



Child Health Research Project

Synopsis: The Urban Maternal and Child Health-Family Planning (MCH-FP) Initiative

April 1998 Number 3

High fertility and declining mortality in Bangladesh have resulted in a doubling of the population since 1961, to 122 million (United Nations Fund for Population Activities, 1997), with 23% of the people living in urban areas that are growing at a rate of about 5% a year. Current figures for Dhaka City estimate that approximately 20% of the urban population live in slums without any basic services. There is also a strong potential for continued population growth because 41% (Bangladesh Demographic and Health Survey, 1996-97) of the population is less than 15 years old, and 47% of women are within their reproductive years. Thus, the problems associated with rapid, unplanned urban growth are likely to increase unless corrective actions are implemented.

Although urban health matters are the responsibility of municipal authorities, a variety of governmental and non-governmental organizations (NGOs) provide services along with a growing commercial sector. The existence of multiple sources of care offers choice to those who can afford it. But in the subsidized sector, the multiplicity of providers in the absence of appropriate coordination has left the urban poor grossly underserved because:

- They often do not know where to seek services;
- Private services are expensive;
- NGO services are often selective;
- Government services are inadequate and fragmented, with insufficient logistics and supervision, and there is
- Little coordination and lack of referral among the various services, leading to service gaps and overlaps.

In an attempt to develop a coordinated, cost-effective and sustainable system for delivering an essential package of health and family planning services to the urban population of Bangladesh, the Urban Extension Project of the ICDDR,B collaborated with the government of

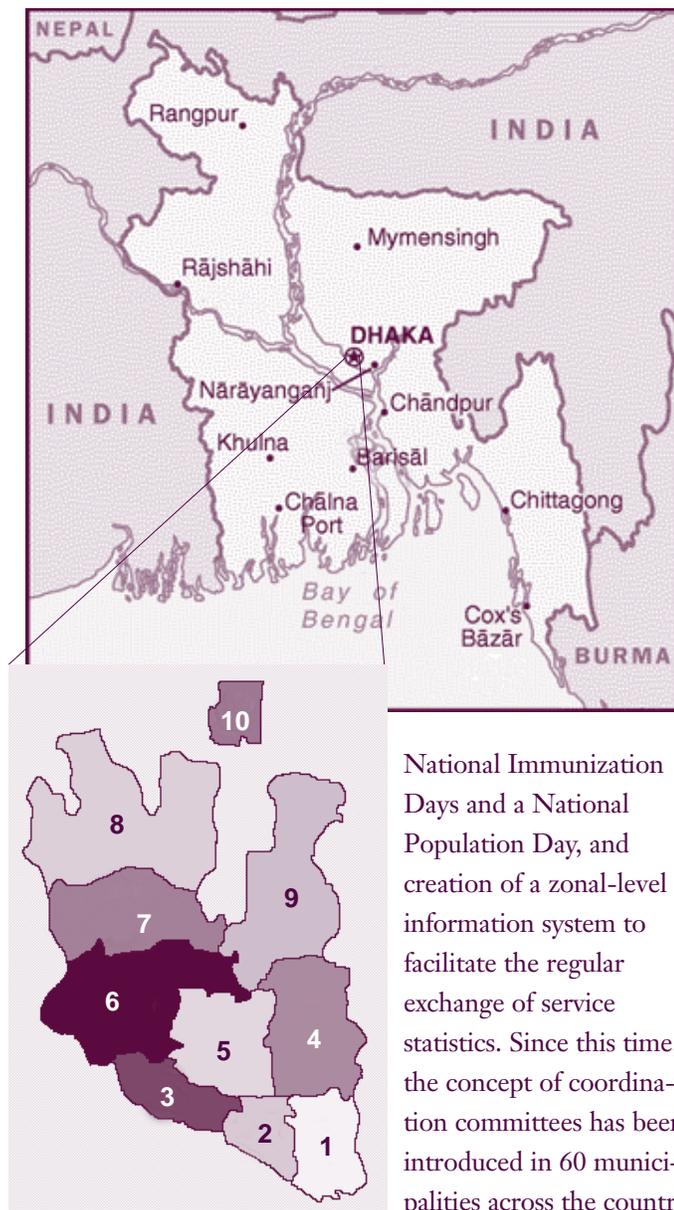
Bangladesh (Ministry of Health and Family Welfare; Ministry of Local Government, Rural Development and Cooperatives; the Directorate of Health Services; the Directorate of Family Planning; and the Dhaka City Corporation) and an NGO – the Concerned Women for Family Planning (CWFP) – beginning in 1994, to improve the health and well-being of the country's rapidly growing urban population. This collaboration became known as the Urban MCH-FP Initiative.

