

Library

Date August 5, 1990

ETHICAL REVIEW COMMITTEE, ICDDR, B.

Drs. Mizan Siddiqi

Attachment 1.

Principal Investigator

Trainee Investigator (if any)

K L Bilqis Bannu

Application No. 90-0124 Rev

Supporting Agency (if Non-ICDDR, B)

Comparative Study on the Effect

Project status:

Use of Precooked Rice Packet ORS vs

() New Study

Standard Glucose Packet ORS by Urban

() Continuation with change

Community Mothers in Bangladesh.

() No change (do not fill out rest of form)

Circle the appropriate answer to each of the following (If Not Applicable write NA).

Source of Population:

(a) Ill subjects Yes No

(b) Non-ill subjects Yes No

(c) Minors or persons under guardianship Yes No

Does the study involve:

(a) Physical risks to the subjects Yes No

(b) Social Risks Yes No

(c) Psychological risks to subjects Yes No

(d) Discomfort to subjects Yes No

(e) Invasion of privacy Yes No

(f) Disclosure of information damaging to subject or others Yes No

Does the study involve:

(a) Use of records, (hospital, medical, death, birth or other) Yes No

(b) Use of fetal tissue or abortus Yes No

(c) Use of organs or body fluids Yes No

Are subjects clearly informed about:

(a) Nature and purposes of study Yes No

(b) Procedures to be followed including alternatives used Yes No NA

(c) Physical risks Yes No NA

(d) Sensitive questions Yes No

(e) Benefits to be derived Yes No

(f) Right to refuse to participate or to withdraw from study Yes No

(g) Confidential handling of data Yes No

(h) Compensation &/or treatment where there are risks or privacy is involved in any particular procedure Yes No NA

5. Will signed consent form be required:

(a) From subjects Yes No

(b) From parent or guardian (if subjects are minors) Yes No

6. Will precautions be taken to protect anonymity of subjects Yes No

7. Check documents being submitted herewith to Committee:

Umbrella proposal - Initially submit an overview (all other requirements will be submitted with individual studies). Protocol (Required)

Abstract Summary (Required)

Statement given or read to subjects on nature of study, risks, types of questions to be asked, and right to refuse to participate or withdraw (Required)

Informed consent form for subjects

Informed consent form for parent or guardian

Procedure for maintaining confidentiality

Questionnaire or interview schedule *

* If the final instrument is not completed prior to review, the following information should be included in the abstract summary:

1. A description of the areas to be covered in the questionnaire or interview which could be considered either sensitive or which would constitute an invasion of privacy.

2. Examples of the type of specific questions to be asked in the sensitive areas.

3. An indication as to when the questionnaire will be presented to the Cttee. for review.

(PTO)

I agree to obtain approval of the Ethical Review Committee for any changes involving the rights and welfare of subjects before making such change.

[Signature]

Principal Investigator

Trainee

REF
WI 407 JB2
5568e
1990

SECTION 1: RESEARCH PROTOCOL

1. Title A Comparative Study on the Correct Utilization and Sustained Use of Rice Packet ORS vs Standard Glucose Packet ORS by Urban Community Mothers in Bangladesh
2. Principal Investigators S. Mizan Siddiqi
Co-Investigator A. H. Baqui
Consultant Dilip Mahalanabis
3. Starting Date November, 1990
4. Completion Date November, 1991
5. Total Direct Cost US \$ 59,193
Source of funding USAID
6. Scientific Program Head

This protocol has been approved by the CHD group.



Signature of the Scientific
Program Head

5/8/90

Date:

7. Abstract Summary: The proposed study aims ^{at} to compare ~~it~~ packet rice ORS and standard packet glucose ORS in terms of correct utilization (preparation and administration) as well as long term use by urban community mothers. The superiority of rice-based ORS has been proven in clinical trials but no information is available on the feasibility or acceptability of rice-based ORS at the community level in urban areas. This study will be conducted in 70 urban surveillance system (USS) clusters of the Urban Volunteer Program of ICDDR,B. The data will be collected through standardized questionnaire interviews, on-site observations and focus groups. All research will be performed by skilled interviewers.

8. Reviews:

Community Health Division

1. Ethical review Committee _____
Approved/Not Approved
2. Research Review Committee _____
Approved/Not Approved
3. Director's signature & remark, if any.

SECTION II : RESEARCH PLAN

INTRODUCTION

Overall Objective

To compare the correct utilization (preparation and administration) as well as sustained use (follow-up 1 year after initiation of community teaching) of packet rice ORS versus standard packet glucose ORS by urban community mothers.

Background

Correction of fluid and electrolyte deficits by ORS is the recommended treatment of choice for diarrhea.¹⁻² Clinical trials have demonstrated the efficacy of oral glucose-electrolyte solution in treating all types of acute diarrhea.³⁻⁷ Various studies have also shown that acute diarrhea can be treated effectively at the home level by ORS.⁸⁻¹² WHO and UNICEF have advocated packet glucose ORS to be used in national programs. However, although packet glucose ORS is widely available, the utilization rate is still low in urban Bangladesh.

Recently, in one survey done by the Urban Volunteer Program of ICDDR,B, the treatment rate of children under 5 years with diarrhea, using any type of ORS (home-made salt-sugar, home-made rice ORS or packet glucose ORS) was found to be 49 percent

(Manuscript in process). In the same study, the rate of correct preparation was found to be only 15 percent. Furthermore, in most instances, ORS was discontinued before the diarrhea stopped. Of special import was the finding that along with the ORS, thirty seven different varieties of drugs were used to treat the diarrhea!

Such poor compliance and low usage may be due to incomplete knowledge about ORS and/or that mothers' expectations regarding ORS are not met. While standard packet glucose ORS does not provide mothers with positive reinforcement such as a reduction in stool output or in duration of illness, the superiority of rice-based ORS in this regard has already been proven.¹²¹³⁻¹⁴

Thus, it might be supposed that such immediate feedback would encourage mothers to use rice packet ORS over standard glucose packet ORS.

Although rice is a staple food in Bangladesh, recent findings by BRAC about home-made rice ORS are discouraging; only 4.1% mothers were found to use home-made rice ORS to treat diarrhea in their children. The examination of factors responsible for such a low user rate revealed the following obstacles: time for soaking and grinding rice; fuel shortage for cooking rice powder; and overall, the labor-intensive preparation process. [Unpublished data - personal communication.]

Although packet rice ORS needs some cooking, it omits the time-consuming steps of washing and soaking as well as grinding which add a significant time burden for urban poor women who are already overworked. It can thus be assumed that the time needed to prepare home-made rice ORS would prohibit its routine utility for urban mothers but that packet rice ORS would overcome most of these problems.

It is therefore conceivable that the positive reinforcement provided by rice ORS, along with the convenience of packet rice ORS, might make it a more popular and successfully used form of home treatment for acute diarrhea than the standard packet glucose ORS. Such a finding would have important implications for national CDD programs. A comparative study between packet rice ORS and packet glucose ORS is thus proposed to evaluate (correct) utilization and overall long-term user rates in an urban, high-risk setting.

