Working Paper No. 35

Implementation of the Essential Services Package (ESP) in Urban Clinics Through Standardized Service Delivery Protocols

Preliminary Findings from an Intervention in Dhaka

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Health and Population Extension Division

ICDDR,B
CENTRE FOR HEALTH AND POPULATION RESEARCH

1997

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MCH-FP Extension Project (Urban)

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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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Last but not the least special thanks goes to Mr. Mahbubul Alam, Ms. Roselin Sarder and Mr. S.A.K.M. Mansur for giving technical support to print the paper.

Glossary

ANC	Antenatal Care
ARI	Acute Respiratory Infection
CWFP	Concerned Women for Family Planning
EPI	Expanded Programme on Immunization
ESP	Essential Services Package
FP	Family Planning
GoB	Government of the People's Republic of Bangladesh
ICDDR,B	International Centre for Diarrhoeal Disease Research, Bangladesh
IUD	Intrauterine Device
LMP	Last Menstrual Period
MCH-FP	Maternal and Child Health-Family Planning
MOHFW	Ministry of Health and Family Walfare
NGO	Non-governmental Organization
ORS	Oral Rehydration Solution
PID	Pelvic Inflammatory Disease
RTI	Reproductive Tract Infection
UEP	MCH-FP Extension Project (Urban)

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Abstract

Most facilities at the primary health care level in Dhaka City only provide a limited array of services such as only immunisations or only family planning services; others are exclusively dedicated to curative care. In the government sector, for instance, clients are able to obtain a combination of PHC services only in a very small number of the sites. Many facilities managed by non-government organisations (NGOs) have also developed special focus. Some of the city's NGO clinics do not provide family planning services while others concentrate on the provision of reproductive health care for instance. This fragmentation of services at the primary health contact level increases the cost of providing services and limits access. In addition, recent studies in Dhaka, have highlighted problems in quality of care that could be contributing to the poor utilisation of the services.

In April 1996 the Urban MCH-FP Extension Project (UEP) of the Health and Population Extension Division of ICDDR,B began to test an intervention to implement a set of essential child and reproductive health services in clinics managed by government and non-government organisations in Dhaka City. The Essential Services Package (ESP) intervention was jointly designed by UEP with Concerned Women for Family Planning (CWFP) and the Civil Surgeon of Dhaka District. The ESP intervention is part of the collaborative activities of UEP with government agencies and non-government organisations (NGOs) towards the design, implementation and testing of innovative approaches to improve urban health in Bangladesh. The objective of the ESP intervention was to expand the range and to strengthen the quality of services delivered from urban primary care clinics through the adaptation and implementation of appropriate and practical service delivery protocols and support systems.

As part of the intervention, eight components of the package of services were identified and existing national and international guidelines and protocols were reviewed and adapted. Providers from three clinics of CWFP and three dispensaries of the Directorate of Health Services were trained on protocols for the following services: management of diarrhoeal diseases, acute respiratory

infections and reproductive tract infections, antenatal and postnatal care, family planning, immunisations and counselling and education on infant feeding. For comparison purposes, the activities of clinic staff at two NGO and two government sites were also monitored regularly.

A mid term evaluation was conducted after a year of field implementation. The evaluation was based on data from pre and post training knowledge tests, structured observation of providers and client interactions, analysis of clinic records, interviews with providers and with clients. The results indicate that the intervention improved the practice of service providers in the government dispensaries and in the NGO clinics. There was an increase in the knowledge scores of trained providers about client assessment, counselling and treatment in the first post test. There was a reduction of most of the scores in the second post test. There were marked improvements in prescription patterns with a reduced misuse of antibiotics for diarrhoea and ARI management along the lines suggested by the protocols. However, opportunities for providing other srvices were not pronounced in services such as antenatal care and counselling. Providers said that the protocols were easy to follow but had increased waiting time at the clinics. In the opinion of providers the intervention can be more effective if more staff is appointed to the clinics/dispensaries, more space and rooms for counselling are created and there is an increase in the supply of medicines and equipments.

The evaluation highlighted critical issues that need to be considered in the adaptation of protocols for nation-wide implementation and in the design of the support systems for the national ESP.

The findings suggest that participatory training should be regarded as a key component in any attempt to scale up the implementation of ESP in government of NGO settings. Nevertheless, the training inputs need to be complemented with interventions in other areas, i.e, promoting the ESP services in the community, introducing information systems to facilitate quality monitoring, promoting more supportive supervision, and improving time and space distribution in the clinics.

1. Background

This report contains the preliminary results from an intervention to test a basic package of essential services (ESP) in Primary Health Care (PHC) clinics in Dhaka city. This intervention was one of the operations research activities of the Urban MCH-FP Extension Project (UEP) of the Health and Population Extension Division of ICDDR,B aimed at contributing to the development of cost-effective approaches to improve urban health in Bangladesh. The intervention was jointly designed, implemented, and evaluated with managers and staff from the Office of the Civil Surgeon of the Directorate of Health Services of the Ministry of Health and Family Welfare (MOHFW) and from a national non-government organization (NGO) - Concerned Women for Family Planning (CWFP).

Why an Essential or Basic Package?

The concept of an essential package is based on the notion that all sectors of the population should have access to a set of minimal health services that addresses their most important health problems at a national or sub-national level. The World Development Report 1993 concluded that the provision of immunizations and Vitamin A supplementation to infants would produce a significant impact on child survival among poor households. The report also recommended other cost-effective clinical interventions which included services to ensure pregnancy-related care, family planning services, treatment of tuberculosis, control of sexually transmitted infections, immunization, and care of common serious illnesses of young children, such as diarrhoeal diseases, acute respiratory infections, and acute malnutrition.

The recent International Conference on Population and Development in Cairo also contributed to generate a worldwide consensus on the need to address health problems from a more holistic approach, e.g. reproductive health package rather than just family planning.

"Packaging" benefits clients because all essential services are provided at one point, and thus reduces costs for the user. Recent studies in rural and urban areas of Bangladesh have confirmed that clients want packaged services or the opportunity to have "one-stop shopping" (GoB, 1996; USAID's Customer Survey, 1996). The costs for providing services also decrease through maximal use of shared inputs, through synergism between treatment and prevention activities, through improved use of specialized resources, and through the screening of patients at the first level of care to ensure that the small share of high-risk cases can be recognized and appropriately referred. However, these benefits can only be maximized when the different services are not only brought together but the elements of the package have been blended in a way that at each visit the client needs are assessed, information on services available is provided and cross-referrals are made and followed through.

2. Problem Statement

Operations research activities of ICDDR,B in recent years, particularly the needs assessments conducted by the MCH-FP Extension Project (Urban) in 1994, have highlighted the need to introduce interventions to strengthen the capacity of primary health clinics to deliver integrated basic health and family planning services accessible to the urban poor. For instance, in Dhaka, the needs assessments found that individual facilities usually had a limited range of services, and many were single-purpose clinics providing only EPI, or only FP, or only curative services. In many of these clinics, clients received inadequate information and explanations about services. Contacts between providers and mothers were not regularly utilized to promote other services relevant to the condition of the client and her children. The evidence collected in Dhaka suggests that incomplete screening and counseling of contraceptive acceptors were responsible for a high incidence of side-effects and drop-outs. Children with diarrhoea or ARI were not assessed according to standard guidelines and consequently, were not managed appropriately. Services to women, such as antenatal care or management of reported side-effects from contraceptives, often lacked key elements (Arifeen and Mokherji, 1995; Perry et al.,1997). The reasons for inadequate quality and non-uniform standards of services were varied. A central factor seemed to be that national-level guidelines had not been adapted into service delivery protocols appropriate for the type of clinics and providers available at the urban primary care level, e.g. management of diarrhoea and ARI. Similarly, for services like antenatal care and management of RTI, there were no nationally agreed service delivery protocols.

Many service delivery organizations are looking into ways to expand the range of services available from their clinics and centres. However whether these organizations choose to provide specific components of a service, such as family planning or the full range of reproductive health services, the lack of suitable protocols, will hamper their ability to deliver these services properly.

In sum, the needs assessments indicated that the range and quality of MCH and family planning services available from many urban facilities were inadequate and resulted in services of low effectiveness which were also poorly utilized.

The Government of Bangladesh has defined an Essential Services Package (ESP) which includes the following areas:

i. Behaviour change communication (BCC)
ii. Reproductive health care
iii. Child health care
iv. Communicable disease control
v. Basic curative care

A key challenge for Health and Population Sector Strategy (HPSS) is to implement this package.

The intervention to strengthen the delivery of the essential services package was designed in response to the above situation.

3. The Intervention

The intervention to strengthen the delivery of the essential package of services is one of the two inter-related interventions to expand the range of services available and to strengthen the quality of care at the urban PHC clinics. The intervention described in this working paper focused on the introduction of service delivery protocols and support systems in urban primary health care clinics. The other intervention was primarily concerned with planning the distribution of clinics to maximize geographical access and equity. To this end, inventories of facilities were conducted, and a methodology was designed and adopted to assess the current resources for health and family planning as well as service needs. This methodology was intended to assist in the relocation of resources at the ward level, using a participatory approach to planning among service providers with support from community representatives. The methodology is suitable for local planning, and results from this intervention have been documented. (Alamgir et. al.,1997).