Sponsored and guided by Child Health Research Project (CHR) members, the ICDDR,B: Centre for Health and Population Research and Johns Hopkins School of Public Health - Family Health and Child Survival, and with funding from USAID-Bangladesh, the initiative strengthened planning and coordination of urban health and family planning services; improved quality of and access to an essential health service package; improved field and clinic information services; established cost-management and systematic pricing mechanisms; and explored alternatives to doorstep delivery of health and family planning services.

Strengthening Planning and Coordination of Urban Health and Family Planning Services

A key feature of this intervention was the establishment of Health and Family Planning Coordination Committees from June to October 1995, which represented all government and non-government service providers at the 10 zonal and 90 ward levels of the Dhaka City Corporation (Figure 1). The coordination committees at the zonal level were quickly found to be an effective forum to discuss and resolve common issues and problems between service providers, and have resulted in reorganization of service delivery facilities, the establishment of a referral system, and increased access to services in slum and poor communities. Specifically, zonal work plans have included the organization of promotional events, such as

Figure 1. Intervention Area



National Immunization Days and a National Population Day, and creation of a zonal-level information system to facilitate the regular exchange of service statistics. Since this time, the concept of coordination committees has been introduced in 60 municipalities across the country.

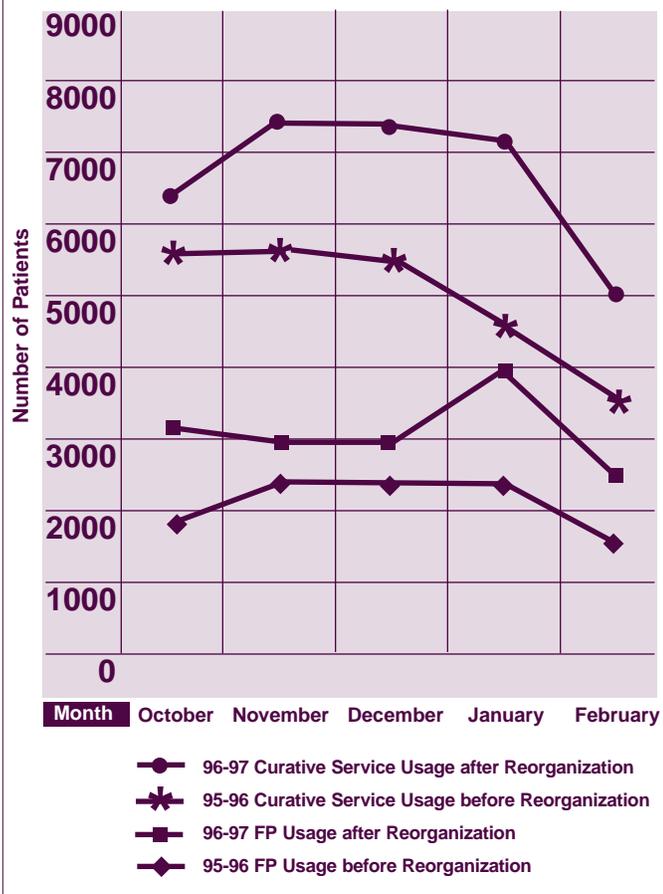
Activities of the ward committees were also successful, especially in the generation of resources for solving local health issues. Traditionally, ward commissioners were engaged in various development activities, such as construction of roads and community centers, but did not undertake health and family planning projects. These committees eventually established links with community leaders and service providers for better planning and implementation of local issues, including the provision of space for satellite clinics and initiatives in garbage removal and waste water disposal.

Improving Quality of and Access to an Essential Service Package

The objectives of this intervention were to improve the availability of and access to an Essential Service Package (ESP); to promote reproductive and child health; to improve clinic utilization at the individual and zonal levels, and to improve the technical quality of services provided. The reproductive health component of the ESP included family planning education, contraceptive services, management of complications, antenatal care, tetanus immunization, safe delivery and postnatal care. ESP child health services provided were childhood immunization, vitamin A supplementation, management of acute respiratory infections and diarrheal diseases, curative care of scabies and worm infestations and promotion of appropriate infant feeding. Tested in zones three and eight of Dhaka City, researchers first prepared a detailed inventory of all the facilities, while concurrently gathering utilization statistics of services. Duplications and gaps in service coverage were then identified in each ward, and a reorganization plan for each zone was formulated by participatory planning according to local need. Each reorganization plan had four main elements: relocating certain facilities, bringing facilities and/or services under one roof, expanding the range of services and improving referrals among complementary facilities.

