressing their needs. Further development of the MIS for a service delivery structure that is clinic-centered, with a consolidated field system mainly geared toward case detection and referral to use clinic services, and community-based promotional and mobilization activities need to be seriously addressed. Thus, the key issue is to link the two systems (clinic and community), and ensure continuity of care for individual clients and their families.

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Annex 1: Projection of Client Load for PHCC

Estimated				
Population:	25,000			
ELCOS:	5,000			
<5 Child:	4,000			
<1 Child:	750			
Expected CPR:	70%(for replacement level TFR)			
# of Users:	3,500			
Private Sources	1,500 (43%, estimated)			
From PHCC:	2,000 (estimated)			
Pill (42%)*:	840	4 visits/year	-	3360
Con (15%)*:	300	4 visits/year	-	1200
Inj (9%)*:	180	5 visits/year	-	900
IUD (7%)*:	140	10 new + 20 old/month	-	360
Perm (13%)*:	2604	visits/year	-	260
(*Anticipated use rates)				
Total FP Client Visits in 1 Year:				- 6080
Expected # of Diarrhoea episodes per child per year: 4				
Expected # of diarrhoea cases per year: 4000*4: 16,000				
At 10% PHCC utilization, expected annual diarrhoea cases				- 1600
Expected # of ARI episodes per child per year: 5				
Expected # of ARI cases per year: 4000*5: 20,000				
At 10% PHCC utilization, expected annual ARI cases				- 2000
Estimated other sick child visits				- 2000
Expected % of pregnancies per year: 12%				
Expected # of pregnancies per year: 5000*0.12				- 600
At 50% PHCC utilization, expected annual ANC cases				- 300
Estimated other visits by women				- 3000
Total expected PHCC visits per year				- 14980
Total expected PHCC visits per week (48 wks/year)				- 312

Note: This calculation was based on estimates and assumptions about clinic utilization. Male clients were not included in the calculation.

Annex 2: Tasks for the Implementation of the Intervention

Clinic-based	CSP-based
Organization and Management Tasks: - Overall organizational aspects of the clinic (details in Annexure 3-5) - Redefine role of FWs - Case load and case mix analysis - Identify target groups, phasing of targets - Formulate job description of the clinic staff - Develop appropriate supervisory system - Develop suitable performance monitoring system (of the programme and individual staff) - Analyze resource/logistic needs for the new system and facilitate resource mobilization - Assess training needs and conduct required training - Develop appropriate record keeping and reporting procedures - Define and organize effective community support systems - Analyze overall costing implications of the new system (cost analysis)	Organizational and Management Tasks: - Overall organizational aspects of the CSPs (details in Annexure 3-5) - Review and redefine job description of the FWs - Case load and case mix analysis - Identify target groups, phasing of targets - Develop suitable performance monitoring system (of the programme and individual staff) - Assess training needs and conduct required training - Develop appropriate record keeping and reporting procedures - Define and organize effective community support systems - Analyze overall costing implications of the new system (cost analysis)
Monitoring and Evaluation Tasks: - Mapping of the intervention area - Development of indicators - Development of data collection indicators - Modified 30 cluster approach - Special surveys (one interviewer to do 6-8 interviews in a day. Therefore, 10 interviewers can complete 400 interviews in six days (1 week). For four areas, the 10 interviewers will be need for four weeks)	Monitoring and Evaluation Tasks: - Mapping of the intervention area - Development of indicators - Development of data collection indicators - Modified 30 cluster approach - Special surveys (one interviewer to do 6-8 interviews in a day. Therefore, 10 interviewers can complete 400 interviews in six days (1 week). For four areas, the 10 interviewers will be need for four weeks)

Annex 3: Initial Staffing and Operation of the Primary Health Care Clinic (PHCC)

Category	Workdays by Clinic	Staff Required
Health worker	- 6 days/week in day time	- 1 full-time
Paramedic	- 6 days/week in day time - 3 days/week in afternoon/evening	- 1 full-time - 1 part-time
Male Doctor	- 3 days/week in afternoon/evening	- 1 part-time
Aya	- 6 days/week in day time - 3 days/week in afternoon/evening	- 1 full-time - 1 part-time