Description of the Intervention

Staff from the Urban MCH-FP Extension Project together with representatives from CWFP and the office of the Civil Surgeon in Dhaka designed the different stages of the intervention and planned the individual activities involved. These meetings led to policy decisions on the specific services to be provided at the clinics. The different phases of the intervention are outlined below:

Phase One

a. Expanding the Range of Services

During the first phase of the intervention the focus was on the identification of the components of the package, the examination of the respective existing national and international guidelines and the adaptation of current service delivery protocols. This phase also included the design of appropriate training modules for service providers working at PHC level on the use of the protocols. In urban areas, the PHC level is staffed by paramedics in many NGO clinics and by physicians in the Government dispensaries.

The intervention was limited to selected services of the ESP. The services were selected on the basis of epidemiological data and their potential public health impact, service statistics on utilization and coverage, costs, the current institutional capacity of the service delivery organization and from findings of studies on urban clients' preferences. This initial set of services constitutes a base on which additional services can be incorporated.

The ESP intervention did not attempt to adapt protocols or provide training on services relating to the curative care of common diseases and minor ailments in slums, such as scabies and worm infestation because they were considered a relative low-priority services, and providers did not raise major controversial issues in these fields. The following components of the ESP were selected for this intervention:

- **Child Health**
  - ➢ Management of diarrhoeal diseases
  - ➢ Management of acute respiratory infections
  - ➢ Immunization: education, motivation and referral, immunization techniques, schedules, and counseling on side- effects and return visits
  - ➢ Vitamin A supplementation
  - ➢ Counseling and education on infant feeding

- **Reproductive Health**
  - ➢ Management of reproductive tract infections
  - ➢ Antenatal care and TT immunization, postnatal care
  - ➢ Family planning: education, motivation and referral, screening, counseling and side-effect management.

b. Adaptation and Development of Service Delivery Protocols

A protocol is a tool for the service providers which describes, step by step, how to identify and address specific need of a client and how additional needs can be addressed if the opportunity exists.

Compliance with the technical standard of services is a difficult task for urban service providers. One of the major underlying reasons is the lack of easy-to-use and comprehensive guidelines for service delivery. Most manuals and guidelines available are voluminous, descriptive and not very user-friendly. During the needs assessments conducted in Dhaka, providers expressed the need for easy-to-use updated service delivery protocols. Hence, a central activity of the intervention was to adapt standardized protocols for the selected services so that services could be provided to clients as per standards at the first facility contact. Using existing national and international guidelines, UEP and the involved representatives from the service delivery agencies adopted and developed a set of protocols. The protocols had the following generic components:

i. Steps for gathering relevant information about the health situation of the individual client and/or her children or appropriate history taking;
ii. Procedures to be completed during physical examination;
iii. Essential laboratory tests
iv. Recommended medicines and commodities;
v. Areas for relevant education and counseling
vi. Appropriate referral to specialized facilities if necessary

The process and materials consulted in the adaptation and development of each service delivery protocol are outlined in Appendix 1.

c. Training Activities

Based on the protocols, training curricula were developed and used for training four physicians from the Health Directorate dispensaries and four paramedics from CWFP. Training specialists from the Expanded Programme on Immunization, the Management of Acute Respiratory Infections Project, and the Control of Diarrhoeal Disease Project of the

Government, trained the service providers in their respective areas. In addition, clinical supervisors from CWFP were involved in the training activities for family planning. As part of the training, practical demonstration sessions took place at the ICDDR,B hospital, Dhaka Medical College Hospital, Marie Stoppes Clinic, and the EPI Headquarters.

As Table 1 shows, the training activities were implemented in incremental phases during the period from April to August 1996 in both the intervention sites. The schedule of training activities was designed jointly with managers of the two service delivery agencies involved in the intervention.

Table 1. Summary of training activities in both intervention areas

Module	Selected Physicians from Government Dispensaries		Paramedics from NGO Clinics	
	Month of training	Duration	Month of training	Duration
Management of Diarrhoea	April	3 days	April	2 days
Management of Reproductive Tract Infections	July	4 days	June	4 days
Infant Feeding	July	1 day	August	1 day
Family Planning	July	2 days	June	1.5 days
Antenatal Care	August	1 day	June	1 day
Postnatal Care	August	1 day	June	1 day
Immunizations	August	1 day	August	1 day
Management of Acute Respiratory Infections	August	3 days	August	3 days

This phase also included an orientation session for supervisors and staff from the office of the Civil Surgeon, Dhaka, i.e. those supervising activities at the dispensaries of the Directorate of Health.

Phase Two

The second phase involved implementation of the protocols and monitoring the activities of providers. The service delivery protocols were tested in three dispensaries from the Directorate of Health Services of the Ministry of Health and Family Welfare and three MCH-FP clinics ran by Concerned Women for Family Planning in different administrative zones of Dhaka city.

Table 2. Facilities involved in the ESP intervention

Service Provider	Intervention Site		Comparison Site	
	Name	Zone	Name	Zone
Dispensaries (MOHFW)	Gandaria	1	Johnson Road	2
	Motijheel	4	Nayatola	4
	Nawabganj	3		
NGO MCH-FP Clinics (CWFP)	Gandaria	1	Lalbagh	3
	Rayerbazar	3	Wari	1
	Hazaribagh	3		

Before the training, all six intervention sites provided basic curative services and antenatal care. The three NGO facilities included in the intervention were already providing curative and antenatal services and family planning before the training. Two of the NGO facilities also provided immunization services once a week.

Four comparison clinics were also observed during the intervention. Each intervention clinic was visited every two weeks by project staff as part of routine monitoring of the intervention. During these visits, clinic utilization and diagnosis practices were recorded. The primary purpose of the monitoring activities was to assess the use of the protocols by the different providers in their working environment. This second phase concluded with a mid-term evaluation. The lessons learned from the first two phases and the results of the mid-term evaluation will be used for designing the activities of Phase Three. In the third phase of the intervention appropriately-designed support systems, supervision, record keeping and reporting, and logistics will be implemented and evaluated. At the end of the third phase a final evaluation will be carried out.

4. The Mid-term Evaluation

a. Research Questions

Together with the monitoring activities, the mid-term evaluation addressed the following research questions:

i. Was providers' knowledge improved by the training on the protocols ?
ii. Did providers' practice improve after their training on the protocols?
iii. To what extent were missed opportunities reduced?
iv. To what extent were client expectations met?
v. What additional resources or support is required by providers and supervisors for the effective delivery of ESP?

b. Evaluation Methodology

The evaluation used quantitative and qualitative methods of data collection. Providers were interviewed before and after the training. Knowledge was measured through scores attained on questionnaires dealing with three aspects of service delivery, i.e. assessment of client needs, actual service delivery, and client counseling and education. Additional post-training measures were taken after training to assess whether changes in knowledge sustained over time.

Structured observations on providers' practices were made in both intervention and comparison sites. Trained interviewers (they were all qualified physicians) visited the intervention and comparison clinics from February to April 1997 and spent ten days at each facility. The indicators included providers' practices to assess and manage clients' conditions as well as their communication with clients. Exit interviews of clients were used for collection of data to document the outcome of the intervention with regard to the reduction of missed opportunities and the improvement of client satisfaction.

The mid-term evaluation also included the collection of qualitative data from the service providers involved in the intervention and their supervisors. The five physicians from the government dispensaries and two of their supervisors from the office of the Civil Surgeon were interviewed on their experiences with the training and the implementation of the protocols. At the same time, three paramedics at CWFP clinics, two coordinators from the units where the intervention clinics were sited and three senior managers from the central CWFP office were also interviewed. After the interviews, reports from the main interviewer and the note-taker were compared for accuracy in recording the responses. The primary focus of these in-depth interviews was to identify how and what management systems were needed to be adopted to support the delivery of essential services.

5. Findings

a. Clinic Utilization

The evaluation procedure involved the observation of the interaction of providers with five clients seeking each of the services included in the training package in each of the clinics involved in the intervention. Despite waiting for ten working days in each clinic or dispensary, the desired number of five clients per service could not be achieved for all services (Table 3). A negligible number of clients came for post-natal care. The lack of recorded observations about family planning and immunizations in the government dispensaries is due to the fact that these services are provided by staff from different directorates who were not trained as part of the intervention.

There were a few attendances for child health services in Wari. Only two patients for diarrhoea and two patients for ARI could be observed. There were a few clients for RTI at Motijheel dispensary and Rayerbazar clinic even though there is enough space in the former and there was a separate room used for counseling at Rayerbazar.

Table 3. **Distribution of observations of client-providers interactions in different clinics/dispensaries by type of service**

Service given	Govt. dispensary					CWFP clinic				
	Haza-ribag	Ganda-ria	Moti-jheel	Naya-tola	Jhonson Road	Gan-daria	Hazari-bag	Rayer-bazar	Lal-bag	Wari
Diarrhoea	5	5	5	5	5	5	5	4	4	2
ARI	5	5	5	5	5	5	5	5	4	2
FP	0	0	0	0	0	11	19	15	15	12
ANC	5	1	5	5	2	5	5	5	5	5
PNC	0	0	1	0	0	0	4	0	1	0
RTI	5	4	2	4	5	5	5	3	5	5
Immmuni-zation	0	0	0	0	0	5	0	5	5	5
Total	20	15	18	19	17	36	43	37	39	31

TOTAL CASES OBSERVED: 275

b. Providers' Knowledge

Irrespective of the services and facilities, knowledge of providers at the intervention sites increased substantially after training (Table 4a). The improvement in knowledge took place in all the three areas included in the training, namely assessment of client needs, service provision, and client counseling. In subsequent tests of knowledge the scores of all the providers in most of the services sustained without major differences among the providers. In the case of diarrhoeal diseases, knowledge of the service providers sustained in the third post- test.

