DISSEMINATING INFORMATION ON
BANGLADESH’S URBAN EPI PROJECT

May 23 - June 10, 1992
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USAID Contract No.: DPE-5982-Z-00-9034-00
Project No.: 932-5982
Activity No.: 1717.035
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Acknowledgements

The impact of short-term technical visits often depends more on the in-country preparation, support, and follow-up than on the performance of the visitor himself. A great deal was accomplished during this two and-a-half-week visit thanks primarily to the extraordinary support of Mrudula Amin, Project Communications Advisor, and Mary Carnell, Chief of Party. A special acknowledgement to the CARE office in Khulna Division for making all logistical and other arrangements for a two-day visit for the REACH consultant and a number of EPI headquarters staff. Dr. Talukder, national EPI director, was very supportive and gave rapid approval to a small qualitative research study that REACH and CCC/JSI proposed. Finally, many thanks to colleagues from the urban EPI project, EPI, USAID, UNICEF, and numerous other organizations who made time in their schedules to participate in discussions that provided much of the information which went into the several articles drafted during this assignment.
### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>CCC</td>
<td>Cambridge Consulting Corporation</td>
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<tr>
<td>DCC</td>
<td>Dhaka City Corporation</td>
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<tr>
<td>EPI</td>
<td>Expanded Program on Immunization</td>
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<tr>
<td>FWA</td>
<td>Family Welfare Assistant</td>
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<tr>
<td>HA</td>
<td>Health Assistant</td>
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<tr>
<td>ICDDR,B</td>
<td>International Center for Diarrheal Disease Research, Bangladesh</td>
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<tr>
<td>IPC</td>
<td>Interpersonal Communication</td>
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<tr>
<td>JHU/PCS</td>
<td>Johns Hopkins University/Population Communication Services</td>
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<tr>
<td>JSI</td>
<td>John Snow, Inc.</td>
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<tr>
<td>KAP</td>
<td>Knowledge, attitudes, and practices</td>
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<tr>
<td>MOE</td>
<td>Ministry of Education</td>
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<tr>
<td>MOHFW</td>
<td>Ministry of Health and Family Welfare</td>
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<tr>
<td>NGO</td>
<td>Nongovernmental organization</td>
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<tr>
<td>PSI</td>
<td>Population Services International</td>
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<tr>
<td>TT</td>
<td>Tetanus Toxoid</td>
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<tr>
<td>UCO</td>
<td>Urban Communication Officer</td>
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<tr>
<td>UOO</td>
<td>Urban Operations Officer</td>
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<td>UHFPPO</td>
<td>Upazilla Health and Family Planning Officer</td>
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<tr>
<td>UNICEF</td>
<td>United Nations Children's Fund</td>
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<td>USAID</td>
<td>U.S. Agency for International Development, Bangladesh mission</td>
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I. Background

Since 1988, REACH and/or JSI has provided technical assistance in communications to Bangladesh's urban EPI, primarily through the services of resident Communications Advisor Mrudula Amin. These activities were evaluated once, as part of a REACH country assessment visit in February-March 1990. In general, the assessment found that REACH had been very energetic in assisting the government to develop and disseminate awareness-raising messages and materials on EPI that complemented the rapid expansion of service delivery. The main recommendation was that communication efforts now become more targeted, utilizing more specific strategies for the special needs of various audiences. The USAID-funded CCC-JSI urban health project, which began in July 1990, has moved in this direction.

Because of its strong interest in urban EPI and its long involvement in EPI communications in Bangladesh, REACH proposed that EPI Communications Advisor Mike Favin work with the CCC-JSI project and collaborating groups in Bangladesh to assess aspects of the EPI communications activities, to extract both positive and negative lessons learned, and to disseminate this information in newsletters and international journals and conferences.

II. Scope of Work

This assignment was originally scheduled for March 1992 but had to be postponed due to the need for Mr. Favin to prepare briefing materials for the REACH Project's Mid-Project Evaluation. At the end of April, he met with Mrudula Amin, JSI's Urban Communication Officer (UCO), who was in Baltimore to attend a one-week workshop on interpersonal communication (IPC). They discussed the draft curriculum for training peripheral health workers in IPC, topics of possible articles, and the rescheduling of the assignment.

It was soon agreed by all parties to reschedule the trip for May 23-June 10 (in-country dates) and that possible topics for papers would be the following:

Factors in the Success of Urban Immunization in Bangladesh;

Educating School Children about Immunization and Organizing Them to Mobilize the Community;

Using Football (Soccer) to Motivate and Educate Bangladeshi Men;

Using an Entertaining Film to Promote Immunization/Family Planning and to Mobilize the Support of Local Leadership;

Can Beneficiary Immunization Behavior Change be Measured -- A Perspective from Bangladesh;

Bridging the Knowledge/Practice Gap for Immunization in Bangladesh: Interpersonal Communication Training for Local Health Workers;

Building Partnerships to Make Research Work for EPI in Bangladesh; and
A brochure on the Municipal EPI Project.

Once in Bangladesh, Mr. Favin agreed to expand his scope of work by working with Ms. Amin on two current priorities of the EPI communications:

Finalizing the curriculum for IPC training, and

Designing and managing a small qualitative study on fathers' role in and attitudes toward immunization, in order to design targeted messages to be used initially in the upcoming Maa-O-Moni Football Tournament.

III. Synopsis of Trip Activities

May 23 - Arrived in Bangladesh, met with Mrudula Amin and CCC/JSI Chief of Party Dr. Mary Carnell.

May 24 -

1) Met with Dr. A.K.M. Lutfar Rahman Talukder, national EPI director - He described the success of the national program and reasons for that success, noting the good work of health assistants (HAs) and family welfare assistants (FWAs), whose prestige in the community has grown as a direct result of their immunization work. He also described the special problems of urban EPI and how the USAID project had contributed to overcoming many of them. He pointed out that several factors favor the sustainability of the excellent coverage gains made over the past several years: EPI has hired no new staff to give immunizations but rather has trained and supported existing staff (HAs and FWAs); the government is ready to restart TT production and will begin producing DPT; the government provides 36% of the EPI budget (and UNICEF 49%).

2) Met with EPI Communication Officers Shahnaz Perveen and Mustafa Yasin Khan, CCC/UCO Md. Ibrahim Mukul, and Dr. M. Iqbal Anwar, Project Manager of World Vision's child survival project in Dhaka. Much of the discussion concerned the history and plans for teaching about immunization in schools and using school children to motivate mothers in their communities. The current program in urban school and three rural districts in Khulna Division is scheduled to be evaluated by the University of Dhaka in a few months. World Vision is requesting materials from the EPI/HOE program to use in its program to educate on child survival topics in 70 schools in Dhaka.

3) Proposed and began planning qualitative study on fathers.

May 25 -

1) Met with John Thomas, Health Communication Advisor, Mr. David Piet, Health Advisor, Mary Carnell, and Mrudula Amin. Piet felt that USAID had not received due credit for supporting the very successful urban EPI program and that the project should give priority to a project brochure, information sheets, and a briefing for high-level government officials.

2) Met with Mr. Bakaual Islam and others at EPI Communications.
3) Attended meeting at UNICEF to review status of EPI communication activities in EPI's current work plan. Attending were Shahnaz, Mukul, Mrudula, and Neill McKee, Mira Mitra, and Afshan Chavdhury from UNICEF.

4) Discussed the fathers' study with Mrudula, Mary, and UNICEF and drafted a proposal and question guide for interviews (see Annex A).

May 26 -

1) Reviewed and made detailed comments on lessons plans for IPC training.

2) Met with Dr. Ashrafuddin, Chief Health Officer of Dhaka City Corporation (DCC), to discuss lessons learned in Dhaka program.

3) Worked on revising general messages to be used in Maa-O-Moni Football communications.

4) Worked on project brochure.

May 27 -

1) Participated in a series of meetings at EPI headquarters: (a) with Mrudula, Shahnaz, Bakaul, Mukul, Khan, and Mitra, discussed and made small modifications to proposed fathers' study plans; (b) with the same people plus Pamela Clifton from UNICEF and UNICEF training consultant M. Azam Ali, discussed plans for review and finalization of IPC curriculum; and (c) with Prof. Mumtazuddin and N. Ali Khan met to discuss mass media communications support to Maa-O-Moni Tournament. Later that day, sent list of draft mass media messages to people designing the television spots. (See Annex B).

2) Met with proposed field researchers for fathers study to discuss plans and arrangements.

3) Worked on project brochure.

May 28 -

1) Met with Edson Whitney, JHU/Population Communication Services (PCS) country representative to discuss joint film (Swapner Sharu), IPC training, and other topics.