The PHCC was attended in the mornings every day (8:00 am - 2:30 pm) by:

- a Paramedic
- a Health Worker, and
- a Aya

The 3 evening sessions per week (every alternate working day: 3:00 pm - 7:00 pm) were staffed with:

- a male Doctor
- a Paramedic, and
- a Aya

Annex 4: Services offered from PHCC and CSPs

Services to be Provided		PHCC Provider	CSP Provider
a.	Family Planning Information, education and referral Supply/resupply of pill and condom Injectable: Screening and 1st dose Follow up and subsequent doses IUD: screening, insertion, follow up and removal Counselling, screening and side-effect management Referrals for implants and sterilization	PM/HW/MD* PM/HW PM HW/PM PM HW/PM PM	FW* FW - - - FW FW
b.	Immunization: EPI & TT Information, education and referral on immunization	DCC Vaccinator PM/HW/MD	- FW
c.	ANC/PNC (as per current CWFP clinic practices and standards) General management of sick women and children and referrals (as per current CWFP clinic practices and standards) Treatment of referral cases Treatment and consultation for male cases and other cases on demand Lab tests (Hb, Urine-Sugar, Albumin)	PM PM MD MD PM	FW FW - - -
d.	Strengthened management of diarrhoea, ARI and RTI	PM/MD	-
e.	Strengthened ANC/PNC	PM	-
f.	Strengthened counselling on warning signs, post-partum contraception, breast feeding and safe delivery	HW/PM	FW

Note: More services from the essential package of health services could be gradually added to the existing services. The providers might need additional training for some of these services.

*PM = Paramedic, HW = Health Worker, MD = Male Doctor, FW = Field Worker

Annex 5: Service Charges at PHCC and CSPs

ITEMS	CHARGES	Comments
1st Time Registration Fee with Client Card	Tk. 5.00 per client	Waived for clients only seeking pills or condoms
Service Charge for Subsequent Visits	Tk. 3.00 per visit	Waived for clients only seeking pills or condoms
Lost Client Card	Tk. 5.00 per card	
Condom (per dozen)	Tk. 1.00 per dozen	
Pill (per cycle)	Tk. 2.00 per cycle	
Medicine (antibiotics)	1/3 of the respective MRP	
Male Doctor's Fee	Tk. 20.00 per client	

- Except for the doctor's fees, all charges were based on existing CWFP user fees. (These prices, however, need to be re-fixed in future through systematic pricing strategies: considering willingness-to-pay, ability-to-pay, prices of other similar providers and corresponding expenditure patterns of the clients by their socio-economic status).

- In case the PHCC and CSPs supply Commercial/SMC brands of condom and pill, the corresponding market retail prices (MRP) were charged.

- Fees for the male doctor's service/consultation were charged with a view to recover the salary cost. An estimated client load of 10-15 clients per working afternoon was expected to generate Tk. 720/- (12 clients on average x 20/- x 3 days/week) per week or TK. 2880/- per month. Not all clients were charged consultation fee. Only clients seeking or referred for curative services (not including side-effect/complication management of contraceptives) were to be charged Tk. 20/-. This rate is much lower than the rates charged by an MBBS doctor (private practitioner).

Annex 6: Case-load and Case-mix Analysis (Based on CRB data)

Area	Total ELCOs	Total Users	CWFP FW Dependent Pill/condom Users	Total Non-users	Non-users			
					Newly Wed	Young Couple	Unmet Need	Others
Hazaribag	4236	2673 (63%)*	669 (16%)	1563 (37%)	29 (1%)	869 (20%)	505 (12%)	160 (4%)
Gandaria	3708	2025 (55%)	684 (18%)	1683 (45%)	29 (1%)	863 (23%)	390 (10%)	401 (11%)

Note:

* Figures shown within brackets are corresponding percentage values of total ELCOs

Newly wed = 1st year of marriage

Young couple = Women < 30 years

Unmet Need = Not pregnant, not newly wed, non-young couple, do not want child currently (within 1 year)/ anymore

Annex 7: Non-user Client Type by Main Reason for not using FP Modern Method
(Percent Distribution)