Table 4a. Mean provider knowledge scores (NGO)

	Client Assessment	Service Provision	Client Counselling
DIARRHOEA			
Before Training	46	26	38
1st Post-training	56	60	57
2nd Post-training	84	82	84
3rd Post-training	84	82	87
ARI			
Before Training	52	44	43
1st Post-training	87	80	52
2nd Post-training	72	73	65
RTI			
Before Training	40	37	39
1st Post-training	79	68	75
2nd Post-training	75	73	72
ANC			
Before Training	53	59	46
1st Post-training	75	76	75
2nd Post-training	76	74	76
PNC			
Before Training	65	52	45
1st Post-training	81	72	68
2nd Post-training	71	63	69
FP			
Before Training	54	59	61
1st Post-training	66	74	78
2nd Post-training	63	70	75
EPI			
Before Training	76	63	44
1st Post-training	85	82	77
2nd Post-training	88	76	65
INFANT FEEDING			
Before Training	66	50	62
1st Post-training	82	74	79
2nd Post-training	87	78	82

Table 4b. Mean provider knowledge scores (GOB)

	Client Assessment	Service Provision	Client Counselling
DIARRHOEA			
Before Training	41	43	42
1st Post-training	77	76	78
2nd Post-training	80	78	86
3rd Post-training	80	75	83
ARI			
Before Training	50	51	49
1st Post-training	95	86	89
2nd Post-training	82	65	74
RTI			
Before Training	50	15	27
1st Post-training	76	64	75
2nd Post-training	72	63	55
ANC			
Before Training	54	55	42
1st Post-training	76	80	76
2nd Post-training	82	81	75
PNC			
Before Training	66	64	56
1st Post-training	82	83	73
2nd Post-training	72	74	64
FP			
Before Training	36	39	50
1st Post-training	77	79	89
2nd Post-training	61	72	76
EPI			
Before Training	67	50	39
1st Post-training	99	89	79
2nd Post-training	88	67	52
INFANT FEEDING			
Before Training	76	78	73
1st Post-training	97	100	94
2nd Post-training	93	93	87

c. Providers' Practice

Prescribing practices, before and after training, were analyzed in both intervention and comparison clinics in order to assess differences in case management in the intervention clinics.

(i) Management of diarrhoeal diseases

The protocols sought to rationalize the use of antibiotics in the management of diarrhoeal diseases. In both types of intervention facilities the use of metronidazole for diarrhoea management has been markedly reduced after the training. Diarrhoea cases receiving metronidazole went down from 36% to 0% in government facilities and from 21% to 0 in NGO facilities. However, as Figure 1a shows, the use of this drug appeared to have decreased in the comparison facilities of the government also (32%-24%). In comparison NGO clinics the use of metronidazole increased slightly over the period (12%-21%). The proportion of diarrhoea cases treated with ORS increased in all observed facilities except in the comparison NGO clinics.

Fig. 1a. Treatment practices for watery diarrhoea cases in government dispensaries

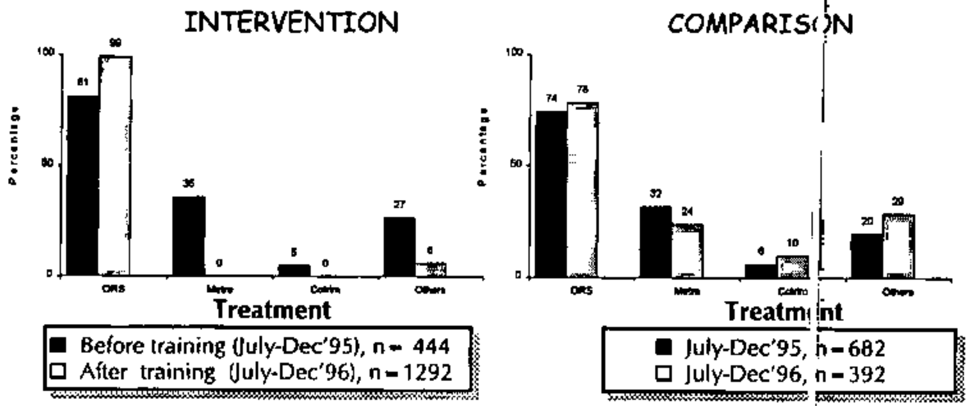
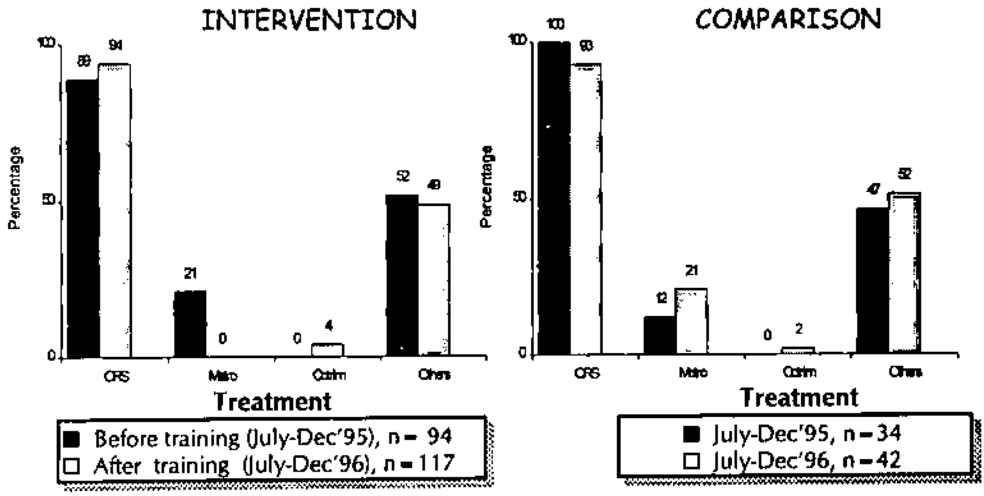


Fig. 1b. Treatment practices for watery diarrhoea cases in NGO clinics



The use of metronidazole for dysentery cases at the intervention site (Fig 2a, 2b) was reduced from 83% to 32% in the government facilities and from 88% to 0 in NGO clinics. Use of cotrimoxazole in dysentery cases increased from 11% to 66% in intervention GOB dispensaries and from 11% to 96% in intervention NGO clinics.