2) Met with Bob Ciszewski, Population Services International (PSI) country representative, to discuss successes and lessons learned in contraceptive social marketing. The Social Marketing Company has 16 mobile film units that show several hours of films, including Swapner Sharu, 6 days a week around the country.

3) Worked on project brochure. Gave first complete draft to Mary and Mrudula to review.

May 29 -

Reviewed documents, including Mrudula's drafts of several articles.

May 30 -

1) With Shahnaz and Mrudula, met with Dr. Talukder and received his approval for the fathers' study.
May 31 -

1) Visited immunization sites in Dhaka with Urban Operations Officer (UOO) for Dhaka Dr. Syed Isteaque Ali Jinnah.

2) Organized data collection on the impact of the film Swapner Shuru on local immunization coverage.

3) All afternoon, participated in a discussion of EPI in Dhaka at ICDDRB with Dr. Ngudup Paljor, Director of the Urban Volunteers Program, and Peter Miller and Kim Streatfield from the Population Council.

4) Worked on the project brochure.

June 1 -

1) Worked on the project brochure, producing a rough mock-up.

2) With Mrudula, met with Neill McKee at UNICEF to discuss a range of current communication activities and our articles; reviewed the UNICEF photo collection to select photos for the brochure.

3) Began writing an article on the school immunization program.

June 2 -

1) Made additional edits to the brochure.

2) Completed rough draft of article on school immunization.

3) Discussed draft and much confusing or contradictory information in the existing documents.

4) Examined and selected photos for urban EPI brochure at ICDDRB.

5) Flew to Jessore, rode to Chuadanga, a district on the border of India.

June 3 -

1) (With Hrudula, Shahnaz, Bakaual, Emdadul Haque [EPI Urban Coordinator], and Dr. Zia and Dr. ... from CARE) observed a health education session on immunization in a primary school.

2) Observed an outreach EPI site incorporated with a satellite clinic.

3) Observed monthly refresher training of HAs at Sadar Upazilla used a supervision checklist to compile a list of weak areas. These are reviewed at the monthly training. UHFPO has done an excellent job in making supervision/monitoring useful and meaningful to those involved. He has also illustrated coverage and other program information in many charts and graphs posted in his office.
4) Rode to Khulna - Met with Dr. Bikash Ranjun Roy, Khulna U00 who had been instrumental in initiating the school program when he worked for CARE.

June 4 -
1) Held further discussions with Dr. Bikash.

2) Observed orientation of junior high school headmasters and science teachers by municipal health officers. The civil surgeon and chief medical officer did not introduce the program well, giving teachers the impression that the purpose was to help the MOH do its job. In the negative atmosphere created, they asked for per diem, travel allowance, etc. and said it would be a great burden to visit slum families. (The same orientation by Dr. Bikash the previous day had gone smoothly.)

3) Gave many suggestions for the upcoming evaluation of the Khulna Division school program (to be conducted by the University of Dhaka).

4) Reviewed and wrote comments on the draft study summary by Urban Volunteer Program (ICDDR,B) on slum dwellers' KAP re. immunization.

5) Rode to Jessore, flew to Dhaka.

June 5 -
1) Worked on school program article.

2) Wrote article on EPI/family planning film (Swapner Shuru).

June 6 -
1) At EPI, (with Mrudula, Shahnaz, Mukul) discussed upcoming urban EPI newsletter. Met with researchers from fathers' study to discuss their experience in the field and devised formats for analyzing and writing up findings.

2) Worked on layout of project brochure.

3) Completed draft of film article. Worked on article on football tournament.

4) Attended showing of Swapner Shuru in Dhaka slum.

June 7 -
1) Completed draft of article on football tournament.

2) Worked on this trip report.

June 8 -
1) Wrote needs assessment article based on a draft by Mrudula and Neill.

2) Worked on the brochure and revised several other draft articles.

June 9 -
1) Did final in-country revisions to brochure and articles.

2) Met with the fathers' study researchers to discuss findings.
Debriefed at USAID (Mary, Mrudula, David Piet, John Thomas, Zareen). Discussed ways of publicizing project activities and achievements within Bangladesh.

IV. Recommendations/Next Steps

CCC/JSI should:

1. Send draft articles to individuals most intimately involved in the topic (e.g., school article to Dr. Bikash, needs assessment article to Neill McKee, film article to Edson Whitney), requesting their comments as soon as possible. Send draft brochure to USAID, Richard Alvarez (CCC), Ken Olivola (JSI) for comments.

2. Once all comments are received, send them to Mike Favin.

3. Send new information (e.g., evaluation of school program and the English translation of the fathers study report) to Mike Favin.

4. Request final USAID and EPI approval on completed articles.

5. Disseminate completed articles to government, nongovernmental organization (NGO), and other private-sector officials in Bangladesh in a series that might be called "Urban EPI Project Notes"; and/or publish a quarterly project newsletter aimed primarily at high-level government officials. As discussed, given the project staff's many other responsibilities, it is recommended that the project employ a part-time local consultant to prepare the newsletter.

6. Propose the authors for each article to be submitted to international newsletters/journals.

7. Incorporate findings from fathers' study into Maa-O-Moni tournament messages.

8. Complete the layout and oversee publication of the urban EPI project brochure. Prepare a mailing list for the brochure and mail copies.

Mike Favin:

1. Make preliminary inquiries to newsletters and journals about their interest in certain articles.

2. Incorporate comments from Bangladesh and from REACH staff.

3. Incorporate new information received from Bangladesh.

4. Once final articles are approved, submit them for publication.

5. Publish summaries of some articles in REACH Notes.
6. Send the CCC/JSI project a copy of the REACH mailing list to assist with brochure mailing.
Appendix A

Proposal for a Modest Qualitative Study
of Fathers' Roles and Attitudes

Introduction

The upcoming Maa-o-Moni Football tournaments are intended to: (1) support general public and political level awareness of EPI and (2) motivate fathers to be more supportive of their children becoming fully immunized. To make messages communicated in conjunction with the tournament more effective in leading to desirable behaviors by fathers, the messages should be designed on the basis of formative research with fathers. Research should inform planners: (1) what essential information fathers lack (2) what are fathers' main attitudinal resistances to having their children fully immunized, and (3) what benefits or appeals would be most effective in motivating fathers.

Fathers may be an important influence on mothers' ability to have children fully immunized, particularly in poor rural families. It is believed that urban mothers are generally more independent.

Fathers may be discouraging mothers from bringing their children for full immunization because of such factors as:

- their unwillingness to have their wives go out in public for a reason that is not deemed essential;
- the cost of transportation to the immunization site;
- the time required to bring the child several times, time that could be spent in doing household chores or earning income;
- side effects that occurred after an immunization;
- attitudes towards measles in particular, that this is a normal childhood disease and that it is the father's duty to pay for medical care for the child with measles.

Research Plan

It is proposed to conduct interviews with 30 fathers. Of these 30, there will be 4 urban and 6 rural fathers of children 12-23 months old with no immunizations, 4 urban and 6 rural fathers of children with some but not all immunizations, and 4 urban and 6 rural fathers whose children are fully immunized. All fathers will be from low income but not destitute families. The sample will include fathers from two slum areas of Dhaka and two different rural communities.

An interviewer experienced in qualitative methods will conduct each interview, and a recorder (note taker) will write down the father's verbatim responses. A question guide (see below) includes several general areas of inquiry. As much as possible, the fathers should be encouraged to explain all of their answers to the initial questions. Some probing/follow-up questions are included in the question guide and should be used if fathers do not address
them on their own. The draft question guide found below should be pretested with a few low-income fathers before being finalized.

Analysis and Report

The research team will analyze the responses to each question for each of the six cells (urban and rural fathers of fully, partially, and not-immunized children). The research report will summarize the study purpose, methodology, and sample and then give a synopsis of responses to each question, using the following outline:

- the general responses for all fathers;
- the responses for any cells that significantly differed from those for all fathers;
- interesting quotations from fathers: words, phrases, or statements that are particularly revealing or poignant.

Message Design

Messages should be designed to give fathers the information or motivation that research shows they are lacking. All messages should be pretested before being finalized. The pretest should probe whether low-income fathers understand the words and ideas (and which if any are not clear), whether they like/feel comfortable with these messages, whether they feel the messages are relevant to them/aimed at people like them, and whether they would be likely to follow the advice of the messages and why or why not.
Draft Question Guide

1. How is your child’s health?
Probes: What do you do to assure that your child stays healthy?

2. Are you familiar with ham [measles]? Please describe it.
Probes: Do you think it’s a serious disease? Why?

3. Can ham be prevented?
Probes: How? How else? How important is measles immunization? Do you have confidence that it works? Why?