Rationale

- a) Rice ORS is the most effective intervention for a child with acute diarrhea by reducing stool volume, vomiting and duration of illness.

- b) Rice ORS provides positive reinforcement to a mother and accordingly increases her incentive to use it during a diarrheal disease episode.
- c) Due to its labor-intensive preparation, home-made rice ORS is not readily utilized by mothers.
- d) Packet rice ORS is simpler to prepare and therefore will be more readily used by the mothers.
- e) Given the positive reinforcement it provides as well as its convenient preparation, packet rice ORS may be the method of choice for household level treatment of acute diarrhea, thus resulting in higher rates of utilization and sustained usage.
- f) The magnitude of urban at-risk children requires the creation of new studies evaluating the most feasible and practical methods of home-treatment of diarrhea for this specialized high-risk population.

STUDY DESIGN

a) Selection of Study Population

Urban Volunteer Program of ICDDR,B has an Urban Surveillance System (USS) collecting data on SES and demographic data quarterly in 166 clusters in five target thanas of Dhaka city.

The target population for the USS is about 200,000 living in bustees and characterized by high density, generally bamboo - structure dwellings, multiuse latrine and water sources, poor sewerage and drainage facilities and irregular garbage collection. The USS is based on area sampling, the multistage sampling units being clusters of about 50 households, when a household is defined in the usual way as "a group persons living together, eating from a common pot, and acknowledging a common head of household".

In each cluster, there is one urban volunteer. This volunteer performs general urban volunteer (GUV) services. Most of the volunteers are illiterate women living in the communities providing voluntary preventive health services to her catchment families. Each volunteers receive 4 weeks basic health training. In this protocol, they will actually provide ORS teaching and distributions to the community mothers.

Thirty-five pairs of comparable clusters (based on recent diarrheal morbidity rates, ORS utilization rates and socio-economic characteristics) will be selected from the USS research clusters of the Urban Volunteer Program. One of each matched pair will then be randomly allocated to the rice ORS and the other to the standard ORS (both pre-packaged) groups. Mothers with children under 5 (60 months) years of age will be the

b) Methods and Procedure

Volunteer Training

The volunteers will participate in a one week course emphasizing the ORS treatment messages (See Appendix 1) specific for either rice or glucose packet ORS, as well as the associated demonstrations about correct preparation and administration of ORS (either packet rice or glucose ORS) (See Appendix 2). They will be instructed how to effectively transfer this information to mothers using the UVP flip charts, basic health messages and demonstrations.

Urban Community Mother Teaching

At the start of the protocol, all mothers with children ≤ 5 years residing in any of the clusters, will be individually taught the appropriate messages by the research volunteer, receive a demonstration about ORS preparation, and be taught how to calibrate one household container to accurately mix 500 cc of ORS. Mothers will also be taught signs and symptoms requiring professional medical treatment, such as dehydration or bloody diarrhea, as well as where to go to receive such treatment. They will be told to continue breastfeeding and for normal feeding during diarrhea.

After the initial training visit, each volunteer will visit every target mother with a child under ≤ 5 years of age in her cluster at least once every 8 weeks to actively teach and reinforce these messages. The purpose of these visits will be mainly teaching. However, if a child in the household has diarrhea at the time of a visit, the volunteer will take advantage of the situation to teach, treat and dispense the appropriate ORS. Once a month the volunteer will also perform group teaching of the messages and an ORS preparation demonstration for all mothers with children ≤ 5 years in the cluster (and/or others who may wish to come). In this way, new families entering the cluster who meet study criteria will automatically be included. There are an average of 50 eligible target mothers per cluster (eg per Research Volunteer).

In general, each volunteer will serve as a depot site for ORS distribution in that cluster. Mothers will be taught to go to their urban volunteer as soon as a child has diarrhea (3 or more stools in a day). In cases where diarrhea perceived by the mother does not correspond to the definition of the study (eg. less than 3 house stools per day), the mothers will be told to continue breastfeeding, other home fluids and normal feeding. At every RV contact for diarrhea, the mother will receive 3 packets of ORS and the associated messages/demonstrations for correct preparation and administration of ORS (using the UVP flip chart

and demonstrations). At any point, if a child is perceived by either the research volunteer or the UVP interviewer to require medical referral, they will refer (and, if necessary, accompany) the child to ICDDR,B's Clinical Research Center for treatment.

Each target mother will thus receive education about either rice or glucose packet ORS preparation and administration via the following channels:

- 1)- Direct individual teaching by the RV at the beginning of the project (or when any new family meeting study criteria enters the cluster) and thereafter every 8 weeks;
- 2) Whenever the mother goes to the RV's house to receive ORS for a sick child with diarrhea; and
- 3) During the monthly group teaching session provided by the RV to her cluster.

The above-mentioned training and service pattern is based on the UVP model delivery system guidelines.

Baseline Data Collection

- a) ORS utilization rate and diarrheal disease 2-week prevalence rate:

Information available about ORS utilization and diarrheal disease prevalence in USS (Urban Slum Surveillance) research clusters of the UVP. will be used for pairing of the clusters (based on SES and ORS use rate).

- b) Focus group sessions on mother's perceptions about treatment of diarrhea with ORS:

At the beginning of this study, prior to training of community mothers and volunteers, 8 focus group sessions will be performed to obtain some information about community perceptions of treatment of diarrhea with ORS. In any cluster there are about 50 eligible mothers (mothers with children ≤ 5 years). In each cluster ~~100~~ mothers will be selected randomly (20 percent of the eligible mothers) for each focus group session. Four such clusters will be randomly selected from the 35 clusters in each ORS group (glucose or rice ORS). Approximately 80 eligible mothers altogether will participate in the focus group sessions.

- c) Baseline ORS knowledge of community mothers:

To determine baseline knowledge about ORS, a random sample of 5 eligible mothers (mothers with children ≤ 5 years) per cluster will be interviewed (after the focus group sessions are completed). In any cluster, there are 50 eligible mothers (mothers with children ≤ 5 years), thus 5 mothers from a cluster is about 10 percent of the eligible mothers per cluster.

Therefore, a total of 350 mothers will be interviewed (105-140 eligible mothers in each ORS group).

Follow-up Studies

- a) ORS utilization and diarrheal disease 2-week prevalence rates:

A two-week health recall questionnaire survey will be performed to identify all children ≤ 5 years with recent diarrhea in all clusters after 3 months and again 12 months following the initiation of education and ORS distribution in all clusters. Their mothers will then be interviewed about ORS utilization and knowledge of treatment of diarrhea with ORS, using the same pretested questionnaire as in the baseline survey (a and c).

In order to fulfill the sample size requirement of 952 mothers (476 in each ORS group, either glucose or rice ORS), 3-4 rounds of 2-week health recall surveys will be needed to identify sufficient eligible mothers (mothers with children ≤ 5 years having diarrhea).

These figures are calculated baseline ORS utilization rate between 15-20 percent and 2-week diarrhea disease prevalence rate available in the UVP research clusters (8.7%).