Fig. 2a. Treatment practices for dysentery cases in government dispensaries

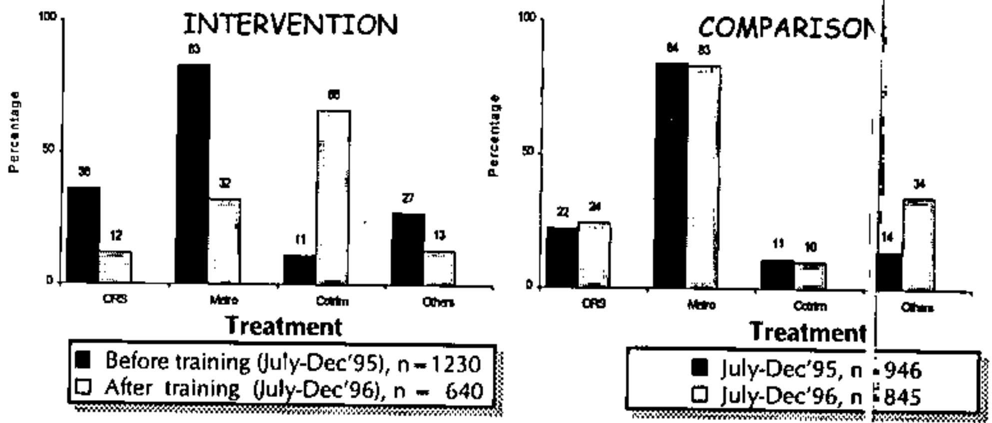


Fig. 2b. Treatment practices for dysentary cases in NGO clinics

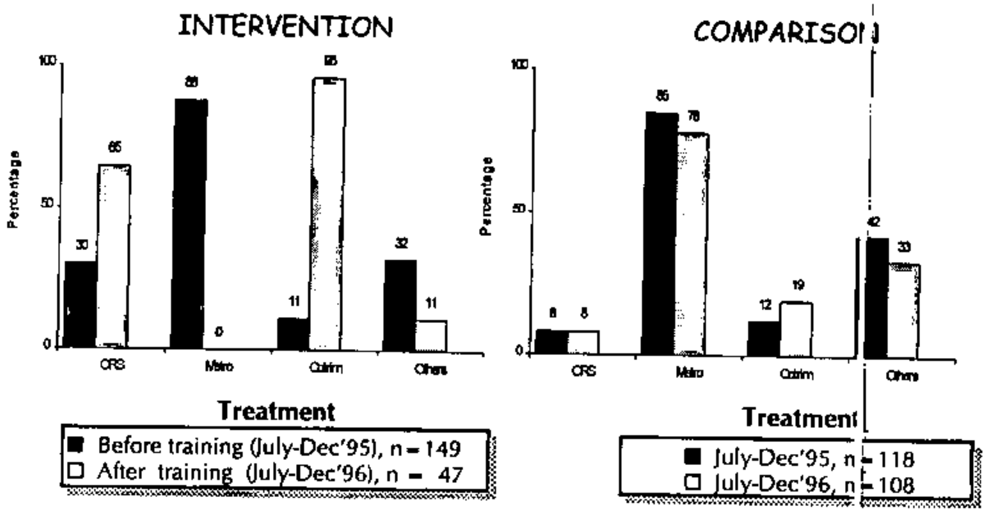
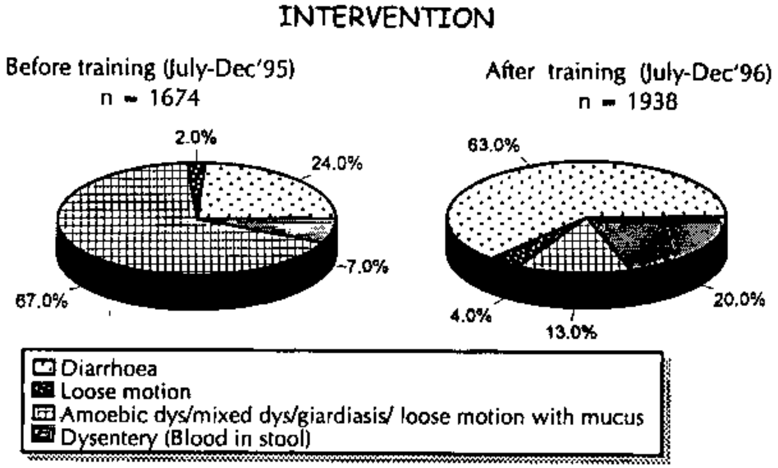


Figure-3a shows that the pattern of diagnosis of diarrhoeal diseases differed considerably in comparison and intervention clinics and also before and after introduction of the protocol. Before the training, 67% of the cases were diagnosed as amoebic dysentery or mucoid diarrhoea in GOB clinics. This was reduced to 13%. On the other hand, 66% of the cases in the comparison GOB clinics were still diagnosed as amoebic cases. Similar findings were observed in the NGO facilities.

Fig. 3a. Pattern of diagnosis of diarrhoeal diseases in government dispensaries



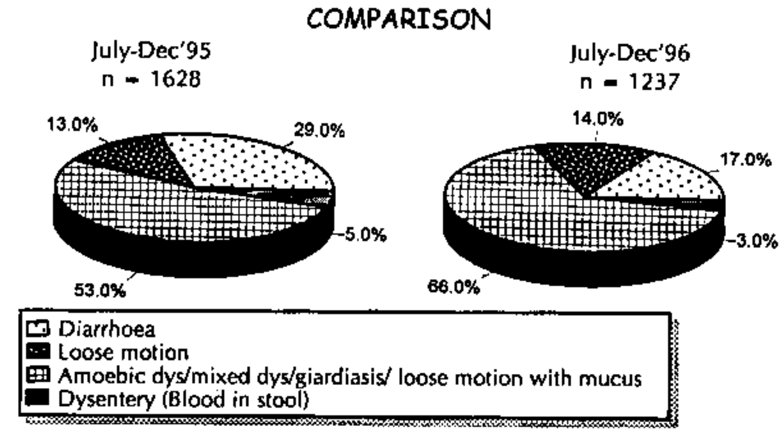
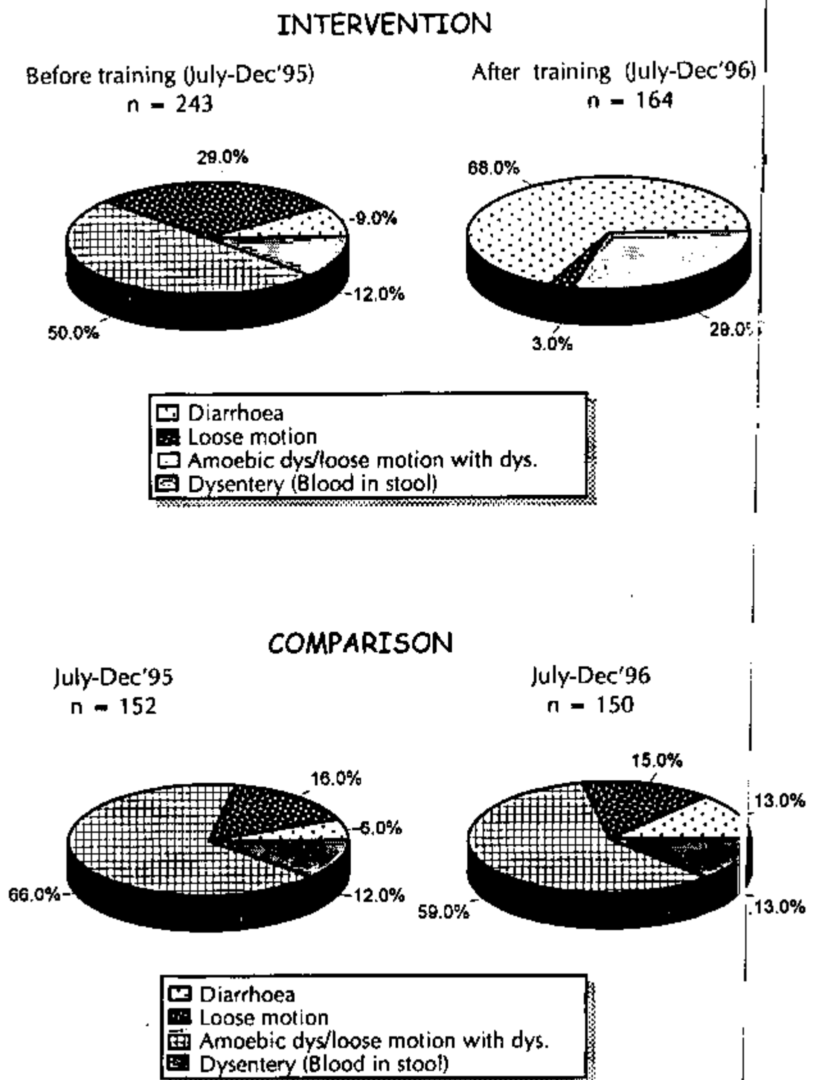


Fig. 3b. Pattern of diagnosis of diarrhoeal diseases in NGO clinics



(ii) Management of ARI

The management of cases presenting ARI symptoms has improved after the introduction of the protocols in the intervention clinics. Records indicate that the diagnostic pattern followed the recommended criteria given by WHO through Government's ARI project. The proportion of ARI cases without pneumonia increased (Table 5a). Similar results were observed in NGO facilities. Also, the practice of classifying ARIs as Respiratory Tract Infections decreased considerably. In the government dispensaries, the proportion of cases classified as respiratory tract infections represented over 50% of all cases before the intervention, and it decreased to around 2% after training. As Table 5b shows, the proportion of ARI cases treated with anti-histamines was also reduced from 80% to 18% in GOB intervention clinics. The use of antihistamine decreased from 56% to 45% in the GOB comparison clinics and similar changes took place in the NGO facilities. Nevertheless, reduction in the use of antihistamine seemed to be more prominent in the intervention clinics. The proportion of cases of ARI that received advice on home management increased from 0% to 11% in GOB facilities and from 5% to 74% in NGO facilities.

Table 5a. Pattern of diagnosis of ARI cases made by the service providers in GOB and NGO facilities

Diagnosis Pattern	GOB				NGO			
	Intervention		Comparison		Intervention		Comparison	
	Before Training (Sep-Dec/95)	After Training (Sep-Dec/96)	(Sep-Dec/95)	(Sep-Dec/96)	Before Training (Sep-Dec/95)	After Training (Sep-Dec/96)	(Sep-Dec/95)	(Sep-Dec/96)
	n=337 (%)	n=664 (%)	n=171 (%)	n=282 (%)	n=236 (%)	n=120 (%)	n=168 (%)	n=184 (%)
Cough/ Common cold/No pneumonia	41	57	33	28	53	60	52	57
Pneumonia	0	33	0	2	0	33	0	0
Severe Pneumonia	0	1	0	0	0	6	0	0
Acute Respiratory Infection (ARI)	0	5	4	29	44	1	38	43
Respiratory Tract Infection (RTI)	53	2	62	37	3	0	1	0
Allergy	6	2	1	5	0	0	0	0

Table 5b. Treatment practices for ARI cases by the service providers in GOB and NGO facilities

Name of Drugs	GOB				NGO			
	Intervention		Comparison		Intervention		Comparison	
	Before Training (Sep-Dec/95) n=337 (%)	After Training (Sep-Dec/96) n=664 (%)	(Sep-Dec/95) n=171 (%)	(Sep-Dec/96) n=282 (%)	Before Training (Sep-Dec/95) n=236 (%)	After Training (Sep-Dec/96) n=120 (%)	(Sep-Dec/95) n=168 (%)	(Sep-Dec/96) n=184 (%)
Antihistamine	80	18	56	45	42	3	71	55
Cotrimoxazole	15	39	20	23	3	24	1	39
Ampicillin/ Amoxycillin	1	1	0	4	20	8	20	8
Pen-v	16	3	36	25	35	0	16	5
Home Management	0	11	6	11	5	73	1	11
Others*	43	64	32	36	54	28	32	45