After reorganization, the total number of facilities in zones three and eight increased, and there was a doubling of locations offering a broad range of services (immunization, family planning, prenatal and postnatal care, and curative services) in zone eight, and a decrease in the number of wards in both zones with deficient services. An improvement in both family planning and curative service utilization was also noted in zone three (figure 2), with similar results found in zone eight. The implementation of changes did not result in added costs to the organizations involved because new service centers were located in properties owned by the Dhaka City Corporation and NGOs. The researchers found that the cost of planning could be reduced for future interventions if planning was institutionalized within city corporations and municipalities.

Figure 2. Family Planning and Curative Service Utilization Before and After Reorganization Zone 3



Service quality was also improved through the introduction of service delivery protocols for the essential services package. A midterm evaluation conducted after a year of implementation indicated improvements in both the government dispensaries and NGO clinics. Specifically, there were increases in providers' test scores on client assessment, counseling and treatment. There were also marked improvements in prescription patterns and a reduction in the misuse of antibiotics for treatment of diarrhea and acute respiratory infections. However, there were problems implementing the antenatal care and counseling arms of the ESP. Providers reported that the protocols were easy to follow but had increased waiting time at the clinics. Suggestions for improvements of these problems included the retraining and reassignment of field workers as paramedic assistants to assist with increased clinic workload.

Improvement of Clinic Information Systems

The clinic information system (CIS), an intervention to support the delivery of an essential services package, is a card-based record-keeping system designed to replace the register-based arrangement that required clinic staff to record different activities in separate registers. An alternative to the register-based system was sought because it didn't assist program managers in monitoring service quality, supporting the continuity of care or promoting a client-centered health care delivery approach. In its initial form, the CIS was based on three clinic-held cards (woman's health card, child health card and antenatal/postnatal card) and one client-held card (the family health card), which contained information on family members and the services received during visits to local clinics.

Evaluation of the CIS demonstrated that it improved the quality of service at two Concerned Women for Family Planning (CWFP) clinics in Dhaka City in comparison with two non-intervention clinics. Ninety-two percent of new family planning clients received all the minimum screening procedures when compared with 0-39% of cases in comparison clinics, and almost all of the antenatal clients received the essential checkup procedures in intervention clinics. Further, the use of protocols for the syndromic diagnosis of reproductive tract infections improved greatly when a diagnostic checklist was incorporated into CIS. The additional material and training costs of CIS in comparison to the register-based system was about 24 Taka (35 cents) per client, so a simplified, second-generation CIS was developed. The new system consisted of only two cards: a family-health card and a clinic-held card. Preliminary testing showed that the new card system preserved the positive features of the original CIS and costs only 12 Taka per client.

Cost Management Systems for Health and Family Planning Programs

Faced with increasing resource restraints from an expanding demand for services and reduced external funding, maternal and child health and family planning programs in Bangladesh have been seeking ways to ensure service sustainability. An initiative was thus tested to provide program managers with a costing tool that enabled them to

analyze the cost of different components of a service package, and to enhance their capacity to review cost data and make strategic decisions for cost reduction and cost recovery. At six branches of CWFP across Bangladesh (Khulna, Chittagong, Magura, Rajshahi, Tangail and Wari - Dhaka City) managers were given orientation on basic principles of cost and cost analysis, and a costing tool was developed to calculate the routine cost of services. Concurrently, data on service utilization and expenditures were collected, and personnel time allocation was estimated.

Cost analyses showed that the cost was high for new and returning family planning clients receiving injectable contraceptives and that this cost was due to both labor (50-80%) and commodity costs. Cost was also high for new clients receiving birth control pills. Strategies to lower personnel costs included decreasing the supervisor-to-worker ratio and increasing the number of couples that an

MCH-FP field worker visits. Bulk purchase of medicines was also found to reduce commodity costs. Efforts were also made to increase the efficiency of service delivery by promoting clinic services and diverting field services to clinics. The more services were diverted from the field to the clinics, the more the unit price in service cost fell, for example, with 30% of services delivered in the clinics instead of at home, there would be an estimated annual savings of 121,100 Taka (\$1875) in Khulna.