- b) Observations:

In each cluster, one case selected randomly from the diarrhea cases detected during the 2-week prevalence survey will also be observed by trained interviewers for actual maternal behaviours (v.a.v. ORS use) during a diarrheal episode. A standardized observation form (see Appendix 4) will be used during the 6-hour household observation. In these households, the ORS utilization questionnaire and interview will not be administered until after the observation. A total of 70 observations (35 in each ORS group) will be made from all clusters (1 per cluster).

c) Samples of prepared ORS:

Samples of prepared ORS (glucose or rice) will be collected from all observed households (if the mother, in fact, has made ORS) and will be analyzed for sodium concentration and for contamination. Details of the procedure for sample collection are given in Appendices 8a and 8b.

d) Focus group sessions:

Twelve months after the initiation of training, eight focus group sessions will again be performed using the same procedures as described earlier under baseline data collection (b) in order to examine mothers' experiences and perceptions of treatment of diarrhea with different kinds of ORS (glucose or rice ORS).

e) Follow-up ORS knowledge of community mothers:

Three and 12 months after initiation of study, a cross-sectional survey of eligible mothers (mothers with children ≤ 5 years) using the questionnaire from the baseline survey will be performed on a random sample of 5 eligible mothers per cluster (similar to baseline survey). This will be a cross-sectional survey - no attempts will be made to re-interview original mothers, hence "dropout" is not an issue, and similar sample size estimates are used as for baseline. Mothers will be asked if their child had diarrhea in the month prior to the interview. (Recent episode may influence knowledge level).

As much as possible, the interviewers involved in this study will not know the group to which the mothers they are interviewing or observing have been assigned. They will also not know the hypotheses being tested, to avoid interviewer bias. Research volunteers will not be involved in data collection, but nevertheless, they will not be told the hypotheses to avoid possible teaching bias. Informed consent will be taken from all mothers before any information is collected for this study.

Outcome Variables

1. ORS treatment user rate (refers to number of children with diarrhea who receive ORS during the acute phase of diarrhea out of total eligible);

2. No. of cases with prompt initiation of ORS treatment (after the 3rd loose stool, out of total cases treated with ORS;
3. No. of cases with correct duration of ORS use during the diarrheal episode (at least through the 3rd day or until normal stools return) out of total cases treated with ORS;
4. Correct preparation of ORS (per guidelines in Appendix 5) out of total cases treated with ORS;
5. Correct administration of ORS (per guidelines in Appendix 6) out of total cases treated with ORS;
6. Rice ORS not substituted for food;
7. Long-term use rate of ORS (after 12 months, the proportion of diarrheal episodes detected through a 2-week health recall, that received ORS treatment).

Descriptive comparisons will also be made between baseline maternal knowledge and levels of post-intervention knowledge (3 and 12 months later).

Sample size and analysis

We assume that after the intervention, glucose packet use rate will be 60 percent and rice ORS use rate 70 percent.

In order to detect this difference with a power of 80%, 5% significance level, a sample size of 952 episodes of diarrhea will be required. The assumptions used for post-intervention results are based upon the findings from the study done by Bari A. et al in rural Bangladesh (9) who found diarrhea treatment user rate with glucose packet ORS and rice packet ORS, to be 60% and 71% respectively at the end of their intervention.

The method of analysis applied to all focus group data will be qualitative. Transcriptions of tapes will be performed by an independent team. From these transcriptions, the investigators will identify patterns of collective beliefs and reported behaviours that may have an impact on ORS utilization.

The mode of analysis employed in the questionnaires and observation survey will be univariate and bivariate paired comparisons between packet glucose ORS and packet rice ORS groups. An SPSS package will be used for statistical procedures.

Quality Assurance and Data Collection

Biweekly field supervisors visits and monthly observations by field teachers (per UVP standard procedures) will be performed to ensure quality of RV teaching to the target mothers. Pre- and post-tests will be given to the RVs (before and after training)

to evaluate their mastery of the concepts and teaching techniques. Field follow-up will be made as necessary by field teachers (again following standard UVP procedures). UVP's standard field quality assurance steps will be used including supervised interviews, spot checks, and re-interviews (5%-10% sample) performed by Field Research Officers.

All data from the field will be entered in a standard data base after screening by the PIs. Double entry is routinely employed by the UVP as a quality check. Range and consistency will be performed on all data. Data management quality assurance will be maintained through a series of edits and computerized consistency checks. Error reports will be generated regularly and field checks performed when necessary.

REFERENCES

1. Cash R.A. Oral therapy for diarrhea. Trop Doct 1979; 9: 25-30
2. Hirschorn, N. Oral rehydration therapy for diarrhea in children - a basic primer. Nutrition Reviews, 40:97-104 (1982).
3. Molla, AM, et al. Rice-based oral rehydration solution decreases stool volume in acute diarrhea. Bulletin of the World Health Organization. 74: 862-756 (1985).
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5. A.M. Molla, Ayesha Molla, S.K. Nath, M. Khatun. Food - based oral rehydration salt solution for acute childhood diarrhea. The Lancet, 429-431 (August 1989).
6. P.R. Kenya et al cereal based oral rehydration solutions. Archives of disease in childhood, 1989, 64, 1032-1035.
7. A. Molla et al. Rice Powder electrolyte solution as oral therapy in diarrhea due to vibrio cholera and E.coli.
8. Rahman. MMSA et al. Mothers can prepare and use rice salt oral rehydration solution in rural Bangladesh. Lancet 1985; 1:539-540 (Sept 7).
9. A. Bari et al. Rice based oral rehydration therapy: a superior community intervention for diarrhea in children. 3rd African conference on Diarrheal Disease (AF CODD) 1989. p 34.
10. M.A.R. Chowdhury. Is Rice-based oral rehydration therapy more acceptable. Results from a field trial in rural Bangladesh international symposium on Improved Oral Rehydration Therapy. 1989
11. Chen L. et al. Village-based distribution of oral rehydration therapy pockets in Bangladesh. Am. J. Trop. Med. Hy. 29:285 (1980)

12. Bently E.M. The household management of childhood diarrhea in rural north India. Soc. Science Med. Vol. 27 No.1, pp 75-85, 1988.
13. A.M. Molla et al Rice based oral rehydration solution decreases the stool volume in acute diarrhea. Bulletin of the World Health Organization, 63 (4): 751-756 (1985)
14. F.C. Patra et al. Is oral rice electrolyte solution superior to glucose electrolyte solution in infantile diarrhea? Archives of diseases in childhood, 57: 910-912 (1982).
15. Cochran G Williams, Cox M Gertrude. Experimental Designs. Second Edition. Asia Publishing House. P25.
16. Kirkwood R Betty. Essentials of Medical Statistics. Blockwell scientific publication.

CONSENT FORM (VERBAL)

The UVP, ICDDR,B is now conducting a study on Oral Rehydration Therapy during diarrhoea. We would like to ask you some questions about yourself, your child, your family and your living conditions. The interview will last about 45 minutes. All the information collected will be kept confidential.

You are free to take part or not to take part to this interview. If you feel some questions are too private, you are free to give no reply to them.

ABSTRACT SUMMARY FOR ETHICAL REVIEW COMMITTEE

The purpose of this study is to compare acceptability, usage and adoption of prepackaged rice and glucose ORS in an urban slum population. The study area will be research clusters of urban volunteer program of ICDDR,B of Dhaka city. The study will be carried out in 12 months. The main method of research will be questionnaire interviews, observation and focus group study.