*Others include: Salbutamol, Paracetamol, Vit B, Tetracycline, and Levamisol

(iii) Syndromic management of reproductive tract infections (RTIs)

The management of RTIs in the intervention clinics changed along the lines suggested by the protocols introduced as part of the intervention. This protocol guided the service providers toward better ways to diagnose Trichomoniasis/ Bacterial vaginosis, Candidiasis and Cervicitis among the women who seek services at the clinics. It also helps in diagnosing Pelvic Inflammatory Diseases (PID). After introducing training on this protocol, there have been changes in the distribution of diagnosis in both government dispensaries and NGO clinics. In the GOB intervention sites, over half of all the RTI cases, treated in the 12 months before the intervention, were diagnosed as Leukorrhoea. This went down to 21% in the first seven months after the training. During this period, 77% of the RTI cases were diagnosed as Leukorrhoea, in the comparison area. (Table 6a)

Table 6a. Pattern of diagnosis of RTI cases made by the GOB service providers

Diagnosis Pattern	Intervention		Comparison	
	Before Training (July'95-June'96)	After Training (July'96-March'97)	(July'95-June/96)	(July'96-March'97)
	n=90 (%)	**n=245** (%)	**n=92** (%)	**n=151** (%)
Trichomoniasis/ Bacterial Vaginosis	14	61	3	0
Candidiasis/ Moniliasis	0	6	6	14
PID	30	11	11	1
Leukorrhoea/ White discharge	56	21	80	85

In NGO intervention clinics, the proportion of RTI cases classified as Leukorrhoea also went down. Cases diagnosed vaguely as lower abdominal pain have been reduced from 16% to nil. On the other hand, diagnosis of PID cases went up from 2% to 19% (Table 6b). Only 4% of the cases were diagnosed as PID in comparison clinics. The percentage of Trichomoniasis cases at the NGO intervention clinics did not change after the introduction of the protocols.

Table 6b. Pattern of diagnosis of RTI cases made by the NGO service providers

Diagnosis Pattern	Intervention		Comparison	
	Before Training (July'95 - June'96)	After Training (July'96- March'97)	(July'95- June'96)	(July'96 - March'97)
	n= 228 (%)	**n=241** (%)	**n=195** (%)	**n=261** (%)
Trichomoniasis/Bacterial Vaginosis	15	16	13	13
Candidiasis/Moniliasis	1	19	2	5
Cervicitis	20	44	51	53
PID	2	17	3	5
Leukorrhoea/White discharge	36	2	24	19
Pain in the lower abdomen	15	2	6	2
Others	11	0	1	3

Others include: Itching Vagina, RTI, Cervical erosion.

(iv) Antenatal care

Observation on providers' interactions with pregnant women revealed a less consistent adherence to the protocols in the intervention areas after the training. None of the six women, making their first antenatal visit at the government intervention dispensaries was asked about previous history of hypertension, diabetes, any convulsion, prolonged labour or retained placenta. At the NGO intervention clinics, 9 antenatal care clients were observed. Six of them were asked about hypertension, and 6 were asked about diabetes, 4 about convulsion and prolonged labour, and only 3 about retained placenta. Half of the antenatal care clients at the government clinics were asked about LMP. In the NGO clinics, however, all the clients in both intervention and comparison clinics were asked about LMP. A few women had their urine albumin and haemoglobin levels measured or were advised to have these measured in government clinics (Table 7a). On the other hand, all clients were given this service in the NGO clinics.

Table 7a. Distribution of clients attending GOB and NGO facilities seeking antenatal care by assessment done

Examination Done	Government		CWFP	
	Intervention n=11	Comparison n=7	Intervention n=15	Comparison n=10
Checked oedema	4	1	9	9
Checked anaemia	1	0	10	9
Checked jaundice	0	0	9	8
Measured blood pressure	5	1	15	8
Measured weight	5	0	15	10
Measured/advised haemoglobin level	0	0	11	9
Measured/advised albumin level	5	2	15	9
Measured/advised sugar level	5	2	15	9

Antenatal care is an important opportunity for educating pregnant women about warning signs, delivery care, exclusive breast-feeding and postnatal contraception. However,very few clients received advice on warning signs during pregnancy or any other complications in the government intervention sites. On the other hand, 7 out of 15 clients in NGO intervention clinics, were given information about any bleeding during pregnancy and 6 out of 15 clients were informed what to do in case of complications (Table 7b).

Table 7b Distribution of clients attending GOB and NGO facilities seeking antenatal care by information given

Informed the warning signs	Government		CWFP	
	Intervention n=11	Comparison n=7	Intervention n=15	Comparison n=10
Warned about bleeding with or without pain	2	1	7	2
Warned about convulsion	0	0	2	4
Warned about loss of fluid (leaking membrane)	2	0	4	1
Informed what to do in case of complications	1	1	6	5
Asked about TT immunization status	10	6	12	9
Provided/advised TT immunization	7	4	12	7

(v) Family planning

The providers trained in the government dispensaries do not have facilities, equipment and commodities for family planning services. Observations of providers interactions with family planning clients were carried out only in the NGO clinics. After training, there were no important differences between the comparison and intervention clinics in terms of screening procedures for IUD and injectable methods.

d. Delivering the Package

Integration of services is an important dimension of the concept of providing a package of essential services. The purpose of such integration is to effectively meet as much of client needs as possible. Another purpose is to take advantage of the client visit to the clinic to identify her other service needs and to offer all the relevant services available. The primary reason for visiting the clinics and the individual conditions of the clients were analyzed to estimate "missed opportunities" and the extent to which clients visiting the clinics for specific services were also prompted to obtain other services relevant to their conditions.

(i) Family planning

Of the two hundred seventy-five clients, one hundred sixty-two were eligible for family planning services. Of them, sixty-four clients came to seek FP services and received these. Seventy-nine came for other services but were practicing a method, and the remaining nineteen clients came for other services and were not practicing any method of contraception.

Four of these nineteen eligible family planning clients came for RTI, six brought their children for treatment of ARI, and nine brought children with diarrhoeal diseases. Two of the RTI cases in the intervention sites (one in a clinic and one in a dispensary) were asked to use condoms but no family planning advice was given.

In general, providers are supposed to concentrate on establishing the right treatment and referral in the case of ARI clients with pneumonia. Hence the two pneumonia cases did not get any extra advice. Only one of the four eligible women who brought a child with ARI without pneumonia to at a government intervention dispensary, received information about family planning. Three out of nine eligible women who brought children with diarrhoeal disease to the intervention sites, during the observation period, were asked about their family planning status. One of the women received FP information at an intervention government dispensary and the other two from the intervention NGO facility.

(ii) Immunization

Fourteen children aged less than one year, who were not immunized, were brought for other services to the intervention sites. Only six of them were given information on vaccinations.

On the other hand, those who came for immunization to the NGO clinics, should be receiving some information on other services. As Table 8 shows, most of the ten immunization clients in intervention clinics did not get information on other services, with the possible exception of some information on family planning methods. Only one received information regarding technique of breast-feeding, two received information on danger of bottle feeding whereas none received such information in comparison clinics.

Table 8. Distribution of children who visited the NGO clinics for immuni-zation by information received on other services

Information received	CWFP	
	Intervention n=10	Comparison n=10
About misconception and information gaps regarding breast-feeding	2	0
About technique of breast-feeding	1	0
About danger of bottle-feeding	2	0
About complementary food	3	[illegible]
About reproductive goals and plans	4	3
About suitable contraceptive method	6	2
About availability of method	4	2
About where to go to get such methods	0	0

(iii) Antenatal care

Advice on other services, like exclusive breast-feeding or on contraception after delivery was given to three women out of eleven in dispensaries and to half of the clients at the NGO clinics. No provider in the government facilities advised on postnatal care in comparison dispensaries compared to six out of fifteen providers at the NGO clinics. (Table 9).

Table 9. Distribution of women receiving antenatal care in GOB and NGO facilities by information received on other services

Information received	Government		CWFP	
	Intervention n=11	Comparison n=7	Intervention n=15	Comparison n=10
Advised on vaccination of the newborn	1	0	9	4
Advised on feeding practices during pregnancy	6	2	13	6
Advised on safe delivery practices	7	1	12	8
Advised on giving colostrum to the newborn	2	0	9	4
Advised on exclusive breast-feeding for 5 months	3	0	7	3
Advised on contraception after delivery	3	0	8	4
Advised to come for postnatal care	0	0	6	4

(iv) Diarrhoea

If a mother comes with a child who is suffering from any types of diarrhoeal diseases but is not in an acute condition, and the child is of less than one year, the mother should receive information on family planning, immunization and breast-feeding.

However, only one out of four eligible mothers in the GOB intervention dispensaries and three out of eight in CWFP clinics were asked about immunization status of the child. Not a single mother of diarrhoea patients was asked about immunization in any comparison clinics. Out of four one eligible mother was asked about breast-feeding, and one mother was informed about complementary feeding in GOB intervention clinics. On the other hand, all mothers who visited the NGO intervention clinics and whose children suffering from diarrhoea were less than one year old were asked about it. Only three mothers, out of fifteen, were asked about family planning status in govt. intervention clinics, and six mothers, out of fourteen, were asked the question in NGO intervention clinics. In government comparison dispensaries none received the information, but in comparison NGO clinic four out of six mothers were asked about family planning (Table 10).