4. Is it important for children to receive all of the recommended immunizations? Why?

5. Do you know what immunizations your child has already had and what ones remain? Please tell me.
Probes: Do you know how many visits are required for a child to receive all of its immunizations? How many? Do you know at what age a child should have immunization to prevent measles?

6. Do you ever discuss your child’s immunization with your wife? What kind of things do each of you say?
[For fathers of fully and partially immunized infants:]

7. Have you or your wife had any difficulties in getting your child immunized? What? What happened?
Probes: What role did you play in getting your child immunized? Why? Do you feel you derived any benefits from your child’s immunizations? What?
[For fathers of partially immunized or not immunized children:]

8. Why has your child not received any/all of its immunizations?
Probes: Do you have any concerns or fears? Are you concerned about: the effectiveness of immunization? the safety? the cost? your wife being out in public? your wife seeing a male health worker? the time it takes (how much time?)? the side effects? For any "yes" response, ask the father to explain why.

[For all fathers]

9. Are you interested in football? Did you watch or listen to any games from the Maa-O-Moni Tournament in 1990?
Identification Sheet for Qualitative Study on Fathers and Immunization

Date of Interview:

Place of Interview:

(Please check) Urban site _____ Rural site _____

Name of Respondent:

Immunization Status of Child 12–23 months old:

(Please check)  Fully immunized _____
Partially immunized _____
Not immunized (no immunizations) _____

Name of Interviewer:

Name of Recorder:

Father was:
(Please check)  Extremely cooperative _____
Fairly cooperative _____
Not very cooperative _____

Comments:
Appendix B

Messages for Maa-O-Moni Spots and Commentaries

1. The second Maa-O-Moni Gold Cup Football Tournament is being sponsored by the Expanded Programme on Immunization under the Directorate of Health Services. It is organized by the Bangladesh Football Association.

2. The tournament is being launched to increase awareness that immunization protects against six dangerous diseases: neonatal tetanus, measles, diphtheria, polio, whooping cough, and tuberculosis.

3. Immunize your child. Immunization saves lives.

4. Four visits are necessary to complete all of your baby’s immunizations. The first immunizations are given when your baby is six weeks old.

5. Your goal as a good parent is to have your baby fully immunized by his first birthday.

6. A child who completes four immunization visits before his first birthday has four goalies to protect his life.

7. It takes teamwork to save babies’ lives. Both the father and the mother are responsible to assure that their babies are protected.

8. Measles kills! Let’s kick measles out of Bangladesh by immunizing every child in the tenth month. [show ball being kicked, cut to ball flying out of stadium]

9. Tetanus kills too many young babies and also many mothers. A wise husband assures that his wife and baby are protected from tetanus. Women need several doses of tetanus vaccine (TT) to protect them and their baby.

10. Main slogans: A healthy child is a sure winner!
    Let’s kick measles out of Bangladesh!
Urban children are often less protected than rural children against immunizable diseases. Immunization coverage rates are particularly low in the largest cities and even lower in urban slums.

Achieving high immunization coverage in cities is important:

- Some immunizable diseases strike children at younger ages and affect them more seriously because of the high population density;
- Endemic diseases such as measles often spread from urban to rural areas; and
- Urban populations, already large, are growing much more rapidly than rural populations.

Achieving high immunization coverage in cities is a great challenge to health services because:

- Urban populations are extremely diverse. Many urban dwellers live in slums; they migrate frequently both within cities and out to rural areas; they lack social cohesion;
- Although national health services have overall responsibility for urban health, in many countries, resource-short municipal governments have prime responsibility for service delivery; and
- Health officials, assuming that urban coverage is high, are unaware of the need for special urban initiatives.

Urban Immunization in Bangladesh

Bangladesh’s urban population represents approximately 17 percent of the national population. Recent studies estimate that about one third of urban residents live in slums characterized by rampant malnutrition and a lack of basic services. The infant mortality rate in these areas is estimated at more than 200 per 1000 live births.

Municipal authorities find it very difficult to meet the rapidly increasing demands for shelter, clean water, sanitation, jobs, primary education, and primary health care (including immunization services). They have few staff and no strictly earmarked funds for immunization activities.

Bangladesh’s Expanded Programme on Immunization (EPI), in the Ministry of Health and Family Welfare (MOHFW), has overall responsibility for immunization in the entire country. Beginning in the mid-1980s, EPI achieved a rapid increase in
immunization coverage in rural areas through major efforts in training, service organization, and social mobilization. Urban areas lagged behind, however, for many of the reasons mentioned above.

Special Urban Focus

In 1988, the U.S. Agency for International Development (USAID) initiated a five-year bilateral project to work with EPI to strengthen and institutionalize immunization services in urban areas of Bangladesh.

USAID funds support technical assistance, operations research, training, purchase of supplies and equipment, and partial funding of operational expenses required for service delivery and social mobilization.

At first, John Snow Inc.'s Resources for Child Health (REACH) Project managed USAID support. Since July 1990, the project has been operated by Cambridge Consulting Corporation (CCC), with John Snow Inc. as the technical subcontractor.

- In October 1988 two expatriate advisors were hired to direct the project: an Urban EPI Advisor (Chief of Party) and a Communications Advisor. They have worked closely with the MOHFW and the municipal governments officially charged with immunization in urban areas.

- In addition, the project recruited seven Bangladeshi professionals who serve as Urban Operations Officers (UOOS) and one Urban Communications Officer (UCO) to assist in planning and monitoring immunization activities in the 88 municipalities.

Achievements

Under the direction of the national EPI, and with support from USAID, UNICEF, WHO, other international donors, and nongovernmental organizations (NGOs), immunization coverage in municipal areas now surpasses that in rural areas. A recent, internationally supervised coverage survey recorded that an impressive 79% of one-year-olds in urban areas have received all of their childhood immunizations, and 83% of mothers have had at least two doses of tetanus toxoid (TT).

Urban Immunization Highlights

Political commitment and collaboration. One of the keys to success was clearly the fine collaboration between the EPI and the USAID-supported project, the Ministry of Local Government and Rural Development (LGRD), municipal governments, UNICEF, and various NGOs. The MOHFW's EPI designated a medical officer for urban EPI as a counterpart to the project's two national advisors and seven UOOS.

Working with the civil surgeons and municipal officials, the UOOS coordinate monthly review meetings in poorly performing municipalities. The UOOS also organize public recognition of NGOs and health workers in the best-performing municipalities in each of the country's four divisions. A quarterly Urban EPI
News Bulletin, published jointly by the EPI and LGRD, graphically illustrates comparative immunization status among the municipalities in hopes of stimulating improved performance.

Adjusting service delivery. In the early 1980s, immunization in urban areas was available only from private physicians or from a small number of government or NGO facilities. As part of national EPI intensification, urban jurisdictions opened more immunization sites. With support from the USAID project for renovation, equipment, and some salaries, the number of fixed centers operating five days a week was further increased, and new immunization outreach sites were established in slums.

Research shows that urban families prefer immunization services at multipurpose facilities rather than at outreach sites which offer immunization alone. Today, the UOOS are assessing the performance of individual service delivery sites to help municipalities reduce the number of outreach sites while establishing additional fixed sites.

The project has helped to organize two innovative modes of TT immunization:

- Working with the major employer of urban women, the project has organized Government and NGO teams to administer TT to young female workers in garment factories (32,692 doses in 113 factories in 1991).

- A team gives TT to girls in high schools and colleges (6,948 doses in 37 schools and colleges in 1991).

Awareness-raising. During its first three years, the project worked with EPI and UNICEF to orchestrate energetic, multimedia, awareness-raising activities, including development and use of the "moni" logo; signs, paintings, placards, radio and television programs; wide press coverage; major special events such as the visit of international cricket star Kapil Dev and the Maa-O-Moni soccer tournament.

With the Johns Hopkins Population Communication Services, the project produced the entertaining film Swapner Shuru, which contains messages on immunization, family planning, female education, and the evils of dowry. Showings of the film in slum areas have a positive effect on the number of immunizations given in nearby sites.

Interpersonal communication. The project's 1989 study on "Effects of Communication Interventions in Urban Slums" has been instrumental in reorienting the communications strategy beyond mass media. The study indicated that the most important sources of information on immunization and health were health workers and neighbors.

A 1991 study underscored the urgent need to train health workers in communication skills. The project's Communications Advisor is working with EPI, UNICEF, and others to finalize a module for training district-level trainers who will teach health workers how to communicate key messages about immunization and other health topics to mothers. Over the next few years, 45,000 local health workers throughout Bangladesh are expected to receive this training.
School program. School lesson plans for sixth, seventh, and eighth grades, prepared and pilot tested by EPI, CARE, and the municipal EPI project, are being introduced in urban areas of Khulna Division. As part of their homework, the pupils identify infants in their neighborhoods and urge the mothers to have them completely immunized. It is hoped that this strategy will be expanded nationwide.