1. The study population will be mothers who have at least one child ≤ 5 years old.
2. The study does not involve any potential risk to participants.
3. Not applicable.
4. The names of the subjects, their area or any identifying characteristics will not be published or available to the public. Each subject will be allocated a number and records will use this as a reference.
5. All the mothers in the study will be asked to give a verbal consent. The study involves no risk to the subjects. Intrusive or unwelcome interviewing will be avoided. The purpose of the research will be honestly and carefully explained to the subjects. No physiological tests, procedures or measurements will be carried out. It however, the researcher or their assistant come across sick individuals in the course of the study who ask for their help they will do their best to help and to refer and to transport them to the appropriate health centre.
6. Interviews will be conducted at time and places that best suit the mothers. About 45 minutes is expected for completion of the interview.
7. Early, correct and sustained treatment of diarrhoea at the home level by ORS is the key to reduce morbidity, malnutrition and mortality among children ≤ 5 years especially, in slum areas. The subjects will be informed about the results of the study. A special budget has been included to refer the child found sick during the interview or observation.
8. The study does not require the use of records, organs, tissues or any other such matter.

SECTION III DETAILED BUDGET

1. PERSONNEL (3100)

	No.	Level	Rate/month (Takas)	Yearly (Takas)	US \$
*PI	1		24,000	288,000	
*PI	1		18,000	216,000	
*FRO	1	GS-5	1x9,000	108,000	
*Interviewer	6	GS-3	6x6000	432,000	
*Coding Asstt.	1	GS-3	1x6000	72,000	
*Computer Programmer	1	GS-6	1x9000	108,000	
*Secretarial Assistant	1	GS-4	1x7000	84,000	
				<u>Total:</u>	<u>1308,000</u>

2. TRAVEL (Local) (3500)

		Total (Taka)
FRO	100x1x30	3,000
Interviewer	100x6x30	18,000
PIs	2x100x30	6,000
		<u>Total:</u>
		<u>27,000</u>

3. SUPPLIES AND MATERIALS (3700)

a) ORS**

i) Rice ORS	30,000 pktsx3Tk.	90,000
ii) Packet ORS	30,000 pktsx3Tk.	90,000

b) Stationery: Paper,
Pencil, pen,
computer paper etc.

	30,000
<u>Total:</u>	<u>210,000</u>

4. Printing and Reproduction (4300)

a) Xerox and Medical
Illustration

20,000

5. OTHER COSTS

a) Training stipends

30 Tk.x60x5

9,000

Total: 29,000

* UVP central staff

** 4 attacks per year per child (3,000 children <5 years)

BUDGET SUMMARY

A/C.Code	Expense Category	Amounts in Taka	Amounts in US \$
			\$ 37,371
3100	*Personnel Salaries		
3500	Travel	27,000	794
3700	Supplies	210,000	6,176
4300	Printing and Xeroxing	29,000	852
<hr/>			
	Total direct cost	266,000	\$ 45,193
	Indirect cost (31%)	82,460	\$ 14,000
<hr/>			
	Total US \$		\$ 59,193
Total		Tk. 348,460	

* UVP central staff

TREATMENT MESSAGES

1. Give ORS to your children with diarrhea.
 2. You can get packets ORS from your local urban volunteer.
 3. Start this ORS as soon as your child has three or more abnormally loose stools in one twenty-four hour period.
 4. Sick children need more frequent feedings (given in small amounts throughout the day) during the illness and for several weeks after the illness.
 5. A good mother continues to encourage her sick child to eat, even when the child has no appetite.
 6. Continue breast-feeding your child with diarrhea throughout the time of diarrhea.
 7. Encourage your child to breast-feed more frequently than usual during the time of diarrhea.
 8. If your child:
 - stops making urine;
 - has skin which remains wrinkled when you pinch it together over the stomach area;
 - stops responding when you talk or play with him;
 - looks very sick to you:
- You should take your child to the ICDDR,B (Cholera Hospital) right way!
9. If your child has blood in his stool, he or she needs to see an MBBS doctor; go to the ICDDR,B (Cholera Hospital) immediately and receive a special kind of medicine, so he/she will get better.
 10. If the child vomits; wait for sometime and then give small amounts of ORS at a time.

PREPARATION AND ADMINISTRATION MESSAGES

1. Use clean water from a tubewell or boiled water to prepare the ORS packet.
2. Empty the full contents of 1 ORS packet and 1 full packet salt into 1/2 liter (500ml) of clean water. Measure the correct amount of water using the container marked by your volunteer. Fill the container to the line she marked for you.
3. Stir the ORS completely until there is no powder left.
4. Put the ORS mixed with water on fire and heat it in medium flame, stir well until the first bubble appears.
5. Slow down the fire after first boil starts and take off the pan from the fire as soon as second boil comes up.
6. Using a spoon, feed your child the prepared ORS.
7. Feed your child small amounts of the ORS throughout the day and night.
8. Encourage your child to take small amounts of ORS each time.
- 9a. Give your sick child the amount of ORS per day that your volunteer taught you for that specific sick child.
 - for a child who is not yet sitting up by self (less than 6 months), give 200 ml at a time after 3 loose stool.
 - for a child who is sitting up, but not yet walking (6-12 months), give 300-350 ml at a time after 3 loose stool.
 - for a child who is walking, but not yet running (12-18 months), give 400 ml at a time after 3 loose stool.
 - for a child who is walking and running but not yet talking in sentences, (18-24), give 450 ml at a time after 3 loose stool.
 - for a child who is talking in sentences, and can partially dress self (24-36 months) 500-550 ml at a time after 3 loose stool.

- b. Then after each loose stool for a child who
is sitting up by self (less than 6 months), give 50 ml.
who is sitting up, but not yet walking (6-12 months), give
100 ml.
Who is walking, but not yet running (12-18 months), give 100
ml.
who is walking and running, but not yet talking in sentences
(18-24) months), give 100 ml.
who is talking in sentences and can partially dress self
(24-36 months), give 200 ml.
- ref. The treatment and prevention of acute diarrhea. Practical
guidelines second edition. World Health Organization,
Geneva, 1989.

URBAN VOLUNTEER PROGRAM
ORS UTILIZATION
QUESTIONNAIRE

PART A. DIARRHEA INFORMATION:

1. Is your child (name) having diarrhea today? See definition of Diarrhea, (If no, skip to 14) 0 No
1 Yes
2. If yes, how long is she/he suffering from Diarrhea? _____ Exact Date
(go to Q 16)
3. Did your child (name) have diarrhea during last 14 days? 0 -No
1 Yes
(If No, skip to PART G)
4. If Yes, how long he/she suffered from Diarrhea? _____ Exact Date
5. What type of Diarrhea did the child (name) have?
- Write the verbatim _____

- 1 Watery
2 Mucoid
3 Dysentery
4 Persistent Diarrhea

Use check list for the definition type of Diarrhea and note appropriate code.