Table 10. Distribution of diarrhoea patients attending GOB and NGO clinics by information received

Information received	Government		CWFP	
	Intervention n=15	Comparison n=10	Intervention n=14	Comparison n=6
Asked about family planning status of the mother	3	0	6	4
Asked about reproductive goals and plans	2	0	5	2
Advised/informed about contraceptive methods	1	0	7	2
Informed where the methods are available	0	0	5	1

e. Providers' Perspectives on the Intervention

Interviews with service providers and their supervisors revealed their respective perceptions regarding progress in the implementation of the intervention. The opinions of the providers also revealed the current programmatic and non-programmatic factors influencing the delivery of essential MCH and FP services from the first-level urban clinics.

1. Progress in implementation of the ESP intervention

i) ESP protocols

Ease of use of protocols

The medical officers of the government dispensaries and the paramedics of the NGO clinics expressed the view that the protocols were easy to follow. The supervisors of the paramedics also felt that there was no problem with the protocols.

However, providers also reported two inter-related issues that impeded strict adherence to the protocols. One, their interactions with clients lasted longer when they followed all the steps of the protocol. The second issue is that client attendance took place at specific times of the day, and the providers experienced difficulties handling this situation. The providers involved in the intervention said that clients who were being attended felt satisfied, but waiting times had increased, and those waiting often expressed dissatisfaction with the increased waiting time. The pressure on the providers at these peak times was reported to make them skip some of the steps involved in the protocols. A respondent expressed that there had been increased work pressure due to introduction of the protocols.

ii) Usefulness of the protocols

(a) Change in knowledge

The providers felt that training on the protocols had helped them learn more about different components of the package, particularly ARI case management, counselling on breast-feeding and syndromic management of RTI cases. Some providers admitted that the training on the protocols had given them an insight in to appropriate use of antibiotics.

Two of the respondents said that they used the protocols as a refresher and to clear confusion in recall.

(b) Training activities and changes in practice

All paramedics and also all doctors found the training "useful" and said that it had increased their knowledge and improved their practice. They claimed that the training had made them more "efficient." The paramedics and supervisors expressed that training should be provided to all service providers and that members of the staff from other clinics wanted to be trained. One of the respondents commented on the length of the training. She felt that there should be longer periods of practical sessions and that the theoretical part should be spread over more days. During the training, too much of theory was discussed in one day for them to assimilate. Not all doctors were convinced about the protocols; some suggested that professors and academic authorities should be involved with these training activities.

The service providers expressed that after training on ESP protocols, they had been able to improve their diagnosis and prescribing practices. At NGO clinics, many patients, particularly ARI and RTI cases were referred to other secondary facilities. Now the paramedics themselves were dealing with these cases, and as a result, the number of referrals from the clinics has decreased.

Providers from the government and NGO sites reported changes in the use of antibiotics and antihistamines. A mid-level clinical supervisor felt that the quality of care had improved in the intervention NGO clinics.

In one of the government dispensaries, introduction of ESP has resulted in segregation of responsibilities. The physician who received full training on ESP became primarily responsible to attend children with ARI or diarrhoea.

2. Issues in the implementation of the interventions

The providers commented on the following aspects of the ESP intervention.

(a) Counselling

Counselling appeared to be perceived as a time-consuming activity that could not always be done because providers were busy with other tasks or they simply forgot because it was not always relevant. All paramedics said that they needed trained counsellors to support their activities and to be able to provide proper care. A physician suggested to provide training on counselling to all members of the staff of the dispensary so that same message could be conveyed from different levels of contact with the client. Such a notion was also supported by a GOB supervisor.

Most respondents said that they did not have space in their facilities to ensure privacy in counselling.

(b) Diarrhoea management

Paramedics claimed that they were treating more diarrhoea cases and that in the past some of them used to refer these cases. In one case, the paramedic indicated that her records showed an increase in diarrhoea cases. The use of non-recommended antibiotics had stopped according to the paramedics. The NGO providers said that some of them did not perform all the recommended practices, such as "skin pinching" to test for dehydration when it was obvious that the child was weak, as evident from appearance of the child and the mothers' reports. Also, some providers said some of their counterparts did not follow the protocols strictly because of lack of motivation and sincerity. Some physicians were still providing antibiotics to cases of diarrhoea following their previous academic training and also due to the fact that some mothers did not want advice but medicines. Supervisors of the paramedics said that there were differences in practices concerning diarrhoea management and treatment regimes between intervention and comparison clinics.

(c) Acute respiratory infections

Paramedics said that to follow the guidelines for ARI case management was time- consuming; particularly when the child is restless, it is very difficult to examine the child. One paramedic said that managing an ARI client "can take up to half an hour", and that during this time, clients for injectable contraceptives were waiting. Paramedics reported that they had abandoned the practice of prescribing antihistamine as part of routine ARI management. They said that mothers accepted advice on home management of ARI cases and did not ask for medicines. Eight of the respondents out of fifteen said they found the ARI module useful and advocated for wider training of providers in particular refresher training for physicians. There was a mixed response about the use of timer for counting respiratory rate. Most service providers said that its use was convenient but one prefered the stethoscope for the purpose. Another used her watch as she had no timer.

(d) Pregnancy care

It was reported that women did not visit the government dispensaries for pregnancy care and that they preferred going to local secondary facilities having maternity beds. At the dispensaries, they can at best provide counselling. Providers said that they did not have facilities for examination, some did not have even water, separate rooms, light or the appropriate instruments. Even when facilities had bed-capacity they remained largely underutilized due to unavailability of physicians round the clock and because there were other alternative facilities nearby.

In contrast, the paramedics attended a large number of pregnant women for antenatal care at the NGO clinics . In one of the intervention clinics, the paramedic had attended, on an average, eighty pregnant women per month. Both paramedics and their supervisors thought that after introduction of EPS, antenatal care services had improved. However, the NGO supervisors felt that the service providers needed more practical training added to training on counselling. There was also a need for extra staff and laboratory facilities to allow more time for the paramedics to attend the pregnant women.

(e) Reproductive tract infections

Paramedics had tried to implement the protocols on syndromic management of RTI cases. They said that they needed more privacy and time for recording and examination, and that, in general, performing physical examinations was not a problem. They said that clinic reports showed increases in clients' attendance for RTI. One NGO supervisor identified problem of counselling and suggested that providers had to be careful while dealing with the RTI/STD cases.

Overall, most providers felt that the range of services had not really increased since virtually the same services were available before and after the training.

3. Factors influencing service delivery

(a) Motivation of staff

Seven of the respondents said that the motivation of the providers was low due to the absence of incentives for good performance. Among others, the respondents quoted low salaries, limited chances for promotion and poor working conditions as the causes for poor motivation. In the case of the paramedics "uncertainty" about future employment was also a reason for low motivation. Another reason quoted by one of the providers was the absence of a system for further education. Yet another indicated that most providers were not conscientious and were poorly supervised.

(b) Client-load at the intervention clinics

In the opinion of five of the providers, the intervention has led to clients waiting longer for care at the clinics. In this context, one respondent again stressed on the need to educate the community. One NGO supervisor expressed that clients were being motivated by others to wait for the improved services. In two of the intervention areas (GOB dispensaries), the issue of lack of security was highlighted by the staff as a factor restricting attendance to the clinic and dispensaries both for providers and the community.

(c) Supply of drugs and equipment

The government dispensaries have a total budget of Tk.70,000 per year which is not enough according to the respondents. There is usually a chronic shortage of drugs at these facilities. At the dispensary, clients are often given prescriptions to buy medicines because the dispensaries do not get sufficient supplies. One of them reported that the allocation of fixed quantity of medicines rather than need-based allocation sometimes results in throwing away medicines the date for use of which are expired. GOB providers give tetracycline instead of doxycycline and do not have paediatric cotrim for children with ARI.

There is also deficiency of necessary instruments in dispensaries. However, one respondent said that good service was possible, despite the lack of some instruments if doctors had the appropriate mentality.

On the whole, there are less problems of drug supply in the NGOs. Supply is replenished from the central office whenever there is a need. If certain drugs are not available providers give clients a prescription for drugs to be purchased from local pharmacy. However, some drugs for RTI cases are expensive and poor patients are unable to purchase them.

In NGO clinics, laboratory materials were available for performing urine examination for estimation of sugar, albumin, and blood for haemoglobin estimation. NGOs did not have laboratory technician. The paramedics expressed the need for laboratory technicians to enable them to concentrate more on attending the clients.

In GOB dispensaries, there were no separate rooms for counselling or examination of patients. This particularly was said to hinder recording history and examination of RTI cases, and examination of pregnant women for ANC.

(d) Clients' expectations

Expectations of clients were also quoted among factors that might limit service delivery. A GOB supervisor and a physician felt that clients do not trust free services. Another respondent expressed that in urban areas clients prefer doctors to paramedics for better prescription and clinical services. A GOB supervisor felt that clients expect good care, cleanliness of the facility, and timely attendance by doctors. Some respondents thought that clients do not want only advice but want medicine. However, one respondent said that now clients (particularly mothers) listened to her advice and did not always demand for medicine.

NGO supervisors felt, the clients recognized that paramedics were good for FP and ANC services and expected doctors to provide curative services.