FP non-user client types by the main reason	Hazaribag (n = 1499)	Gandaria (n = 1676)	Total (n = 3175)
Wants a child	21.4	19.4	20.4
Misconception/ Thinks infertile	15.9	19.5	17.8
In Post Partum Amenorrhoea	20.4	14.7	17.4
Pregnant	10.2	11.4	10.8
Traditional method user	10.2	8.2	9.2
Husband abroad	9.1	6.6	7.8
Physical Illness	4.1	5.6	4.9
Other	8.7	14.4	11.7

Other:

- ◇ No relation with husband
- ◇ Personal disliking
- ◇ Thinks births are infrequent anyway
- ◇ Husband other place
- ◇ Family members oppose FP
- ◇ No normal relation with husband
- ◇ Gender preference
- ◇ No menstruation
- ◇ Thinks not at risk as breastfeeding
- ◇ Drop out due to side effect
- ◇ Religious conservatism
- ◇ Wants a child due to second marriage
- ◇ Indecisive in method use
- ◇ Superstition
- ◇ Women abroad
- ◇ Feels shy

Annex 8: Services provided by CWFP Programme (at field and clinic) in Intervention and Comparison Areas

Types of Services	Intervention Areas				Comparison Area	
	Hazaribag (PHCC)		Gandaria (CSPs)		Siddiquebazar	
	Aug '96	May '97	Aug '96	May '97	Aug '96	May '97
SERVICES AT COMMUNITY						
- Family planning clients supplied with pill	-	-	156	103	609	673
- clients supplied with condom	-	-	131	109	699	708
SERVICES FROM CLINIC						
- Family planning (pill, condom, injectable, IUD, follow-up, side effect management)	405	446	82	115	108	115
- Maternal health care	153	196	28	51	55	81
- Child health care	67	140	8	16	19	20
- Pathological and others	144	170	47	74	43	34
Total Services from Clinic	769	952	165	256	225	250
% of FP Services from Clinic	53	47	50	45	48	46
% of MCH & Other Services	47	53	50	55	52	54

Note: There was no door-step supply at Hazaribag in the clinic-based strategy. Services at the community were provided from the Community Service Points at Gandaria, and by the field workers under the conventional door-step distribution at Siddiquebazar. The quoted clinic services at the Gandaria and Siddiquebazar research areas were the corresponding services provided from the respective branch clinics to the clients from these areas.

Annex 9: Apportioned CWFPP Programme Costs by Types of Services in Intervention and Comparison Areas

Cost Items	Intervention Areas				Comparison Area	
	Hazaribag (PHCC)		Gandaria (CSPs)		Siddiquebazar	
	Aug '96	May '97	Aug '96	May '97	Aug '96	May '97
- Salary of field staff	11016.00	6368.00	10333.00	9173.00	15316.00	14947.00
- Salary of clinic staff	8692.00	9005.00	1488.00	1825.00	1731.00	1742.00
- Salary of administrative and support staff	2470.00	3387.00	2454.00	3464.00	3224.00	2916.00
- Cost of drugs and clinical supplies	1325.00	1175.00	229.00	285.00	227.00	241.00
- Other overhead costs	1800.00	1800.00	3058.00	4377.00	2549.00	3794.00
Total Production Costs of FP Services	25303.00	21735.00	17562.00	19124.00	23047.00	23640.00
Total Production Costs of MCH and Other Services	19074.00	19184.00	12199.00	13922.00	16180.00	16768.00

Note: Based on the findings from observation of the field workers at the research areas, it was revealed that 60% of their time was involved with FP, and the rest with MCH activities. Accordingly, 60% of the salary of field staff, salary of administrative staff and other overhead costs had been apportioned to FP services. Similarly, it was observed that two-third of the time of the field workers for the FP activities was related to non-clinical resupply methods, while the rest with motivation/referral for clinical FP. The clinic costs (salary of clinic staff, and cost of drugs and clinical supplies) were distributed among FP and MCH services on the basis of the proportions of the respective services provided from the clinics in the research areas.

