

DPAKA: Volunteers Against Diarrhoea

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DHAKA: VOLUNTEERS AGAINST DIARRHOEA

A CASE STUDY

PROWESS/UNDP Technical Series:
Involving Women in Water and Sanitation-
LESSONS, STRATEGIES, TOOLS

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PROWESS/UNDP CASE STUDIES

The experience of involving women in community water supply and sanitation is still quite limited. This is why PROWESS was created: to demonstrate how women's participation can be achieved and what benefits this brings -- what works, how and why.

Therefore, at this point we find case studies central to our purpose and try to emphasize two elements:

The richness of varied experiences

The participatory process by its nature cannot be planned in a blueprint fashion. From the beginning, the intention in PROWESS was to work with as wide a variety of programmes as possible, and to leave the process very open. Therefore, the cases studied also vary greatly. They track programmes over a substantial period, trying to show dynamics over time, rather than simple input/output relationships. We focus on the process of change in perceptions and behaviours at community and other levels, growth of institutions, developing cooperation between communities and external agencies, how challenges were encountered and met, as well as the development of self-help groups and their actions even beyond the water/sanitation field.

An analysis of this variety of information is, however, revealing common traits which can be used in formulation of future programmes.

Effective and sustainable use

We find it necessary to define what we call "success". Our best wording at this point is "effective and sustainable use" of replicable water/sanitation services. We try to define indicators, and include under "sustainable" such indicators as problem solving abilities of individuals and communities, affordability, cost and replicability, and under "effective" such indicators as hygienic, economically and socially beneficial, consistent, not wasteful, environmentally sound use.

We seek to include opinions of the various actors. This is difficult and somewhat risky, but we find opinions in themselves to be important indicators. On the other hand, we also try to develop quantitative indicators for such elusive concepts as status of women, level of participation, quality of life.

The case studies are developing over time and we would be grateful for comments and feedback.

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DHAKA: VOLUNTEERS AGAINST DIARRHOEA

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LOOKING BACK - LESSONS LEARNED

Diarrhoea is a major killer of children worldwide, and Bangladesh is no exception; it is estimated that 43% of deaths to children 1 month - 5 years of age are due to diarrhoea (1).

Two million people, about half the population of Dhaka, live in overcrowded slums, with a highly transient population. The Urban Volunteers Programme (UVP) of the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) has shown how a health education and service programme can work even in these slum areas, relying on women living in the slums and on available resources.

The programme was begun in 1981, partially to relieve the case load of ICDDR,B clinics. The hope was that bringing improved health care and sanitation practices into the home would be a cost-effective alternative to clinic-based care.

Over the years 1981 - 1987, 1822 volunteers from the slum areas were trained. By 1987 about 1550 were found still to be active, spending 2-60 hours a week promoting health.

The programme grew to include many services provided by women volunteers in the communities. To quote some statistics from the year of 1987 (2):

- 109,421 patients with diarrhoea were treated and 768 who were severely dehydrated were referred to the ICDDR'B Treatment Centre
- 2,213 children with xerophthalmia were detected and treated with oral vitamin A
- 477 children received food at three nutritional rehabilitation centres in slum communities
- 3,513 bars of Neem soap were distributed to promote personal hygiene and to treat scabies
- 7,976 mothers and children were encouraged by volunteers to be vaccinated
- 9,469 mothers were referred by volunteers for family planning services

The incidence of diarrhoea in children dropped by 22 per cent in the study population and case load at ICDDR,B did decline.

What are some lessons?

1. Action based within the community

It is possible to develop sound and lasting change in a community using women workers who belong to the existing social fabric and work within it. This was achieved in the face of significant in-and-out migration in the communities, which might lead one to expect weak social structures.

The volunteers were local women, poor, often young and in many cases illiterate. They were thought to be "shy, retiring". Yet after discussions with the appropriate persons within the communities (particularly their husbands or fathers, but also others such as landlords, local leaders - as well as their wives) the women were able to be active workers, going out of their houses, collecting statistics, bringing stool samples to clinics, undertaking health education.

Women in their homes also played an important role. They recorded statistics (e.g. on household morbidity) with the help of forms adapted for illiterate persons. They collected stool samples, they changed their health behaviour.

On the other hand, activities highly dependent on outside supplies and expertise were not successful. The programme staff suggest future programmes consider sending community members for specific technical training after the identification by the community of these persons, and after the community has developed its priorities, to avoid external imposition of goals.

2. Reliable data well used to focus educational content

As noted above, data were collected with a large role for community women themselves. A variety of methods were used and double-checking often showed conventional data gathering (e.g. direct questioning) to be unreliable, as "polite" answers were given. Direct observation and participatory data collection yielded more reliable information.

The research agenda changed a great deal over time as field trials showed the original agenda to be too ambitious. Management was sufficiently flexible to take this to heart in reducing the agenda and redirecting it.

A particularly important finding was that not all the originally identified "desirable" health behaviours had an impact on health. Therefore health education could be better focussed. The programme concentrated on three behaviours which were shown to influence incidence of diarrhoea. These behaviours were already widely practiced in the community - the education merely strengthened the behaviours.

Thus the value of data, well gathered and well used, was demonstrated.

3. Use of Participatory Methods

From originally rather didactic approaches, the management welcomed the addition of more participatory approaches for training and data collection. A local organization, VERC (Village Educational Resources Centre) was identified which had ample experience and could assist in this approach.

The programme had as a premise that beneficial changes can only be achieved through involvement of community members in goal determination. Yet, the programme was not totally participatory - for example the three messages used for health education were decided by organizing staff. However, the communities were responsible for identifying and overcoming barriers to the successful achievement of these initial goals (e.g. converting garbage ponds to fisheries).

