Working Paper No. 38

Cost-effectiveness and Sustainability Aspects of MCH-FP Programmes in Bangladesh:

A Review of the Past and Present Programmes

Subrata Routh
Aye Aye Thwin
Abdullah H. Baqui

MCH-FP Extension Project (Urban)
Health and Population Extension Division

1997

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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.

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The study received invaluable inputs from officials of the Directorate of Family Planning, Ministry of Health and Family Welfare, Government of Bangladesh and many researchers working with various research organizations in Bangladesh. The review also got benefitted from the views of the executives and programme managers working in different Cooperative Agencies (CAs), NGOs and Social Marketing Company (SMC). The list of these persons who directly or indirectly contributed to the accomplishment of the study is pretty long. Without making any particular reference to any of them, we acknowledge their contribution with thanks and gratitude. However, special mention of Dr. Ahmed Al-Sabir, Director (Research), National Institute of Population Research and Training (NIPORT) and Mr. Abdur Rouf, Executive Director, Population and Services Training Center (PSTC) needs to be made who formally reviewed the paper.

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EXECUTIVE SUMMARY

With an estimated population of 122 million and a density of approximately 800 people per square kilometre, Bangladesh has been facing the problems of mounting population pressure. Despite the remarkable success in the area of population control over the past two decades, the country is yet to go a long way. The priorities of the Mother and Child Health Care and Family Planning (MCH-FP) programmes have now evolved to a stage that emphasizes consolidation and continuation to sustain the increasing trend in performance under resource constraints. Sustainability, as ability of the programme to continue, largely without external resources, by raising resources internally, is a felt need at the background of increasing programme costs and stagnation in funding from donors.

The present study analyzes the current and past MCH-FP service-delivery approaches aiming at understanding their cost-effectiveness and sustainability aspects in formulating alternative strategies for the future programmes. The paper has been produced through literature review and discussions with key informants, like Government, Non-government Organization (NGO) and Social Marketing Company (SMC) officials, and MCH-FP programme managers at the implementation level.

The national population programme in Bangladesh has evolved through a series of development phases. During the last four decades, it has undergone changes in terms of structure, strategy, contents, goals, and overall dimension. Services are delivered to the clients using strategies like doorstep type of community-based distribution (CBD) approach, i.e. providing family planning (FP) commodities (pill, condom) and other MCH-FP services by the field workers at the homes of the clients on a routine basis; clinic-based delivery of MCH-FP services; and social marketing strategies--marketing MCH-FP commodities through commercial retail outlets, like pharmacies (drug stores) and grocery shops.

The population programme in Bangladesh started as a non-government (voluntary) initiative in the early 1950s. Limited participation of the government begun in the 1960s with clinic-based distribution of FP services and eventually expanded towards the delivery of MCH-FP (FP plus) services

predominantly through a massive supply-led doorstep distribution system backed up by a comprehensive system of clinics. The government is now the biggest service provider rendering approximately three-fourth of the country's MCH-FP services. NGOs are the second largest providers next to the government. The social marketing activities and some participation of the for-profit private sector in MCH-FP programmes started since mid-1970s. The social marketing programme proved much successful in Bangladesh and is considered a prospective supplier of selective MCH-FP commodities. Role of the commercial sector is still limited within curative MCH and some clinical FP services.

Currently, the Bangladesh MCH-FP programme comprises about 12,000 female field workers and 200 NGOs clinics, numerous pharmacies and shops in the private sector dispensing a number of MCH-FP commodities, including SMC products (pills, condoms, and oral rehydration saline) in complementary to the 23,000 field workers and about 4,000 clinics in the government (GoB) system.

The CBD programmes, depending on the service-delivery arrangements at the implementation level, have been analyzed in this paper by lumping them into five strategies: (i) Doorstep delivery of services by full-time field workers; (ii) Doorstep delivery of services by part-time field workers: (iii) Doorstep delivery of services by volunteers and with community support; (iv) Community-based (not at the door-step) delivery of services by field workers/volunteers; and (v) Special (other MCH-FP CBD programmes).

Similarly, the clinic-based service-delivery programmes, depending on the types of services offered and arrangements of the clinics, have been grouped as: (i) Delivery of fragmented services (e.g. only FP, only MCH, etc.) from fixed-site regular clinics; (ii) Delivery of services from satellite clinics (outreach clinics arranged in specific dates and sites to offer services to clients living in remote areas); and (iii) Delivery of a range of MCH-FP services from fixed-site regular clinics.

The social marketing programme, based on the marketing strategies, was divided into: (i) Social marketing of contraceptives and oral rehydration saline

(ORS) using the commercial marketing network; and (ii) Community-based sale of contraceptives and ORS.

Most GoB and NGO programmes are yet predominantly dependent on the doorstep delivery strategy which was adopted since mid-1970s to ensure easy access of the women and motivate them to MCH-FP services whose mobility was considered to be limited because of the sociocultural and physical contexts of the country. Although the impact of this strategy was remarkable, it has been highly resource-intensive too. With the need to expand the programme activities and to meet the increased demand for health and FP within limited resources, the doorstep strategy seems quite inviable. It rarely matches with the changed programme objectives of fostering a pro-active clientele and enabling a cost-effective holistic approach toward addressing clients' needs through an essential package of health and family planning services, The strategy based on employing part-time field workers though less costly, commitment and motivation of the part-timers along with their retention rate and quality of delivered services are questionable. The volunteer-based strategy has apparently proved to be effective in reducing the cost of the programmes. However, it needs tremendous efforts to develop and maintain the volunteers' system, and the turnover rate is generally quite high. Implication of these related implicit/hidden costs to build and support the system needs due consideration when analyzing cost-effectiveness of the volunteers' strategy (whether the relative gains offset these implicit costs). Non-doorstep community-based strategies (Depot holder, 'Jiggasha,' Cluster visitation) along with other innovative approaches require more research and necessary adaptation in phasing out gradually the doorstep distribution strategy from the high-performing rural areas. They do not seem to be effective alternatives for the urban areas where numerous pharmacies and shops that dispense pill and condom exist, and also the community network is not so obvious like the rural areas. However, what is most important for these alternative strategies is that they should clearly demonstrate the cost-effectiveness prospects, although in many cases that may not happen in the very short run. The special programmes based on the strategies of providing MCH-FP services, using traditional birth attendants, traditional healers, canvassers, working places (mills, factories), educational institutions,

professional unions, and in conjunction with other socioeconomic activities, seem effective only as supplemental strategies of the regular programmes.

The emphasis on offering services through clinic outlets is still weak for most government and NGO programmes. Costs of the clinical services (except for those provided in the satellite clinics) are yet high due to under-use of the clinic facilities and higher capital costs. However, the strategic objective to address the essential health needs of the people will require enhanced emphasis on strengthening clinic services as the main hub of health and family planning activity and encouraging clients to use clinics that provide a range of essential services.

Shifting clients from the GoB and subsidized supply sources to those of the SMC and commercial sector for pills and condoms lead to better sustainability of the national MCH-FP programme through reduction of clients' dependency on the government/subsidized sources. The community-based sales strategy of the SMC, however, seemed to be counter-productive to the general principles of fostering pro-active clients and reduce dependence on home supplies of pills and condoms. The SMC can, instead, with a view to increase the availability of and accessibility to its products in the rural areas, look into the prospects of using various non-pharma outlets, like grocery shops, etc., in parallel to its existent marketing through pharmacies.

To develop cost-effective, sustainable and replicable strategies, MCH-FP programmes, especially the ones operating in urban settings, will need to consider the following issues:

- increase system efficiency by experimenting with alternative service-delivery strategies for gradual phasing out of the doorstep distribution system and target field workers' services to specific types of clients for promotion of programme activities. The alternative service-delivery strategies also need to look into the prospects and ways of: incorporating a simple and easy-to-operate volunteer system; promoting various ways of community involvement; using various professional bodies and working places for provision of services; integrating MCH-FP activities with socioeconomic development programmes; shifting clients from the government and subsidized sources to the commercial sources for the

supply of commodities; and above all emphasize clinic-based delivery of a wide range of essential health and family planning services.

Further research for designing cost-effective and sustainable service delivery strategies is, thus, necessary in the following areas:

- feasible and cost-effective alternatives to the existing field worker-based service-delivery system; design of the transition of the doorstep distribution strategy to a clinic-based service-delivery approach that minimally affects the existing programme performances; prospects of cost-effective alternative use of field workers; practical and cost-effective ways of segmenting and identifying target population; special programme needs of the poor and slum population, effective approach to address the non-users, 'unmet need' and special urban groups; cost-effective, simple and practical ways of involving volunteers/community into the service delivery-system; innovative Information, Education and Communication (IEC) that promotes effective demand for health and family planning services; and ways to involve the SMC and commercial sector more effectively in the basic health-care service-delivery system.

Background

Need for Family Planning in Bangladesh

Bangladesh is known to the world for its extremely odd socioeconomic development indicators and the precarious health and demographic profile of its populace. With an estimated population of 122 million (UNFPA, 1997) and a density of approximately 800 people per square kilometre, Bangladesh has been facing the disaster of mounting population pressure. The high fertility and declining mortality have contributed to doubling the population in less than 30 years since 1961. But what is more alarming is a tremendous growth potential which is inherent into the age-structure, having 45 per cent of the population aged less than 15 years and 47 per cent of the female population within the reproductive age (15-49 years) (MoHFW, 1993; GoB, 1994).

With these demographic realities coupled with poor socioeconomic parameters, Bangladesh needs to reduce the rapid population growth within a shortest possible time. A multi-pronged approach, capable of attaining sustained fertility decline, needs to be vigorously pursued. There is no other option for a healthy survival other than to match the population with the country's limited resources and keep it within the limit that the existing infrastructure can support.

Progress Achieved

Despite the widespread poverty, Bangladesh has achieved a remarkable success in population control over the past two decades. This was possible largely due to the implementation of a strong family planning programme marked with sustained political commitment and massive participation of the government, and the befitted complementary role of non-governmental organizations (NGOs) coupled with adequate support of donors and development partners. Bangladesh has earned international acclamation for its tangible success in fertility reduction amidst unfavourable socioeconomic conditions.

It is now well recognized that the demographic transition in Bangladesh has set in, and the national family planning programme has made impressive strides. The contraceptive use rate has risen from 7.7 per cent in the mid-seventies to 49 per cent. The total fertility rate (TFR) has decreased from 6.3 to 3.3, and the population growth rate has declined from 2.5 per cent to around 2 per cent. (Bangladesh Demographic Health Survey, 1996-1997).

Future Direction of the MCH-FP Programmes

In spite of these successes, the country cannot run the risk of complacency. The priorities of the mother and child health care and family planning (MCH-FP) programme have now evolved to a stage that emphasize consolidation and continuation to sustain the increasing trend in performance, break away from the prevailing mid-level plateau in contraceptive prevalence rate (CPR), meet the 'unmet needs,' expand demands for contraceptives by younger couples, increase relative share of clinical methods, enhance levels of quality of services, and above all, further integration of MCH-FP services with other essential components of reproductive and primary health care.

Strategic planning now emphasizes the need for reforming the health sector to improve management and accountability, and reduce duplication and wastage. The fundamental principles of such a reform are presumed as the efficient delivery of a package of essential health services, comprising a range of reproductive (including maternal health and family planning services) and child health services through a clinic-based and client-centred approach, enabling clients toward 'one-stop shopping,' and attainment of sustainability through community financing and resource mobilization.

The Need for Sustainable Programmes

Sustainability, as ability of the programme to continue, largely without external resources, that is by raising resources internally, is a felt need for the country's MCH-FP programme in the context of the following conditions:

- with the increase in population size, provision of health and family planning services will require corresponding increase. At the backdrop of the national goal to reach replacement fertility (TFR = 2.2) by the year 2005 and to achieve an infant mortality rate (IMR) of 50 per 1,000 live-births, the pace of this increase will need rapid accelerations. Thus, during 1995-2005, family planning services will have to be extended from 27 million families to 40 million, contraceptive users have to be more than doubled from 12 million to 28 million, CPR has to be raised to 70 per cent, and immunization coverage of infants aged less than one year must be increased from 4.2 million infants annually to approximately 6.3 million infants per year (GoB, 1994; Cunnane, 1995);
- with such a dire need for increase in coverage, MCH-FP programme costs must increase significantly. To achieve the above-mentioned goals, the estimated annual cost of the programme shall have to be increased from Tk. 480 crore (U.S. $ 120 million) in 1995 to Tk. 880 crore (U.S. $ 220 million) in 2005 (Cunnane, 1995);
- with this increased programme costs, it is becoming increasingly difficult on the part of the government and donors to meet the rising costs. The Government of Bangladesh is currently providing 37 per cent of the total programme costs. Therefore, the programme is still largely dependent on donor contributions, which, instead of having an increase, are likely to decline in the future.

At the above backdrop, sustainability concerns of the MCH-FP programmes in the country have become increasingly obvious.

The Broad Options to Sustainability

Broadly, there are two major aspects of sustainability. The issue of institutional sustainability focuses on the ability of an organization to be competent enough to manage its activities over the long run without or with diminished technical assistance/outside support. On the other hand, financial sustainability focuses on the ability of an organization to reduce its

dependence on outside funding and its ability to secure financial support from its own or local sources. Cost-effectiveness (the ratio of the outcome generated by an organization or a programme over the inputs required to that end) is an important pre-requisite to the overall sustainability.

The broad options to attain financial sustainability are:

- to reduce cost of implementation either through cost containment measures (those that attempt to maximize output at present costs), and/or cost reduction/savings (those that attempt to reduce costs keeping the current output level unchanged), and
- to increase revenue generation by charging user fee for services and adopting other means of community financing.

Factors, like service-delivery strategies, service mix, efficient management of programmes aimed at optimal use of resources, cost-recovery measures, community participation, involvement of the commercial sector, adequate policy support from the government, etc., are deemed to facilitate sustainability of the MCH-FP programmes.

In-country manufacturing of contraceptives can substantially contribute to enhancement of sustainability by reducing the programme cost for procuring contraceptives. The cost of contraceptive commodities alone will need to be increased from Tk. 88 crore (U.S. $ 22 million) in 1995 to Tk. 204 crore (U.S. $ 51 million) in 2005 (Alauddin and Islam, 1995). At present, Bangladesh manufactures oral contraceptive pill, which covers a sizeable part of the local consumption. Capacity building for in-country production of contraceptives is under consideration of the private and public sectors.