(ADMINISTER PART B)

PART B. FLUID INFORMATION:

1. During the time of diarrhea did you give any fluid to the child? 0 No
1 Yes
(If No, skip to PART F)

2. If Yes, what type of fluid did you give the child? Name all types in exact words. 1 _____
2 _____
3 _____

3. Did you give?
a) Lobongur ORS 0 No
1 Yes
b) Glucose packet ORS 0 No
1 Yes
c) Rice packet ORS 0 No
1 Yes
d) Other fluid 0 No
1 Yes

(If a,b and c is "No" Ask Q.4)

4. Why you did not give any ORS to the child
_____ verbatim
8 NA (if a or b or c is Yes)

(If a,b,c all is No but d is Yes then ask Q. 5 and Q.6 otherwise go to applicable part)

5. Did the used fluid help your child? 0 No
1 Yes
6. If Yes, how much was your child helped?
1 Cure(stopped diarrhea)
2 Improved(less frequent)
3 Prevented dehydration
7 Other, specify _____
8 NA (If Q.5 is No)

(ADMINISTER PART C OR D AS APPLICABLE)

PART C. GLUCOSE PACKET ORS

1. How many packets of glucose ORS did you use altogether during this diarrhea from start to end? _____ Exact Date

2. On average how many packets per day did you use?
- 1 < 1 packet
2 1 packet
3 2 packets
4 3 packets
7 Other, specify _____
3. What are the ingredient you used to prepare glucose packet ORS?
- 1 Packet ORS
2 Water
7 Other, specify _____
4. Where did you get the ingredients you used for packet ORS?
- a) Glucose packet ORS
- 1 UVP volunteer
2 Other NGO, specify____
3 Govt.Hospital
4 Private Hospital
5 Private Clinic
6 Pharmacy(Private)
7 Other, specify _____
- b) Water
- 1 Tap (supply)
2 Tubewell
7 Other, specify _____
5. Who get the packet ORS for the child?
- 1 Child himself/herself
2 Mother
3 Father
4 Other family member
5 UVP volunteer
7 Other, specify
6. What was the time interval between start of diarrhoea and getting packet ORS?
- _____ Exact day
7. Please tell me the amount of ingredients you used to make the packet ORS (use check list)
- a) Glucose Packet ORS
- 1 One full packet
7 Other, specify_____
- b) Water
- 1 Half liter
7 Other, specify_____
8. How did you prepare the packet ORS? (Use check lists)
- 1 One full packet of packet ORS mix with 1/2 liter of water
7 Other, specify_____

- Did you use any container to measure the amount of water used to prepare the packet ORS? 0 No
1 Yes
0. Can you show me the container? 0 No
1 Yes
8 NA(If Q9 is no)
1. If yes, what is the name of container (in term of size use the measuring cup to determine the exact amount) 1 <500 ml _____
2 500 ml _____
3 >500 ml-<1000ml _____
4 >1000 ml _____
8 NA(If Q9 or 10 is no)
2. Before preparing the packet ORS, did you wash your hands? 0 No
1 Yes
3. If yes, did you use anything with the water to wash your hands? 0 No
1 Yes
8 NA(If Q12 is no)
4. If yes, what 1 Soap
2 Ash
3 Mud
4 Soda
7 Other, specify _____
8 NA(If Q12 or 13 is no)
5. Did you wash the container you used to prepare the packet ORS? 0 No
1 Yes
6. If yes, did you use anything to clean the container? 0 No
1 Yes
8 NA(If Q15 is no)
7. If yes, what? 1 Soap
2 Ash
3 Mud
4 Soda
7 Other, specify _____
8 NA(If Q15 or 16 is no)
8. How soon after the 3rd abnormal stool did you administer the packet ORS? 1 First day
2 2nd day
3 3rd day
4 >3 days
9. (If answer is not '1') Why you did not start ORS from the first day of Diarrhoea? _____ verbatim
8 NA(If Q18 is '1')

20. At first, how much packet ORS did you give the child? _____verbatim
21. At what interval did you give the Packet ORS? 1 After each loose motion
2 2-3 times a day
7 Other, specify_____
22. Each time how much packet ORS did you give the child? _____verbatim
23. What type of utensils did you use to administer the prepared packet ORS? 01 Glass
02 Cup
03 Mug
04 Bowl
05 Glass and spoon
06 Cup and spoon
07 Mug and spoon
08 Bowl and spoon
09 Bottle (feeder)
10 The same pot used to prepare the ORS
77 Other, specify_____
24. Did you wash the utensils before you administer the packet ORS? 0 No
1 Yes
25. If yes, did you use anything with water to clean the utensils? 0 No
1 Yes
8 NA(If Q24 is no)
26. If yes, what? 1 Soap
2 Ash
3 Mud
4 Soda
7 Other, specify_____
- 8 NA(If Q24 or 25 is no)
27. How long after preparation did you keep the packet ORS? _____verbatim
28. How long did you give packet ORS to the child? _____Exact day
29. What was the state of your child at the end of packet ORS treatment? 0 Not improved
1 Improved(less frequent)
2 Cured (stopped)
3 Hospitalized
4 Died
7 Other, specify_____
- (If today diarrhea is continuing)

30. Did you give packet ORS today? 0 No
1 Yes
31. If no, why did you stop? _____verbatim
(If diarrhoea is stop) 8 NA(If Q30 is yes)
32. Did you continue packet ORS till the Diarrhoea stop? 0 No
1 Yes
33. If no, why did you stop? _____verbatim
8 NA(If Q32 is yes)

PART D. RICE PACKET ORS:

1. How many packets of Rice ORS did you use altogether during this diarrhoea from starting to end? _____packets
2. On average how many packets per day did you use? 1 <1 packet
2 1 packet
3 2 packets
4 3 packets
7 Other, specify_____
3. What are the ingredients you have used to prepare Rice Packet ORS? 1 Rice packet ORS
2 Salt
3 Water
7 Other, specify_____
4. From where did you get the ingredients you used for Rice Packet ORS?
- a) Rice Packet ORS 1 UVP Volunteer
2 Other NGO, specify____
3 Govt. Hospital
4 Private Hospital
5 Private Clinic
6 Private Pharmacy
7 Other, specify_____
- b) Salt 1 At home
2 Grocery
3 Neighbour
- c) Water 1 Tap (supply)
2 Tubewell
7 Other, specify_____

12. If yes, what is the name of container (in terms of size) use the measuring cup to determine the exact amount?)
- 1 <500 ml _____
 2 500 ml _____
 3 >500 ml- <1000 ml-
 4 >1000 ml _____
 8 NA(If Q10 or 11 is no)
13. Before preparing the Rice Packet ORS did you wash your hands?
- 0 No
 1 Yes
14. If yes, did you use anything with the water to clean your hand?
- 0 No
 1 Yes
 8 NA(If Q13 is no)
15. If yes, what?
- 1 Soap
 2 Ash
 3 Mud
 4 Soda
 7 Other, specify _____
 8 NA(If Q13 or 14 is no)
16. Did you wash the container you used to prepare the Rice Packet ORS?
- 0 No
 1 Yes
17. If yes, did you use anything to clean the container?
- 0 No
 1 Yes
 8 NA(If Q16 is no)
18. If yes, what?
- 1 Soap
 2 Ash
 3 Mud
 4 Soda
 7 Other, specify _____
 8 NA(If Q16 or 17 is no)
19. How soon after the 3rd abnormal stool did you administer the Rice Packet ORS?
- 1 1st day
 2 2nd day
 3 3rd day
 4 >3 days
20. (If the answer is not ('1')) why did not you give ORS from the first day of diarrhoea?
- _____ verbatim
 8 NA(If Q19 is '1')
21. At first, how much Rice Packet ORS did you give to the child?
- _____ verbatim
22. At what interval did you give the Rice Packet ORS?
- 1 After each loose motion
 2 2-3 times a day
 7 Other, specify _____