4. Use low-cost methods

It is not always essential to invest significant amounts of capital and install major new hardware in order to achieve valuable improvements in health status. The Dhaka volunteer programme made measurable inroads against diarrhoea without a large new programme of well-drilling, pipe-laying, latrine-building or other infrastructure.

Nor were the efforts for public education and treatment services mounted in a cost intensive way. Educational work relied mainly on simple, locally produced materials for use in small groups, plus the channels of neighbourly advice and group sharing of ideas, plans and action.

5. Use of O.R.S.

One of the main functions of the programme originally was to serve as a conduit for delivering ORS (Oral Rehydration Solution) packages. As an example, in 1987 385,463 packages were distributed, and a system for measuring the use of these packages was being set up.

However, what was learned over time, was that distribution of such packages was not enough to ensure usage. As an example, it was noted in 1987 that although the activities of the programme are directed at children younger than 5, "many recipients were not aware of this, and a significant number did not give it to their young children because they did not like it, and most ORS was consumed by older children and adults" (3)

6. Effects on women

Here, as often is the case, women worked as volunteers, although supervisors received small stipends - about \$5.00 per month. Continuation rates of staff, as noted above, were high, yet many did note that they would need income-producing activities to continue. Some began their own activities during the programme. In 1987, objectives of the programme were widened to provide additional skills, e.g. reading/writing and skills which could be used to make money. The programme has received funding to continue and expand, yet the question - should women be asked to work as volunteers - remains a challenge which needs more attention.

Women frequently spoke of the satisfaction they derived from doing something useful for their neighbours, the added status they gained (many were addressed as "doctor") and began to take action to better themselves in many ways.

For the time being as Dr. Bonita Stanton, the Director of the programme 1984 - 1986 wrote in one report:

"...as important as (health services) are, the real contribution of the Urban Volunteer Programme may be in its enhancement of the position of poor women in Dhaka city."

1. Introduction

In early 1981, a new project started in the slums of Dhaka, the capital city of Bangladesh. A small number of women volunteers were recruited from the slum communities for the project, with the support of local leaders. Their job: to distribute packets of oral rehydration solution (ORS)* in their neighbourhoods to help treat diarrhoea, and to dispense information on its causes and treatment.

Within a few years:

- * more than 1,100 volunteers were active in most of the thanas or districts of Dhaka (1986);
- * as many as 70,000 people were being treated for diarrhoea at home;
- * a study in 1,900 households in 51 cluster areas showed that, with health education, the incidence of diarrhoea in children had dropped by 22 per cent.

By 1986 this Urban Volunteer Programme (UVP) had become a model. It had demonstrated what could be done by local women, including many who were illiterate, within their own communities.

How did this happen? How was such a project successfully realized in the slums of Dhaka?

2. The conditions

The programme did not succeed because the basic conditions were favourable. On the contrary, they were forbidding:

Dhaka's overcrowded slums contain two million people -- half the city's population. And the project worked in some of the poorest and more conservative Muslim areas.

The project worked with women volunteers, though women were said to be "shy" and "retiring". Many need a father's or husband's permission to move about the city or work outside their homes.

* ORS is Oral Rehydration Solution, ORT is Oral Rehydration Therapy. The therapy includes the solution as one tool, but has other aspects - referrals, health education, etc.

Levels of literacy, hygiene, health education and primary health care services were generally very low.

Only 23 per cent of residents had access to private latrines. The rest shared with up to 40 families. Many latrines emptied directly into the water from houses built on stilts.

Water taps and tubewells were not always functional. They were often submerged during the rainy season and broke down from heavy use by excessive numbers of people.

In these unsanitary conditions, diseases such as diarrhoea, scabies and conjunctivitis were widespread in Dhaka's slums, especially among children. People from slum areas accounted for a majority of the 100,000 patients treated in Dhaka each year at the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B). The Centre, which has participation by 37 governments and international agencies, is well known interregionally as the place where oral rehydration therapy was first developed as a treatment for diarrhoea.

Faced with this caseload, the Centre decided to seek better and more direct ways of treating and preventing diarrhoea in the slums. Improving the water supply situation was not feasible -- the municipal water supply system did not have the capacity to provide additional water to the slum areas.

Instead of massive clinical programmes, a simpler and cost-effective alternative might be to bring improved health care and sanitation practices into the homes. To achieve this, it would be essential to reach and involve women since they are the main providers of food, drink, hygiene and care for the families in their homes.

The scheme designed by the Centre thus relied on community participation and addressed itself principally to women. This was the Urban Volunteer Programme, launched in March 1981.

WHY IS IT IMPORTANT
TO FIGHT DIARRHOEA?

- Diarrhoeal diseases are the leading cause of child death in the world, especially in developing countries. Five million children under 5 years of age died from diarrhoeal diseases in 1987, UNICEF estimated.

- Dehydration from diarrhoea causes at least three million of these deaths, and 70 per cent of these could have been prevented if parents had been able to use oral rehydration solution, or ORS.

- Diarrhoeal disease is probably responsible for up to half of all child undernutrition. It takes away appetite, limits absorption of food, burns up calories in fever and drains away nutrients. If diarrhoea comes four, five or six times a year, then the slow advance of malnutrition is usually the result.

- ORS is so inexpensive that most families can afford it, and so effective that it is rapidly becoming a treatment of choice in even the most advanced hospitals in industrialized countries.

- Nevertheless, ICDDR,B, which originally developed the ORS, emphasizes that it is not an universal solution. A cereal-based formula to reduce diarrhoea and vomiting is being developed. ORS remains of limited effectiveness in invasive diarrhoeas such as shigellosis. Most important, it is a treatment not a preventive measure. A whole spectrum of preventive measures - improved water and sanitation, health practices such as hand washing, development of new vaccines, are also needed.