A possible combination of the cost savings and the revenue-generation measures is expected to yield synergistic effects in the strives for sustainability.

Objectives

The study analyzes the current and past MCH-FP service-delivery approaches aiming at understanding their cost-effectiveness and sustainability aspects. Several innovations regarding cost-effective and efficient service-delivery strategies have been tried in Bangladesh at various localized projects, both by the government and NGOs. The review, while documenting these isolated efforts, attempts to get insights and ideas in developing cost-effective, sustainable and efficient MCH-FP service-delivery alternatives, especially for the urban areas of the country.

Taking a stock of the programme dynamics and revisiting the various service modes have become increasingly important, because the government, NGO and social marketing programmes are currently in a nick of time that require modifications in the existing service-delivery strategies in favour of more cost-effective and sustainable alternatives. Lessons from the past are invaluable inputs in shaping the future changes correctly.

Methodology

The paper has been produced after reviewing literature and discussing with key informants, like government, NGO and SMC officials and programme managers at the implementation level. Review and analyses of the outcome and cost-effectiveness of the programmes were carried out mainly on information collected from published and unpublished evaluation reports of the same, and from the experts' opinion survey. However, critical review of the methods and approaches applied in the evaluation reports, which were consulted to understand the effects of the various service-delivery strategies, remained beyond the purview of the present study.

The paper focusses on the cost aspects of the programmes with regards to their service-delivery strategies, and limited the analyses mostly in the family planning aspects of the programmes. The study was conducted during 1995-1996.

Outline of the Paper

The review entails the following broad sections:

i. An introductory section depicting the background information of the paper.

ii. Evolution and description of the national MCH-FP service-delivery system. This section groups the MCH-FP activities performed so far in some salient phases, and discusses the various programmes with regards to two important aspects of the delivery arrangements: who are the service providers (GoB, NGOs, SMC etc.), and what outlets are used for delivering the services (doorstep/community-based distributions, clinic-based services, social marketing, etc.).

iii. Analysis of the present and past service-delivery strategies. This section encompasses description of the service-delivery strategies at the implementation level. Analyses of the various service-delivery strategies to understand the cost-effectiveness and sustainability issues inherent in them have been done by lumping the various strategies on the basis of the features common to them (like who are delivering the services at the implementation level: full-time paid workers, part-time workers or volunteers; where the services are rendered to the clients – at their homes or outside the houses at a convenient site in the community, etc.) .

iv. Discussions on the main findings of the review and a summarized analysis of the various MCH-FP service strategies. The future directions and research issues pertinent to development of sustainable MCH-FP service-delivery alternatives with special focus to the urban areas of Bangladesh have been highlighted at the end.

The National MCH-FP Service-delivery System

Over the last four decades the population programme in Bangladesh, evolved through a series of development phases, has undergone changes in terms of structure, strategy, contents, goals, and overall dimension. The main phases of the evolution in the national MCH-FP system along with the basic events characterizing each of these phases have been summarized below:

Phase 1: 1953-1955: **Inception of Voluntary FP Activities**

- The Family Planning Association formed on 2 March 1953 at the initiative of some renowned social and medical workers to promote voluntary clinic-based FP activities
- Establishment of the first FP clinic (attached to the gynae department of the Dhaka Medical College Hospital)

Phase 2: 1955-1965: **Limited Support of the Government and Adoption of the First National FP Programme**

- A bill in the National Assembly endorsing FP activities adopted
- Motivation centres and clinics attached to the gynae wards of the district hospitals opened
- The first national FP programme adopted
- FP services provided through government clinics and health-care facilities

Phase 3: 1965-1970: **The Government Expanded FP Programme**

- Field-based FP programme initiated in limited scale
- Organizational structure laid down to the subdistrict level
- Village-based part-time field workers (Dais) employed

Phase 4: 1970-1975: **Integrated Health and FP Programme**

- FP services structurally integrated with health at the field level
- Health and FP activities shared by both health and FP personnel
- Social marketing of contraceptives begun (1974)

Phase 5: 1975-1990: **MCH-based Separate FP Programme**

- National Population Policy formulated (1976)
- Separate directorates for health and FP services established
- Multi-sectoral FP programme undertaken
- Full-time Field Workers employed(massive home-based service delivery system with free distribution of FP commodities and services)
- Involvement of NGOs in MCH-FP activities enhanced
- Government-NGO-coordinated efforts initiated (since 1979)
- Satellite (outreach) clinics introduced to deliver MCH-FP clinical services in remote areas

Phase 6: 1990-1996: **Early Start of Programme Consolidation and Sustainability**

- Nominal charges for FP commodities and other MCH-FP services introduced
- Field and clinic-based programmes trying some managerial and organizational changes to improve programme efficiency, cost-effectiveness and sustainability (i.e. service-delivery strategies alternative to doorstep distribution, combined EPI and satellite clinic sessions, etc.) initiated

- Participation of the SMC and the commercial sector increased
- A good number of research and evaluation on various aspects of efficiency, cost-effectiveness and sustainability of the MCH-FP programmes accomplished

Phase 7: 1996- : **Initial Moves Toward Effective and Sustainable Delivery of Essential Health Services**

- A package of essential health services comprising a range of reproductive health services for women and men (including FP and maternal health services), child health and other primary health care services defined
- Initial exercise on re-engineering of the public sector health and family planning systems for effective and efficient delivery of the essential services package begun
- Steps toward more effective and planned co-ordination among the government and NGO programmes initiated
- 'Clinic-based one-stop shopping' concept recognised as the guiding principle for delivery of the essential health services
- Concern for sustainability of the programmes, and for involvement of the private for-profit and social marketing sectors in health and family planning activities enhanced

The above reveals that the MCH-FP service-delivery system, which has undergone various modifications, at present entails inter-sectoral, clinic-backed and community-based dimensions. Especially, during the fifth phase a massive supply-led programme based on the entirely free distribution principle, was adopted eventually resulting in a remarkable expansion of the programme benefits. But the investments for introduction and maintenance of the resource-intensive home-based service-delivery system were also large. This now at the backdrop of further expansion and consolidation of the programme under waning donor funding poses a serious threat to the

sustainability of the programme benefits. Since 1990, concerns for the sustainability of the programme effects have been growing especially within the NGO MCH-FP programmes, and various measures to enhance cost-effectiveness and programme sustainability are being tried out. The national health and population programme is currently at the cross-roads of major changes and gives further emphasis on: integration of health and family planning services for more efficient use of allocated resources; effective ways of delivering the essential health services with enhanced focus on clinic-based service-delivery strategies; and financial sustainability.

The government, NGOs and SMC are eventually the salient providers that make up the MCH-FP service-delivery system of the country with the help of a comprehensive network of service outlets – a vast complement of female family planning and health workers, regular and satellite clinics, and pharmacies and shops.

The following sub-sections describe in brief the basic features of the government and the NGO/SMC service-delivery systems.

The GoB Programme

To accelerate the process of building welfare-oriented families, the MCH-FP programme of the Government of Bangladesh (GoB) is supposed to provide the following services:

- modern FP services, viz. vasectomy, tubectomy, condom, oral pill, injectable, intra-uterine device (IUD), and norplant;
- 'FP plus' services comprising antenatal care (ANC), safe delivery, postnatal care (PNC), immunization of women and children, oral rehydration therapy for treatment of diarrhoeal diseases, nutrition (distribution of vitamin A capsules).

However, immunization of mothers and children, some ANC and PNC, advice and referral for safe-delivery of mothers, and limited treatment of elementary common diseases are the most common 'FP plus' services being rendered in the GoB MCH-FP facilities.

Some basic information on organization and structure of the government MCH-FP programme are given below:

Organization:

- The National Population Council, headed by the Prime Minister, is the highest policy formulating body.
- The Ministry of Health and Family Welfare (MoHFW) is responsible for formulating and executing policies and overall administrative guidance.
- The Directorate of Family Planning, headed by the Director General, is responsible for implementing the MCH-based family planning programme throughout the country.
- The operational units working under the Director General at the National Headquarter are: Administration, Information, Education and Motivation (IEM), MCH services, Audit, Finance, Planning, Logistic and Supply, Management Information System (MIS), each headed by a Director.
- There are four divisional offices, each headed by a Director, 64 district offices, each headed by one Deputy Director, 464 thana offices each headed by a Thana Family Planning Officers. There are MCH and FP coordination committees at all levels to supervise the activities.
- At the field level, there is one Family Planning Inspector (FPI) in each union and one Family Welfare Assistant (FWA) in each unit. A ward has been divided into several units, each having about 4,000-5,000 population.
- To impart training and for coordinating research, and to cater to the training needs of the population and FP sector, a separate organization, National Institute of Population Research and Training (NIPORT) was established in 1979.

Service Providers:

- Thana Family Planning Officer	464
- Medical Officer	1,234
- Senior Family Welfare Visitor	464
- Family Welfare Visitor	4,684
- Medical Assistant	2,300
- Pharmacist	400
- Family Planning Inspector	4,478
- Family Welfare Assistant	23,384

Service Centres:

National level

- Maternal and Child Health Training Institute, Azimpur, Dhaka
- Mohammadpur Fertility Services and Training Centre, Dhaka
- Two Model Clinics attached to two medical college hospitals at Dhaka

District level

- 6 Model Clinics attached to medical college hospitals
- 64 MCH-FP Clinics at district hospitals
- 55 Mother and Child Welfare Centres (MCWC)

Thana level

- 349 MCH-FP Unit at Thana Health Complex (THC)
- 12 Mother and Child Welfare Centres (MCWC)

Union level

- 2,700 Family Welfare Centres (FWC)
- 1,275 Rural Dispensaries (RD)
- 23 Mother and Child Welfare Centres (MCWC)

Ward/Unit level

The Family Welfare Assistant (FWA) makes home visits once every two months, motivates married women of reproductive age (MWRA) for MCH-FP services and supplies non-clinical contraceptives at home. She also distributes vitamin A capsule, provides health education, advice and referral on clinical FP methods, ANC, safe-delivery, PNC, immunization, and collect information of the households on birth, death and contraception status. The Family Planning Inspector (FPI) supervises the activities of the FWAs.

Satellite Clinic:

Satellite Clinics (30,000 per month) are being organized by the Family Welfare Visitors (FWVs) from each Family Welfare Centre (FWC) to provide FP and MCH services at the doorsteps of the outreach people.

The NGO and SMC Programmes

NGOs have been playing a significant role in the national population activities since pioneering the country's FP programme in the early fifties. About 170 donor-funded NGO MCH-FP projects are currently in operation in approximately 800 sites in the country. (Directory of NGO FP Projects, 1993). More than two-third of these projects are supported by the United States Agency for International Development (USAID), and most of the remaining by the Bangladesh Population and Health Consortium (BPHC). Nearly one-fourth of the total eligible couples are served by the NGO projects. The NGO programmes are mostly engaged in doorstep type of community-based distribution (CBD) activities. Many of them have clinic facilities for FP methods, like injectables, IUD, etc., and MCH services, like ANC, PNC, woman and child immunization, etc. The field activities of NGOs and the SMC include:

- CBD and clinical services
- Training, research, and evaluation
- Community-participated FP programme
- FP programme integrated with MCH, nutrition and income-generating projects
- Social marketing of contraceptives.

About 37 per cent of the distribution of modern FP supply methods are jointly covered by the NGO and the SMC programmes. The SMC programme supplies two-thirds of all condoms and along with Organon – a private pharmaceutical company – a fifth of all oral contraceptives through a large network of commercial outlets (GoB, 1994).

The SMC, in addition to social marketing of contraceptives, also distributes oral rehydration saline (ORS) through its vast commercial network and promotes information, education and counselling (IEC) through the mass media. Participation of the for-profit private sector in the MCH-FP activities is still limited: the pharmacies and drug stores have very little technical

capacity to provide MCH-FP services; private practitioners provide mostly curative services; some private clinics offer selective FP services, like menstrual regulation (MR), and a very few permanent FP methods, like vasectomy and sterilization (Mookherji et al., 1996; Majumder et al., 1997).

In sum, altogether about 12,000 female field workers and 200 NGO clinics, and numerous pharmacies and shops throughout the country extend MCH-FP commodities and services at the grassroots level in complementary to the 23,000 field workers and about 4,000 clinics in the public sector. The government is the single major provider catering three-fourth of the eligible couples and distributing two-third of the modern methods in the country. The NGO and SMC programmes are the largest providers next to the government. These programmes offer services through CBD, clinic-based delivery and social marketing systems. A detailed review of the service-delivery strategies under each of these systems is provided in the subsequent section.

The MCH-FP Service Delivery Strategies

CBD, clinic-based service (CBS), and contraceptive social marketing (CSM) adopted different strategies at the implementation level of delivering services to increase efficiency either through:

- maximization of output, keeping inputs more or less constant
- reduction in inputs, keeping output more or less constant; or employing both the concepts together.

All the MCH-FP programmes, which are essentially based on CBD activities, have been grouped into five categories depending on the practical arrangements of service delivery at the implementation level like: who is providing the services – salaried staff or volunteers; whether the services are provided at the homes of clients or somewhere 'outside' at a common site in the community; whether the programme is using particular professional groups for rendering services, focussed on a special segment of clients, or run as a component within other project-efforts, etc. These categories are:

- Doorstep delivery of services by full-time field workers
- Doorstep delivery of services by part-time field workers
- Doorstep delivery of services by volunteers and with community support
- Community-based (non-doorstep) delivery of services by field workers/volunteers
- Special MCH-FP programmes (CBD programmes other than the above types).

Depending on the types of services offered and organization of the clinics, the clinic-based MCH-FP service-delivery programmes could be grouped into:

- Delivery of fragmented services from fixed-site regular clinics
- Delivery of a range of MCH-FP services from fixed-site regular clinics
- Delivery of services from satellite (outreach) clinics.

The social marketing programme to sell contraceptives and ORS, based on the marketing strategies, has been classified into two groups:

- Social marketing of contraceptives and ORS using the commercial marketing network
- Community-based sales of contraceptives and ORS.

Brief description of each of the above strategies is given below.