23. Each time how much Rice Packet ORS did you give the child? _____verbatim
24. What type of utensils did you use to administer the prepared Rice Packet ORS?
- 01 Glass
 - 02 Cup
 - 03 Mug
 - 04 Bowl
 - 05 Glass and spoon
 - 06 Cup and spoon
 - 07 Mug and spoon
 - 08 Bowl and spoon
 - 09 Bottle (feeder)
 - 10 The same pot used to prepare the ORS
 - 77 Other, specify _____
25. Did you wash the utensils before you administer the Rice Packet ORS?
- 0 No
 - 1 Yes
26. If yes, did you use anything to clean the utensils?
- 0 No
 - 1 Yes
 - 8 NA(If Q25 is no)
27. If yes, what?
- 1 Soap
 - 2 Ash
 - 3 Mud
 - 4 Soda
 - 7 Other, specify _____
 - 8 NA(If Q25/26 is no)
28. How long after preparation did you keep the Rice Packet ORS? _____verbatim
29. How long did you give Rice Packet ORS to the child? _____Exact day
30. What was the state of your child at the end of Rice Packet ORS treatment?
- 0 Not improved
 - 1 Improved (less frequent)
 - 2 Cured (stopped diarrhoea)
 - 3 Hospitalized
 - 4 Died
 - 7 Other, specify _____
- (If today diarrhoea is continuing)
31. Did you give Rice Packet ORS today to your child?
- 0 No
 - 1 Yes

2. If no, why did you stop?

8 NA(If Q33 is yes)

PART E. FEEDING

1. Does your child normally breast feed? (If no, go to Q 7)

0 No
1 Yes

2. If yes, did you give breast milk during the diarrhea episode?

0 No
1 Yes
8 NA(If Q1 is no)

3. (If yes, can you tell me the frequency of breastfeeding within 24 hours) during diarrhoea.

Verbatim

4. What is the normal frequency of breastfeeding of your child?

Verbatim

5. If Q2 is no, why not?

8 NA(If Q2 is yes)

6. If Q2 is no, when did you start again to breastfeed your child?

8 NA(If Q2 is yes)

7. Does your child bottle feed? (If no, go to Q 15)

0 No
1 Yes

8. If yes, what type of milk does he/she bottle feed?

1 Cow milk
2 Goat milk
3 Tin milk
7 Other, specify_____
8 NA (If Q7 is no)

9. Did you give bottle feeding during the diarrhea episode?

0 No
1 Yes
8 NA(If Q7 is no)

10. If yes, can you tell me the frequency of bottle feeding during diarrhoea (within 24 hours

Verbatim
8 NA(If Q7 or 9 is no)

11. What is the normal frequency of bottle feeding of your child?

Verbatim
8 NA(If Q7 is no)

2. Can you tell me the amount of milk you give your child in every bottle feeding. _____ normal amount
_____ during diarrhoea amount
3. If Q 9 is no, why not? _____
Verbatim
8 NA(If Q9 is yes)
4. If Q 9 no, when did you start again to bottle feed your child? _____ .verbatim
8 NA(If Q9 is yes)
5. What is the normal diet of your child? _____ verbatim
1 _____
2 _____
3 _____
4 _____
5 _____
16. During diarrhoea did you continue the normal diet of the child? 0 No
1 Yes
(If yes, go to Q 20, if no, then ask Q 17, 18 & 19)
17. No, why not? _____ verbatim
8 NA(If Q16 is yes)
18. If no, when did you start again to give this normal diet to your child? _____ verbatim
8 NA(If Q16 is yes)
19. If no, what exactly did you give your child to eat during the diarrhoea episode? 1 _____
2 _____
3 _____
4 _____
5 _____
8 NA (If Q16 is yes)
20. What did you give your child to eat after diarrhea episode? 1 _____
2 _____
3 _____
4 _____
5 _____
21. Did you use the Rice ORS as food? 0 No
1 Yes
7 Other, specify _____

F. TREATMENT

Did you give medicine for the diarrhea?	0	No
	1	Yes
(If no, go to Q 5)		
If yes, specify all types given medicine	8	_____verbatim NA(If Q1 is no)
Container or sample for medicine shown?	0	No
	1	Yes
	8	NA(If Q1 is no)
Who advised for the given medicine?	1	Doctor
	2	Kabiraz
	3	Homeopath
	4	Palli chikishak
	5	Religious person
	6	Hospital
	7	Other, specify_____
	8	NA(If Q1 is no)
Did you take sick child any place for treatment or advice?	0	No
	1	Yes
If yes, check all applicable.	1	Doctor
	2	Kabiraz
	3	Homeopath
	4	Palli chikishak
	5	Religious person
	6	Hospital
	7	Other, specify_____
	8	NA(If Q5 is no)
(Those who gave both ORS and medicine during diarrhea?)	1	ORS
Which one did you give first?	2	Medicine
	8	NA(If ORS or medicine nothing is given)

G. KNOWLEDGE

Did you use any kind of ORS before? 0 No
 (If no, go to Q 4) 1 Yes

If yes, what?

a) Lobon gur ORS 0 No
 1 Yes

b) Glucose packet ORS 0 No
 1 Yes

c) Rice packet ORS 0 No
 1 Yes

d) Home made Rice ORS 0 No
 1 Yes

For whom did you use the ORS?

a) Lobon gur ORS 1 Child \leq 5 yrs
 2 Child $>$ 5 yrs
 3 For herself
 4 Other family member
 8 NA(If Q 2a is 0)

b) Glucose Packet ORS 1 Child \leq 5 yrs
 2 Child $>$ 5 yrs
 3 For herself
 4 Other family member
 8 NA(If Q 2 is 0)

c) Rice Packet ORS 1 Child \leq 5 yrs
 2 Child $>$ 5 yrs
 3 For herself
 4 Other family member
 8 NA(If Q 2c is 0)

d) Home made Rice ORS 1 Child \leq 5 yrs
 2 Child $>$ 5 yrs
 3 For herself
 4 Other family member
 8 NA(If Q 2d is 0)

Do you know about ORS? 0 No
 (If no go to Q 6) 1 Yes
 How do you know about ORS?

- a) Lobon gur ORS _____ verbatim
- b) Glucose Packet ORS _____ verbatim
- c) Rice Packet ORS _____ verbatim
- d) Home made Rice ORS _____ verbatim

Do you know how to prepare ORS?