Sources: UNICEF, ICDDR,B

3. The programme - 1981-1984

At first, ten slum communities in Dhaka were selected. Each had 40 to 50 families and a high incidence of diarrhoea. The leader of each community was asked to select the volunteers to be trained in the prevention and treatment of diarrhoea. There were only four quite simple criteria for selection; a volunteer had to be:

female
intelligent but not necessarily educated
willing to serve the community
permitted by her father or husband to join the project.

The women selected as volunteers were then given a five-day course to learn how to recognize, prevent and treat dehydration from diarrhoea. Returning to their communities, they began dispensing packets of oral rehydration solution to people needing them. They referred the more serious cases to clinics.

On average, each volunteer treated 12 people a month. At this stage, some effort was made to keep rudimentary records, but it did not go very far.

The programme had two relatively limited objectives at first:

1. to reduce the number of patients attending the out-patient department of the ICDDR,B; and
2. to bring down the cost of treatment to patients and their families.

It soon became apparent, however, that these objectives were being surpassed:

The project was functioning successfully as a primary health care delivery system, based on community participation and carried out by women volunteers.

Moreover, the stereotype that Muslim women in Bangladesh would not participate in a project requiring work outside their homes had been proved incorrect.

The main indicators of performance and participation were coming up very positive:

Volunteers. Additional communities were joining the project, and additional volunteers had to be recruited. By the end of 1983, 750 women volunteers had been trained. The rate of retention was good: more than half of the trainees remained actively involved, some from the very beginning.

Community outreach and home treatment were succeeding. Up to 70,000 patients were estimated to have been treated in a year. The goal of ICDDR,B to reduce the number of patients attending its clinic were being fulfilled. From a peak of nearly 100,000 patients in 1980, the numbers had dropped to 70,000 out-patients in 1984 (see Chart # 1). The UVP intervention was considered at least partly responsible for this drop.

Treatment of females. Half of those treated through the volunteers' in-home efforts were female, compared to only 40 per cent of the outpatients at ICDDR,B. The difference is considered very significant in a country where women would not normally receive as much attention and care as males. It suggests that a community-based system can better reach such high-risk patients.

It became evident that the UVP's technical staff had to be augmented. The original staff had consisted of an Australian nurse volunteer at ICDDR,B named Eva Dougherty and two Bangladeshi nurses* doing the training of volunteers. Now a pediatrician, two school teachers and eventually twelve "field supervisors" were added.

Better ways of recruiting, training and keeping volunteers were also tried. By early 1984, with guidance by the new director, Dr. Bonita Stanton and the field coordinator, Tazkira Khair, 400 active volunteers were getting two weeks of initial training plus periodic refresher courses, instead of only a five-day start-up course. In addition, there was an effort to keep better records to accumulate data on the impact of UVP's work.

Intensive community work had shown some additional simple services were needed if several widespread health problems were to be addressed. So volunteers were now enabled to provide:

- Neem soap to help control scabies;
- Vitamin A capsules to overcome xerophthalmia -- dryness of the cornea, often an early warning of imminent blindness;
- advice to mothers on nutrition and hygiene, topics which were added to the volunteer-training curriculum.

There were plans for a nutrition and rehabilitation centre, using the services of a professional nutritionist, Naomi Philips.

* Regretfully, we do not have the names of many of the Bangladeshi staff.

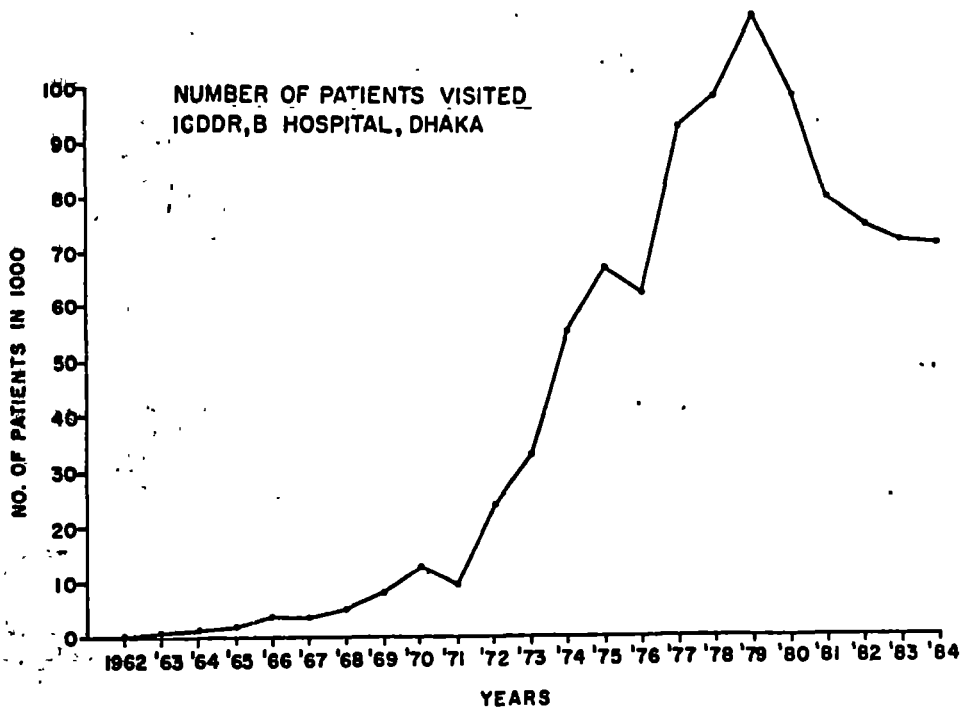
Chart # 1

DIARRHOEA PATIENTS:
AT HOSPITAL OR HOME?

Before 1981, many people from urban slum communities in Dhaka had travelled from all over the city to obtain treatment at the outpatient clinic of the International Centre for Diarrhoeal Disease Research. Its caseload had reached a peak of 100,000 patients a year.