Doorstep Delivery of Services by Full-time Field Workers

The GoB and NGO Programmes

House-to-house visits by the female outreach workers are one of the key factors for the success of the family planning programme in Bangladesh. Each eligible couple is visited every two months both under the GoB and NGO

doorstep service delivery strategy. The main aim of the doorstep delivery is to ensure women's easy access to family planning and MCH services whose mobility is limited because of the sociocultural and physical situation of the country.

Both the government and NGO programmes, based on home-based delivery of services, operate more or less in the same fashion. Each of the field workers has a defined catchment area, generally consisting of 4,000-5,000 population, i.e. 700-1,000 eligible couples. The field workers visit the MWRA routinely and provide them with necessary IEC, referral and supply of contraceptives (pills and condoms). The field workers during the home visits carry with them a register containing various formats for collecting some important demographic and contraception-related information of the eligible couples. They fill out the respective formats and report to their supervisor.

The field workers are supervised by Supervisors (named FPIs - Family Planning Inspectors in the government system). The supervisor oversees the overall performance of the field workers. On an average, there is one Supervisor per 5-6 field workers. In the government system, all the FPIs are male, while in the NGO system the supervisors are mostly female. There are approximately 4,500 and 1,500 supervisors in the government and the NGO systems respectively.

The doorstep CBD proved to be remarkably effective. Contraceptive use (CPR) rose from 8 per cent in the mid-seventies to the present level of 49 per cent and the total fertility rate declined from 6.3 to 3.3 over the past two decades. But maintaining such a vast network of field workers and supervisors is pretty resource-intensive and costly. Major share (60-80%) of the programme costs account for personnel/labour (salaries/benefits, etc.) required to maintain the doorstep distribution strategy (ICDDR,B, 1996).

ICDDR,B Experimental/Extension Projects

Matlab, Abhoynagar, Serajganj and Mirsarai are the experimental field projects of the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B).

The MCH-FP Programme in Matlab was started in 1975. It has been a comprehensive programme involving health service implementation, demographic and morbidity surveillance, health service research and epidemiology. The success of the Matlab project prompted the Government of Bangladesh to test some of the service-delivery strategies within the framework of the governmental programmes. Thus, in 1982, the MCH-FP Extension Project as a collaborative operations research effort of the Ministry of Health and Family Welfare (MoHFW) and ICDDR,B was initiated in two thanas of Abhoynagar in Jessore district and Serajganj in Serajganj district. Similarly, in 1994, a new project site was opened in a low-contraceptive performance area of Mirsarai in Chittagong district.

The Matlab MCH-FP Programme had the prime objective of testing whether an effective service-delivery system could induce and sustain fertility decline in a traditional rural setting. The programme also aimed at developing an effective MCH-FP service-delivery system.

The Matlab project consists of a treatment area inhabitated by approximately 100,000 people where MCH-FP services have been introduced and a comparison area with similar social, economic and demographic conditions. There are 80 community health workers (1 for slightly more than 100 people) and 16 health assistants (supervisors). The workers make fortnightly home visits to all currently married fecund women and offer information, consultation and supplies of contraceptives, including pills, condoms, and injectables, and a variety of MCH services. Women interested in IUD services can attend a nearby clinic or receive insertion at home by a trained paramedic on a pre-arranged date. The workers also collect demographic and service-related information for the surveillance system. There are a central and four subcentres in the treatment area which provide a range of MCH-FP services.

The extension project initially had the salient objective to transfer successful interventions of the Matlab Health and Family Planning Project in the national MCH-FP programme. Currently, they aim at improving effectiveness and efficiency of the national MCH-FP programme in terms of management improvements, quality of care and sustainability through applied research, technical assistance, and dissemination.

The Abhoynagar, Serajganj and Mirsarai projects are operated using the GoB project facilities and personnel. The ICDDR,B's MCH-FP Extension Project (Rural) pilots interventions in those project sites and provides required technical assistance in adapting nationally the lessons learned. Accordingly, service providers, managers, and supervisors have been trained to improve both service quality and programme management. A number of interventions, related to management improvement, quality of care, and sustainability of MCH-FP programme, are currently being field tested in these project sites.

A separate project of ICDDR,B to contribute to the reduction of fertility and morbidity in urban areas began in August 1994. The MCH-FP Extension Project (Urban) has the prime objective to develop coordinated and cost-effective systems of delivering MCH-FP services for the urban population, initially in Dhaka, with a special focus on poor and slum populations. The project functions in partnership with NGOs and concerned government agencies, and has been experimenting various interventions to improve urban MCH-FP service-delivery system.

All these projects were of much success. The prevalence of modern contraceptive methods among the married women in reproductive age in the Matlab treatment area had increased from less than 10 per cent in 1977 to 58 per cent in 1990. The Matlab project has attracted attention with regards to its strategic innovations in the service delivery by taking services to the doorstep of the clients. In Abhoynagar and Serajganj, the CPR has, respectively, risen from 43 and 27 per cent in 1989 to 49 and 39 per cent in 1993 (ICDDR,B, 1987 ; ICDDR,B, 1990; Maru and Haaga, 1994). The Urban Extension Project made substantive contributions to the formulation of the urban health and family planning policy and improving the service-delivery programmes. (ICDDR,B, 1996).

The service-delivery strategies of the ICDDR,B Extension Projects are essentially of experimental nature. Innovations in organization and management of the programmes, close monitoring by the researchers and their coordinated actions with the local programme managers are the basis of success of these programmes. Although the ICDDR,B Matlab Project is widely considered highly effective, at the same time it is considered to be expensive as well. [For details of the cost aspects of the Matlab project, refer to: Simmons et al., Cost-effectiveness Analysis of FP Programs in Rural Bangladesh: Evidence from Matlab. Studies in Family Planning, 22 (2), March/April 1991].

Doorstep Delivery of Services by Part-time Field Workers

In view of possible reduction in donor support, the cooperating agencies (CAs) of the USAID, namely Family Planning Association of Bangladesh (FPAB), Family Planning Services and Training Centre (FPSTC), Pathfinder International (PI), and The Asia Foundation (TAF), have been trying to develop alternative MCH-FP service-delivery models to reduce cost and increase programme sustainability. One such strategy has been to employ part-time workers or replacing full-time workers by part-timers whenever such opportunities arise in the CBD system. Based on the principles of part-time recruitment, a number of variations in part-time strategies are evident within the existing NGO system. The main difference is, however, in the employment status – whether the part-timer is a regular staff of the project or affiliated with it as a nominally paid volunteer. Thus, the five types of part-time field workers identifiable in the door-step delivery of MCH-FP services in Bangladesh are:

- Regular part-time workers of PI and TAF
- 'Swanirvar' part-timers of PI (`Swanirvar' is a project supported by Pathfinder International. Part-time field workers maintained by `Swanirvar' are known as Swanirvar Volunteers)
- Part timers of FPSTC (known as Community Volunteers)
- Part-timers of FPAB

- Part-timers of the Intensive Family Planning Service Project (IFPSP) of the Society for Project Implementation, Research Evaluation and Training (SOPIRET) working since 1985 in two undeserved thanas of the low-performing Chittagong division.

By mid-1994, the proportion of full to part-time field workers in the CAs has reached close to 1:2. The modus operandi of these strategies are same as other CBD projects with full-time FWs. The part-time field workers provide doorstep delivery of contraceptives, referrals and IEC and maintain service records and information of couples served.

The full-time workers work 6 days a week (6.5 to 7 hours per day), whereas the part-time workers work 4 to 6 days a week (3 to 4 hours per day). Like the full-timers, all part-time workers, except those of FPSTC, have their own catchment areas. In contrary to the full-time field workers having a visit-cycle of 2 months, the part-time workers visit their clients once every month. Couple-worker ratio of the part-timers ranges from 100 to 500 as against 650-850 for the full-time workers' system. Monthly salary ranges from Tk. 100.00 to 650.00 for part-time workers and Tk. 750.00 to 1,800.00 for full-timers. Activities of the part-timers are overseen by supervisors (one supervisor designated to oversee the activities of 4-6 field workers). The supervisors organize monthly meetings and help the part-time workers prepare monthly workplans and performance reports.

Rendering services with a system of lower-salaried part-time FWs is the main cost reduction factor of this strategy. In an evaluation conducted on the FPAB, FPSTC, PI and TAF- supported programmes with part-time FWs, it was found that the average direct cost, indirect cost and total cost were respectively 5, 2 and 3 times lesser for the part-time workers than those of the full-time workers. The CPR, however, was a little lesser within the 'part-time field worker' strategy (55.4% as against 58.9% in the full-time field workers' system) (Majid, 1995).

Doorstep Delivery of Services by Volunteers and with Community Support

Urban Volunteers Programme (UVP)

The UVP of ICDDR,B was a community-based health service-delivery project focusing on the urban slums of Dhaka. It was conceived as an operations research and service-delivery pilot project to test the feasibility and impact of using women volunteers from slum communities to furnish preventive health care and referral information to slum residents. The UVP functioned during 1981-1994 (the last year was, however, dedicated to the process of integrating the volunteers with NGOs).

The UVP strategy was based on the following premises :

- sustainable interventions for urban poor communities should have low capital costs since both government and community resources are limited
- health-care interventions should be targeted to women and their children living in slums, because they are the most vulnerable and high-risk groups for mortality and morbidity
- the urban poor can receive effective basic services through training and mobilization of people from their own communities.

The basic assumption behind the UVP was that community health education and health product distribution can measurably improve the health of slum residents even under conditions of chronic social, economic and environmental distress. The specific objectives were, however, to:

- increase and create a demand for family planning and health services by illiterate and semi-literate slum women recruited and trained as health volunteers
- link the slum residents to the government and NGO service points through the volunteers.

Volunteers were recruited by the Field Supervisors (FS) and Community Health Coordinators (CHC) in consultation with the community leaders from

among self-motivated women aged between 18 and 40 years, preferably a housewife from a respected family with no more than two children and had lived in the target slums for at least one year.

Newly recruited volunteers had to undertake a two-week basic health training in the Project's four activity (focus) areas: Diarrhoea prevention and treatment, Nutrition, Immunization, and Family planning. The basic training also included a two-day module on service data collection using a symbol calendar. The volunteers also had to receive a four-day refresher training every four months.

The UVP was operating in selected slums of five thanas (Mohammedpur, Lalbagh, Kotwali, Sutrapur and Demra) of the Dhaka city. The volunteer services reached 80,000 of the 376,000 slum population of these five thanas. Volunteers provided health education, made referrals, accompanied clients to health and family planning centres and distributed ORS. Each volunteer was responsible for 25-50 households in her locality and was expected to visit these households and provide health education at least once per month. Clients could also visit their houses anytime for ORS packet or any other advice. Volunteers recorded data about the services they gave using a symbol calendar every month and submitted it to the CHCs.

The FSs maintained a regular schedule of visits to their respective volunteers, once every two weeks (the FS:Volunteer ratio was 1:25). During these visits, the FSs checked the quality of information given by the volunteer to her clients, checked the symbol calendars, provided support for health education activities, assisted in collection of service data accurately and replenished the volunteer's ORS supply. The CHCs visited a 10 per cent sample of the volunteers each month to check and ensure the maintenance and quality of FSs' schedule (The CHS:FS ratio was 1:6).

To evaluate the effectiveness of the UVP, various quantitative and qualitative studies were conducted. These studies demonstrated that it was feasible to recruit, train, and retain volunteers in the slum areas of Dhaka and that the urban volunteers effectively increased:

- mothers' knowledge of diarrhoea prevention and ORT use rate

- immunization knowledge and coverage
- contraceptive use prevalence.

These findings suggest that delegation of certain health service-delivery responsibilities to the community-based volunteers is possible. Volunteers can serve as important links between professional health workers and slum dwellers and, thus, may help overcome the 'invisible barriers,' like conservatism, misconception, etc., that inhibit service use, specially by poor and socially disadvantaged women. Therefore, inclusion of a volunteer component in a structured health service delivery system may enhance the usage of the services provided, extend some basic health and family planning services to the community, such as diarrhoea treatment and health education messages, and improve the overall effectiveness of the service-delivery system (Paljor et al., 1994). Employment of unpaid volunteers from the same community and locality for delivering some specific MCH-FP services through them are the basic cost reduction aspects of a volunteer-based strategy.

Utilization of Voluntary Agencies in Population Activities (UVAPA)

The UVAPA is a volunteer-based project of the FPAB that aims at developing the project management capabilities of the local-level NGOs in the rural areas, and involve community members and use the existing community infrastructure with a view to provide quality services at minimum cost.

Starting in 1982, the UVAPA project has been functioning in the rural areas (predominantly in undeserved and low CPR areas) with 140 agencies in 19 districts involving 560 volunteers and 140 group leaders to provide family planning services and IEC coverage in the project areas. The voluntary agencies, i.e. club authorities, provide office and all other organizational arrangements required to implement the project. Each agency provides services through 5 volunteers who are mainly female/male youths from respective localities with minimum S.S.C. (10th grade) level of education. Apart from providing contraceptives to clients, the volunteers refer clients to local GoB and NGO clinical facilities for IUD and sterilization services. The

agencies function in coordination with the government system. A nominal amount of Tk. 550.00 per month is paid to each of the volunteers as out of pocket expenses.

Regular supervision and project monitoring are done by the Field Officers of FPAB. The FPAB District Project Officer also supervises the project at a regular interval. Officers from the FPAB's central office and volunteers from the branches also supervise and support the activities of the club (voluntary agency). Volunteers of the UVAPA clubs are trained on all the necessary aspects of FP at the FPAB central office. Field Officers are similarly imparted with a 5-day training on management of CBD programme, including programme implementation, supervision, monitoring and report writing, and community mobilization. Volunteers also receive refreshers training periodically.

Although no formal evaluation was conducted on the cost-effectiveness aspects of the UVAPA strategy along with analyses of continuity and quality of services provided by the volunteers, the respective programme managers claimed that the UVAPA strategy was cost-effective, since it used the existing platforms of local-level clubs (which means no or very little fixed costs were required) for providing services in the undeserved rural areas by nominally paid volunteers. Involvement of the community leaders and volunteers in the project activities and their contributions in creating awareness about family planning help the UVAPA project attain necessary social support in minimal costs. The UVAPA strategy has reported to attain a CPR of 48.3 per cent with small family norms (mean number of living children = 3.2) in its project areas (FPAB, 1991).