- a) Lobon gur ORS 0 No
1 Yes
- b) Glucose Packet ORS 0 No
1 Yes
- c) Rice Packet ORS 0 No
1 Yes
- d) Home made Rice ORS 0 No
1 Yes

(If a,b,c or d all is no go to Q 9)

If yes, how do you prepare?

- a) Lobon gur ORS 1 One fist of gur/sugar and one pinch of three fingers, salt mix with 1/2 liter water.
7 Other, specify _____
8 NA(If Q6 is no)
- b) Glucose Packet ORS 1 One full packet of ORS mix with 1/2 liter water
7 Other, specify _____
8 NA(If Q6 is no)
- c) Rice Packet ORS
1 One full packet of Rice powder and mixed salt milk with 1/2 liter water.
Put on the fire of medium flame and stir well until the first bubble appears.
Slow down the fire when first boil comes up.
Put off the pan from the fire as soon as second boil comes up.
7 Other, specify _____
8 NA(If Q 6 is no)

d) Home made Rice ORS

- 1 One fist of Rice soaked then grind Milk the powder Rice with 1/2 liter water. Then boil in medium flame until the first boil comes up. Slow down the flame and take off the pan from the fire as soon as the second boil comes up. After boiling mix one liter with the boiled ORS.
- 7 Other, specify _____
- 8 NA(If Q6 is no)

How do you know about the preparation of ORS?

- a) Lobon gur ORS _____verbatim
8 NA(If Q6 is no)
- b) Glucose Packet ORS _____verbatim
8 NA(If Q6 is no)
- c) Rice Packet ORS _____verbatim
8 NA(If Q6 is no)
- d) Home made ORS _____verbatim
8 NA(If Q6 is no)

Did you ever taste any ORS yourself? 0 No
1 Yes
(If no go to Q 14)

If yes, which one?

- a) Lobon gur ORS 0 No
1 Yes
- b) Glucose Packet ORS 0 No
1 Yes
- c) Rice Packet ORS 0 No
1 Yes
- d) Home made Rice ORS 0 No
1 Yes

Do you like the taste?

- | | | |
|-----------------------|---|------------------|
| a) Lobon gur ORS | 0 | No |
| | 1 | Yes |
| | 8 | NA(If Q10 is no) |
| b) Glucose Packet ORS | 0 | No |
| | 1 | Yes |
| | 8 | NA(IfQ10 is no) |
| c) Rice Packet ORS | 0 | No |
| | 1 | Yes |
| | 8 | NA(IfQ10 is no) |
| d) Home made Rice ORS | 0 | No |
| | 1 | Yes |
| | 8 | NA(If Q10 is no) |

2. What type of ORS do you like best
- | | |
|---|--------------------|
| 0 | None |
| 1 | Lobon gur ORS |
| 2 | Glucose packet ORS |
| 3 | Rice Packet ORS |
| 4 | Home made Rice ORS |

3. Why? _____
(Record verbatim)

4. How soon after the first abnormal stool should you administer the ORS? _____ verbatim

5. At what interval should you give the ORS? _____ verbatim

6. How long after preparation should you keep the ORS? _____ verbatim

7. What should be the diet of the child during diarrhea? _____ verbatim

8. Should you continue the normal diet of the child during diarrhoea?
- | | |
|---|-----|
| 0 | No |
| 1 | Yes |

9. If no, when should you start to feed normal diet again? _____ verbatim
- | | |
|---|-------------------|
| 8 | NA(If Q18 is yes) |
|---|-------------------|

10. Do you think that child should continue breastfeeding during diarrhoea?
- | | |
|---|-----|
| 0 | No |
| 1 | Yes |

If no, why not?

_____ verbatim
8 NA(If Q20 is yes)

When should you start again
to breastfeed?

_____ verbatim
8 NA(If Q20 is yes)

Do you think that a child should
bottle feed during diarrhoea?
If no, why not?

0 No
1 Yes
_____ verbatim
8 NA(If Q23 is yes)

When should you start again
to bottle feed?

_____ verbatim
8 NA(If Q23 is yes)

What should be the after diarrhoea
diet for the child?

1 After Watery Diarrhoea

2 After Mucoid Diarrhoea

3 After Dysentary

4 After persistent Diarrhoea

Do you think Rice ORS is good
food for the child?

0 No
1 Yes

URBAN VOLUNTEER PROGRAM

ORT UTILIZATION

Checklist: for Questionnaire

- Definition of Diarrhea : Patla paikana 3 or more loose motions in a day (24 hours), or one or more episodes with blood or mucus.
- Types of diarrhea :
1. Watery:
In Bangla patla paikana, panir motto paikana (in Bangla); 3 or more watery stools in 24 consecutive hours, (1 day) 4 or more watery stools in breast feeding in infant. No mucus, no blood.
 2. Mucoid (Mucus in stool)
This is a local expression for diarrhoea with visible mucus in the stool. There is no translation in English that exactly reflect this type of diarrhoea. The term mucoid diarrhoea is misleading because not all diarrhoea with visible mucus are perceived as amasha.
 3. Dysentery (Blood in stool)
Rokto amasha or rokta paikana (in Bangla); one or more loose stools with visible blood with or without mucus.
 4. Persistent Diarrhea
Diarrhea continuing more than or equal to 14 days.

Check list for Questionnaire
Correct Preparation of ORS

A Glucose Packet ORS:

- | | | | |
|----|--|-------------------|-------|
| 1. | One full packet rice powder
and full packet salt. | No = 0
Yes = 1 | _____ |
| 2. | 1/2 Liter water | No = 0
Yes = 1 | _____ |
| 3. | Full packet rice powder and
full packet salt with water | No = 0
Yes = 1 | _____ |

B. Rice Packet ORS:

- | | | | |
|----|---|-------------------|-------|
| 1. | One full packet of ORS | No = 0
Yes = 1 | _____ |
| 2. | 1/2 Liter water | No = 0
Yes = 1 | _____ |
| 3. | ORS mix with water | No = 0
Yes = 1 | _____ |
| 4. | Put on fire and stir well until
first bubble appears. | No = 0
Yes = 1 | _____ |
| 5. | Slow down the fire after first
boil starts and take off the pan
from the fire as soon as second
boil comes up. | No = 0
Yes = 1 | _____ |

Check list for Questionnaire
Correct Administration ORS

1. Throughout the day and night give small amount of ORS frequently.
2. Give your sick child the amount of ORS that your volunteer taught you for that specific sick child.

- for a child who is not yet sitting up by self (less than 6 months), give 200 ml at a time after 3 loose stool.
- for a child who is sitting up, but not yet walking (6-12 months), give 300-350 ml at a time after 3 loose stool.
- for a child who is walking, but not yet running (12-18 months), give 400 ml at a time after 3 loose stool.
- for a child who is talking in sentences and can partially dress self (24-36 months) 500-550 ml at a time after 3 loose stool.

Then after each loose stool for a child who

- is sitting up by self (less than 6 months), give 50 ml.
- who is sitting up, but not yet walking (6-12 months), give 100 ml.
- who is walking and running, but not yet talking in sentences (18-24 months), give 100 ml.
- who is talking in sentences and can partially dress self (24-36 months) 200 ml.