Planning and sustainability. The UCO and the seven UO0s, based in all four divisions, greatly extend the Government's capacity to plan and implement urban immunization activities. They will play a growing role in the transfer of necessary program management skills to facilitate the assumption of full responsibility by municipal health authorities.

Most of the cost for immunization in urban areas are borne by the municipalities and the national EPI. USAID funds are utilized to supplement operating costs of the four city corporations (Dhaka, Chittagong, Rajshahi and Khulna), along with 21 smaller municipalities. Plans are being developed to help each municipality assume these costs. Activities are also underway to increase the involvement of the LGRD.

What of the Future?

USAID recently extended its funding of the municipal EPI project through 1997. Key areas of emphasis will be to:

- advocate that the LGRD assume full financial and managerial responsibility for urban immunization activities;
- institutionalize the various systems that are being created to improve the financial and management capacity of the EPI to plan, implement, and monitor immunization efforts in the urban areas;
- apply the results of studies accomplished in the first five years of the program which demonstrate the need for improved interpersonal communication skills by health workers;
- develop and test tools for disease surveillance that will document the impact of urban immunization efforts on the health and survival of children in the urban areas;
- emphasize the integration of other MCH services (e.g., family planning, vitamin A supplementation, rehydration) with EPI;
- strengthen the important links between the national EPI, other government offices, NGOs, UNICEF and other donors involved in urban health, the private sector and other USAID-supported research and service delivery projects;
- support the important role of private physicians in immunization and surveillance; and
to expand immunization efforts that have begun in the garment industry and schools and institutionalize these activities.

The project looks forward to working with the Government of Bangladesh and other partners in implementing this exciting agenda. June 1992

For further information, contact:

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Photo credits: First photo and photos across bottom of pages 2 & 3, Urban Volunteers Program, ICDDR:B; movie audience, CCC/JSI; others photos, UNICEF.
Urban children are often less protected than rural children against immunizable diseases. Immunization coverage rates are particularly low in the largest cities and even lower in urban slums.

Achieving high immunization coverage in cities is important:
- Vaccine-preventable diseases affect children more seriously and strike at younger ages because of the high population density;
- Endemic diseases such as measles often spread from urban to rural areas; and
- Urban populations, already large, are growing much more rapidly than rural populations.

Achieving high immunization coverage in cities is a great challenge to health services because:
- Urban populations are extremely diverse. Many urban dwellers live in slums; they migrate frequently both within cities and out to rural areas; they lack social cohesion;
- Although national health services have overall responsibility for urban health, in many countries, resource-short municipal governments have prime responsibility for service delivery; and
- Health officials, assuming that urban coverage is high, are unaware of the need for special urban initiatives.

**Why Urban Immunization in Bangladesh?**

Bangladesh's urban population represents approximately 17 percent of the national population. Recent studies estimate that about one third of urban residents live in slums characterized by rampant malnutrition and a lack of basic services. The infant mortality rate in these areas is estimated at more than 200 per 1000 live births.

Municipal authorities find it very difficult to meet the rapidly increasing demands for shelter, clean water, sanitation, jobs, primary education, and primary health care (including immunization services). They have few staff and no strictly earmarked funds for immunization activities.

Bangladesh's Expanded Programme on Immunization (EPI), in the Ministry of Health and Family Welfare (MOHFW), has overall responsibility for EPI in both rural and urban areas. Beginning in the mid-1980s, EPI achieved a rapid increase in immunization coverage in rural areas through major efforts in training, service organization, and social mobilization. Urban areas lagged behind, however, for many of the reasons mentioned above.
**What Was the Response?**

In 1988, the U.S. Agency for International Development (USAID) initiated a five-year bilateral project to work with EPI to strengthen and institutionalize immunization services in urban areas of Bangladesh.

USAID funds support technical assistance, operations research, training, commodities procurement, purchase of equipment, and partial funding of operational expenses required for service delivery and social mobilization.

At first, John Snow Inc.'s Resources for Child Health (REACH) Project managed USAID support. Since July 1990, the project has been operated by Cambridge Consulting Corporation (CCC), with John Snow Inc. as the technical subcontractor.

- In October 1988 two expatriate advisors were hired to direct the project: an Urban EPI Advisor (Chief of Party) and a Communications Advisor. They have worked closely with the MOHFW and the municipal governments officially charged with immunization in urban areas.
- In addition, the project recruited seven Bangladeshi professionals who serve as Urban Operations Officers (UOOS) and one Urban Communications Officer (UCO) to assist in planning and monitoring immunization activities in the 88 municipalities.

**What Has Been Achieved?**

Under the direction of the national EPI, and with support from USAID, UNICEF, WHO, other international donors, and nongovernmental organizations (NGOs), immunization coverage in urban areas now surpasses that in rural areas. A recent, internationally supervised coverage survey recorded that an impressive 79% of one year olds in urban areas have received all of their childhood immunizations, and 83% of mothers have had two doses tetanus toxoid (TT2).

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Urban</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>92</td>
<td>69</td>
</tr>
<tr>
<td>DPT3</td>
<td>84</td>
<td>74</td>
</tr>
<tr>
<td>Measles</td>
<td>80</td>
<td>65</td>
</tr>
<tr>
<td>All Doses</td>
<td>92</td>
<td>79</td>
</tr>
</tbody>
</table>

* Percent immunized is based on 4 divisional and 1 urban survey of children 12-23 months old and mothers of 0-11 month olds (card + history). The national rates, which include results from some urban clusters, would be slightly lower if they reflected non-urban areas only.
One of the keys to success was clearly the fine collaboration between the EPI and the USAID-supported project, the Ministry of Local Government and Rural Development (LGRD), municipal governments, UNICEF, and various NGOs. The MOHFW's EPI designated a medical officer for urban EPI as a counterpart to the project's two national advisors and seven UCOs.

Working with the civil surgeons and municipal officials, the UCOs coordinate monthly review meetings in poorly performing municipalities. The UCOs also organize public recognition of NGOs and health workers in the best-performing municipalities in each of the country's four divisions. A quarterly Urban EPI News Bulletin, published jointly by the EPI and LGRD, graphically illustrates comparative immunization status among the municipalities in hopes of stimulating improved performance.

Adjusting service delivery. In the early 1980s, immunization in urban areas was available only from private physicians or from a small number of government or NGO facilities. As part of national EPI intensification, urban jurisdictions offered more immunization sites. With support from the USAID project for renovation, equipment, and some salaries, the number of fixed centers operating five days a week was further increased, and new immunization outreach sites were established in slums.

Research shows that urban populations, unlike their rural counterparts, prefer immunization services at multipurpose facilities rather than at outreach sites which offer immunization alone. Today, the UCOs are assessing the performance of individual service delivery sites to help municipalities reduce the number of outreach sites while establishing additional fixed sites.

The project has helped organize two innovative schemes of TT immunization:

- A team gives TT to girls in high schools and colleges (6,948 doses in 37 schools and colleges in 1991).
- Working with the major employer of urban women, the project has organized Government and NGO teams to administer TT to young women workers in garment factories (32,692 doses in 113 factories in 1991).

Awareness-raising. During its first three years, worked with EPI and UNICEF to orchestrate energetic, multimedia, awareness-raising activities, including development and use of the "moni" logo; signs, paintings, placards, radio and television programs; wide press coverage; major special events such as the visit of international cricket star Kapil Dev and the Maa-O-Moni soccer tournament.

With the Johns Hopkins Population Communication Services, the project produced the entertaining film Swapan Shuru, which promotes immunization, family planning, and other social messages such as female education and the evils of dowry. Showings of the film in slum areas have a positive effect on the number of immunizations given in nearby sites.

Photo credits: First photo and photos across bottom of pages 2 & 3, Urban Volunteers Program, ICDDR,B; movie audience, CCC/JSI; others photos, UNICEF.
USAID recently extended its funding of the municipal EPI project through 1997. Key areas of emphasis will be to:

- advocate that the LGRD assume full financial and managerial responsibility for urban immunization activities;
- apply the results of studies accomplished in the first five years of the program which demonstrate the need for improved interpersonal communication skills by health workers;
- institutionalize the various systems that are being created to improve the financial and management capacity of the EPI to plan, implement, and monitor immunization efforts in the urban areas;
- develop and test tools for disease surveillance that will document the impact of urban immunization efforts on the health and survival of children in the urban areas;
- emphasize the integration of other MCH services (e.g., family planning, vitamin A supplementation, rehydration) with EPI;
- strengthen the important links between the national EPI, other government offices, NGOs, UNICEF and other donors involved in urban health, the private sector and other USAID-supported research and service delivery projects;
- support the important role of private physicians in immunization and surveillance; and
- expand immunization efforts that have begun in the garment industry and schools and institutionalize these activities.