Community Volunteer Programmes

A number of NGOs tried different variants of community volunteers within their programmes. "Nari Maitree" and "World Vision" made a major success in their community volunteer programmes. The community volunteer programmes mainly aim at maintaining a sustainable MCH-FP programme, essentially with the help, support and participation of the community.

"Nari Maitree" working in Ward 56 of the Dhaka City Corporation has two types of volunteers: adolescent and adult who are selected from the community on the basis of willingness to work voluntarily, educational and other requirements. The selected volunteers initially receive a three day basic training followed by a two-day refresher training every 6 months. The adult and adolescent volunteers are supervised by the 28 Nari Maitree field workers. The field workers, in turn, are being supervised and supported by the 7 Nari Maitree supervisors.

A total of 196 volunteers have been working with Nari Maitree. On an average, 6-7 volunteers (4 adolescent and 3 adult) work with a field worker. Adult volunteers mainly work as depot holders. During the home visit of the FW, if a client is not available (because of being at work outside), the field worker asks the volunteer to take a two-month supply of the FP method to that client. Sometimes the clients also collect the FP supplies (e.g. birth control pills or condoms) from the depot holder. The depot holders conduct a meeting once a month in the community. The meeting focuses mainly on family planning motivation and personal hygiene. Each adult volunteer works about 5 hours per month. She does not make regular individual home visits but holds a one-hour meeting each month with about 10-15 mothers. The adult volunteer receives Tk. 20.00 per month for transport costs. She may visit some selected homes to provide selected FP supplies when requested by the FW. The adult volunteers provide guidance in the indications for, preparation of, and administration of oral rehydration therapy (ORT).

Adolescent volunteers are mostly students of Grade 9 to 12 and are all females. Their responsibility is to visit the houses and give health messages mainly on diarrhoea, safe water, breast feeding, sanitation, personal hygiene, cleanliness, iodine deficiency, and acute respiratory infection (ARI). One fixed message, selected for each quarter, is disseminated from all the contact points of Nari Maitree (the FWs, field supervisors, paramedics, and physicians) for reinforcement of the message. The adolescent volunteers normally visit the houses for 1-2 hours in the afternoon, during after-school hours. Sick patients are referred to the clinic for medical attention.

All the volunteers attend a meeting once a month at the Nari Maitree office. They receive rickshaw fare to attend the meeting (about Tk. 20.00). In the meeting they discuss and select message for the next quarter and receive proper education on the message theme.

Nari Maitree considers its adult volunteer programme a major factor in achieving a CPR of 70 per cent in the catchment area in relatively low costs. The adolescent volunteer programme has facilitated the involvement of adolescent girls to provide assistance to the community and enhancement of their knowledge about MCH issues. Putting in a little amount of extra money to run a system of volunteers that supports the regular field workers attain higher performance is considered the key cost-effective aspect of a volunteers' strategy pursued by the service-provider organizations. However, the general concerns regarding the volunteer-based strategy raised earlier are equally applicable for these programmes as well.

Local Initiatives Programme (LIP)

LIP is a strategy of the Family Planning Management Development (FPMD) for the local-level management of high-quality family planning services through involvement of government mechanism and community leaders/volunteers. It is focused at the thana level to strengthen the existing government system through training, technical assistance and the provision of small grants. Its main objectives are:

- to provide training and technical assistance to teams of elected officials, family planning professionals, and community leaders to extend and improve local family planning services
- to assist each thana team to implement innovative and sustainable family planning programmes based on structured Study and Observation Tour to similar programmes
- to provide financial assistance in small grants with a view to assist thanas and unions to implement the innovative programmes and assist

recipients to develop other sources of support, so that these programmes can be maintained once project support is withdrawn.

LIP seeks to improve access to decentralized FP services and information at the thana level by improving the knowledge of local officials and community leaders. Much of LIP is based on the successful decentralized model implemented by the Indonesia's National Family Planning Coordinating Board (BKKBN). LIP develops Local Family Planning Teams through In-country Training Programmes - ITPs (at the first phase of LIP during 1987-1993 Overseas Study Tours - OSTs to Indonesia were organized). The teams are developed on thana basis considering low performance, unmet demand, etc. Teams include FP programme staff, local community leaders, and government administrators. This teams develop Action Plans to improve FP services in the programme areas. LIP provides financial assistance for Action Plan implementation. Community members are assembled in Management Committees to oversee the operation of the Action Plan. CBD is performed through recruitment of local volunteers and, thus, FWAs (the government field workers) function as supervisor of volunteers rather than service providers. Volunteers receive reimbursement only for travel expenses and supplies. Community must match LIP grants with at least 10 per cent cash contribution from local resources. Grants range at the rate of Tk. 30 - 50 thousand per year for each union under the thana team for a period of maximum five years.

Other than the ITPs, special trainings are arranged to impart supervisory and support skill to the union-level government service providers, local elected officials, thana team members and district-level programme managers.

LIP has been able to involve the local community members, leaders and government administration in FP programme activities. By the end of 1995, 103 thana FP management teams were planned to be formed and operationalized through implementation of their own Action Plans (71 of these thana teams have already been operationalized up to 1993). The CPR has been reported to reach around 50 per cent in the LIP areas (Sayeed and Helfenbein, 1993; Dunston and Miller, 1995).

However, in a recent study of the Population Council, the output of the LIP programme with respect to the reported number of visits and service content of the visits was found to be very similar with the typical doorstep GoB programme, and hence the extra costs of the LIP (to maintain the volunteers, management teams and arrange the necessary training) factually made the programme less cost-effective (The Population Council/Bangladesh, 1997).

Community-based (non-doorstep) Delivery of Services by Field Workers/Volunteers

Depot Holder (DH) Programme

To lessen the load of field workers through shifting the responsibility of contraceptive replenishment to community members (depot holders) , the DH programme has been initiated. The salient objectives of the DH programme are to:

- intensify contact with eligible couples through depot holders for recruitment of new clients and maintenance of old ones
- diffuse family planning knowledge and messages among the masses more explicitly
- support and render more intensive FP and MCH service delivery and strengthen follow-up and after care services
- ensure easy availability and accessibility of contraceptives within the community for continuity of old acceptors.

The government DH programme run by the Directorate of Family Planning began in early 1990 in 64 thanas of the 64 districts of the country and became operative since April, 1992. Under this programme, the female Village Defence Party (VDP) members were recruited as depot holders and were trained before they were assigned responsibilities.

Many NGOs, in their plight for financial and programme sustainability, also introduced the depot-holding concept. In conventional CBD programmes,

couples are accustomed to receive contraceptive supplies in their homes. In the long-term, such a resource-intensive delivery system can hardly be sustained. The Swanirvar Family Planning Services Project (supported by Pathfinder International) encourages couples to collect contraceptives from the depot holder Family Planning Volunteers' (FPVs') houses which serve as the contraceptive stores. The system was introduced in 1991 to make users more responsible and active and to institute sustainability activities of depot holding at the community level. Next to the government, the Swanirvar depot holder programme is the largest one. Among others, the leading national NGO namely Concerned Women for Family Planning (CWFP), a sub-grantee of TAF, had also introduced depot holder programme on experimental basis in one of its catchment area at Lalbag in Dhaka city. Protisruti, another Bangladeshi NGO and a sub-grantee of the PI, is piloting the DH programme in its Moulavibazar Family Planning Project since early 1995.

In the government DH Programme, the Village Defence Party (VDP) members were recruited as depot holders through a special 5-member committee at the thana level. The committee recruited according to a set selection criteria 5 VDP members from among the trained VDPs of each village (the average number of eligible couples in a village is 200-250). With the maximum average of around 840 eligible couples per government Family Welfare Assistant (FWA), a maximum of 20 VDP members were recruited as DHs for each unit or the area under the supervision of an FWA. For each unit (i.e. for 20 DHs) one Team Leader (TL) was also recruited from among them.

The selected depot holders and team leaders were provided with a 2-day training. The target set for each of the DHs was to recruit 2 sterilization, 3 IUD, 2 injection, 2 pill and 2 condom acceptors every year from her area. Besides, the DHs and TLs were entrusted with other responsibilities as motivating couples, visiting their houses, supplying contraceptives, arranging group meetings, making needful referrals, etc. The DHs and TLs were supposed to facilitate the work of the field workers and work in close liaison with them. To keep the volunteers duly motivated, the DH Programme made provision of the following incentives:

- Paying Tk. 100.00 as honorarium per month for the team leaders (TL)

- Giving a reward of maximum two sarees and a one-band radio set on achievement of the specific annual targets by a depot holder .

In the NGO system, by and large, the DH strategy was implemented in the following procedures: depot holders were selected from among residents of the programme area who were willing to work as depot holders, users of family planning method, preferably literate and acceptable to the users of the catchment area. The selected depot holders were then provided with necessary orientation and logistics, like contraceptives and register books, to maintain proper accounting of the receipts, issues and sales proceeds. The number of couples served by each depot holders varies between 40 and 70. Incentives provided to the volunteer depot holders by the NGOs are nominal and generally are of the following types:

- 50 per cent of contraceptive sales proceeds
- 50 per cent of profit earned from selling SMC products and ORS
- other out of pocket expenses.

So far, 59,405 depot holders and 2,915 team leaders have been recruited from 64 thanas of the 64 districts under the government programme. The Swanirvar Bangladesh Family Planning Service Project uses its approximately 1,400 part-time female FP workers as depot holders as well.

An evaluation of the government's DH programme concluded that contraceptive acceptance rate (CAR) in the programme thanas increased at a faster rate than the average CAR in the corresponding districts indicating effectiveness of the DH programme in accelerating the use of contraceptive methods (Chowdhury et al., 1994).

The Swanirvar DH programme reported to experience an average annual increase by 3 per cent (from 6% in 1991 to 15% in 1994) in users of pills and condoms of its programme area who collected their supplies from the depot holders' houses. Fourteen per cent of the total pill users and 13 per cent of the condom users pro-actively obtained their resupplies from the FPV-depot holders (Swanirvar Bangladesh, 1995).

However, experience of CWFP showed that the performance of the depot holder volunteers was not encouraging. The reasons behind this, as reported by CWFP were: lack of proper motivation among the depot holder volunteers in carrying out the related activities without assurance of providing them with regular job, expectation for money/salary, lack of proper training, lack of sufficient time to dispense in depot holding activities, etc. It was further reported that the clients felt more comfortable in relation to privacy with the field workers than going out to the depot holders for the required replenishment.

The 'Jiggashsa' Approach

`Jiggasha' (i.e. 'to enquire') is a community network approach to family planning based on interpersonal communication (community-based communication system) which has been developed by the Johns Hopkins University/Centre for Communication Programme, Bangladesh. It is an innovative community approach through which one field worker can reach many clients at the same time. The approach originated in Trishal of Mymensingh district and has been becoming popular among the rural Bangladesh communities. 'Jiggasha' aims at making FP a household word, a community norm, and an informed family choice. The main objectives of the 'Jiggasha' strategy are to:

- make field workers more effective (to extend their reach by encouraging them to meet groups of women at one site to provide service, discuss or distribute contraceptives, and follow-up difficult cases)
- help men and women talk about family planning
- encourage community influential to promote the benefits of family planning
- improve village family planning and health practices.

The first step in implementation is to map each field worker's catchment area and then divide it into a number of 'Jiggasha' catchment areas, whose boundaries are determined by factors, such as population density, settlement patterns, cultural traits of the inhabitants, and physical features of the area. A 'Jiggasha' centre is set up in each of the 'jiggasha' catchment areas and a volunteer called a 'link person' recruited to take charge of it. This is followed by selection of group members – women and men who live in particular 'jiggasha' catchment area and are willing to assist in 'jiggasha' activities. Field workers are trained to locate the key opinion leaders (link persons) who serve as an entry point for field workers and as a liaison point for other village opinion leaders, maintain a local supply of contraceptives and promote FP and other health related behaviors. The roles of the link persons and field workers are facilitated through multi-media approach -- local folk talent, printed materials, including booklets and posters, cassette tapes of key messages, songs and dramas, and group discussions about these materials and concepts. The satisfied users are encouraged to share their experiences, newly married women are introduced to FP, non-users and past users are encouraged to share their reservations, so that they can be addressed by the group and the field workers. Men are encouraged to form their own 'jiggasha' to deal with their concerns and to increase male support for FP and related health issues. Thus, 'Jiggashas' provide the social support that leads to behaviour change.

The 'Jiggasha' centres are supervised by the field workers, and FWs, in turn, are overseen by their respective supervisors. Special training and orientation courses are arranged for field workers, various FP service providers, mid-level managers, union FP committee members, etc.

'Jiggasha' attained much success in involving the opinion leaders of the community in FP programme activities. The CPR rose from 38% in 1990 to 56% in 1992 among those who were both, visited by an government field worker (FWA) and attended 'jiggasha.' From 26 per cent to 32 per cent, however, for women who attended 'jiggasha' only (Mitra et al., 1993).

'Jiggasha' facilitates users to come out of their homes and involves community participation. Another remarkable aspect of this strategy is to involve males in the programme activities. All these contribute to the sustainability aspects of

the programmes in the long run. However, it has some obvious initial costs related to equipping the FWs with the necessary communication materials. Cost-effectiveness of this strategy is yet to be studied. However, once there had been no reduction in the existing field personnel system as against the extra costs being incurred to initiate the strategy, there is no obvious reason to think that 'Jiggasha' is a less costly strategy.

Delivery of MCH-FP Services through Cluster Visitation

The cluster visitation is an intervention on alternative service-delivery strategy, as opposed to the conventional doorstep distribution system, being piloted by the MCH-FP Extension Projects of ICDDR,B. With growing demand for contraception by married women of reproductive age as well as the increasing number of women entering the reproductive ages, the existing service-delivery system is facing increasing difficulty in coping with the change. Further expansion of the field workers' system is not a feasible proposition in light of the fund constraints. Thus, there is a vital need to think of alternative modes of service-delivery, given the sizeable cost and sustainability concerns associated with the present service-delivery system. The overall objective of this intervention is to develop pro-active service-seeking behaviour among the eligible women and redefine the role of field workers.

Cluster visitation refers to the delivery of some MCH-FP services, including supply of pills and condoms by a Family Welfare Assistant (field worker) to a defined group of current and potential users of contraceptives at a pre-determined geographical location. Field-testing of the intervention started in early 1995 in the rural areas and in 1996 in the urban setting. Each cluster is planned to serve, on an average 25-50 eligible women. Some clusters are held at satellite clinics. Counselling on family planning and contraceptive methods, child immunization, ANC, PNC, supplies of oral pills, condoms, etc. services are rendered by the FWs in the clusters.