(e) Supervision and information

The issue of supervision was a critical one for providers. One of the GOB respondents said that the facility had not been visited by any supervisor in the last one and a half years, but according to another respondent, frequent visits by supervisors might not achieve much because supervisors can at best check attendance of that day. In the opinion of this respondent, the responsibility to perform well lies mainly on the medical officers themselves. However, in the opinion of another GOB supervisor, supervision and monitoring can be strengthened by forming a committee of medical officer, in charge of dispensaries, the DCS and representative from ICDDR,B where the in-charge would be accountable for the performance of his /her dispensary. Another respondent also added that if medical officers were not motivated, supervisory visit might not improve their performance because in their absence work will be as usual as before.

Nevertheless, need for better supervision was stressed on. One of the supervisors stated that without appropriate supervision from officials with appropriate authority, external training was of little use. Paramedics expressed that frequent visit by the supervisor would increase efficiency of work, problem solving and would help in exchange of information. One respondent said that it would be better if supervisor visited the centre weekly. One NGO supervisor expressed her concern about not being involved in the training process.

GOB physicians expressed that supervision is essential because it increased the staff attendance and also it could improve self motivation. One physician opined that supervisor also be aware of ESP protocols.

(f) Record keeping and reporting

Paramedics of NGO clinic felt reasonably comfortable with the new card-based record keeping and reporting system and mentioned a few things which could be improved, but their supervisors expressed mixed opinions about the record keeping system. One of them said that card system is easier to update and to count the number of patients but that a master register was also necessary. Another high-level supervisor said only one standardized system, out of three current ones, should be kept. One local supervisor said that card system solved the record keeping and reporting system which was difficult in previous register system though workload has increased. However, one paramedic felt that it was not extra work, and it has helped monitoring as supervisors look at it and give comments. The card-based system also assists in follow-up and reduces recall and memory bias. However, the system needs to be modified to make it more user-friendly.

GOB supervisors were not satisfied about the present record keeping and reporting system. Both supervisor and the medical officer expressed that the current practice was that the pharmacists often did the reporting. Doctors gave the register to the pharmacist who might not understand the abbreviations and might make up the figures. Another supervisor suggested to have tally sheets instead of register to be filled by the doctors. This would ensure better accuracy. One respondent also expressed that now reporting has improved in her facility because this is done by the pharmacist with her help. Two respondents suggested separate register books for recording diarrhoea and ARI cases. One respondent stressed that training should be given on record keeping even for those who have not been trained on ESP. Another major flaw identified by a government supervisor was that reports received from the dispensaries remained unused. He suggested to simplify paper work and to have an information system that could be useful for assessing needs.

(g) Referrals and follow-up

One respondent said that there was a few follow-ups after giving advice for home management for ARI cases because clients did not return after they got well. Follow-up for ANC cases were more because of better counselling, especially to first-and second- time pregnant mothers. PNC follow-up was meager though they asked the client during ANC visits to return within fourteen days after delivery.

(h) Additional inputs

Providers also recognized that additional inputs, such as increases in staff at the clinics, were needed perhaps due to additional screening and counselling activities involved in implementation of the protocols. Table 11 shows the additional inputs suggested by the respondents.

Table 11. Suggestion made by service providers for improved implementation of the ESP intervention

Suggestion	Number of respondents
More clinical staff	7
More rooms and space and waiting room facilities	6
Refresher courses and similar training inputs to all clinic staff	4
More drugs and instruments	5
IEC /Health education	3
Trained counsellors	4
Clearer organzsational policies and lines of authority	3
Better monitoring and clinical supervision	3
More budget	2

Total number of respondents – 15

6. Discussion

The notion of introducing and ensuring the wide availability of an essential package of health services is at the heart of the current national health and population strategy of Bangladesh and has been firmly incorporated into all major planned investments in the health sector. This move from vertical one-service programmes has given added importance to the need to identify and analyze the implications of increasing the availability and quality of a package of essential health services. The focus of the ESP intervention was decidedly on implementing selected standardized service delivery protocols in domains managed by government and non-government agencies. The intervention developed a "basic package of services" and adapted existing protocols to the conditions in urban clinics. The original basic package of services includes selected components of the wider Essential Package officially adopted by the Government in population sector strategy of 1997.

The findings from this preliminary evaluation will assist in the development of future phases of the ESP intervention. It is anticipated that future stages of the intervention will deal with the design and introduction of other systems to support the delivery of ESP, e.g., monitoring and supervision, information systems, and improving the physical environment of the clinics, social mobilization and logistics.

Accomplishments of the ESP intervention

A longer period of implementation is needed for a complete evaluation of this intervention. During this first stage of the ESP intervention, the aim was to gain insights into the areas covered by the research question. The mid-term evaluation focused on the performance of trained providers from different organizations involved, once they return to their respective workplaces.

The findings from the intervention are encouraging. Based on the nationally adopted guidelines for the components of the ESP, the intervention adopted the current guidelines and made flow-charts of the processes involved. The intervention also designed and introduced a participatory training process. The adopted protocols were well-received by managers and supervisors in the intervention sites. The protocols used in the intervention have been circulated also to planners, researchers, and programme managers involved in health and population activities.

Training activities, including practical sessions, were organized with the involvement of officers from the government programmes. As expected, after training, the providers demonstrated improved knowledge across all components of the package and in all areas covered by the training, namely client assessment, service provision and client counselling. The changes in the scores of providers after receiving training in these areas indicate that some of the existing guidelines were not known.

The training programme was specially designed in a participatory approach and practical sessions were only introduced in selected areas and services. The training was done in Bangla language and was conducted by senior training officers from different projects of the GOB and from Dhaka Medical College, ICDDR, B, and the NGO Mary Stopes.

Training and the practice of the providers

Although the overwhelming majority of the providers involved thought that the training had been useful, some expressed the view that the training had been very short and without sufficient time allocated to practical sessions. Some providers also suggested that the modules for training on other services, such as antenatal care, should also have a practical element. Providers admitted that the training had increased their skills and affected their practice, but they also confessed that it was necessary for all clinical staff at the centres to receive the same training. This was confirmed by the supervisors in both government and NGO settings.

Looking closely at the effectiveness of current training strategies is of paramount importance to any attempt to scale up the implementation of the ESP strategy. Training is a common activity in most health and family planning programmes of the country. Both Health and Family Planning Directorates have fully developed institutions dedicated to basic and in-service training activities. Programmes, such as EPI, CDD and ARI as well as the family planning projects, have well-established training systems. Nevertheless, in the case of ESP, more experiences may be needed in terms of identifying acceptable participatory training procedures at the implementation level and developing an effective minimal integrated training programme. The experience from the ESP intervention is that the training needs to be participatory and must include relevant practical sessions.

The physicians and paramedics involved in the intervention were trained on separate batches using the same modules. There are some differences in their performance after the training. The reasons for these differences need to be explored further. Some of the differences may be linked to different organizational enviroments and procedures prevailing in NGO and Government sector as well as to the scale of their operations and the equipment and resources available to each organization. It could be argued that different experiences during implementation were also due to differences in the formal training and orientation of the two types of providers. In the opinion of supervisors and some of the physicians involved, the level of interest of physicians during the training may have been lower than that of the paramedics.

Changes in the practice of providers

Assessments of the practice of providers confirmed considerable changes in the diagnosis and treatment of the conditions and services included in the training. Although providers said that the range of services had not changed, they agreed that the quality of the services had improved. The analysis of the cases attended before and after the training in both intervention and comparison sites clearly showed better management of diarrhoeal diseases, acute respiratory infections, and reproductive tract infections. Concretely, for these three services, screening procedures are being followed, and there is a more rational use of medicines in the intervention clinics and dispensaries.

It must be remembered that in the NGO clinics there were special record keeping client- cards aimed at supporting the delivery of the services included in the ESP. The effect of this information system on the behaviour of providers is also being explored. Nevertheless, from the clinic records studied and from the views of providers it is evident that the protocols are not followed strictly by all providers across clinics and dispensaries involved in the intervention. Providers and supervisors attributed this partial compliance with the protocols to factors such as low levels of staff motivation, lack of time, lack of supervision, and lack of medicines and equipment.

The evaluation could not gather evidence to suggest that there had been a reduction of **missed opportunities**. The numbers were very small, and there were many observations confirming that clients were not given relevant information about other services available at the clinics. For instance, clients for antenatal care were not always told about postnatal visits, family planning, and the importance of colostrum for the newborn.

In terms of counselling, there is some evidence that it has increased in the case of ARI where an increased number of clients received advice on home management. In general, however, providers admitted that counselling was time- consuming and could not always be done due to lack of privacy and the absence of trained staff. In other words, screening and treatment practices may have improved but insufficient counselling still remains an issue that needs attention and that may be contributing to the persistence of missed opportunities.

Clients satisfaction

The introduction of the essential package is often linked to a more efficient use of the current service delivery infrastructure which can make services more easily accessible and convenient to use. Findings from the intervention suggest that clients seek specific services from each type of providers. Dispensaries are used for curative services while the NGO clinics were more geared up to reproductive health. A variety of factors may be responsible for this situation. In the first place, dispensaries have traditionally been associated with curative care. On the other hand, the NGO clinics are perceived as family planning centres and perhaps are regarded as centres providing services to women. Despite the presence of female physicians in the dispensaries, the number of clients seeking antenatal care at the dispensaries is significantly lower than in the NGO clinics. Another possible explanation for the selective use of the facilities by women is that in the dispensaries there is less space and less opportunity for privacy during the client-provider interaction.