The project looks forward to working with the Government of Bangladesh and other partners in implementing this exciting agenda.

June 1992

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Appendix E:
IMPROVING IMMUNIZATION COUNSELING IN BANGLADESH

Background

The percentage of fully immunized children in Bangladesh rose from 2 percent in 1985 to 65 percent in 1991. This impressive achievement was accomplished through parallel efforts to expand immunization services rapidly and to promote those services through multimedia, awareness-raising activities. Social mobilization activities included:

- development and widespread use of the "moni" logo (a baby in a circle protected from six deadly diseases);
- dissemination of information through signs, paintings, placards, radio and television, and the press;
- production and use of an entertaining, soap-opera-type movie on family planning and immunization; and
- organization of major special events such as the visit of international cricket star Kapil Dev and the Maa-O-Moni (Mother and Child) soccer tournament.

Problem Identification and Analysis

The impact of such activities was evident in findings from a 1989 survey on "Effects of Communication Interventions in Urban Slums." The study found that:

- awareness of immunization was almost universal;
- although lower among slum dweller, knowledge levels were generally high;
- mass media have a good reach in upper and middle income areas, but everywhere the most important sources of information on immunization and health were health workers and neighbors.

Findings of 1991 national coverage surveys confirmed that awareness of immunization, as indicated by the proportion of infants with the first dose oral polio vaccine (OPV-1) by 12 months of age, was a high 86%. However, only 65% of one-year old had completed the required series of immunizations. Possible reasons were:

- Parents' knowledge: Communication activities were not doing an adequate job of informing parents about the importance and timing of return visits. (This paper refers to either "parents" or "mothers." Fathers rarely bring their children for immunization, although,
particular in rural areas, they may influence the decision to seek immunization.)

- **Parents' motivation**: Social mobilization was not sufficiently effective in motivating some parents to have their children complete the series; and

- **Parents' satisfaction**: Services were not sufficiently convenient or satisfactory to some mothers.

**Needs Assessment Study**

As a first step to meet this challenge, the EPI, with assistance from UNICEF and the USAID-supported urban EPI project, organized a national needs assessment study to determine field workers' and parents' beliefs and practices that hinder increased EPI coverage. A particular interest of the study was to explore barriers that prevented health workers from communicating more effectively with mothers, as well as information and counseling needs of mothers that would help them and their children complete the required series of immunizations. The study incorporated several qualitative and quantitative methods: focus group discussions, direct observations of workers in various work situations, formal interviews with workers and their supervisors, and exit interviews with mothers using immunization services.

The major findings of the study were the following:

- Workers generally like their EPI work and feel that it has increased their status.
- Many types of health workers counsel mothers and immunize.
- Few health workers give EPI counseling either at the EPI sites or during home visits.
- Side effects and complications from vaccinations are a major reason for dropouts;
- Health workers request and need retraining on many technical aspects of vaccination.
- Health workers had differing opinions on whether supervision occurred frequently enough but agreed that they would like more help from supervisors on motivating difficult clients.
- There are many problems in service delivery and some missed opportunities to vaccinate caused by lack of supplies at EPI sites.
- Neither health workers nor mothers understand the concepts of surveillance and reporting of diseases.
- Health workers rarely emphasize the importance of card retention or examining cards during home visits.
Mothers' awareness of EPI is high, and their knowledge of details of EPI is low, but their use of services is high; mothers' positive actions are rarely reinforced by health workers.

(Female) Family Welfare Assistants are less active in immunization than they were in the past few years; it is important that a female vaccinator be present at every site.

Many mothers think that measles vaccination is given during the first three visits and consequently do not return at 9 months.

These findings were presented to the more than 50 participants of a workshop that planned EPI activities for 1992. There was a consensus that one priority of EPI should be training for field workers on interpersonal communication skills and refresher training on technical skills.

**Focus on Interpersonal Communication**

Study findings indicated that although the majority of field workers had correct knowledge about mothers' information requirements, the percentage of workers who communicated essential information to mothers was extremely low.

**Percentage of Workers Having Correct Knowledge about Mothers' Information Requirements**

| No. of visits required for full protection (4) | 88% |
| Knowledge of side effects | 77% |

One notable finding of the study was that there is a significant discrepancy between what field workers say they do as part of their job and what they were actually observed to be doing.

**Frequency of Health Worker Communication about Immunization**

| What they claimed | What was observed |
| Tell when to return | 52.5% | 24.2% |
| Tell about side effects | 72.6% | 37% |

**Health Worker Training in Interpersonal Communication**
EPI staff believed that both insufficient training received by field workers and inadequate supervision were contributing most to the gap between knowledge and practice of field workers for communicating immunization information to mothers.

During 1989, when immunization service delivery was made fully operational throughout Bangladesh, all field workers received a nine-day training on EPI service delivery. Three of the nine days were devoted to communication and social mobilization. The three communication modules covered:

1. **EPI and Social Mobilization** (focus on advocacy and local-level meetings);
2. **Use of Communication Materials**; and
3. **Social Mobilization and Communication** (focus on interpersonal communication skills).

Training was provided to approximately 30,000 field workers: health assistants (HAs), family welfare assistants (FWAs), family welfare visitors (FWVs), and municipal vaccinators (MVs). Training was coordinated with the phasing in of immunization services, starting with eight subdistricts in Phase I; 62 in Phase II; 120 in Phase III; and finally 270 in Phase IV. A core group of eight medical doctors was assigned the task of nationwide training of mid-level managers, who in turn trained the field workers.

After the training was completed, there were no systematic efforts made to monitor the impact of training on communication and social mobilization activities or to reinforce what was taught. Although immunization activities are being monitored by a supervisory checklist, it does not include any information on communication activities of field workers. Thus, over time, the gap between knowledge acquired during training and practical application of what was learned continued to widen.

**Action Program**

EPI is now working with UNICEF, the USAID-funded urban EPI project, UNICEF, and others to finalize a module for training district-level trainers who will teach health workers how to communicate key messages about immunization and other health topics to mothers. Over the next few years, 45,000 local health workers and supervisors throughout Bangladesh are expected to receive this training.

On the basis of the study findings, the EPI believes that many more mothers would bring their children to complete the required series of immunizations if they received some basic information and encouragement. Parents' basic information requirements were identified as:

- the benefits of immunization;
- when and where to go for immunization services and the total number of visits required for full protection;
counseling on mild fever and pain after immunization; and
the importance of card retention.

In addition, the needs assessment study suggested that field workers could routinely collect information from mothers about case incidence if health workers were well oriented.

It is recognized that the manner in which health workers talk to mothers plays a major crucial in acceptance of these messages. Therefore, health workers will be taught how to:

- show respect and concern,
- ask questions to ensure messages were understood, and
- use visual aids to ensure clear understanding of messages.

After health workers are trained, program managers and supervisors will monitor both the communication of key messages to mothers and the manner in which health workers deal with mothers.

Proposed Targets for Training

Behavior change implies that mothers will voluntarily bring their children to begin and complete the required series of immunizations within one year of birth. In addition, retention of immunization cards by mothers suggests that benefits of immunization have been recognized. The WHO standardized coverage survey forms have a provision to measure both the above indicators. However, to promote behavior change more effectively, communication interventions also need to be supervised and monitored.

It is expected that future training will result in improved interpersonal communication practices of the field workers from the current level of practice. Current levels, based on findings of the needs assessment study, will be used as baseline indicators for monitoring communication practices of field workers. Within one year after training it is expected that indicators of field workers' practices will improve as follows:
**Practice Indicators**

<table>
<thead>
<tr>
<th>Practice Indicators</th>
<th>Baseline (Urban/Rural)</th>
<th>Expected (National)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Show respect to mothers</td>
<td>70/71%</td>
<td>100%</td>
</tr>
<tr>
<td>* Ask questions and listen to ensure mothers understand</td>
<td>25/14%</td>
<td>50%</td>
</tr>
<tr>
<td>* Use visual aids to help mothers clearly understand</td>
<td>22%/22%</td>
<td>50%</td>
</tr>
<tr>
<td>* Provide 5 key messages to mothers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Benefits of Immunization</td>
<td>53/24%</td>
<td>75%</td>
</tr>
<tr>
<td>2. When and where to go and total number of visits required</td>
<td>62/36%</td>
<td>75%</td>
</tr>
<tr>
<td>3. Expect mild fever and pain after immunization</td>
<td>46/25%</td>
<td>75%</td>
</tr>
<tr>
<td>4. Retain the immunization card</td>
<td>54/36%</td>
<td>75%</td>
</tr>
<tr>
<td>5. Inquire about cases of polio &amp; neonatal tetanus</td>
<td>0%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Note: Figures in the baseline column are derived from the study "Needs Assessment of Field Workers Involved in the Expanded Programme on Immunization."