Annex 10: Family Planning Outputs of CWFP Programme (at Field and Clinic) in Intervention and Comparison Areas

Types of Outputs	Intervention Areas				Comparison Area	
	Hazaribag (PHCC)		Gandaria (CSPs)		Siddiquebazar	
	Aug '96	May '97	Aug '96	May '97	Aug '96	May '97
OUTPUTS AT COMMUNITY						
clients supplied with pill	-	-	156	103	609	673
clients supplied with condom	-	-	131	109	699	708
OUTPUTS AT CLINIC						
clients supplied with pill	58	48	0	1	0	1
clients supplied with condom	44	51	1	7	6	8
clients provided injectable	188	176	53	61	55	40
clients inserted IUD	19	15	1	1	0	1

Note: There was no door-step supply at Hazaribag in the clinic-based strategy. Services at the community were provided from the Community Service Points at Gandaria, and by the field workers under the conventional door-step distribution at Siddiquebazar. The quoted services for clinics at the Gandaria and Siddiquebazar research areas were the corresponding services provided from the respective branch clinics to the clients from these areas.

MCH-FP Extension Work at the Centre

An important lesson learned from the Matlab MCH-FP project is that a high CPR is attainable in a poor socioeconomic setting. The MCH-FP Extension Project (Rural) began in 1982 in two rural areas with funding from USAID to examine how elements of the Matlab programme could be transferred to Bangladesh's national family planning programme. In its first years, the Extension Project set out to replicate workplans, record-keeping and supervision, within the resource constraints of the government programme.

During 1986-89, the Centre helped the national programme to plan and implement recruitment and training, and ensure the integrity of the hiring process for an effective expansion of the work force of governmental Family Welfare Assistants. Other successful programme strategies scaled up or in the process of being scaled up to the national programme include doorstep delivery of injectable contraceptives, management action to improve quality of care, a management information system, and developing strategies to deal with problems encountered in collaborative work with local area family planning officials. In 1994, this project started family planning initiatives in Chittagong, the lowest performing division in the country.

In 1994, the Centre began an MCH-FP Extension Project (Urban) in Dhaka (based on its decade long experience in urban health) to provide a coordinated, cost-effective and replicable system of delivering MCH-FP services for Dhaka urban population. This important event marked an expansion of the Centre's capacity to test interventions in both urban and rural settings. The urban and rural extension projects have both generated a wealth of research data and published papers.

The Centre and USAID, in consultation with the government through the project's National Steering Committees, concluded an agreement for new rural and urban Extension Projects for the period 1993-97. Salient features include:

- To improve management, quality of care and sustainability of the MCH-FP programmes
- Field sites to use as "policy laboratories"
- Close collaboration with central and field level government officers
- Intensive data collection and analysis to assess the impact
- Technical assistance to GoB and NGO partners in the application of research findings to strengthen MCH-FP services.

The Division

The reconstituted Health and Population Extension Division (HPED) has the primary mandate to conduct operations research to scale up the research findings, provide technical assistance to NGOs and GoB to strengthen the national health and family planning programme.

The Division has a long history of accomplishments in applied research which focuses on the application of simple, effective, appropriate and accessible health and family planning technologies to improve the health and well-being of the underserved and population-in-need. There are several projects in the Division which specialize in operations research in health, family planning, environmental health and epidemic control measures which cuts across several Divisions and disciplines in the Centre. The MCH-FP Extension Project (Rural), of course, is the Centre's established operations research project but the recent addition of its urban counterpart - MCH-FP Extension Project (Urban), as well as Environmental Health and Epidemic Control Programmes have enriched the Division with a strong group of diverse expertise and disciplines to enlarge and consolidate its operations research activities. There are several distinctive characteristics of these endeavors in relation to health services and policy research. First, the public health research activities of these Projects focus on improving programme performances which has policy implications at the national level and lessons for international audience. Secondly, these Projects incorporate the full cycle of conducting applied programmatic and policy relevant research in actual GoB and NGO service delivery infrastructures; dissemination of research findings to the highest levels of policy makers as well as recipients of the services at the community level; application of research findings to improve programme performance through systematic provision of technical assistance; and scaling-up of applicable findings from pilot phase to the national programme at Thana, Ward, District and Zonal levels both in the urban and rural settings.



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