According to a recent assessment by the rural component of the MCH-FP Extension Project, 20-30 per cent of the eligible women were visiting the

cluster spots. The early findings indicate no negative effect of clusters on the CPR (ICDDR,B, 1996).

The findings of the Urban MCH-FP Extension Project's intervention to test the alternative of resupplying a cluster of clients at a common site near their houses in the Dhaka city, did not, however, prove the cluster strategy to be an effective alternative. It was found that although urban women were willing to travel to outside sources for their health needs, without a range of services to be obtained they were not adequately motivated to come to the cluster points only for resupply of pills and condoms (ICDDR,B, 1996).

Special MCH-FP Programmes

The special strategies depicted below are not stand-alone programmes. They proved to be effective as supplemental strategies in conjunction with the main programme efforts. According to these strategies, MCH-FP services are offered either by using particular professional groups, or they are focussed on a special segment of clients, or run as a component of any socio-economic development project.

Use of Traditional Birth Attendants (TBAs) in Family Planning

This is an ongoing project of FPAB since 1987. The project is being implemented in 25 unions. Six hundred twenty-five TBAs, associated with the project, promote FP services. The recruited TBAs conduct safe-delivery and supply contraceptives through domiciliary visits. The project aims to increase the CPR by :

- providing training to TBAs on knowledge of safe-delivery and motivational technique for family planning
- recruiting new acceptors and ensure resupply of contraceptives to them by the trained TBAs
- immunizing pregnant women and children with the help of TBAs

- providing cost-effective referrals to the clients for clinical methods by the recruited TBAs.

The 'World Vision,' 'Nari Moitree,' and a number of other NGOs have similar programmes for involving the TBAs into the overall MCH-FP activities.

To enhance the skills and raise the credibility among the clients of the project area, TBAs recruited are imparted with a 7-day foundation training on safe-delivery, primary health care, nutrition, immunization, and promotion of family planning services. The trained TBAs undertake domiciliary visits to the catchment households to make the people aware of health, nutrition, sanitation, family planning, etc., supply non-clinical contraceptives and make referrals for clinical methods. A signboard with name and address of the trained TBAs is placed at a visible place of the project site for information of the people. The recruited TBAs are paid with a nominal honorarium of Tk. 200.00 per month.

In 1994, four project sites of the TBA programme were evaluated. Findings of the evaluation revealed a 67.5 per cent CPR in the corresponding areas (FPAB, 1994).

Use of Traditional Healers (THs) in Family Planning

This is an on-going FPAB project since 1993. The main objectives of this project are to:

- use the traditional healers/village doctors in promotion for family planning and provision of FP services among their patients
- support the traditional healers/village doctors as depot holders and recruit FP acceptors from among their patients.

A field officer assisted by a messenger maintains regular contact with the traditional healers/village doctors for making contraceptives available and collection of reports and sale proceeds of contraceptives. There are at present 1,000 healers in 20 thanas, i.e., 50 in each thana, under the project initiative. Motivated clients are supplied with modern resupply methods, including

pushing of injection. Clients for semi-permanent and permanent methods are referred to clinics. Active users are followed and resupplied from the chamber as well as at the home during routine visit of client's house by the healers. On the first working day of the month, the healers assemble in the chamber of a designated healer at thana headquarter and submit sales proceeds for the preceding month and receive replenishment for the current month.

A 2-day orientation course on the use effectiveness of contraceptives is arranged at the district branch office of FPAB to update the knowledge of the recruited healers on contraceptive technology.

The CPR in the project areas of the traditional healers ranges from 50 to 60 per cent (FPAB, 1994).

Use of Canvassers in Family Planning

The strategy uses canvassers working in the market places to promote FP concept and small family norm among the rural menfolks. Under this FPAB project, currently 285 recruited canvassers from 20 districts are covering 13,680 haats/bazars (market places) for the promotion of FP among rural masses.

Being initiated in 1983 with two canvassers in each of the 20 FPAB branches, the number of canvassers was raised to 210 in 1988 and with an additional recruitment of 75 canvassers in 1994 to 285 at present.

A 5-day foundation training on family planning and contraceptive methods is arranged for the newly recruited (enlisted) canvassers. A 2-day refreshers training is provided to the previously enlisted canvassers to update their knowledge on FP motivation and service delivery. All canvassers were supplied with a bag with FPAB monogram. A plastic festoon, with pictorial presentation of population and its effect on basic needs was supplied and used during their campaigning. The canvassers while advertising their own products through songs and lectures also narrate the benefits of planned family, demerits of big and unplanned family and hazards of repeated pregnancies. They also sell oral pills and condoms. To facilitate resupply,

small cards are distributed containing name and address of FPAB and other clinics within that locality. For permanent methods, clients are being referred to local FPAB and GoB clinics.

The enlisted canvassers are being paid with a nominal monthly honorarium of Tk. 100.00 and conveyance of Tk. 100.00. In the 11 branches, each having 21 canvassers, a supervisor on consolidated salary is being engaged for necessary supervision and monitoring. In the nine branches with six canvassers each, supervision and monitoring is executed by the FPAB branch-level volunteers. Supervisors are placed after a 5-day formal orientation. In some branches, market/bazar committees (an informal body of shop owners of a market) are used for supervision.

No formal evaluation has been carried out so far. However, it was learnt from the FPAB sources that this project proved to be fairly successful and effective as an IEC programme and is replicable to other areas to boost up FP adoption.

MCH-FP Services in Organized Sector/ Educational Institutions

Projects based on this strategy are being implemented in different industrial units, garment factories, transport sub-sectors and educational institutions. FPAB, CWFP, Unity Through Population Services (UTPS), Radda MCH-FP clinic, etc. implemented such projects. These are targeted mainly toward the urban clients who are hard to be reached through the normal hours of domiciliary visits by the field workers. The objectives of this strategy are to:

- use the existing industrial and transport infrastructure to promote and provide MCH-FP services and IEC to the employees and workers
- motivate the owners and management to understand the positive effects of health and family planning with productivity of labour and encourage them to contribute to the sustainability of these services
- use the educational institutions to provide TT and reproductive health education to girl students.

Industrial Sector:

FPAB has been conducting this programme since 1972. As per plan, since then FPAB phased out from five mills where it worked for the last five years. Before phasing out, FPAB had a discussion with the mills' management and trade union leaders to continue the project at their initiative. Accordingly, paramedics of the medical departments of the mills were trained on FP and contraceptive technologies. FPAB continued to provide support to the phased out mills with materials and contraceptives. In the ongoing mills and factories, services are given through part-time workers (Field Assistants) who work on rotation basis in 3 to 4 mills of the area. The District Project Officer of FPAB review the activities of the project at regular intervals. The IEC activities are undertaken by organizing film shows, distribution of booklets, and placing posters in the mills' premises and labour colonies. With the help of Trade Union leaders and satisfied clients, group meetings are organized in the colony, and MCH services are provided periodically through mobile medical teams. Clients for IUD, injectable and sterilization are referred and escorted to clinics.

Garment Factories:

FPAB, UTPS, Marie Stopes, etc. have been implementing this sort of programme in Dhaka and Chittagong. FPAB covered 15 garment factories in 1994 and planned to extend the programme in phases to other factories in future. Initially, it was very difficult to get support of the owners. But after proper motivational activities and explaining the positive impacts of MCH-FP activities on productivity, the garment owners came forward in support of the programme. Services are being provided at the factories in agreed-upon days by health workers and paramedics. Various IEC materials on FP, reproductive health, STD/AIDS are also used.

Basic training was imparted to the paramedics and field assistants to enhance their knowledge and skills on FP motivation and delivery of service. The projects are supervised and monitored by Field Officers. They also arrange consultative meetings with the garment owners and Bangladesh Garment

Manufacturers and Exporters Association (BGMEA) for expansion of the project in new garment factories. Since a major portion of the garments workers are teenage girls, reproductive health education is given much emphasis within the programme activities.

Transport Sector:

FPAB has been working with the Rickshaw-pullers' Association in Mymensingh urban areas since 1989. Three thousand five hundred families are provided with MCH-FP and EPI services in collaboration with the Rickshaw-pullers' union leaders. Field assistants provide FP motivation and services under the supervision of a female supervisor.

A new project with the Bus and Truck Drivers Association was initiated in 1994 in Tangail, Pabna, Chittagong, and Jessore. Leaders of the Association were contacted and motivated. Accommodation was provided free of charge by the Association. Four Supervisors were recruited for supervision and monitoring of the project. A day-long orientation programme about the objective of the project and its implementation plan was organized for the office bearers of the Association. The supervisors were imparted with a 2-day training on project monitoring and supervision. Drivers, helpers, and mechanics were registered for motivation, supply and re-supply of FP contraceptives.

IEC activities, like film shows and group meetings, are conducted. Booklets are distributed and posters are fixed in different bus and truck terminals. Regular supply of contraceptives to the target clientele are ensured from the supply centres and clients of longer-acting methods are referred to FPAB and other clinics.

Educational Institutions:

Radda MCH-FP Clinic and some other NGOs maintain this programme to provide TT immunization and primary reproductive health education to the

adolescent girl students. The authority of the schools is contacted and motivated about the far-reaching benefits of the services. Schedules for providing the services are being agreed upon with the concerned authority. Health workers are sent on the scheduled days to render the services.

MCH-FP Component of Income-generating Projects: Linking MCH-FP Activities with Development Programmes

This strategy integrates population activities in development project for upliftment of the disadvantaged people, especially rural women. The strategy has been incorporated from the experience that frequent illness and pregnancy are the major causes of poverty of the disadvantaged women. Such programmes are being pursued by leading NGOs, like Bangladesh Rural Advancement Committee (BRAC), Grameen Bank, Swanirvar Bangladesh, and many other organizations mandated to improve socioeconomic conditions of the poor people through supporting them in income-generating activities. One such programme is briefly depicted here.

Swanirvar Bangladesh is one of the largest non-government rural development organizations in Bangladesh. It was established in 1975 with the prime intent to help rural poor become self-reliant. To address the increasing demand for family planning services within the community, Swanirvar Bangladesh implemented the Family Planning Services Project in 1987 with financial and technical assistance from the Pathfinder International. The project was undertaken to integrate community-based family planning delivery services and activities with the ongoing development programme of Swanirvar Bangladesh. The objectives are to :

- provide community-based family planning education and services to eligible couples within the project areas
- implement activities focusing newly-weds and low parity couples with the intent of increasing their contraceptive use
- cooperate with EPI by referring women and children for immunization

- organize community-level group meetings for eligible couples that provide education regarding available family planning methods and MCH care
- hold seminars with community leaders to mobilize community support in favour of family planning and a sociocultural norm of small families.

Family Planning Volunteers (FPVs) are the grassroots level workers of the project. The FPV is a female, a resident of the area, has a minimum 8th grade education, a current user of family planning and preferably has no more than two children. They work on a part-time basis and serve, on an average, 300 eligible couples. They receive a nominal honorarium based on the number of couples served.

Through a benchmark survey, the FPVs first identify and list all married women of reproductive age, known as eligible couples (ELCOs). The FPVs update their ELCOs' lists on routine basis along with recording of births, deaths, and marriages, provide special services for newly-weds, young and low parity couples, and assist supervisors in organizing orientations for the newly-wed couples. All the FPVs record their activities in a daily log. Supervisors compile these logs and submit them to the Thana Organizer each month.

On site, the project is managed by one Thana Organizer with the assistance of Supervisors and an Office Assistant. At sites having more than 40 FPVs, the Thana Organizer is further supported by an Assistant Thana Organizer.

Supervisors, who are all females, are recruited to oversee the activities of the FPVs (1 Supervisor for 4-6 FPVs) and are required to have a minimum of 10th grade education. As per her workplan, she visits assigned project areas and tracks FPVs in the field. She orients the FPVs regarding MIS and other related issues, organizes monthly meetings, and helps volunteers prepare monthly workplans and performance reports.

To increase community participation and support, Swanirvar volunteers organize and conduct family planning meetings and seminars in the villages which are being attended by community members and leaders.

The CPR in the project sites is around 55 per cent. During 1994, the project referred approximately 3,000 clients to the government clinics for clinical methods, 65,000 women for TT immunization and 47,000 children of one year old for immunization (Swanirvar, 1995). In October 1993, the Swanirvar FP Project introduced home delivery of injectables at some sites in Chittagong. To increase the choice of brands available to couples, the project introduced sale of SMC and other commercial brand pills and condoms at all its 48 sites.

Clinic-based MCH-FP Services

The objective of the clinic-based services is to provide clinical methods (injectable, IUD, norplant, tubectomy, and vasectomy) of family planning, and ANC, delivery, PNC, female immunization, child immunization, etc., mother and child health-care services along with treatment of some general ailments to the clients from the clinic settings.

The Paramedics and Health Assistants (Family Welfare Visitors and Medical Assistants in the government system) are the main providers of the clinic based service delivery systems. Most clinics operating under the GoB and NGO systems offer specialized or fragmented services (as for example, only FP, only MCH, services, etc.). But recently, the need for providing a wide range of primary health-care services is getting higher consideration. This sort of integrated and coordinated services rendered from one service-delivery point proved to be much more efficient and cost-effective for both the providers and the clients.

The Azimpur Maternal and Child Health Training Institute (MCHTI) situated in Dhaka city provides all types of MCH-FP services, including delivery care. NGO facilities, like the Radda MCH-FP clinics, Gonoshasthya Kendra (GK), Dhaka Urban Community Health Project (DUCHP), Marie Stopes, Dhaka Community Hospital, CWFP, etc., also provide a range of services from the clinic service-delivery point.

To enhance the accessibility of clients living far from the fixed clinic facilities, the satellite (outreach) clinic concept has been introduced since mid-1980s. Satellite clinic or subcentre is an outreach facility organized at a fixed day of week or month at some specific site/sites to meet the needs of under-served population for clinical services living in areas relatively remote from the fixed-site regular clinics.

In the GoB system, satellite clinics are being organized by Family Welfare Visitor (FWV, paramedic) from each Family Welfare Centre. Currently, 30,000 satellite clinics are arranged every month within the government MCH-FP system. NGOs too arrange satellites and subcentres, more or less, in the same fashion. Service points for holding the satellites are usually arranged by the community people. This sort of cost sharing and community participation has made the satellite clinic concept much cost-effective and efficient.