In 1981 the Urban Volunteer Programme began its home treatment efforts for diarrhoea patients in these communities. By 1984, up to 70,000 people were receiving home treatment in a year.

During approximately the same period, the number of patients attending the Centre's clinic dropped to 70,000 by 1984, attributable partly to the volunteer programme according to the ICDDR,B (4).



4. Turning point - mid-1984

Now that community outreach and treatment had spread far and wide in the Dhaka slums, diarrhoeal disease control began to seem possible -- at least on "the treatment side". Training and services for this purpose were in place and working well.

But given the nature of the basic problems in these districts, there were several fundamental shortfalls in the programme as it had evolved by mid-1984:

There had barely been time even to think about long-term prevention strategies -- let alone to design, develop, finance and operate them.

Perhaps the key element in prevention -- community education -- was so far limited to the occasional hygiene and nutrition advice a volunteer could provide during home visits.

There was little organized data gathering and analysis to provide a solid research basis for designing such interventions.

The ICDDR,B saw that the time had come to enlarge and refine the scope of the Urban Volunteer Programme. The new phase would take a two-pronged approach of "prevention through education" alongside the training and service aspects of the original programme.

In order to make the education as effective as possible, a research component was developed to serve as the basis for designing and introducing this intervention.

At this point, the PROWWESS/UNDP programme was called in (see back cover). It contributed funding for the new research and education phase of the Urban Volunteer Programme.

Other donors joining the effort were UNICEF, the Government of Belgium, and the Arab Gulf Programme for United Nations Development Organizations (AGFUND).

The PROWESS contribution financed almost all the personnel and educational materials used in the UVP second phase. For example, field supervisors working on community research/education efforts each received a monthly stipend equivalent to US\$5.00 financed by PROWESS.

Contributions towards strategy development and programme design also came from PROWESS. Extended consultations on participatory methods of training and community development were held with the PROWESS training director. This helped the Dhaka project make important decisions regarding the educational intervention.

WHAT IS THE INTERNATIONAL CENTRE
FOR DIARRHOEAL DISEASE RESEARCH?



Symbol: mother feeding
ORS to her child

Mandate and activities

The Centre is the leading research institution in the world devoted to the development of life-saving tools and strategies to control diarrhoeal diseases, which rank first among the major health problems of developing countries.

It carries out research, training and services from the perspective of developing countries and based on their requirements. For this purpose it mobilizes the necessary scientific and financial resources from throughout the world.

Its predecessor, the Cholera Research Laboratory, was set up in 1960 by four governments. In 1978 the ICDDR,B was created with a broader mandate. It covers all diarrhoeal diseases and directly related problems of nutrition and fertility. Participation and support have come from 37 sources -- developing and developed countries, the United Nations system, other intergovernmental and non-governmental organizations.

The Centre's activities are at the level of the laboratory, individual patients, pilot field tests and large-scale implementation in urban and rural populations with high mortality and fertility.

Urban Volunteer Programme

The special problems of poor people living in the city of Dhaka are the focus of the Centre's Urban Volunteer Programme. More than 1,500 volunteers are providing simple health care to their neighbours, while a research and evaluation component monitors activities to determine which strategies are truly practical and effective.

Self-help, health education and community involvement are keys to the success of this programme which, unlike most health programmes, requires a minimum of capital inputs. It can thus serve as a model for primary health programmes in many cities of developing countries.

5. The programme - 1984-1986

There were three sequential elements in the programme, as follows:

- a. Gather and analyze data on the real health practices of slum families to identify which factors led to a high incidence of diarrhoea.
- b. Design a pilot educational programme aimed at influencing those health behaviours so as to reduce diarrhoea.
- c. Monitor communities with, and those without, the educational programme to weigh its effectiveness.

Thus, much greater emphasis was paid to the research component than previously.

a. Data-gathering

Data-gathering was done all over the Dhaka slums, in 51 widely separated communities (prospective, randomized selection). Included were "backyard" slums, municipal slums and squatter settlements.

In each community, one urban volunteer was selected for special training. She learned to discover and work with her neighbours' motivations concerning health, and to collect information needed for the research and education programme.

i. Census

The initial data gathering was done by a census in the 51 selected communities. Each community included about 38 families. These 1,921 households contained an average of some 5 persons each.

In total, the census yielded information on 10,176 persons. Of these, 2,123 were children under five years of age, the group most vulnerable to diarrhoea and other diseases.

The data gathered in the census covered births, deaths, marital status, household composition and in/out-migration for all communities. Over the following 24 months of the project, the census was updated every three months.

ii. Special surveys and calendars

In addition, special surveys were conducted. Interviews and questionnaires were used to make socio-economic surveys (SES), to determine knowledge, attitudes and practices (KAP), and to recall and record episodes of diarrhoea, conjunctivitis and scabies which had occurred during two-week periods.

Two-week recalls were aided by calendars which were given to mothers to use. Many of the mothers were illiterate, so the calendars used simple pictures to represent diarrhoea, scabies and conjunctivitis. The mothers placed their thumbprints on the appropriate pictures for the dates involved.

At first the keeping of these calendars caused some confusion. But in the end the information they recorded turned out to be quite accurate.

iii. Home visits

Occasional unannounced visits of up to five hours at a time were made to selected families to observe their health practices. These on-the-spot observations brought many insights about real conditions and problems, as well as about motivations. They also served to cross-check the initial findings from surveys.

For example, home visits revealed that some answers given in KAP questionnaires did not correspond to actual practices. When asked if they washed hands with soap after defecation, many women said yes, but observation showed this not to be the case.