Systematic Pricing for Essential Service Packages in Urban Areas

During the last decade, MCH-FP program managers and policy-makers have attempted to introduce prices or increase existing price levels of services. However, due to high subsidization of public and private non-profit services, there were few systematic efforts for price determination, and cost recovery was not a priority. Therefore, an effort to

Figure 3. Willingness to Pay for Birth Control Pills

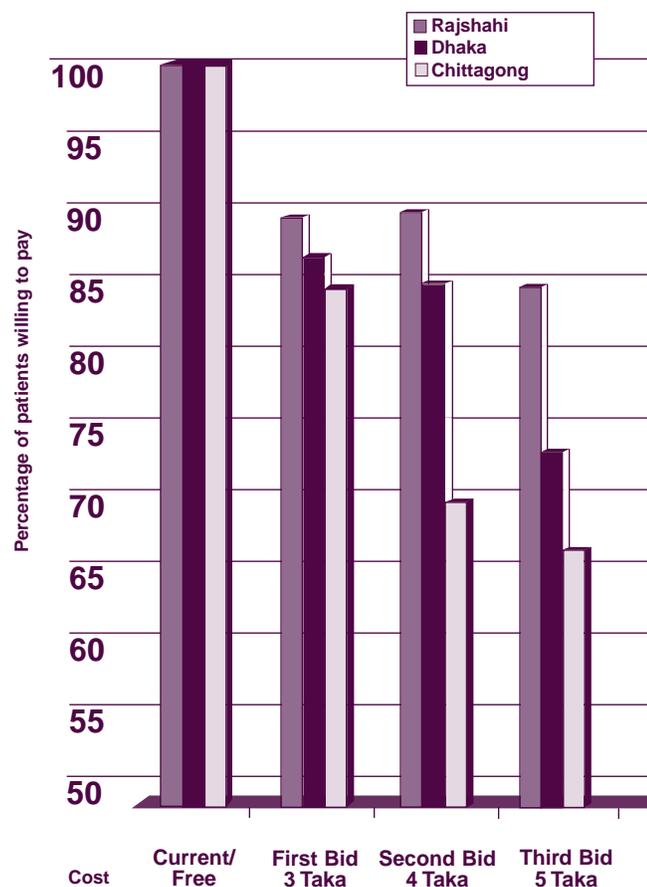
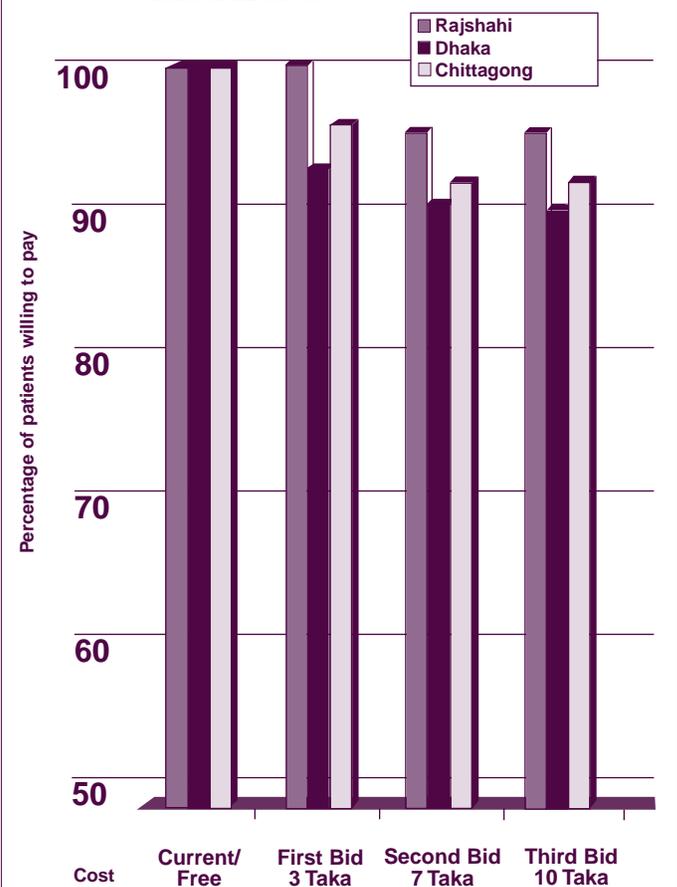


Figure 4. Willingness to Pay for Childhood Immunizations



establish systematic pricing was recently tested in the CWFP clinic and doorstep-based programs in Wari, Chittagong and Rajshahi. The intervention attempted to determine the cost of producing the services, to assess the willingness of clients to pay for services, and to set prices that were competitive to other NGO providers in the market.

