

KAP STUDY ON
DIARRHOEA

A SUMMARY REPORT

By

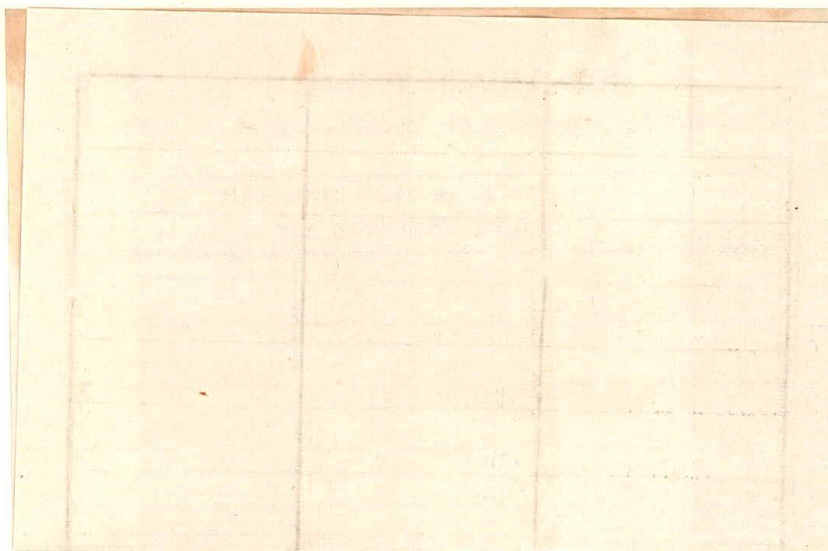
UNICEF

1293

KAP STUDY ON DIARRHOEA

A SUMMARY REPORT

- QUANTITATIVE SECTION



Prepared for UNICEF 1988

By INDIAN MARKET RESEARCH BUREAU

DELHI

IMRB/HV/ 40326

IMIRB
Indian Market Research Bureau

A KAP STUDY ON DIARRHOEA MANAGEMENT IN RURAL INDIA

A SUMMARY OF THE FINDINGS FROM THE QUANTITATIVE STUDY

BACKGROUND AND METHODOLOGY

Diarrhoea is a major cause of malnutrition and death amongst infants and children in India. The first step towards correcting this situation would be to educate mothers with regard to correct management of diarrhoea. Since the majority of people in India live in its villages, such communication and information would need to be addressed to mothers of young children in rural India.

The need to design effective, clear and precise communication messages on this subject in turn revealed a need to understand current knowledge, attitude and practices with regard to diarrhoea management in rural India. With this objective, a massive All India KAP study on diarrhoea management was commissioned.

The study was designed and carried out in two phases.

The first phase, using the qualitative research techniques of group discussions and depth interviews obtained extensive data on the range of beliefs, attitudes and practices that existed. Thus, it was learnt that diarrhoea was believed to be caused by a myriad of possible reasons, most important amongst them being food, climatic conditions, dirty water, teething etc. It was learnt that a rural mother handles

a diarrhoeal problem by waiting and watching to begin with, in the hope that it would be self-curing; the next step would be to modify the diet, try traditional remedies at home, approach a faith healer or a traditional doctor and finally, if none of these helped, go to allopathic doctor. A total of 140 group discussions were conducted amongst mothers of small children (aged less than 5 yrs). A total of 420 depth interviews were conducted amongst mothers, medical practitioners and chemists/pharmacists. These samples were taken from 70 villages (selected on the basis of several criteria such as size, distance from large town etc) which in turn represented 35 socio-cultural regions.

However, while qualitative research reveals a range of prevailing attitudes, beliefs and practices, it does not indicate the extent to which a particular belief or practice holds true. Thus, out of a range of ten to twelve beliefs that may be revealed through qualitative research, each appearing to be equally important, it may happen that in fact only one or two of those are widely prevalent while the others were beliefs held by only a few persons in the total universe.

It was therefore necessary to quantify the findings that had emerged from the first stage of research so that communication could be designed around the knowledge, attitudes and practices that were most widely prevalent. Findings from the qualitative study were incorporated into a questionnaire that was used to interview women from

villages across the country. These villages were selected on the basis of a stratified random sampling method such that each village in the regions under study had an equal chance of being selected.

A total of 5310 women with at least one child under the age of 5 were interviewed. Each of these children being referred to had had an episode of diarrhoea either in the past two months or in the past two weeks or were currently having diarrhoea.

These mothers were selected from 408 villages which represented 34 socio-cultural regions.

All interviews were conducted in the respondent's mother tongue. The term diarrhoea and loose motion, while used interchangeably in this report, were referred to by the term that was most commonly used for the condition, in that language.

Data expressed in this report refers to the country as a whole; major differences have been highlighted.

MAJOR FINDINGS

ONE : THE RURAL MOTHER DOES NOT RECOGNIZE A SERIOUS DIARRHOEAL PROBLEM AS SOON AS SHE SHOULD

1.1 Frequency

On an average, a rural mother acknowledged that the child had a diarrhoeal problem after the child had passed 4 - 5 motions. This means that she would have done nothing till such time, indicating that the child had already been put at a disadvantage at the very onset of diarrhoea. If we look at this finding in conjunction with the findings of qualitative research which revealed that after recognizing diarrhoea, a mother's practice is to wait and watch for a while, the implications appear to be grim.

Behaviour differed by regions. In the East zone and in the states of Gujarat and Kerala, the majority of mothers (67%) said that they looked upon 2 - 4 motions in a day as a sign of a diarrhoeal problem.

On the other hand, in Uttar Pradesh and Madhya Pradesh an average of 5 - 7 motions in a day were considered to be a sign of a problem.