Other monitoring included repeated testing of children's stools, water analysis for coliforms in community water sources and household pots, and anthropomorphic and Vitamin A status of all children every 90 days.

iv. Findings

After 3 1/2 months of study, researchers compared the health practices of families with a high incidence of diarrhoea and families with a low incidence. They found the incidence of diarrhoea was high when:

- young children were allowed to defecate in the living area;
- uncovered garbage was left in the same area;

- mothers wiped their children's bottoms after defecation with the edge of their saris, which were then used again to clean mouths, eyes and cooking utensils;
- mothers prepared food without washing hands with soap after defecation;
- pots of clean water brought into the house became contaminated because they were handled with dirty hands and left uncovered;
- animals were present in the homes and their faeces were scattered along with garbage and human excrement where children played.

Diarrhoea definitely occurred less frequently in houses where mothers did pay attention to hand washing, swept their yards and made children defecate in specially designated areas.

What did people know about the effects of these practices?

The studies found that they saw no connection between washing hands or sweeping their yards and the sickness of their children. People did not link the incidence of diarrhoea and other prevalent diseases such as scabies and conjunctivitis to their sanitation practices.

Other correlations were also sought as possible causes or likely indicators of hygiene-related health problems, but found to have relevance:

Relative poverty was not a factor.

Level of education made no difference.

Quality of people's housing had no influence -- whether a bamboo shack or a cement block house.

There was only one chain of cause-and-effect: lack of knowledge leading to poor sanitation practices (and apparently this knowledge and educational level were not correlated).

b. Designing the education programme

Based on these findings, it was now possible to prepare an educational programme to be conducted in the communities by and through the urban volunteers. Its main purpose would be to alter behaviours that lead to high risk of diarrhoea and other diseases.

To be effective, it was decided that the educational programme should have several specific features. It should:

- involve community members in setting goals;
- stress solutions that cost nothing and are simple and acceptable to the communities;
- use local women members as trainers of the volunteers who would conduct education efforts in their communities;
- keep the training informal, with feedback from the trainees on community needs and concerns.

This high level of trainee participation in the formulation of the programme proved difficult to achieve. Continued adjustment in the volunteer training programme was therefore needed to overcome this limitation and encourage greater trainee involvement.

Three main messages were selected for community dissemination in the educational programme based on the unsanitary practices which correlated with diarrhoea. These were:

M A I N M E S S A G E S

- 1 Wash hands after defecation and before preparing and consuming food
- 2 Do not allow small children to defecate in the living area; take them to a latrine or specially designated spots
- 3 Do not keep piles of garbage exposed in the living areas.

d. Operating and monitoring the programme

The original studies in Dhaka slum areas had covered 51 communities, which were therefore relatively well documented. Of these, 25 communities were chosen at random for the operation of the educational programme. The remaining 26 communities, which would receive no educational programme or other special additional intervention, were to serve as control.

COST OF EDUCATIONAL INTERVENTION 1984-1986

The development of the training materials cost less than \$500, the salaries for the seven trainers for five months totalled \$3,885 and the cost of the one permanent trainer and 25 volunteers on stipends for 18 months totalled approx. \$4,000. The annual cost for the research method utilized to identify the three targeted behaviours and to evaluate the impact of the intervention on actual diarrhoea rates was approx. \$70,000 (\$35,000 for the 21 field and central staff personnel, \$15,000 for travel costs and \$20,000 for office, data and computer costs).

i. Recruitment and training

Starting in January 1985, seven university-educated women were recruited as salaried trainers for the programme.

Also brought into the programme were 25 semi-literate women from the existing corps of Urban Volunteers. These women were known to be highly motivated. They had already helped develop training materials on the selected theme messages.

These selected volunteers were to be the main agents for the education programme in the communities. They were especially suitable for this role because they lived adjacent to the 25 selected communities, had socio-cultural backgrounds similar to community members, and had already been active in encouraging their communities to participate in the earlier UVP programme.

At this point, Dr. Stanton called in the Training Director of PROWESS/UNDP, Lyra Srinivasan, for consultation regarding training methods. These consultations, said Dr. Stanton, were "critically important" in setting the basic orientation of the volunteers' training programme.

She stressed the importance of a participatory approach that would involve the trainees actively in their own learning. Using the same approach, they would then help to generate active participation in their communities. This approach contrasts strongly with traditional "top-down" teaching methods.

By 1987, the participatory approach had proved to be the most efficient methodology and had been adopted for the entire curriculum of UVP.

In particular, the UNDP Training Director recommended drawing on the services of a local training institution specialized and experienced in using such participatory methods and community development. This institution was the Village Educational Resource Centre (VERC).

As a result, VERC was brought into UVP staff training at three levels:

- The seven UVP trainers spent the first three weeks of their eight-week training programme learning VERC methods.
- For three weeks, the trainers then worked with the 25 volunteers.
- Finally there were two more weeks of field training.

ii. Consciousness-raising

In the action phase of the education programme, the leaders of each community had to become actively involved. The volunteers and trainers identified these leaders and worked with them person-to-person to secure their co-operation. A few leaders were hostile, but most were ready and willing to cooperate

The role of these leaders proved invaluable. They led by example, and their wives often were instrumental in getting the programme started. Meetings were organized with their help, sometimes with women only, sometimes with their husbands or just their children.

At meetings and small group discussions, the volunteers led people in a three-part process:

- to recognize their problems of hygiene and sanitation;
- to analyze those problems which arise within their families such as personal hygiene, and those which originate at the community level such as environmental sanitation; and
- to take joint action to deal with problems in the community, and to change unhealthy at-home practices.

To stimulate and assist in this process, the participants studied and debated over several kinds of specially prepared educational materials. These visual and participatory aids helped people to speak up in meetings, to identify the issues and needs they faced and to find and compare possible responses and solutions.

Among the material the volunteers used were pictures, photographs, flexiflans, games and films. For example, one picture series portrayed how diarrhoea is spread by a soiled sari which a mother has used in connection with children's defecation and then for wiping eating utensils.

iii. Community and family action.

Soon the communities were taking matters into their own hands. They were diagnosing their problems and organizing themselves to tackle them without necessarily calling on the volunteers. They arranged meetings and designed the necessary improvements.