**How Effectiveness of Training Will Be Monitored**

Direct observation of workers in the field will be used as a method to monitor effectiveness of training received by workers on interpersonal communication skills. An observer checklist has been developed as a recording and reporting tool (see below). Supervisors and/or expert evaluators will use this checklist to measure behavioral indicators by which to judge if expectations of this training are being met. These indicators will be monitored as follows:

Short term: For the first year after completion of training, a qualified and experienced organization will be sought to monitor effectiveness of training, and will report findings to EPI, Directorate General of Health Services.

Long term: Subsequently, questions on EPI will be included in the EPI supervisory checklist and supervisors will monitor selected field worker practices.
In addition questions on knowledge on the immunization schedule will be included in WHO standardized cluster surveys which will be conducted on an annual basis.

Supervisor/Observer Checklist

(For observing field workers at vaccination site; during house visit; and during group education)

The observers will put a check mark to indicate if the health worker was effectively communicating with the mother.

WHAT THE FIELD WORKER DID:

A. Show respect to mother by greeting her
B. Ask questions and listen to ensure mothers understood
C. Use visual aids to make mother clearly understand

WHAT THE FIELD WORKER ASKED ABOUT IMMUNIZATION:

1. **Ask:** "Do you know how your child will benefit from immunization?"
2. **Ask:** "Do you know when and where to return for the next immunization?"
3. **Ask:** "Do you have any concern?"
4. **Ask:** "Do you know where to keep your card so that it is safe?"
5. **Ask:** "Has your baby shown signs of paralysis in the arms and legs? Do you know if any child has died within fifteen days of birth within your community?"
Appendix F

**Popular Film Attracts Attention to Health**

Since the mid-1980s, Bangladesh's Expanded Program on Immunization (EPI) achieved a rapid increase in immunization coverage through major efforts in training, service organization, and social mobilization. Beginning in the late 1980s, EPI, with important support from UNICEF and the Resources for Child Health (REACH) Project, has implemented an energetic multimedia awareness-raising activities, including use of the "moni" logo (a baby in a circle protected from six diseases); signs, paintings, placards, radio and television programs; wide press coverage; major special events such as the visit of international cricket star Kapil Dev and the Maa-O-Moni soccer tournament.

One notably successful tool for creating awareness and improving public attitudes towards immunization was a 48-minute film produced in 1990 for the Ministry of Health and Family Welfare (MOHFW), with assistance from Johns Hopkins University/Population Communication Services (JHU/PCS) and the REACH Project.

"Swapner Shuru" (The Dream Begins) was written and directed by some of the country's foremost talents. Produced in 16mm, the film reflects the style and pace of popular Bangladeshi cinema in order to educate the audience through their favorite media. The story is in two parts, each containing subtle messages on the economic and health benefits of smaller families and immunization, as well as on the value of educating girls, good nutrition, and on the negative consequences of the dowry custom. Famous film personalities act out sequences of romance, rivalry, family bondage, and the joys and pains of life, breaking into song and dance on several occasions.

**Pretest Findings**

Many questions concerning the film's potential effectiveness were answered in a thorough pretest in January 1991 with 400 low-income viewers (rural and urban, men and women) in 13 showings.

- **Entertainment value:** 29% rated the film excellent, 80% good, 11% average, and 0% poor. Over 84% said they would be willing to pay to see the film.

- **Most important messages remembered:** Some 90% identified family planning messages and approximately 80% immunization messages.

- **Specific immunization messages remembered:** Over 90% remembered that the principal female character was immunized during her pregnancy. 93% of female respondents and 82% of males correctly remembered the age that the baby was immunized (6 weeks) for the first time. Somewhat lower numbers, although still high, understood that polio caused one character's lameness and that tetanus caused an infant's death.

Comprehension of the messages by rural and urban audiences was not significantly different, and women understood messages even better than men. Although problems
were anticipated by some, men and women in rural areas showed no visible evidence of embarrassment when watching the film together.

Use of the Film

Swapner Shuru was inaugurated on February 9, 1991 by the Joint Secretary, MOHFW. Representatives from the Information, Education, and Motivation (IEM) Unit, Planning Unit, EPI, Directorate General of Health, Directorate General of Family Planning, USAID, and JHU/PCS attended the inauguration. Subsequently, the first show was given in a densely populated Dhaka slum on October 6, 1991. The mayor addressed the audience before the show and spoke about the benefits of family planning, immunization, and girl child education.

Since the launch, EPI has given over 100 showings of the film in the slums of Dhaka and in villages of Bogra District in Rashahi Division. In addition, the Ministry of Health has been showing the film in rural areas of Dhaka Division, and the national social marketing of contraceptives program has shown the film many times via its 16 mobile film units.

If one can judge on the basis of crowds and enthusiasm, Swapner Shuru has gained significant popularity among the slum dwellers of Dhaka and the villagers of Bogra. As many as 3,000 enthusiastic viewers -- men, women, and children -- attend the urban shows.

Every show is preceded by a speech by a local leader on community development, with emphasis on family planning and immunization. The projectionist gives the audience a brief description of the contents of the film and repeats key messages before, during (a brief break between part 1 and part 2), and after the film. Very importantly, referral slips that contain key immunization messages and the specific time (usually the next day) and location of the next immunization session in the area are given to the audience.

One positive yet unanticipated occurrence has been the willingness and enthusiasm of local leaders to become associated with such a popular event. Such individuals as rickshaw union leaders, chairmen of truckers' associations, headmasters of schools, ward chairmen, etc. take over the publicity for the film and actively participate in the showing and speeches. The projectionist claims that because the leaders recognize the importance of the film as a political leverage to draw crowds, there have been instances when neighboring local leaders have had a tug-of-war for screening in "their" neck of the woods.

Evaluation

After the EPI projectionist shows the film, he asks five or six viewers to answer questions concerning their reaction and recall of key messages. Responses are similar to those in the film's pretests. The projectionist has developed a format for recording EPI attendance at the nearby vaccination sessions prior to and after the each show. Most of the records indicate an increase of approximately 50% in numbers of immunizations given.

In June 1992 an analysis of attendance at immunization sites in slums where the film was shown in February was carried out. The number of immunizations in every
session from January through May was collected in an attempt to gauge whether the film’s positive impact lasted over several months. (These are outreach sessions held at a school or similar location within the slum.) The analysis is somewhat distorted because Ramadan occurred from March 5–April 4. Citywide coverage dropped by approximately one-third in March and recovered only slightly in April. Attendance figures for sessions during Ramadan are followed by (R).

<table>
<thead>
<tr>
<th>February Sites</th>
<th>Attendance at Previous Sessions</th>
<th>Attendance at Subsequent Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tegijaon Truck Stand</td>
<td>12/13/16/16</td>
<td>31/16/31(R)/11(R)/14/22</td>
</tr>
<tr>
<td>Agargiaon (Tal Tola)</td>
<td>31</td>
<td>36/28/31/16</td>
</tr>
<tr>
<td>South Begun Bari</td>
<td>22/22</td>
<td>35/22(R)/11/22</td>
</tr>
<tr>
<td>West Shawarapara</td>
<td>18/21</td>
<td>36/19(R)/21/30</td>
</tr>
<tr>
<td>Kuni Para</td>
<td>11/16</td>
<td>31/16/15</td>
</tr>
<tr>
<td>Shah Ali Bagih</td>
<td>10/12/18/16/16</td>
<td>31/29/30</td>
</tr>
<tr>
<td>Tegijaon</td>
<td>19/12</td>
<td>25/21(R)/19/17</td>
</tr>
</tbody>
</table>

Although attendance rose at all sites immediately following the film, except at one or two sites, the impact of the film in subsequent months is difficult to discern. Further study is clearly warranted.

**Future Plans**

Based on the success of Swapner Shuru, EPI would like to expand its film program. First, EPI believes that there is a vast audience for the movie in rural areas. Given the lack of entertainment in rural communities, a movie of this caliber would be well received and could have a significant impact. Second, taking into account the movie’s usefulness and cost-effectiveness (less than US$10 per showing), EPI would like to see similar films on immunization and other important health topics produced.

Originally, it was planned that Swapner Shuru would be shown in public movie houses, but EPI has not yet been able to arrange this. Also, it is realized that showing the film in isolation of the speeches, discussions, and referral slips would have a much more limited impact on audience attitudes and behavior.