Pricing surveys in the study areas revealed that CWFP prices were nominally the same as services provided by other NGOs, but that clients were willing to pay more for both family planning and health services (Figures 3 & 4). The costing exercise also showed that the unit cost of providing family planning services to new clients at both home and clinic visits was higher than that of resupplying contraceptives to regular users. A new set of fees was set for selected essential services, with a receipt system shown to improve clients' confidence in the providers. In Wari-Dhaka City, cost recovery increased significantly for all services as prices increased, and little or no decrease in service utilization was observed.

Alternative Service Delivery Strategies

Doorstep distribution of contraceptives through two monthly visits to the homes of eligible couples has been effective in increasing contraceptive usage and reducing fertility in Bangladesh. However, because the doorstep approach is labor intensive and thus costly, alternative delivery strategies were tested to improve the cost effectiveness of family planning service delivery. Two alternatives were tested in conjunction with the withdrawal of home-based distribution in two areas of Dhaka City beginning in January of 1996. In Hazaribag in ward 58, a range of MCH-FP services along with distribution of contraceptives were delivered from a primary health care clinic, while in Gandaria in ward 80, pills and condoms were provided to groups of clients from community service points (CSPs). In both alternatives, targeted home visits to families who did not use contraception was done to promote the use of family planning.

Distribution at the primary health care clinic produced an increase in contraceptive prevalence, but the use of community service points was not successful, due to the lack of other essential health services at CSPs. In both alternatives, an increased use by former clients of commercial sources (pharmacies and shops) was noted. Personnel costs at both intervention sites were reduced by 25 percent, and commodity costs (cost per couple/year)

of contraceptives were significantly lower in Hazaribag, because of increased clinic usage. Thus, in urban Dhaka, doorstep contraceptive delivery can be replaced by clinic-based services and targeted home visits.

Summary

The development of a coordinated, cost-effective and replicable system for delivering the essential health services for the rapidly growing urban population is an extremely complex task. Yet, in three years the Urban MCH-FP Initiative made significant progress through a broad-based partnership with relevant governmental and non-governmental agencies. Within six months, the initiative partners had completed a comprehensive assessment of urban health needs and services. Based on the findings of the assessment, service interventions were designed to improve the management, quality and sustainability of the urban health and family planning services. Field testing of these interventions has led to the development of a number of programmatic/policy tools. Following are some examples:

- Establishment of functional city, zonal (in all 10 zones of Dhaka City) and ward-level (in selected wards) coordination committees in Dhaka City and recommendations on how to set, sustain and monitor local bodies for planning and coordination of health services in urban areas;
- Implementation of record-keeping and reporting system that suits the needs of urban community-based health programs. The revised system improved monitoring of field operations, allowed use of data for problem identification/ solution and allowed targeted visits (differential visits) so that the underserved groups received special attention;
- Design of a card-based clinic information system that enabled easy identification of clients' needs for greater continuity and quality of care;
- Use of protocols and training methodologies to strengthen clinic-based reproductive and child health services (including family planning counseling, prenatal and postnatal counseling, reproductive tract infection case management, immunization, and diarrheal and respiratory infection case management), which led to significant improvements in the quality of care;
- Reorganization of the current distribution of clinics to improve access to an essential package of services of appropriate quality;

- Improvement of program effectiveness and reduction of program cost by use of clinic-based contraceptive delivery system supported by appropriate community mobilization and targeted home visits, and
- Development of a cost-management strategy that reduced the unit cost of services and a systematic pricing scheme that increased cost recovery.

Although additional efforts are needed to sustain these achievements and to deal with the new urban challenges, the Urban MCH-FP Initiative contributed significantly toward strengthening urban health service delivery in Bangladesh. The findings of this project may be used to improve health systems in other urban settings in the developing world but first need rigorous study prior to their implementation.

For further information about the Urban Extension Project or the Urban MCH-FP Initiative, contact Dr. Abdullah Baqui of the ICDDR,B (ahbaqui@icddr.org) or Dr. Robert E. Black of Johns Hopkins School of Public Health (rblack@jhsp.edu).

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The Child Health Research Project is a project of the United States Agency for International Development, and represents cooperative agreements between USAID and WHO, Harvard University, the ICDDR,B:Centre for Health and Population Research in Dhaka, Bangladesh, and Johns Hopkins School of Public Health.