The MCH-FP Radda Clinic operating in the Mirpur area of Dhaka city is an NGO that provides clinic-based MCH-FP service. But it maintains a limited network of field workers who make home visits to selected areas to record specific demographic and health information of the catchment population and provide the clients with required referrals to the Radda clinics. The Radda FWs, unlike the field-level service providers under the CBD system, do not supply contraceptives at the doorsteps of the clients. They work within the community as IEC agents and promoters of the Radda clinical facilities.

There are more than 4,000 GoB and 200 NGO MCH-FP clinics in the country. More than 8,000 doctors, senior FWVs, FWVs, medical assistants, and pharmacists are employed at the MCH-FP facilities run by the directorate of FP, while about 500 paramedics, health assistants, and doctors are working with the NGO clinics (Directory of NGO FP Projects, 1993; GoB, 1994). The national performance status of the clinical MCH-FP facilities during 1993-1994 is given below:

FP Performance

Method	December 1993	December 1994
Sterilization (cases)	12,489	5,665
IUD (cases)	46,786	24,627
Injectable (doses)	3,07,001	3,48,659
Norplant (cases)	274	1,179

MCH Performance

Services	December 1993	December 1994
Antenatal care	1,39,996	1,47,637
Postnatal care	72,955	71,556
Delivery performed	34,836	37,404
Child health care	9,30,977	9,24,466
Adult treatment	14,80,210	15,54,334
TT given to mothers	26,596	24,226
DPT given to children	37,052	43,585
Referral to hospital	1,089	1,210

Source: GoB MIS Report, December 1994.

The contribution of clinical services as revealed from the above information on performance seems not to be quite steady. In comparison to the year of reference, there has been a significant decline in sterilization and IUD acceptance rate. MCH performance, however, increased for all the services, except some declines in case of child health care and TT immunization given to mothers.

Estimates show that during the last ten years (1983-1993), while the annual growth in the use of non-clinical modern FP methods was 14.8 per cent, it was only 6.3 per cent for clinical methods. Between 1989 and 1993, the use rate of injectables increased substantially with an annual growth rate of 42.2 per

cent and that of IUD increased by 6.7 per cent; however, the use rates of tubectomy and vasectomy declined with an average annual rate of 2.6 per cent and 5.9 per cent respectively (Barkat et al., 1994). This downward trend in the use of permanent methods and relatively slow pace of increase in long-acting clinical methods probably indicates low emphasis of the programmes on clinic-based service delivery compared to the home-based CBD, and call for critical review of the existing strategies with a view to attain sustainable demographic impacts from the programme performances.

Considering the time and money costs (time costs of travel and waiting, and money costs of travel and user fees) of the clients together with the provider's costs, the clinic strategies might prove to be a costlier alternative to the home-based service delivery (The Population Council/Bangladesh, 1997). However, deduction of the clients' costs and increase in use of the clinic services are believed to lower the corresponding costs. Moreover, delivery of a wide range of essential health services necessitates a well-organized clinic-based strategy.

The cost per contraceptive year protection (CYP) for pill, IUD and injectable provided at the government facilities has been estimated to be Tk. 259.00, 181.00, and 338.00 respectively. The corresponding costs at the NGO clinics are Tk. 225.00, 164.00 and 316.00. However, the same costs for the satellite clinics are much lesser (PDEU, ACPR and MSH, 1996). The main reasons of high costs at the fixed-site clinics may be explained by: incorporation into the estimates the costs of labour associated with the home service-delivery programme, under-use of the clinic capacities and comparatively higher capital costs of the clinics. In light of the huge costs associated with the door-step distribution strategy and the focus to address the essential health needs of the people, the future service-delivery strategies will require enhanced emphasis on strengthening clinic services as the main hub of primary health activity and encouraging clients to use clinics that provide a range of essential services.

Contraceptive Social Marketing

Marketing through Commercial Outlets

In Bangladesh, the Social Marketing Company (SMC) has been providing modern supply methods using commercial channels throughout the country since mid-seventies. Starting as a social marketing project in 1974 it has evolved into a company in 1990. The SMC usually markets different brands of oral pills and condoms. Also, Joy foam tablets and injectable were previously marketed. In 1985, the SMC extended its marketing activities with inclusion of ORS (for the treatment of diarrhoeal disease) in its social marketing efforts.

The major objectives of SMC are as follows :

- to increase the availability and use of non-clinical contraceptives, like oral pill and condoms, and ORS in retail outlets throughout the country
- promote, advertise and market these products
- develop and disseminate communication materials for wider publicity of the SMC products
- undertake research relating to marketing of contraceptives.

In line with the above objectives, the SMC conducts the following major activities :

- provide motivation for use of its products through vigorous advertising and promotional campaign
- fix up sale targets and distribution of contraceptives and ORS
- provide logistics support for proper distribution of SMC commodities
- monitor and supervise the staff for field-level activities
- meet with doctors, quacks and pharmacists for wider distribution of its products

- undertake school ORT education programme for secondary school students who are trained in ORT
- undertake extensive research for developing messages and marketing strategy of the SMC products.

The SMC is looking into the feasibility of marketing other health-related and socially beneficial products to improve recovery of operating costs and, thereby, assure continuing nation-wide coverage of its successful social marketing programme. The overall achievements of SMC's sales targets for different brands of contraception are much satisfactory. It was known from the office records of the SMC that the lions share (56.7%) of the total expenditure was borne for distributing commodities to the sales points, followed by staff salaries and benefits (11.7%) (Abedin et al, 1994). Shifting clients to the SMC sources for the methods leads to decreasing dependence on government/subsidized sources which, in turn, contributes to the sustainability of the national MCH-FP programme.

Community-based Sales of SMC Contraceptives and ORS

The Community-based sales (CBS) strategy was based on locally recruited female Community Sales Workers (CWs) who routinely made home visits to the clients and marketed pill, condom and ORS. This was essentially experimentation of a new community-based social marketing model, somewhat like the depot holder strategy.

The SMC assessing the need for an alternative to full-time FP field workers, in October 1990, within the purview of an operations research (OR) effort, began field-testing this new strategy in three selected thanas of the country. Due to the success of the intervention, the SMC under a pilot phase subsequently extended the CBS model to 19 thanas in five districts and planned eventually to cover other parts of the country. Aims and objectives of the CBS were to:

- develop a community-based FP delivery system that was more effective and efficient than the typical government and NGO approaches and could be expanded throughout Bangladesh

- assess the efforts of the CBS approach on coverage of clients, improvements in knowledge, family planning and ORS use, willingness of clients to pay for products and services, cost-effectiveness of the CBS approach, etc.

CBS promoted doorstep sales of oral pills, condoms and ORS through CWs recruited from within the community. Each CW was responsible for 500-600 (in the initial field-testing this was 600-1000) MWRA. She worked part time and received a model base salary plus commission. Her job was to contact each eligible couple on a regular basis, screen potential users, provide essential information and education to the client about contraceptive and ORS, sell SMC commodities, make referrals, and prepare and submit monthly performance reports to her supervisor (Area Executive). The CWs purchased family planning methods and ORS from SMC. When a CW started functioning, an advance of SMC products was made to her, and the CW had six months to repay the cost of FP and ORS products. The income of CWs was derived from sales of SMC products and a monthly model base salary (storage fee) of Tk. 250.00 per month.

Upon recruitment, new CWs and Area Executives (AEs) were trained regarding the following: IEC of FP and ORS, proper contraceptive use, the reproduction system and how contraceptives work, side-effects and referrals, contra-indications, entrepreneurial skills, etc. Follow-up courses were conducted for CWs on a monthly basis (for initial 6-10 months) and for AEs quarterly.

Each thana had one AE who was responsible for providing guidance and supervision to the 15 CWs working in the thana. The AEs used to undertake field visits, restock CWs and maintain liaison with thana officials and community leaders. The AE compiled a monthly CWs' performance report for the District Manager. The District Manager was responsible for the implementation of the intervention in the district. He was reportable to the

Project Director, based in the central office at Dhaka, who had the overall responsibility for implementing the intervention.

An evaluation of the CBS revealed high effectiveness of the strategy regarding average number of visits among clients, group contacts, knowledge and use of FP methods and ORS among the CW clients, etc. The strategy also proved to be cost-effective and sustainable having a recovery of field-level delivery costs to an extent of 72 per cent and a net field costs per MWRA much lesser than the government field workers' system (Richardson, 1995).

Discussion

Evolution of the MCH-FP Service-delivery System in Bangladesh

The following observations could be made analyzing the evolution process of the MCH-FP service-delivery system in Bangladesh:

- The programme started in the early-1950s as a non-government (voluntary) FP initiative. Motivation and clinic-based FP services were the programmatic components in the beginning. Subsequently, since the mid-1950s, the government came forward initially with limited role and then gradually enhanced its responsibility and took over the programme as the main service provider. The government's participation started with clinic-based FP activities and then, since mid-1970s, shifted toward a massive supply-led MCH-FP (FP plus) programme implemented predominantly through an entirely free doorstep distribution system backed up by a comprehensive system of clinics. Till 1975, health and family planning programmes were structurally integrated; but recognizing the paramount importance of population control for the country, special emphasis was attached to the family planning programme through creating a separate Directorate of Family Planning, in parallel to the Directorate of Health Services under the Ministry of Health and Family Welfare. The government FP programme eventually became the single major system

rendering approximately three-fourth of all the MCH-FP services in the country.

Non-governmental activities during the late 1960s and early 1970s were overwhelmed by massive participation of the government. But since 1979, the government-NGO activities gradually entered into better coordination and understanding. NGOs are now the second largest MCH-FP service providers next to the government. NGO programmes are mostly designated to offer services in the urban areas and in some of the low-performing rural areas. Commercial sector, i.e. the Social Marketing Company, and the for-profit private sector since mid-1970s have been gradually getting involved in the MCH-FP service-delivery system. The SMC has proved to be considerably successful in promotion and marketing of selected FP commodities. The role of the other partners of the commercial sector, namely private clinics, private practitioners, pharmacies and drug stores, is yet not so prominent in the delivery of MCH-FP services.

In spite of existence of service distribution modes, like contraceptive social marketing (CSM) and clinic-based services (CBS), the overall programme is still predominantly dependent on doorstep type of CBD of services. The doorstep distribution system though highly effective has also been very costly and resource-intensive. In light of the needs for expanding the programme with increase in demand for the related services, and limited capacity of the government to augment corresponding funds from internal source in the backdrop of stagnating donor contributions, sustainability of the MCH-FP programmes in the country is much vulnerable. The home-based service delivery system was a radical strategy at that period when attainment of a satisfactory growth of CPR was of prime concern. The priorities of the programme have now evolved to a stage that emphasizes consolidation and continuation to sustain growth and expansion under resource constraints. Doorstep delivery, once deemed radical, has now matured into a conventional approach to which alternatives that reduce costs, enhance quality and

maximize outputs become necessary. This has become more necessary not only because of diminishing funding prospects from the donors, but also to make the programme more efficient and appropriately geared toward the Programme of Action of the International Conference on Population and Development (ICPD) held in Cairo in 1994. The programme now needs to attain further levels of performance responsive to the fundamental health needs of the populace through providing a package of essential services, comprising a range of reproductive (including family planning) and child health services. A health and population sector strategy is currently being developed that proposes to shift the programme away from target-driven demographic goals toward a holistic approach aimed at serving individual clients' needs, especially of women. The service delivery-system now requires structural adjustments to allow consumers to avail of 'one stop shopping' of the essential package of health and family planning services. The concept of 'one stop shopping' is being adopted to address the 'missed opportunities,' minimize clients' costs, as well as those of the providers through higher use of the service facilities. In this context, various innovations in the service-delivery strategies that facilitate quantitative and qualitative changes in the service-mix and help attainment of a modest level of sustainability are of paramount importance.

Analyses of the Service-delivery Strategies

Analyses of the service-delivery strategies adopted so far by the various MCH-FP programmes with respect to their aim and objectives, cost-related issues, outcome and contribution, and relevance with the future programme needs have been summarized below.

STRATEGY TYPE: **Doorstep delivery of MCH-FP services by full-time field workers**
AIM AND OBJECTIVE: To ensure easy access of women and motivate them to services whose mobility is considered to be limited because of the country's sociocultural and physical contexts.
COST-RELATED ISSUES: Maintaining the vast network of 35,000 Field Workers and 6,000 Supervisors is highly resource-intensive and costly. Major share (60-80%) of the programme costs (which now stand at U.S. $120 million and, remaining other things constant, will have an incremental increase of U.S. $10 million per annum) accounts only for personnel/labour (salaries/benefits, etc.) required to maintain the doorstep distribution system. The recent ICDDR,B, Population Council and FHI studies demonstrated the high proportions of personnel costs in the unit costs of the services. It has been found that, for the GoB home-based delivery programme, the labour cost of a field visit (salary costs of field worker and supervision) to an eligible couple was in the range of Tk. 11.00 - 16.00, and in the NGO programmes, the corresponding cost was between Tk. 9.00 and 13.00 (field worker portion approximately 80%). The costs of one CYP for oral contraceptive pill amounted to Tk. 232.00 and for condom to Tk. 284.00 in the GoB system, and for the NGO programmes Tk. 268.00 and 287.00 respectively (PDEU/ACPR/MSH, 1996). Further analysis revealed that more than 60% of the CYP costs account only for the labour costs of home visits made to eligible couples.
OUTCOMES AND CONTRIBUTION: The impact of this strategy was remarkable. Contribution of the doorstep delivery of MCH-FP services by a network of full-time workers proved to be considerably high: contraceptive use rose from 7.7% in the mid-1970s to the present level of 49% and total fertility rate decreased from 6.3 to 3.3.
MAJOR CONCLUSION AND REMARKS: The investment in such a programme was also tremendous. With the future needs of expanding the programme under resource constraints, continuation with the doorstep CBD seems not to be viable and sustainable. The doorstep distribution strategy has less time and scope of addressing non-users more effectively because of its mandatory routine visit to all eligible couples. The field workers have largely become to function as doorstep re-suppliers of pill and condom users. Thus, the doorstep strategy seemed to have lead to increase of the share of non-clinical re-supply methods in the contraception method mix and enhanced dependence of the pill and condom clients on the field workers for their replenishment. The proportion of pill and condom user eligible couples has risen from 4.8% in 1983 to 20.4% in 1993-1994. Similarly, eligible couples getting their pill and condom from the field workers increased from 42% in 1989 to 65% in 1993-1994 (1983 CPS; 1989 BFS; 1993-94 BDHS). Therefore, this strategy once deemed radical has now matured into a conventional approach for the programme areas with less barriers to access by women's limited mobility and with high CPR, to which alternatives that reduce costs, enhance use of longer-acting clinical methods, reduce dependence on field workers for contraceptives, and maximize outputs become necessary. The shift is necessary because of the increasing costs of the programme and likelihood of reductions in donors' supports. Relatively higher mobility of urban women and availability of numerous sources of pill and condom and other MCH-FP services in the urban areas seem to provide more congenial pre-requisites to initiate such shift in the urban areas.