3. Continue giving the ORS until the stools have returned to normal consistency.
4. Use spoon to feed your child prepared ORS.
5. In addition to ORS, remember to continue to breast-feed the child.

Ref. The treatment and prevention of acute diarrhea. Practical guidelines—second edition. World Health Organization, Geneva 1989.

URBAN VOLUNTEER PROGRAM
 ORT UTILIZATION STUDY
 CHECK LIST FOR

CORRECT PREPARATION OF ORS
 (GLUCOSE PACKET ORS)

Community: _____ Household #: _____

1st ID: _____ Name: _____

2nd ID: _____ Name: _____ Sex: _____

Glucose Packet ORS

	Quantity	Source	Condition	Procedure
Glucose ORS	One full packet <input type="checkbox"/> Other, Specify _____			ORS mix with water <input type="checkbox"/> Other, Specify _____
Water	1/2 Liter <input type="checkbox"/> Other, Specify _____	Tube well <input type="checkbox"/> Tap <input type="checkbox"/> Other, Specify _____	Boiled <input type="checkbox"/> Not boiled <input type="checkbox"/> Other, Specify _____	

Other problem? _____

URBAN VOLUNTEER PROGRAM
 ORT UTILIZATION STUDY
 CHECK LIST FOR

CORRECT PREPARATION OF ORS (RICE PACKET ORS)

Address: _____ Community: _____ Household #: _____
 Interviewer's ID: _____ Name: _____
 Subject's ID: _____ Name: _____ Sex: _____

Rice Packet ORS

Item	Quantity	Source	Condition	Procedure
Rice ORS	One full packet rice <input type="checkbox"/> powder and full packet salt. Other, Specify _____	-	-	
Water	1/2 Liter <input type="checkbox"/> Other, Specify _____	Tap <input type="checkbox"/> Tube well <input type="checkbox"/> Other, Specify _____	Boiled <input type="checkbox"/> Not boiled <input type="checkbox"/> Other, Specify _____	Water mix with rice packet ORS and mixed salt, then boil until the first bubble appears, <input type="checkbox"/> slow down the fire after first boil starts and take off the fire as soon as second boil comes up.

Any other problem? _____

OBSERVATION

URBAN VOLUNTEER PROGRAM
ORT UTILIZATION SURVEY
OBSERVATION SCHEDULE

Date: _____
 Observation Started: _____
 Observation Completed: _____

A. IDENTIFICATION

1. Thana Name: _____ Code: _____
2. Stratum: _____
3. Village/Sub Area: _____
4. Cluster Type: _____ Community/Cluster No.: _____
5. Household No.: _____ Mothers Name: _____
6. Children's Identification:

	Child 1	Child 2	Child 3	Child 4
Name:				
ID:				

C. FEEDING OF THE CHILD

	Child 1				Child 2				Child 3				Child 4			
1. At what time the food was served to the child?																
2. Did the mother wash the hands before feeding the child?																
3. What was used to wash her hands?																
4. Did the mother wash the plates before serving food?																
5. Did the mother use her sari to dry hands?																
6. Did the mother use her sari to dry plates/utensils?																
7. What was the food served to the child? Name all.																
8. Did the mother keep food covered?																
9. Did the mother wash plates after each meal?																
10. What was used to wash the plates after meals?																
11. Was the child given breastmilk? If yes, at what time?																

C. FEEDING OF THE CHILD																	
		Child 1				Child 2				Child 3				Child 4			
12. Was the child given bottle feeding? If yes, what kind of milk was it?																	
13. Did the mother wash the feeder before preparing the milk? If yes, how did she wash?																	
14. Did the mother wash the nipple before feeding the child? If yes, how did she wash?																	
15. Did the mother wash other utensils before preparing the bottle milk? If yes, how did she wash?																	
16. Did the child finish the bottle milk at the time?																	
17. If no, did the mother keep the nipple covered within the interval?																	
18. Did the mother wash the feeder just after feeding?																	
19. What did she use to wash the feeder after feeding?																	
20. Was the child given any other fluid except ORS?																	
21. How frequently was the fluid given?																	

D. ORS TREATMENT

	Child 1			Child 2			Child 3			Child 4		
1. Was the child given ORS treatment? If yes, what types?												
2. Was the ORS prepared during observation?												
3. Did the mother wash her hands before preparing ORS?												
4. If yes, what was used to wash hands?												
5. Was the container/utensils used washed before preparation?												
6. If yes, what was used to wash the container/utinsels?												
7. Did the mother use her sari to dry her hands?												
8. Did the mother use her sari to dry the washed container/utensils?												
9. What was the source of water used for ORS?												
10. Did she use container to measure water when preparing ORS?												

D. ORS TREATMENT																
	Child 1				Child 2				Child 3				Child 4			
11. Was the preparation of the given ORS correct? (Use checklist)																
12. How much time taken to prepare the given ORS																
13. Amount of prepared ORS given at a time																
14. At what interval was the ORS given?																
15. What type of utensils did the mother use to administer the ORS?																
16. Did the mother wash the utensils she used for administering ORS?																
17. If yes, what did she use to wash the utensils?																
18. Did the mother use her sari to dry the utensils she used to administer the ORS?																
19. Did the mother cover the prepared ORS?																

E. END OF OBSERVATION

	Child 1				Child 2				Child 3				Child 4			
1. How many packets of packet ORS were used during the observation?																
2. Was the patient given any medicine during the observation?																
3. What type of medicine was given?																
4. Have all persons who visited the patient for suggestions or treatment?																
5. Who visited?																

Table 7. Sample size using different rates
(Level of significance = 5%, power = 90% and 80%)

Expected use rate in glucose-packet ORS (percent)	Expected use rate in pre-packaged rice ORS (percent)	Sample size (N) in each group (1st row power 90% and 2nd row 80%)
60	80	133 108
60	75	250 203
60	70	587 476
50	70	153 124
50	65	200 226
50	60	638 518

Ref: Kirkwood R Betty. Essentials of medical statistics.
Blackwell scientific publications. P196.

d:dni\tbl7

PROCEDURE FOR ANALYSIS OF ORS SAMPLE

1. **Collection:** A 500 ml sterile container will be used to collect at least 100 ml of ORS from the selected households. On each container the child's name, ID number, date and time of collection, the name of the person who collected it and the research cluster number will be written clearly. The approximate time lapsed after preparation will be written.
2. **Transport:** Immediately after collection the containers will be kept in an ice box at 4 c; they must reach the ICDDR,B Laboratory within four hours of collection.
3. **Laboratory Test:** Fecal coliform counts will be done to detect bacterial contamination, using standard methods.

COLLECTION OF ORS FOR SODIUM ESTIMATION

- Materials: 10 ml syringe
2 dram vial
Stainless steel spoon
- Collection: Stir the ORS to make it homogeneous by the stainless steel spoon. Then draw about 10 ml by the syringe through nozzle, and transfer it to the vial.
- Transport: The sample should reach the laboratory as soon as possible (preferably 4-6 hours) after collection.
- Laboratory Analysis: Na^+ concentration will be measured by the ion selective electrode technique (Beckman System E4A electrolyte analyzer).

UVP - WORK PLAN OF ORT PROTOCOL