Providers indicated that the introduction of protocols had increased waiting times for clients at the clinics, but while some providers said that clients appreciated the improved quality of service, others said that clients were impatient and that additional staff would be needed to implement the protocols. Attempts to analyze the effect of the training and the protocols on client satisfaction with the services have not been completed. In particular, the commonly held view that clients want medicines need to be investigated further in order to design appropriate education campaigns on the use of medicines. At the same time, the results from the evaluation also indicate the need to investigate further how to promote the newly available services in the community.

The role of ICDDR,B

The role of UEP in facilitating the process of problem identification, design of the intervention, preparation of the training modules and evaluation cannot be underestimated. The credibility and resources of ICDDR,B together with the monitoring visits of staff from the project may have contributed significantly in heightening the motivation of staff in the intervention sites. This factor needs to be taken into consideration, particularly in the design of monitoring and supervision systems to support the delivery of essential services.

Limitations of the study

The mid-term evaluation was carried out after a relatively short period of implementation. The results shown here are thus preliminary and require further observations.

The sample size was small, and the planned number of observations could not be attained for all services. For instance, no inference could be drawn for postnatal care because there were very few women seeking these services at the intervention clinics.

The paper does not include information on the perspective of the clients about service at the intervention clinics. The attempt to collect information on client satisfaction did not yield particularly meaningful results. This area needs further study following qualitative methodology. Limitations in time and resources prevented the present researchers from conducting in-depth interviews with the clients.

7. Conclusion

The short-term benefits of the intervention need to be assessed against its original objective to expand the range and strengthen the quality of the services delivered from urban primary care clinics through the adaptation and implementation of appropriate and practical service delivery protocols and support systems.

Up to now the practice of following the protocols appears to be largely established for the management of diarrhoea, ARIs, and RTIs. There is less adherence to the protocols in the delivery of other ESP services, particularly pregnancy care and family planning.

The most common suggestions given by providers were: to allocate more staff and to improve space available for clients waiting areas and in the examination or counselling rooms. They also indicated that the implementation of ESP would require increases in stocks of drugs and instruments. The suggestions of the providers need to be analyzed further. Considerations relating to the cost of delivering ESP must be also a subject of nine focused operations research activities.

Changes in counselling and promotion of ESP appear to be less evident in the intervention sites. This may be an indication of a need to strengthen the areas of "counselling" and "packaging" in the training modules. This may also have to be emphasized by a more consistent supervision and an organizational commitment to a holistic and, comprehensive clinic approach rather than to specific services.

Training activities on ESP need to look more closely into the specific requirements of paramedics and physicians, but although the training on the protocols is essential, other interventions seem to be needed for full implementation. These are primarily in the area of promoting the ESP services in the community, information systems to facilitate quality monitoring, supervision, and improving time and space distribution in the clinics.

8. Policy Implications

Results from this intervention show that it is possible to improve technical quality at the primary care level through introduction of the service delivery protocols. At present, there are national guidelines and protocols for most services included in the essential package but these guidelines must be made more widely available to the providers at this level.

Participatory training activities with in-built practical sessions are critical to the introduction of the protocols. However, to expand the range of services, there will be a need for wider policy decisions and steps will have to be taken to upgrade the current facilities and to increase the allocation and supply of medicines to the dispensaries.

Monitoring and supervision tools and procedures in both NGO clinics and government dispensaries need to be improved to ensure that the quality of services is maintained according to guidelines and standards.

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Appendix

Summary information on the development/adoption of individual protocols

Existing national and international guidelines and training materials have been adopted into simple protocols containing essential and practical steps for delivering the service from primary care clinics.

The significant features of these package of protocols are:

- need to simplify the practical steps that a provider in a primary care clinic can follow,
- need to have all key information in one place
- need to link services

The basis and focus of each protocol are as follows:

Service	Base Documentation	Changes	Focus
Counselling and Education on Infant-feeding emphasizing exclusive Breast-feeding	1. Breast-feeding counselling: A training course, (Participants' Manual) WHO/ CDR/ 93.5, UNICEF/ NUT/ 93.3 2. Sastha Tathya Ministry of Information/ Ministry of Health and Family Welfare/ UNICEF/ WHO/ UNESCO/ UNFPA - 1995	A flow-chart has been developed for addressing missed opportunities	Integration with ANC, PNC, immunization and other contacts

Service	Base Documentation	Changes	Focus
Antenatal care	1. Reference Manual for Health Care Out-door: Thana-level UNICEF/DG of health services, People's Republic of Bangladesh/ Director, Family Planning, People's Republic of Bangladesh. -1995 2. Obstetrics by Ten Teachers TLT Lewis and GVP Chamberlain (eds.) - 16th edition, 1995 ELBS, London, Great Britain. 3. Holland and Brews Manual of Obstetrics Author: Robert Percival - 15th edition,1991 BI Churchill Livingstone Pvt. Ltd., New Delhi. 4. Text Book of Obstetrics -D.C. Dutta -3rd edition, 1992 New Central Book Agency (P) Ltd.	1. A flow-chart has been developed to provide services 2. Compiled and developed information for each visit schedule	Emphasized on education and counselling for: -safe delivery practices -exclusive breast-feeding (colostrum) -advise on FP -visits for PNC and child immunization

Service	Base Documentation	Changes	Focus
Postnatal Care	1. Reference Manual for Health Care Out-door: Thana-level UNICEF/DG of health services, People's Republic of Bangladesh/ Director, Family Planning, People's Republic of Bangladesh. -1995 2. Obstetrics by Ten Teachers TLT Lewis and GVP Chamberlain (eds.) - 16th edition, 1995 ELBS, London, Great Britain. 3. Holland and Brews Manual of Obstetrics Author: Robert Percival - 15th edition,1991 BI Churchill Livingstone Pvt. Ltd., New Delhi. 4. Text Book of Obstetrics -D.C. Dutta -3rd edition, 1992 New Central Book Agency (P) Ltd.	Flow-chart has been developed to provide services	Emphasized on education and counseling for: -Exclusive breast-feeding -Family planning - Visits for immunization

Service	Base Documentation	Changes	Focus
Immunization	1. "Math Karmi Abong Tikadan Karmider EPI- er Upar Puno PrasikhanerJonno Prosikhan Pustika" -April 1993 Assistant Director, EPI project Ministry of Health, Mohakhali, Dhaka. (This is a manual for the training of field and EPI workers) 2. "Dainandin EPI Kaje Math Karmider Nirdeshika" -October 1993 EPI, DG Health, Mohakhali Dhaka. (This is a daily work manual for the training of EPI workers)	Developed flow- chart to provide services	Integrated with ANC, PNC, FP, diarrhoea and ARI contacts (if the child is less than one year in diarrhoea and ARI cases)

Service	Base Documentation	Changes	Focus
Family Planning	1. "Jonmoniontraner Khabar Bori, Norplant o Condom Manual", 2. "IUD O Jonmoniontraner Injection Manual" and 3. "Bondhakoron Manual" DG, Family planning, People's Republic of Bangladesh, Azimpur, Dhaka -September 1995	Developed flow chart which prompted for proper screening and choice of method by client	1. Integrate with ANC, PNC, RTI, diarrhoea, ARI and immunization contacts 2. Emphasis on education and counselling

Service	Base Documentation	Changes	Focus
Management of Reproductive Tract Infections	1. STD Case Management Workbook, Field Test Version World Health Organization 2. The Management of Sexually Transmitted Diseases, A training material prepared for the Bangladesh National AIDS Control Programme, Ahmed S. Latif -1995 3. Reference Manual for Health Care Out-door: Thana-level UNICEF/DG of health services, People's Republic of Bangladesh/ Director, Family Planning, People's Republic of Bangladesh -1995 4. Quality Assurance A Manual for NGO Family Planning Services in Bangladesh -December 1994 Pathfinder International Daina Printers Limited	Simplified the WHO flow-charts	1. Main focus was on simplification and adaptation to practical realities (e.g. what to do when first line of treatment fails) 2. Emphasis on education, counselling and partner management

Service	Base Documentation	Changes	Focus
Management of Acute Respiratory Tract Infections	A Manual for the Management of the Young Child with an Acute Respiratory Infection CARI (Childhood Acute Respiratory infection) Project Directorate General of Health Services Ministry of Health and Family Welfare Government of Bangladesh -1993 ARI Project	Rearrangement of ARI project flow- chart, to synchronize with actual steps in managing an ARI case	Education and counselling on Breast-feeding, FP, immunization if condition of the client is not serious. (Breast-feeding and immunization is applicable if the child is less than one year).

Service	Base Documentation	Changes	Focus
Management of Diarrhoea	A Manual for the Treatment of Diarrhoea CDD Project Directorate General of Health Services Ministry of Health and Family Welfare Government of Bangladesh -1992 CDD Project	Some dehydration cases will not be treated at PHC level. They will be given ORS and referred to hospitals where there is an ORT corner	1. Education and counselling on Breast-feeding, FP, immunization if condition of the client is not serious. (Breast-feeding and immunization is applicable if the child is less than one year) 2. Education on prevention of diarrhoea

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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