When help was needed, often it was community leaders themselves who donated money, set aside pieces of land for defecation, or provided other tangible support.

Landlords also pitched in, cleaning out garbage heaps, converting areas into play areas, providing space for vegetable gardens. One landlord allowed the community to use his water tap. Another landlord threatened to evict unsanitary tenants.

A third was so impressed by community improvements that he tried to raise the rent.



TOP: Dhaka
slum area



LEFT: Urban
volunteer on
home visit

If outside resources were necessary, the project tried to help the community obtain them. By early 1986, the United Nations Children's Fund (UNICEF) began to help with some hardware needs. One tubewell was provided at subsidized cost. Latrines were procured and installed.

In some cases it did not work. When action was heavily dependent on outside materials and/or expertise progress was frequently stymied. For example, five communities purchases materials for the latrines, yet only two built them, as they lacked know-how.

Chart # 2

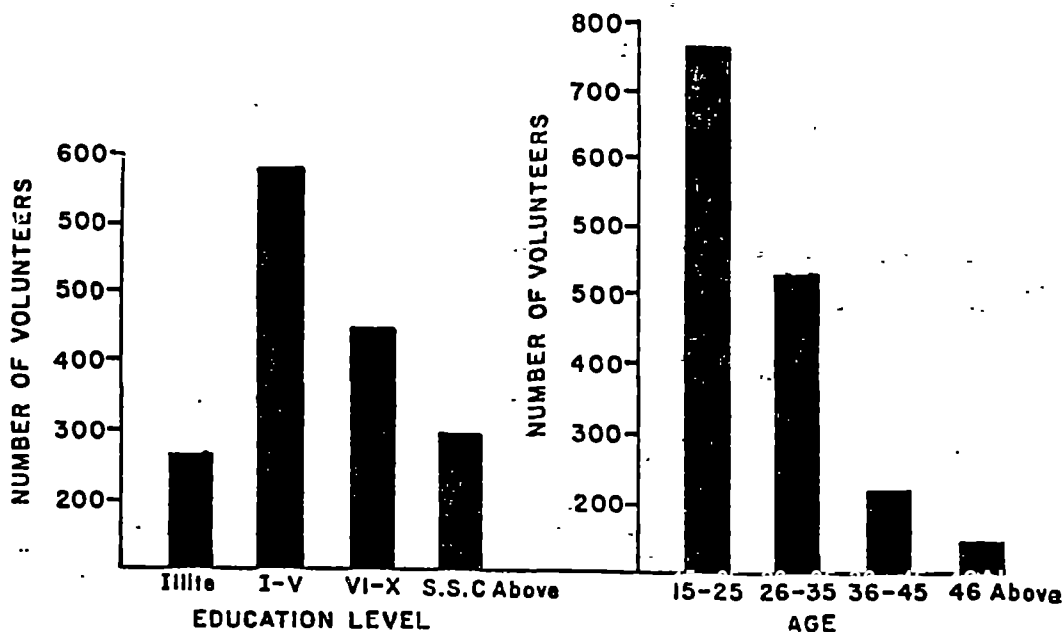
THE URBAN VOLUNTEERS:
WHO ARE THEY ?

There were four criteria for selecting urban volunteers for the education and action programme in the urban slums of Dhaka. The volunteers had to be female, intelligent but not necessarily educated, willing to serve their community, and permitted by their father or husband to join the project.

As of 1986, 17 per cent of the women who had completed training as Urban Volunteers since 1981 were illiterate. Over half either had four years or less of schooling or were illiterate (see chart below).

Another prominent characteristic was the relative youth of these urban volunteers. Over half the women were between the ages of 15 and 25, and a third were 26 to 35 years old.

DISTRIBUTION OF VOLUNTEERS ACCORDING TO AGE AND EDUCATION



6. Impact

a. Health benefits

The impact on the communities was highly visible. The living areas were cleaner. There were latrines and some improved water supply.

At the family level, however, the results were mixed. Only some of the needed behaviour changes took place:

There was a significant increase in the number of mothers who washed their hands with soap before food preparation.

But children continued to defecate in the yards.

Garbage was still present, though in smaller quantities.

The changes that did occur in the communities and individual homes were apparently enough to bring a significant health improvement. As documented through the project's system of close monitoring in the slum areas:

- * The number of cases of diarrhoea fairly soon dropped in areas in areas where the educational programme had taken place, compared to areas with no intervention.
- * A year after the end of the intervention, the number of cases of diarrhoea had dropped by 22 per cent.

It was concluded that the educational effort was working well and producing results which were enduring and spreading. The sustained reduction in disease meant that people were continuing to apply the improved sanitation techniques. The further reduction probably meant that people were spreading their new knowledge and practices to new families who were constantly moving into the slum communities as other families moved out. (See box "What Families Need to Know About Diarrhoea", next page.)

Meantime, gains in child nutrition were being registered in another UVP health scheme in the slum areas. As part of UVP's Nutrition Education and Rehabilitation programme, a community-based Day Care Nutrition Centre was established as a pilot project. It was located in an area where children were severely malnourished and poorly developed.

WHAT FAMILIES NEED TO KNOW ABOUT

DIARRHOEA: MEDICAL FACTS

Diarrhoea is dangerous. It is the most common disease of childhood. It is also the most common cause of malnutrition and death.

The danger to the child's life comes from the emptying of too much fluid from the body. When a child has diarrhoea, it is therefore essential to keep on giving food and fluids. Advice to 'rest the bowel' is exactly the wrong advice and should be ignored -- even if it comes from a doctor.

It is essential to seek help from a clinic, health worker or doctor if:

- the diarrhoea lasts more than three days;
- the symptoms seem much worse than usual; or
- the child will not eat or drink and vomits frequently.