**Conclusions**

The beauty of such an entertaining film is that it can be targeted at the highest-risk populations -- urban slums or rural districts with the lowest coverage. Although the movie itself does not teach all that parents need to know...
in order to know how to and be motivated to have their infants fully immunized, it does attract and entertain tremendous numbers of viewers who can then be given additional information, and it disposes them positively toward immunization, family planning, and other important social programs. Again, the movie alone cannot improve the quality, convenience, and acceptability of health services, but it can help attract the public initially, a public that is likely to return if services and treatment are satisfactory.

The precise role of the film itself in influencing behavior change among parents of partially and never-immunized children is unknown, but it is quite clear that as part of an overall strategy of information, education, and service delivery, Swapner Shuru has been extremely valuable.
Appendix G

Immunization Scores with Football

Since the mid-1980s, Bangladesh's Expanded Program on Immunization (EPI) has achieved a rapid increase in immunization coverage through major efforts in training, service organization, and social mobilization. Beginning in the late 1980s, EPI, with important support from UNICEF and the Resources for Child Health (REACH) Project, has energetically implemented multimedia awareness-raising activities, including use of the "moni" logo (a baby in a circle protected from six diseases), signs, paintings, placards, radio and television programs; wide press coverage; production and extensive showings of a very entertaining, soap-opera-style film containing messages on immunization, family planning, and other social topics; and such major special events as the visit of international cricket star Kapil Dev and the Maa-O-Moni football (soccer) tournament.

This article describes the first Maa-O-Moni (Mother and Child) Gold Cup Football Tournament and how lessons learned from the first experience are being incorporated into planning for the second tournament, scheduled to take place in August and September 1992.

The first tournament was organized at a time when international attention was focussed on Bangladesh's heroic efforts to increase the percentage of fully immunized from 2% in the early 1980s to the 80% Universal Childhood Immunization goal by the end of 1990. The tournament was a major effort to increase awareness of the importance of immunization, particularly among fathers. Although fathers do not commonly take infants for their immunizations, their permission or support is crucial in many families, particularly in rural areas. The basic strategy was to utilize football as a channel for communicating EPI information and for positioning child immunization as essential for good health. A secondary objective was to reach government and nongovernmental authorities, to create or reinforce positive attitudes toward EPI.

In Bangladesh, football is by far the most popular sport among rich and poor alike; unlike any other sport, football is wildly popular throughout the country. Fans follow games with unequalled passion, as evidenced by club flags flying over every neighborhood and village square.

The First Maa-O-Moni Football Tournament

During the summer of 1990, the USAID-supported REACH Project assisted EPI in sponsoring the first Maa-O-Moni Gold Cup Football Tournament in conjunction with the National Sports Council (NSC) and the Bangladesh Football Federation (BFF). Twenty-five matches were played around the country by eight major league and six district teams. There was daily media coverage by radio, television, and newspapers, and the final match was broadcast live throughout the country on radio and television. Two professionally produced TV spots were aired continuously for one month to reinforce EPI messages before and during the tournament. Sports commentators repeated key messages about immunization every 15 minutes during the final match.
In order to publicize the tournament and establish immunization's association with sports and good health, a series of promotional activities, including TV and radio messages, press releases, posters and children's rallies, were staged during the month before the matches. National football heroes participated in these activities, taking individual initiative to appeal to their fans "to take heed."

The Maa-O-Moni Cup, a two-and-a-half foot, gold-plated trophy, embossed with EPI messages, was presented to the Minister of Health by the U.S. Ambassador in a televised ceremony a month before the tournament began. At the close of the final match, the trophy was awarded to the winning team, the Mohammedans, before a live audience of 70,000 fans, a television audience of almost three million, and a radio audience of over four million. The presentation was made by the Vice President of Bangladesh, with the Director of EPI and the Acting Director of USAID/Bangladesh participating.

The Maa-O-Moni Gold Cup Tournament was a major success in creating mass awareness of EPI and the benefits of immunization. The concept of promoting immunization through football was overwhelmingly accepted by the public and by national and community leaders.

After the tournament ended, requests poured in from schools, colleges, and clubs throughout the country seeking permission to join in the fight by holding local football matches in support of EPI. Local groups organized mini-tournaments, not just for football, but also for chess, cricket, and handball, all under the name of Maa-O-Moni.

Although there was no formal effort to evaluate the specific impact of the tournament on men's knowledge, attitudes, and practices, the REACH Communications Officer did design and conduct a small intercept study of 20 adult males (rickshaw pullers) in Dhaka two months after the tournament ended. The main findings of this study were the following:

- 16 of 20 respondents said that they knew about the basic immunization program.
- Their sources of information about immunization were radio (6), television (7), football (unprompted) (2), football (prompted) (5), Health Assistant (2), and Family Welfare Assistant, local men's group, local political leader, NGO health educator, and imam (1 each).
- None of the respondents knew that how many visits (4) were required for full immunization but 8 said 3 visits. This finding parallels the finding of the 1991 Needs Assessment Study that many mothers think only three visits are required.

It is difficult to make firm conclusions on the basis of this small study, but it is encouraging that 7 of 20 poor fathers claimed to have heard about immunization through the football tournament. The total expenditure for the tournament was US$28,600.

The Second Maa-O-Moni Football Tournament
EPI communications planners are now in the final stages of preparing the second Maa-O-Moni Football Tournament, to take place in August-September 1992. It is hoped that the second tournament can duplicate the immense success of the first in media reach and in creating positive, supportive attitudes among men toward immunization. A number of important modifications are being introduced in the upcoming tournament:

- There will be more targeted message design;
- There will be a major emphasis on the importance of measles immunization; and
- Tournament organization is being decentralized.
- The tournament's effect on fathers' knowledge, attitudes, and practices will be more systematically evaluated.

**Message Design**

The messages used in the first tournament were effective in associating immunization with football and health and for disposing the audience to support immunization. Major messages were "A healthy child; a sure winner" and "Immunize your child and protect against the six dangerous diseases."

In organizing the second tournament, however, EPI, with support by the USAID-supported municipal immunization project and REACH, carried out a small qualitative study (in-depth interviews with 30 fathers -- 12 urban and 18 rural, fathers of fully, partially, or non-immunized children to learn about:

- fathers' actual role deciding and taking their children for immunization,
- what essential information fathers lack,
- what benefits fathers of fully immunized children (approximately 65% nationwide) feel they have derived from their child’s immunization, and
- what factors or attitudes are preventing some fathers from being supportive.

Among these possible negative attitudes are:

- fathers' unwillingness to permit wives go out in public for a reason not deemed essential;
- the cost of transportation to the immunization site;
- the time required to bring the child several times, time that could be spent in doing household chores or earning income;
- side effects that occurred after an immunization; and
o attitudes toward measles in particular, e.g., (1) that many children get measles either before they are immunized or even after being immunized or (2) that this is a normal childhood disease and that it is the father's duty to pay for medical care for the child with measles.

The study found that...[to be completed when English summary received from Bangladesh]

Messages can now be designed to give fathers the specific information or motivation they are lacking.

Emphasis on Measles

In Bangladesh, as in almost all countries, measles and neonatal tetanus cause the deaths of many more infants and children than the other immunizable diseases. Yet measles coverage in Bangladesh is only ... percent, ... lower than the previous immunizations in the basic series (DPT 3 and polio 3). Many factors contribute to this situation. Some are attitudinal, as mentioned above. While generally quite effective, the vaccine is not perfect (a small portion of children are susceptible despite the immunization), and the timing of the immunization remains problematic. While the tenth month is the optimal time for infants as a whole, this is too late for some infants, particularly in urban areas, where measles may strike earlier. Unless they are individually reminded, mothers may have a difficult time remembering when to bring back their children for the measles vaccine, since the interval between measles and the previous immunizations is so long (5-6 months). In Bangladesh specifically, research shows that many mothers believe that only three immunization visits are necessary, so that the immunization given on the fourth visit (measles) is often missed.

Because of all these factors, EPI planners have decided to emphasize information and motivation concerning measles immunization in the messages associated with the second Maa-O-Moni tournament. "Let's kick measles out of Bangladesh" is one of the key slogans, and other important messages will emphasize four visits and the age of measles immunization. EPI is complementing these mass media messages with nationwide training for health workers in interpersonal communication.

Decentralized Planning

The first tournament was planned in Dhaka, and games were held only in major cities. This year's tournament, in contrast, will reach remote areas of the country as well, where immunization coverage is below the national average. The Bangladesh Football Federation, in conjunction with local health and civic authorities, will organize district-level tournaments for under-14 year olds. Winning district teams will represent the four divisions in a final championship round to be played in Dhaka.