STRATEGY TYPE: **Doorstep delivery of MCH-FP services by part-time field workers**
AIM AND OBJECTIVE: To increase cost-effectiveness and sustainability of programmes through reduction in personnel costs in view of diminishing donor support.
COST-RELATED ISSUES: Employment of part-time FWs with lower salary is the main cost reduction factor of this alternative strategy. In contrary to the monthly basic salary of the full-time field workers ranging from Tk. 750.00 to Tk. 1,800.00, the part-timers are paid a monthly salary which ranges from Tk. 100.00 to Tk. 560.00. A study on the part-timers' system found that the part-time field worker strategy was less costly: average direct cost, indirect cost and total cost had been found to be, respectively, 5, 2 and 3 time lesser than those for the full-timers. Cost per acceptor per part-time field worker has been Tk. 8.00 and cost per CYP per part-time field worker Tk. 248.00 compared to, respectively, Tk. 11.00 and Tk.373.00 for those of the full-time field workers (Majid, 1995).
OUTCOMES AND CONTRIBUTION: In the same evaluation conducted on the FPAB, FPSTC, PI and TAF-supported programmes with part-time field workers, it was found on the basis of information from the records of the field workers that the full-time workers had slightly higher CPR (59%) compared to the part-time workers (55%) in May, 1994. Among the various types of part-timers, regular part-time workers (of PI and TAF) had the highest CPR (64%).
MAJOR CONCLUSION AND REMARKS: The part-time field worker-based strategy is apparently more acceptable taking into consideration the cost factor. However, there are questions about the level of commitment and motivation of the part-timers toward the programme causes, and about the quality of their services. It has been commonly found that, the part-time field workers' systems have low-retention and high-turnover rates. This apart from incurring additional costs and time for recruiting and training new hands creates problem for continuity and sustainability of the programme performances. Therefore, these areas deserve further investigations. For the sake of proper analysis of the cost-effectiveness of the part-timer system, the implicit costs (opportunity costs of the programme) need to be duly considered. Such systems generally have relatively high- implicit costs involved with the huge programme efforts required to develop, maintain and sustain the system. As for example, a study of the Population Council on productivity of the 'Swanirvar' part-time field workers compared with the 'typical' NGO programme concluded that, while the cost per CYP was far lower in the part-time field worker-based programme of the Swanirvar, there were indications that the quality of services might be somewhat lower in Swanirvar. The Swanirvar part-timers were found to be more likely to visit the re-supply method users than the non-users which indicated at their lesser effectiveness in recruiting new acceptors (The Population Council/ Bangladesh, 1997).

STRATEGY TYPE: **Doorstep delivery of MCH-FP services by volunteers and with community support**
AIM AND OBJECTIVES: To link the clients and service providers through volunteers; to involve elected officials, community leaders and members in planning and organization of MCH-FP services in the locality; and to ensure the easy availability and accessibility of MCH-FP services within the community through the use of community volunteers and resources.
COST-RELATED ISSUES: In about all the various programmes with volunteer-based strategy, the recruited volunteers are offered with some nominal financial incentives either in the form of salary or as travel expenses. Within the Local Initiative Programme (LIP), the community has to match external grants with at least 10% cash contribution from local resources. Almost in all of these programmes, community mobilizes venue and/or some other facilities required for the delivery of MCH-FP services. Service provision with the use of non-paid/ nominally paid volunteers and with support from the community help in substantial reduction of the programme costs (Paljor et al., 1994; Sayeed et al., 1993; FPAB, 1991).
OUTCOMES AND CONTRIBUTION: The volunteer-based service-delivery systems in general proved to be much successful. The Urban Volunteers Programme of ICDDR,B helped increase CPR, immunization knowledge and coverage of some MCH-FP services. LIP succeeded in involving community leaders and members in the FP programme and enhance CPR to 50% in the programme areas. The Utilization of Voluntary Agencies in Population Activities (UVAPA) project succeeded to achieve a CPR of 48% and small family norms (mean number of living children being 3.2). The volunteer- based programmes of various NGOs in the urban Dhaka proved to be much contributive too.
MAJOR CONCLUSION AND REMARKS: Community support and involvement of volunteers in the programmes are greatly conducive to the sustainability of the programmes. This strategy is, however, much complex in terms of management, supervision, monitoring and sustaining of the volunteers and their performance. A high degree of project effort is usually required to establish and operationalize the volunteer-based systems. Retention and continuity of the volunteers, their commitment, quality of the services offered by them etc. are not beyond question. Whether and how far a volunteer-based service-delivery system is a feasible alternative to the conventional delivery systems with paid regular employees, what are the implicit/hidden costs of maintaining a volunteer-based programme, etc. need further research. Instead of being substitutes of the professional service providers, an easy manageable and less costly system of volunteers with limited responsibilities, occasional involvement and some nominal incentive may be tried to develop for inclusion in a structured service-delivery system to supplement the programme with effective links between the service providers and the community members.

STRATEGY TYPE: **Community-based (non-doorstep) delivery of MCH-FP services by field workers/volunteers**
AIM AND OBJECTIVES: To extend the reach of field workers by encouraging them to meet group (cluster) of clients at some common site in the community instead of visiting them from door-to-door and distribute commodities, to foster pro-active MCH-FP service-seeking behaviour of the clients, and ensure availability of contraceptive resupply at the community.
COST-RELATED ISSUES: The `Jiggasha' approach involves some initial costs regarding procurement of necessary communication logistics. There is apparently no direct savings in programme costs from this strategy as yet. However, through expanding service-rendering capabilities of the field workers, more clients in future could be assigned to a field worker which, in turn, could reduce programme costs. Similarly, gradual withdrawal from the home-based delivery through cluster visitation approach can lead to reduction in the programme costs. The DH programmes, which use DH volunteers, provide nominal incentive to the DHs at the fulfillment of set targets. Thus, regular programmes can withdraw from supply of commodities and concentrate more on other aspects of health needs of the clients. This will facilitate better cost-effectiveness of the field worker-based strategies by freeing-up them from the re-supply activities.
OUTCOMES AND CONTRIBUTION: The CPR rose from 38% in 1990 to 56% in 1992 among those who were visited by a field worker and who attended `Jiggasha' centres (from 26% to 32% , however, for women who attended `Jiggasha' only). The Cluster Visitation approach in the rural setting has succeeded to attract about one-fourth of the clients and did not adversely influence the CPR. The DH programmes are contributing to the shift of the clients to DH volunteers for resupply instead of the field workers (Mitra et al., 1993; Chowdhury et al., 1994; ICDDR,B, 1996).
MAJOR CONCLUSION AND REMARKS: These strategies are the beginnings of the gradual shift from the typical/conventional doorstep distribution system. They are supposed to help the clients become pro-active in obtaining MCH-FP services from outside of home sources. Field workers will have greater opportunity to account for a larger number of eligible couples, or concentrate more on target clients and on other necessary aspects of the programme. Some of these strategies involve community participation. All these factors can contribute to the sustainability of the programmes. However, this approach may not work with equal effectiveness in urban settings, where community network is less obvious than in the rural areas, and numerous pharmacies and shops dispensing pills and condoms are available. These strategies may not contribute to the increase of cost-effectiveness in the short run. However, in the long run, they should facilitate cost-effectiveness and sustainability of programme effects. Further research is needed on these strategies for effective transition from the conventional system to a less-intensive field worker-based alternative.

STRATEGY TYPE: **Special MCH-FP programmes**
AIM AND OBJECTIVES: To use various professionals, such as traditional birth attendants (TBAs), traditional healers, canvassers, etc. in FP activities; to arrange provision of services in mills and factories, educational institutions, etc., and to include MCH-FP component within the socioeconomic development (income-generating) projects.
COST-RELATED ISSUES: The recruited traditional birth attendants, village doctors, and canvassers are provided with a nominal honorarium and other logistics, such as contraceptives, display materials, etc. The strategy of organizing services at the working places seemed to be a less costly way of offering services to the working women and adolescents. All these strategies involve moderate recurrent costs. The MCH-FP components of the NGO income-generating projects offer nominal payment to the volunteer field workers and recruited part-time field personnel.
OUTCOMES AND CONTRIBUTION: In the project areas due to the involvement of TBAs and traditional healers, the CPR has been found to be above 50%. The other types have not been formally evaluated yet. However, all of them were reported to have been much effective by the corresponding organizations. The FP programme of the NGO project 'Swanirvar' engaged in alleviating poverty by distributing loan to the poor for income-generating activities has been able to achieve high level of CPR (55%) and remarkable MCH-FP performances at its project sites.
MAJOR CONCLUSION AND REMARKS: The strategy of using various professionals (having regular relationship with the community through their normal professional duties) in MCH-FP activities is an effective supplement to the existing programmes. Their inclusion in the formal service-delivery system merits more attention. In the urban areas, many women are working. During most of the field worker visits, they are not available at their houses. Thus, arrangements for providing services at the working places/educational institutions deserve special consideration for inclusion in the urban MCH-FP programmes. Combining health issues with development programmes may prove to be much effective in alleviating poverty and improving health of marginalized populace. Various aspects of these strategies should receive enhanced focus in future research on especially urban health delivery systems. Should the strategies of providing services at working places and educational institutions be properly incorporated by the urban service providers into their regular service-delivery strategies as supplemental approaches, they may prove to be cost-effective and sustainable ways of reaching the working women and men, and the adolescents.

STRATEGY TYPE: **Clinic-based MCH-FP services**
AIM AND OBJECTIVE: To provide non-clinical and clinical MCH-FP services (clinical methods, viz. injectable, IUD, norplant, tubectomy and vasectomy, ANC, delivery, PNC, female immunization, child immunization, treatment of mother and child sickness, referrals, etc) to clients from clinical settings.
COST-RELATED ISSUES: Clinics offering a wide range of services are more cost-effective than those offering fragmented services. Satellite clinics arranged at locations usually offered by the community appear to be less costly because of no involvement of fixed cost. The cost per CYP for pill, IUD and injectable provided at the government facilities has been estimated to be Tk. 259.00, 181.00 and 338.00 respectively. The corresponding costs at the NGO clinics are Tk. 225.00, 164.00 and 316.00. However, the same costs for the satellite clinics are much lesser (PDEU/ACPR/MSH, 1996). The main reasons of high costs at the fixed-site clinics may be explained by: incorporation of the labour costs associated with the home service delivery in the estimates , under use of the clinic capacities and comparatively higher capital costs of the clinics.
OUTCOMES AND CONTRIBUTION: The 4,000 clinics in the GoB MCH-FP system and 200 such NGO clinics have contributed to providing clinical MCH-FP services to the clients, especially women and children. In the recent years, there was a remarkable progress in providing services, like injectable, norplant, ANC, and child immunization. The proportions of permanent and other clinical contraception methods currently are 9% and 7% respectively. However, the use rates of tubectomy and vasectomy declined with an average annual rate of 2.6 per cent and 5.9 per cent respectively (Barkat et al, 1994).
MAJOR CONCLUSION AND REMARKS: In light of the huge costs associated with the doorstep distribution strategy and the need to address the essential health needs of the people, the future service-delivery strategies probably will require enhanced emphasis on strengthening clinic services as the main hub of primary health activity and encouraging clients to use clinics that provide a range of essential services. Therefore, to consolidate the attained success and sustain steady growth of the national MCH-FP programme, in future, a shift from the doorstep delivery of services to clinic-based services will be required. Arrangement of services to be rendered from clinical settings is expected to facilitate higher use of longer-acting clinical methods. Research on the practical ways and consequences of the shift from the doorstep service-delivery strategy to clinic-based strategies, and cost-effectiveness and sustainability of the corresponding changes is of much importance. Satellite clinics may prove to be useful intermediary step toward this transition.

STRATEGY TYPE: **Social marketing of contraceptives**
AIM AND OBJECTIVES: To increase the availability and use of non-clinical contraceptives (pills and condoms) and ORS throughout the country by marketing the respective products using the commercial retail outlets; and through the CBS model test the feasibility of developing distribution system more effective and efficient than the typical GoB and NGO CBD programme.
COST-RELATED ISSUES: The overall cost involvements is considerably high. It was known from the office records of SMC that the lion share (57%) of total annual expenditure was incurred for distributing commodities to the sales points, followed by staff salaries and benefits (12%). However, the SMC covers about 60% of its programme costs through the earnings from sales proceeds. The CBS experimentation also revealed satisfactory performance. Under the CBS strategy, the recruited workers were being paid with a model base salary (storage fee) of Tk. 250.00 per month plus sales commission. This strategy had a net field cost per married woman of reproductive age much lesser than the government field workers' system and succeeded in attaining a recovery of field-level delivery costs to an extent of more than 70%. (Abedin et al., 1994; Richardson, 1995).
OUTCOMES AND CONTRIBUTION: The SMC has proved to be much successful in expanding nation-wide coverage of its highly effective social marketing programme. It covers more than 6% of the eligible couples of its working areas through its vast and well-organized distribution network of stockiest and retailers. About 18% of the contraceptive pill and 65% of the condom users are supplied with their methods by the SMC. The SMC is considered the single major seller of ORS.
MAJOR CONCLUSION AND REMARKS: Social marketing has proved high potential in shifting clients from the GoB supply sources to private sector sources which is an important pre-requisite to cut down the costs of the national programme and, thereby, contributing to its better sustainability prospects. More innovations may be needed to achieve savings in the current programme costs. The SMC needs to enbroaden and diversify its marketing range with other health-related products to improve recovery of operating costs. Activities related to re-supply of pill and condom users in the areas with high CPR may be delegated to the SMC.
The CBS programme though proved to be overall successful, the main concerns which could be flagged here are: to what extent is this strategy coherent with the basic principles of the social marketing concept that emphasizes the use of commercial outlets for marketing of social products; how the existing pharmacies dispensing the SMC products will react to this when naturally a sizeable segment of their customers will switch off to the community sales workers of the CBS once they would be getting the same products at the same (if not lowered) price at their doorsteps; and lastly instead of encouraging the clients to obtain contraceptives from outside sources and making them pro-active, this strategy would make the corresponding users more dependent on home supplies.