But in the great majority of cases, all necessary action is within the power of the well-informed parent.

To avoid malnutrition resulting from diarrhoea, an extra meal a day is needed for at least a week after the illness is over.

Source: UNICEF



TOP: Malnourished child also suffering from dehydration.



LEFT: Urban volunteer (at left, with supply bag) with neighbour in her community.

Over 140 children attended the five-week programme at the centre. They received supplemental feedings, while their mothers learned about better nutrition and hygiene. The children gained weight faster than average, despite occasional minor illnesses.

Encouraged by these results, women together with the government and UNICEF opened three more nutrition centres, based on the experience of the pilot project. The buildings were donated by women's groups. The centres, entirely run by the women, served as models and training sites for a UNICEF-assisted programme of the Government of Bangladesh to open 20 such centres nationwide.

b. Growth in services

The results in primary health services were impressive. By early 1986 the women actively serving in the network of urban volunteers:

had reached the level of 1,100

were dispensing ORS packets to 7,500 people per month to combat diarrhoea, and referring more serious cases to hospitals were distributing Vitamin A capsules for children suffering from xerophthalmia

were selling 2,300 bars of soap per month at half price to needy families.

In addition, programmes were started to vaccinate all children in the communities. This was done by linking UVP with the Expanded Immunization Programme of the Dhaka Municipality. Thanks to the enthusiasm of the municipality and the volunteers, local drives were organized to get the children to the vaccination centres.

In several cases, UVP served as a model and an example, as in the nutrition centres mentioned above.

Another example is the Dhaka Municipality training programme for municipal workers in diarrhoea prevention and control, nutrition and basic hygiene. The workers were being trained by the UVP women trainers, using their own curriculum to teach the mostly male municipal workers -- an interesting reversal of traditional roles.

In a related development, a diarrhoea clinic, initiated by community dwellers, was opened in Joydevpur. The UVP provided training, ORS packets and some education on nutrition and hygiene. The Municipality helped the community with the centre and some supplies.

The clinic remained open 24 hours a day, seven days a week, and men and women participated as equals in its management, keeping scrupulous records. Neighbouring communities were starting similar centres.

At the conclusion of the first phase of assistance PROWESS/UNDP was providing, the Dhaka project was beginning to serve as a model for similar work in two more cities in Bangladesh. Funding had been approved (five million dollars) by the U.S. Agency for International Development (USAID) to expand the Dhaka urban volunteer programme and start up similar programmes in Chittagong and Khulna.

c. Benefits to women in the programme

The effects on the role and status of Bangladeshi women in the UVP were equally, if more subtly, significant.

UVP personnel, Dr. Stanton reported, were nearly all women. All 21 persons on the managerial staff were Bangladeshi, and 20 of them were women. There were 24 women in the 30-person support staff, consisting of computer programmers, technicians, interviewers, drivers, etc. Of the more than 1,100 volunteers, almost all were women. The beneficiaries were overwhelmingly women and children.

For all of them, their work in the UVP resulted in increased self-esteem and enhanced status in their communities. They were extremely proud of their accomplishments and participated more and more actively in planning future activities.

Where they used to need supervision to move and work outside their homes, they now went everywhere freely. Most of them no longer wore a burkha (veil). They met and talked with established male community leaders and received many indications of people's respect for them.

It was for these reasons, rather than for the small monthly stipend some of them received, that women joined the volunteer project so willingly.

They also reaped other benefits from their participation. As soon as they joined, they and their children were immediately vaccinated against a number of diseases. They received seed packets to start their own vegetable gardens in small yards or on roofs.

Some women volunteers started income-producing activities. They could get interest-free loans for this purpose from a fund set up with private donations.

The success of these activities can be measured by three facts. In many cases, the women themselves remained in control of the funds. Almost all the women repaid their loans in time. And they reported an improvement in their material conditions as a result of their new enterprises.

For some volunteers, participation in the project has meant acquiring new skills which made them more readily employable. A number taught themselves reading and writing. Others received training in nursing or became trainers.

However, in follow-up visits one worry frequently expressed by women was that continued volunteer labour, despite the benefits mentioned, should be supplemented with employment or income-producing activities.

This is a challenge to future programmes, and one which is not easy to resolve: will women work as volunteers? Is it acceptable that women work as volunteers, even if they are willing to do so? Can one use the energies released by the participatory process for organizing income-producing activities? Would this make the programme more sustainable?

All of the volunteers acquired more self-assurance, useful in job interviews and in jobs. The employment rate of volunteers seeking jobs was reported to be quite high.

As Dr. Bonita Stanton wrote:

"...as important as [health services] are, the real contribution of the Urban Volunteer Programme may be in its enhancement of the position of poor women in Dhaka city."

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LESSONS, STRATEGIES, TOOLS
Key reports by PROWESS/UNDP, 1984-1989

General

1. International Reference Centre in collaboration with PROWESS/UNDP: Participation in Water Supply and Sanitation - Roles and Realities - by Christine van Wijk-Sijbesma, 1985, (English/French). A literature review and annotated bibliography.
2. PROWESS/UNDP: Tapping a New Reservoir for Water, by Sarah Timpson, 1986, (English/French). Overall issues and lessons learned to date in PROWESS/UNDP field activities.
3. PROWESS/UNDP: "Women, Water and Sanitation", by Siri Melchior, planned for early 1989, (English/French). Update on overall issues and lessons learned to date.