Evaluation
The 1992 tournament will be evaluated in Dhaka by conducting intercept interviews with (100) men before and after the tournament. Men will be asked about their awareness of the tournament, recall of major messages (particularly concerning measles), and attitude toward having their children fully immunized. Organizers of local tournaments will be encouraged to conduct similar surveys.
Appendix II

Teaching Immunization in Schools

Bangladesh's Expanded Program on Immunization (EPI) has been notably successful in rapidly increasing the level of protection afforded the nation's children against six basic vaccine-preventable diseases -- tetanus, measles, diphtheria, pertussis, polio, and tuberculosis. Thanks to a massive effort by the government, external donors such as UNICEF and USAID, and many nongovernmental organizations, the percentage of fully immunized one-year-old rose from 2% to 65% in the past decade.

Coverage levels need to be raised further before disease control and eradication goals come into sight. Except perhaps in a few isolated localities, basic access to immunization services is not a major obstacle, since over 90% of all infants receive at least one immunization. However, assuring that all infants who begin immunizations return for the four visits required to complete the basic series, ideally at the appropriate ages, remains a challenge.

Surveys indicate that thanks to wide-ranging social mobilization activities over the past several years, the population's general awareness and knowledge of immunization is quite high. Still, many attitudinal and practical problems remain.

Since 1988, CARE, the national EPI, and the USAID-supported urban EPI project, have been teaching a lesson on immunization in junior high school classrooms in Khulna Division. The lesson is designed to teach the students of grades six, seven, and eight basic information about immunization and immunizable diseases. As a practical application of what they have learned, students are then asked to identify and motivate ("channel") mothers to bring in their eligible children for their immunizations.

The dual goals of the school immunization program are to:

- help raise coverage among current infants,
- help schoolchildren become knowledgeable and responsible parents in five or ten years when they have their own children. Educating schoolchildren, year after year, about immunization could make a major contribution to the EPI's goal of making immunization a social norm (a normal practice of families).

This article reviews the conceptualization and growth of the school immunization program in Bangladesh, the first pilot project, and its gradual expansion to a demonstration project in all of Khulna Division (one of four divisions in the country).

The Pilot Project

The concept of a school immunization program emerged in 1986-1987 in discussions among CARE field staff and their supervisors. At the time, the national EPI was just gearing up, and national social mobilization activities had not yet begun.
The first school project was drafted early in 1987. It was based on the assumptions that teachers could teach students about immunization and that students could use that information to motivate parents. Five messages were formulated, in part because a student could count them off on the fingers of one hand. The initial idea was that each student would talk to his own parents plus those in the closest house north, south, east, and west of his own house.

In 1988, EPI accepted CARE's proposal and suggested that a standardized lesson plan be developed. The lesson plan, designed by EPI with assistance from CARE and the USAID-supported Resources for Child Health (REACH) Project, was tested in two districts.

Subsequently, in 1989 EPI, CARE, and REACH staff modified the lesson plan and designed a bookmark with EPI information and space to record the names of mothers and children referred to immunization sites. The lesson plan contained instructions to the teacher on how to conduct a lesson on immunization, starting with recognition of the six diseases and leading to the vaccination schedule for children under one and for women 15-45 years old. The lesson plan also explained how to use the bookmark.

The modified lesson plan and bookmark were introduced in the schools of six upazillas in Khulna Division as a pilot project. During late 1989, the pilot project was evaluated by the Ministry of Health and Family Welfare (MOHFW), assisted by CARE. As part of the evaluation, CARE staff conducted home visits to solicit feedback on message dissemination by students to parents. In total, 585 students, 133 parents, and 18 teachers were involved in the evaluation. It was found that:

- 88% of parents had been informed of the immunization program by students;
- 89% of the students filled out the bookmarks correctly, and 45% of the parents helped them do this;
- One third of the teachers could understand the lesson plan only with outside assistance; and
- 78% of the students could describe all of the messages and less than 7% could describe none.

The general conclusion was that this was a very positive experience that should be expanded. An important finding was that the lesson plan needed to be simplified and made clearer. Although the evaluation noted that "the impact of the lesson will greatly increase and become personalized .... [if] young women ... get at least 2 TT shots before leaving school," this has not been possible to introduce yet because of logistical problems.

Planning Program Expansion

After the evaluation, CARE, EPI, UNICEF and REACH held a series of formal and informal planning meetings with the participation of the EPI communication section to plan for expansion of the school program. They realized that a number
of operational questions had to be answered more completely before the program "went national." These included how best to train the teachers, to supervise and monitor the program, to motivate the students, and to link the education with immunization services.

The collaborating groups proposed a joint program of the MOHFW and Ministry of Education (MOE). The initial plan was to launch the program in all 96 upazillas of Khulna Division. It was hoped that subsequently BRAC, RDRS, and other NGOs would assist EPI implement the school program in the remaining three divisions.

By the summer of 1990, the lesson plan and bookmarks were revised by the EPI, with assistance from CARE and REACH. The MOE sent a directive to all junior high and high schools in Khulna, requesting their cooperation.

The Khulna Division School Immunization Program

Implementation of the division-wide program began in 1990 with the orientation of teachers in three upazillas by EPI supervisors at the upazilla level, with assistance from EPI, the REACH Urban Operations Officer/Khulna, and CARE staff.

The bookmarks used in the program have two sections. Side one is for students to put their class schedule and also contains the five key EPI messages to be communicated to parents. The second, tear-off section has 21 spaces for writing names and addresses of parents to be given the messages. When the bookmark is filled out, the student detaches that part and submits it to the teacher. MOHFW staff collect these.

During the first month, each student is expected to give messages to seven parents of children under age one, entering their names on the bookmark. The teacher reviews this and discusses any problems with each student. The student contacts seven additional mothers in each of the next two months.

Schools may also organize the most enthusiastic students into a team, which, with a teacher, conducts home visits. The team either informs mothers of the place and time of upcoming immunization sessions or accompanies mothers to the actual sessions, if this is the preference of the Health Assistant running the session. Students in urban areas, where literacy is generally higher, have referral slips to give to parents. The slips contain the five basic immunization messages and the time and location of the nearest immunization site.

Health Inspectors, Sanitary Inspectors, and EPI Managers are to monitor the program. At the end of three months, the school completes a reporting form on referrals by students (supplied by EPI headquarters) and submits it to the Upazilla Health Complex. The UHC compiles the information and submits it to the District Civil Surgeon's office, which forwards a compilation of the district figures to EPI headquarters.

In 1991, 10,000 lesson plans and 250,000 bookmarks were distributed to the 14 districts of Khulna Division, and EPI headquarters medical officers began training EPI supervisors who in turn are orienting headmasters and science teachers from all junior high schools.
During 1992, it is expected that this program will involve:

- 914 schools (178 urban and 3 rural districts),
- 1,828 headmasters and science teachers,
- approximately 137,000 sixth to eighth grade students, and
- 959,000 mothers contacted (assuming every student contacts 7 mothers and none contacts the same mother).

The University of Dhaka will conduct a project evaluation. This evaluation is expected to collect information on:

- the effectiveness of the lesson plan in increasing BPI knowledge among students;
- the effectiveness of the lesson plan in influencing mothers to take their children to immunization sessions;
- the acceptability of the lesson plan format by the teachers; and
- the utility of the bookmark.

Discussion

On the basis of field experience thus far, project organizers feel that certain aspects of the implementation and monitoring procedures need to be simplified if they are to be introduced successfully on a national scale. For example, the program may decide to drop the recording, tabulation, and reporting of the names of mothers who are referred, in order to reduce the burden on teachers and health staff. Small surveys of mothers in communities and at immunization sites may be substituted to collect the same information.

It is also evident that the manner in which teachers are initially oriented is extremely important. Teachers in Bangladesh, who, like teachers almost everywhere, are overworked and underpaid, need to understand the important benefits of their participation to their students' development and their communities' health.

After several years of conceptualizing and refining the program, planners have concluded that it is the second, long-term goal of preparing a more educated citizenry that is the more important. With coverage rates already at 60-90% in most areas, the impact on overall coverage of schoolchildren motivating mothers is likely to be modest. However, the students' talking to mothers is considered important because: (1) it reinforces and makes practical the information learned in class and (2) those mothers motivated are likely to be among the poorest, highest-risk families that other social mobilization efforts had not reached or convinced.

It is expected that once the next set of program refinements are made, the program will be extended to all four divisions of the country over the next few
years. It is also hoped that the classroom curriculum devised by the program will be incorporated into the Ministry of Education's next revised curricula for grades six, seven, and eight.