Changes in the MCH-FP Service-delivery Strategies

The major trends ascertained through review of the strategies are as follows:

- The main objectives of the changes in the service-delivery strategies were either to improve the doorstep distribution strategy further in terms of performance/cost, or to develop cost-effective alternatives to the resource-intensive doorstep distribution approach, or to introduce some supplemental component within the regular system of home-based delivery that may, in future, help reduce the level of dependence on the doorstep strategy. While there is scope for considerable streamlining of the MCH-FP service delivery system, in many respect the erstwhile thrust of an essentially supply approach impedes and retards the process. This inertia, inherited from practising doorstep delivery of services for last 20 years coupled with the fear that contraceptive use rate and other programme performance may significantly decrease due to the shift from the home-based service-delivery strategy, is much commonly pertinent among the programme managers, service providers and policy-makers.

- There is, however, favourable attitude among NGOs and the government for developing strategies alternative to the doorstep distribution. Many innovations in the service-delivery strategies were sporadically tried. Even in 1980s when the sustainability concerns were not so much in the fore agenda of the programmes, many NGOs directed their endeavours toward devising more cost-effective service-delivery strategies through various measures: community participation, making provision for contraceptive supply within the community, providing services in the working places in negotiation with employers and workers' bodies, etc. In early nineties, considering the sustainability aspect as a major concern of their programmes, NGOs tried numerous innovative changes in the conventional doorstep service-delivery strategy. Probably, due to the lack of proper understanding of the management of the shift, changes did not take place in the right magnitude and speed.

- Focus and emphasis of most government and NGO programmes on provision of clinical services is still weak. Clinics are generally

considered back-up facilities of the community-based MCH-FP activities. Many clinical services are fragmented providing only a limited number and type of services. Considering the required future direction of the programme, there is, however, increasing understanding to emphasize on strengthening the clinic services as the main hub of primary health care activity and encouraging clients to use clinics that provide a range of essential services.

- Shifting clients from the government and subsidized supply sources to those of the commercial sector leads to reduction of government burden and clients' dependency on the government sources. This is well understood by the service providers as contributory to the sustainability of the national MCH-FP programme. The social marketing strategy has proved to be much successful in Bangladesh.

- There has been a steady practice by the government and the NGOs of charging some token fee (user charge/fee) for selective contraceptive commodities since July 1990 (GoB charging for condoms only, while NGOs for condoms and pills). NGOs also charge fees for registration and other MCH-FP services in the clinics. Apart from charging fees, other forms of community financing measures, like raising funds, collecting donations, etc., are being adopted too. This cost-recovery measure was introduced to achieve an increased financial sustainability and prevent unnecessary wastage and misuse of commodities and services. However, users financially incapable of making payment are not deprived of the required services. The SMC and the for-profit private sector have their own pricing systems for their products and services.

Conclusions and Future Directions of Research

The future MCH-FP services are conceived to be delivered within the framework of the essential health services' package. In this regard, exercises on defining the components of the essential health services' package, standards and protocols for ensuring the quality of services, logistics and

support systems required for the delivery of essential services, organizational changes required for effective delivery of essential services, etc. are essential.

However, without going into the details of essential health services, and for the sake of simplicity and keeping our discussions confined to MCH-FP services, the future service-delivery programmes aiming at developing cost-effective, sustainable and replicable strategies, especially the ones operating in urban settings, will need to consider the following issues:

- Increase system efficiency by experimenting with alternatives to the delivery of contraceptives at the doorsteps by field workers, i.e. gradual phasing out of the home-based distribution system.

- Target FW services to specific types of clients. For this, two issues are of utmost importance: (i) well-defined sustainability plans and objectives of the programmes, and (ii) a system by which in line with the sustainability plans and objectives of the programmes, the 'target population' can be defined and identified for selective attention and follow-up. A programme could become more cost-effective by focusing active outreach only on the more 'passive' clients. The number of households that could be covered by a FW in this way might be increased.

- If FWs are released from the requirement of visiting every eligible couple every two months and home-based distribution of commodities, a range of less-intensive FW programme might be appropriate. Users may get replenished from the fixed-site regular (static) and satellite (outreach) clinics, or from shops and pharmacies (depot-holders/volunteers for ensuring re-supply within the community and clusters could also be considered for rural setting to this end). Not only this will allow a brief FW system (with modified job description) to concentrate more on IEC, community organization, and motivation of hard-to-reach population, but would also directly encourage a more active clientele less dependent upon FWs. Such alternatives are likely to reduce programme costs, thereby increasing the cost-effectiveness and sustainability of programmes.

- The alternative service-delivery strategies may consider: inclusion of volunteers as an integral component of the programme that could be easily operationalized, promote various ways of community involvement and participation, use of various professionals/working places/educational institutions for provision of services, integrating MCH-FP programmes with socioeconomic development projects, shifting clients from the government and subsidized sources to the SMC/commercial sources for supply of commodities, emphasizing clinic-based services and enhanced use of longer-acting clinical methods, fixing appropriate timing of the clinics according to convenience of clients, etc.

- Incorporate user perspectives, including necessary demand study and analyses of expenditure patterns of clients. This should result in greater use and effectiveness of services. Community participation will promote wider acceptance of services and make it more likely that a user perspective be continuously incorporated into the service-delivery planning and programming.

- Institutionalization of services and management improvement strategies that will contribute to both institutional and financial sustainability.

Future research is, thus, necessary to answer the following questions to develop an efficient service-delivery alternative for the urban areas:

- What are the feasible and cost-effective alternatives to the existing FW-based service-delivery system? Are there cost-effective ways to use FWs?

- Can non-poor, poor and slum populations be differentiated in an objective and cost-effective manner?

  What types of special population sub-groups exist in the urban community?

- How can services be more effectively targeted to slum and poor populations?

  What is the most cost-effective way of identifying on periodic basis the target population?

- What are the special programme needs of the poor and slum population?

- In what ways can volunteers/community be incorporated into the service-delivery system?

  Which of their roles are practical, simple and most cost-effective?

- What are the possible ways of increasing contraceptive continuation without increasing outreach services?

  How the non-users could be effectively identified and addressed?

- How the shift from the doorstep distribution strategy to a clinic-based service-delivery approach be designed which does not affect the existing programme performances?

- What should be the arrangements regarding services to be provided, timings of the facilities, providers of services, etc. for a static clinic-based service-delivery strategy which substitutes the home-based distribution system?

  How these clinics can contribute to the use of longer-acting clinical methods?

- What client-specific IEC and community mobilization programmes are required to bridge the gap between the service provider and the community members in a service-delivery system without active outreach activities?

  What innovations are needed in the current supply-driven conventional IEC programme to promote effective demand for MCH-FP services?

- What optimal cost-recovery measures could be adopted that do not affect the use of services but contribute to the financial sustainability ?

  What sort of revenue management will provide incentive for the service providers and motivate the users to operationalize an effective cost-recovery system?

  How to ensure a safety net for the poor unable to pay?

- How the SMC and the commercial sector can more effectively be involved in delivery of MCH-FP services?

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a. *Journal Papers:*

1. Baqui AH, Arifeen SE, Amin S, and Black RE. "Levels and correlates of maternal nutritional status in urban Bangladesh". ***European Journal of Clinical Nutrition (1994) 48, 349-357.***
2. Quaiyum MA, Tunon C, Baqui AH, Quayyum Z, Khatun J. "Impact of national immunization days on polio-related knowledge and practice of urban women in Bangladesh". ***Health Policy and Planning - a journal on health in development (in press).***
3. Baqui AH, Black RE, El-Arifeen S, Hill K, Mitra SN, Al Sabir A. "Causes of childhood deaths in Bangladesh: Results of a nation-wide verbal autopsy study". ***Bulletin of the World Health Organization (in press)***

b. *Working Papers:*

1. Jamil K, Streatfield K, Salway S. "Modes of Family Planning Service Delivery in the Slums of Dhaka: Effects on Contraceptive Use". May 1996. (ICDDR,B Working Paper No 46), (Urban FP-MCH Working Paper No 16), *ISBN 984-551-032-9*
2. Salway S, Nahar Q, Ishaque Md. "Alternative ways to Feed Infants: Knowledge and Views of Men and Women in the Slums of Dhaka City. May 1996. (ICDDR,B Working Paper No 58), (Urban FP-MCH Working Paper No 17), *ISBN 984-551-056-6*
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7. Thwin AA, Jahan SA. "Rapid Appraisal of Urban Health Needs and Priorities". October 1996 (ICDDR,B Working Paper No. 67), (Urban FP-MCH Working Paper No. 22), *ISBN 984-551-074-4*

8. Jahan SA, Thwin AA, Tunon C, Nasreen S. "Urban Men and their Participation in Modern Contraception: An Exploratory Study". October 1996 (ICDDR,B Working Paper No. 68), (Urban FP-MCH Working Paper No. 23), *ISBA 984-551-075-2*

9. Perry HB, Arifeen SE, Hossain I, Weierbach R. "The Quality of Urban EPI Services in Bangladesh: Findings from the Urban Initiative's; Needs Assessment Study in Zone 3 of Dhaka City". October 1996 (ICDDR,B Working Paper No. 69), (Urban FP-MCH Working Paper No. 24), *ISBN 984-551-076-0*

10. Perry H, Weierbach R, Hossain I, Islam R. "Immunization Coverage in Zone 3 of Dhaka City, Bangladesh". 1997 (ICDDR,B Working Paper No. 76), (Urban FP-MCH Working Paper No.25), *ISBN:984-551-097-3*

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12. Perry HB, Begum S, Hussain JB, Baqui AH. "Level and Correlates of Mortality in Zone 3 of Dhaka City 1995". 1997 (ICDDR,B Working Paper No.80), (Urban FP-MCH Working Paper No.27), *ISBN:984-551-103-1*

13. Salway S, Nurani S, "The Contraceptive Potential of Breastfeeding in Bangladesh". 1997 (ICDDR,B Working Paper No.83), (Urban FP-MCH Working Paper No.28), *ISBN: 984-551-106-6*

14. Barb N, Thwin AA, Mazumder MA, Baqui AH, "Practical Experiences from Developing Cost Management Skill of CWFP Managers". 1997 (ICDDR,B Working Paper No. 90), (Urban FP-MCH Working Paper No.29), *ISBN: 984-551-116-3*

15. Bhuiyan MA. "Strengthening Planning and Coordination of Urban Health Family Planning Services in Bangladesh: Findings from an Interventions with Government and Non-Government Agencies in Dhaka City". 1997 (ICDDR,B Working Paper No. 91), (Urban FP-MCH Working Paper No.30), *ISBN: 984-551-117-1*

16. Uddin MJ, Bhuiyan MA, Alamgir SU, Nasreen S, Tunon C. "Mobilizing for Urban Health: Perceptions and Involvement of Members of Zonal Health and Family Planning Coordination Committees in Dhaka City". 1997 (ICDDR,B Working Paper No.92), (Urban FP-MCH Working Paper No.31), *ISBN: 984-551-118-X*

17. Quayyum Z, Thwin AA, Baqui AH, Mazumder MA. "Establishing Pricing Mechanism for MCH-FP Services of NGOs in Urban Areas". 1997 (ICDDR,B Working Paper No. 94), (Urban FP-MCH Working Paper No.32), *ISBN: 984-551-120-1*

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19. Alamgir SU, Tunon C., Arifeen SE, Baqui AH, Bhuiyan MA, Uddin MJ. "Improving Availability of and Access to an Essential Health Services Package (ESP) in Urban Dhaka, Bangladesh". 1997 (ICDDR,B Working Paper No. 96), (Urban FP-MCH Working Paper No.34), *ISBN: 984-551-117-1*

20. Amin S, Arifeen SE, Tunon C, Baqui AH. "Strengthening Urban Clinic-Based Essential Health Service Through Standardized Service Delivery Protocols: A Preliminary Evaluation Report". 1997 (ICDDR,B Working Paper No. 97), (Urban FP-MCH Working Paper No.35), *ISBN: 984-551-123-6*

21. Alamgir SU, Tunon C., Baqui AH, Bhuiyan MA, Uddin MJ. "Improving the Effectiveness of the Health Department of Dhaka city Corporation". 1997 (ICDDR,B Working Paper No. 98), (Urban FP-MCH Working Paper No.36), *ISBN: 984-551-124-4*

22. Salway S, Nurani S, Nahar Q, Jamil K. "Postpartum Contraceptive Use in Bangladesh: Understanding the Users' Perspective". 1997. (ICDDR,B Working Paper No. 99), (Urban FP-MCH Working Paper No.37), *ISBN: 984-551-125-2*

c. *Special Reports:*

1. A document summarizing the key findings from the Zone 3 Needs Assessment studies was published by the project in collaboration with MOHFW, MOLGRD&C, CWFP, ICDDR,B in May 1995,

2. Thwin AA, Islam MA, Baqui AH, Reinke WA and Black RE. "Health and Demographic Profile of the Urban Population of Bangladesh: An Analysis of Selected Indicators". Special research report of MCH-FP Extension Project (Urban), 1996.

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4. Mazumder MA, Bhuiyan MA, Tunon C, Baqui AH, Chowdhury AI, Khan SE, Arifeen SE, Islam R. "An Inventory of Health and Family Planning Facilities in Dhaka City". March 1997 (Special Research Report) MCH-FP Extension Project (Urban), International Centre for Diarrhoeal Disease Research (ICDDR,B), Bangladesh

5. A brochure on "The Urban MCH-FP Initiative - A Partnership for Urban Health and Family Planning in Bangladesh" was produced in May 1995

6. Revised version of the above brochure entitled "A Partnership to Improve Urban Health and Family Planning in Bangladesh - The Urban MCH-FP Initiative" was produced in July 1996

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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