Case Studies, Country Reports, Field Research

4. PROWESS/UNDP: Report of the Process Evaluation Mission of a CARE-assisted project of water systems in Rwanda, by Jean Beaudoin of Coopérative d'Animation et de Collaboration, et.al., 1987, (English/French). An example of techniques to evaluate the process of participation.
5. PROWESS/UNDP: Process Review reports on the Buba-Tombali Water Project, Guinea Bissau and the Bicchiwada Block Water Project Rajasthan, India, by Mette Jorstad, 1986, (English).
6. PROWESS/UNDP: Social feasibility Study on the Role of Women in Rural Sanitation, by Veena Sundararaman of SNTD Women's University, 1987, (English). Overview of Methods used, results, constraints in a field study in four villages of Maharashtra State, India.
7. PROWESS/UNDP: India - Twenty Lessons Learned from Social Feasibility Studies, by Lucy Goodhart, 1988, (English). Based on four social feasibility studies of rural sanitation in India.
8. PROWESS/UNDP: Kenya - People, Pumps and Agencies - by Deepa Narayan-Parker, 1988, (English). A case study of the South Coast Hand-Pump project with particular emphasis on Kenya Water for Health Organization (KWAHO), describing partnership between a Government, an NGO and donors.
9. PROWESS/UNDP: Dhaka - Volunteers Against Diarrhoea, by Elsie Shallon, 1988, (English). A description of a programme working with women volunteers in an urban slum area to improve health education and action.
10. PROWESS/UNDP: Case Study on Indonesia, by Deepa Narayan-Parker, planned for early 1989, (English/French). An analysis of PKK/Ministry of Health Activities in West Timor. Particularly rich in data on such aspects as change in women's lives, water use, economic effects, etc.

Field tools, Training Aids

11. PROWESS/UNDP: A Participatory Training Overview, by Lyra Srinivasan and Sarah Timpson, 1986, (English/French). Some lessons learned from past training activities.

12. PROWESS/UNDP: Reports of Five Participatory Training-of-Trainers Workshops in Kenya, 1986; Lesotho, 1986; Indonesia, 1987; Zambia, 1987 and Nepal, 1987; (English). Examples of individual training activities, description of participatory methodologies used and taught, analysis of results.
13. PROWESS/UNDP: Field Training Manual, Lesotho, by Willie Sampson, 1987, (English). An example of field training manual for a sanitation project in Lesotho using participatory techniques.
14. PROWESS/UNDP: Video on National Training Workshop in Zimbabwe, 1987, (English). Describes the process of a workshop of personnel of several ministries, methods used, results.
15. PROWESS/UNDP: Video on Regional Training Workshop in Tanzania, 1988, (English); March 1989 (French). Describes the process of a workshop for personnel from national institutions in anglophone African countries, methods used, results.
16. PROWESS/UNDP: Knowledge Generation and Use in Partnership with People, by Deepa Narayan-Parker, planned for early 1989, (English/French). A tool for planners in field projects. Emphasis on designing indicators and use of participatory data collection techniques for planning and evaluation.
17. PROWESS/UNDP: Community Participation - A Challenge for Trainers - by Lyra Srinivasan, planned for early 1989, (English/French). A tool for trainers in field projects. Particular emphasis on SARAR methodologies, experiences in application in PROWESS/UNDP activities.
18. PROWESS/Africa: Report of a Regional Participatory Training-of-Trainers Workshop held in Tanzania, September 1988. Report planned for February 1989 (English). Description of training workshop, methodologies and analysis of results.

Guides, Strategies

19. World Bank and PROWESS/UNDP: Involving Women in Sanitation Projects, by Heli Perrett, 1985 (English). A guide for project planning and design.
20. PROWESS/UNDP and WASH: Design and Management of Sustainable Water Supply and Sanitation Projects, by Paula Donnelly-Roark, 1987, (English/French/Spanish/Arabic). A guide for project workshops for project design, assessment and review.
21. PROWESS/UNDP: PEGESUS, by Deepa Narayan-Parker, 1988, (English). Analytical framework for designing and assessing projects and programmes, concentrating on goals and management tasks.
22. PROWESS/UNDP and INSTRAW: Interagency Task Force on Women proposals for 1989-90, 1988, (English). Reviews progress with respect to women's participation aspects in UN organizations active in the water/sanitation decade, assesses major challenges for the future, proposes a work plan for agencies concerned
23. UNDP Technical Advisory Division in collaboration with PROWESS/UNDP: Programme Advisory Note, planned for early 1989, (English).

Numerous additional reports on country-specific activities are available for limited distribution. There is a nominal cost for most of the above items.

PROWESS/UNDP

PROWESS stands for "Promotion of the Role of Women in Water and Environmental Sanitation Services". It focuses on women, in the context of their communities, because they are the main collectors/users of water and guardians of household hygiene and family health. In the past, even field projects with community participation focus have often neglected to involve women in decision-making, for lack of knowledge about their role, or difficulties in reaching them.

The PROWESS programme is demonstrating ways of involving women in wider community planning, operation, maintenance and evaluation of drinking water and waste disposal schemes. Its experience so far in about 700 communities in Africa, the Arab States, Asia and Latin America shows that:

early and wide participation by women and their communities pays off in better maintenance, higher cost recoveries, improved hygiene practices and other socio-economic gains for the community.

Based in the United Nations Development Programme (UNDP), Division for Global and Interregional Projects (DGIP), PROWESS works interregionally in support of the International Drinking Water Supply and Sanitation Decade (1981-1990). Starting with funding by Norway in 1983, it has since received financing from Canada, Finland and the U.S., as well as from UNDP. It collaborates with many national and international organizations, both governmental and non-governmental.

PROWESS/UNDP Technical Series

PROWESS/UNDP is developing, documenting and disseminating information on the participatory methods it promotes and on the outcome of their use. This can help to enrich policies and programmes, both nationally and internationally.

Part of this effort is the PROWESS/UNDP technical series called "Involving Women in Water and Sanitation: LESSONS - STRATEGIES - TOOLS". It includes:

- case studies, project reports and country profiles giving lessons from specific experience;
- guidelines, for project analysis development and evaluation, and other strategies of action; and
- data collection and research instruments, training methodologies, materials production and other tools for field work.

(see overleaf for listing)