Qualitative research had revealed that a mother believed that her child was weak when he looked tired, stopped playing, sat quietly or became cranky and irritable, lay down and became inactive.

In some regions, other symptoms of a serious problem were mentioned by a majority of mothers. These were as follows :

In Tamil Nadu, mothers said that the child would look dull, feel giddy (76%) and that his limbs would become loose (51%).

In Gujarat, more than physical signs, mother depended on several loose and watery motions to indicate a serious problem.

In West Bengal, mothers mentioned lethargy and silence as signs of a serious problem.

1.4 Awareness of death as a result of diarrhoea

Respondents had been asked in the course of the interview about the consequence of repeated attacks of diarrhoea and whether diarrhoea could lead to death.

Responses revealed that 67% of the mothers recognized that diarrhoea could sometimes or often lead to death.

By assigning a score of 1 to those mothers who said that diarrhoea could not lead to death, 2 to those mothers who said that it could rarely lead to death, 3 to those who said that it could sometimes lead to death, 4 to those who said that it could often lead to death and 5 to those who had spontaneously spoken of death as a consequence of diarrhoea, it was possible to arrive at mean scores on this subject for each state. These are given in the table below :

	<u>Mean scores</u>
Haryana	2.8
HP/JK	2.6
Rajasthan	3.2
UP	3.2
Bihar	3.7
Orissa	3.7
West Bengal	3.7
Assam	4.0
Gujarat	2.4
Madhya Pradesh	3.3
Maharashtra	2.4
Andhra Pradesh	3.6
Karnataka	3.2
Kerala	3.7

This table indicates higher awareness of death as a result of diarrhoea in the East zone, particularly in Assam, and in Kerala in the South zone. Lowest awareness of death was revealed in Gujarat and Maharashtra in the West zone and in HP/JK in the North zone.

TWO : THE RURAL MOTHER DOES NOT WITHOLD FLUIDS DURING
DIARRHOEA

2.1 Fluids during diarrhoea

Research indicates that mothers continue to give as much fluids during diarrhoea as during normal times and more.

All mothers who had been breastfeeding their children continued to do so (99%).

76% of all mothers had given water to the child when he had diarrhoea.

42% of all mothers had given the child some fluid, other than water and breastmilk, when he had diarrhoea.

2.1.1 Water

- . As we have just seen, 3 out of 4 mothers gave water to the child when he had diarrhoea. Of these,
 - 48% gave as much water as usual
 - 36% gave more water than usual
 - 16% gave less water than usual

- Of the remaining one-fourth who had not been giving water during diarrhoeas, 87% were breastfeeding the child. It is likely that they considered the child to be too small for water since we found through both qualitative and quantitative research that infants aged less than 6 months, who were almost wholly breastfed, were considered too small to be given water.

In Kerala, most mothers (76%) gave larger quantities of water than normal.

In the East zone and in Rajasthan, 25% of the mothers gave smaller quantities. This was higher than the national average of 16% who gave less quantity water than normal.

The main reasons for giving less water were as follows :

- The child rejected water - 35%

This response came mainly from the East zone, specifically Orissa and West Bengal.

- Water could have a cooling effect - 21%

This belief led to fears that if the child was given water he could catch a cough or cold or fever or combinations of the same. It must be remembered that this study was conducted in the months of February and March which was the end of winter. Mothers specifically avoided giving water during winter months, particularly in the North zone.

- Water could aggravate diarrhoea - 17%

This belief was expressed mainly in Assam, West Bengal, Tamil Nadu and Kerala.

- Child too small - 13%

2.1.2 Attitude to breast feeding during diarrhoea

A study of the actual practice during the last episode of diarrhoea revealed that 99% of those who had been breastfeeding the child, continued to do so even when he had diarrhoea.

All respondents, whether currently breastfeeding or not, were questioned on their belief on the subject.

70% of all respondents believed that breastfeeding should be continued even when a child had diarrhoea

22% felt that it should be stopped (2% of these continued inspite of their belief to the contrary)

4% felt that the total quantum of breastmilk given to the child should be reduced.

The states where mothers were strongly in favour of breastfeeding during diarrhoea were :

Tamilnadu	94%
Karnataka, Himachal Pradesh	89%
Rajasthan	86%
Maharashtra	80%

The states where mothers (more than the national average) spoke in favour of stopping or reducing breastfeeding were Kerala, West Bengal and Assam.

2.1.3 Fluids during diarrhoea

In 42% of the cases studied, some fluid other than water and breastmilk had been given to the child during diarrhoea. The highest proportion of mothers who gave additional fluids came from Kerala (92%) and Tamilnadu (71%).

The main fluids were milk and tea. Milk was given by mothers in all four zones whereas tea was reported from the North, West and South zones but not from the East zone.

In the South zone, a wide range of fluids had been given, of which buttermilk, rice water, coconut water and glucose water were the most common.

In West Bengal, barley water had been given by 17% of the mothers.

Oral rehydration salts (ORS) and sugar salt solution (SSS) were mentioned by only 2.5% and 0.8% of the respondents respectively.

2.1.4 Total fluids given

A study of the respondents fluid giving behaviour reveals that each respondent had given some fluid to her child when he had diarrhoea. This could have been breastmilk, water or some other fluid. (See figure 1)

	<u>Total</u>		<u>Breastfed</u>		<u>Non-breastfed</u>	
	5308	100%	3590	(67%)	1718	(33%)
				100% ↓		100% ↓
Water	4040	76%	2477	69%	1563	91%
Fluids	2251	42%	1220	34%	1031	60%
Both	983	18%	107	3%	876	51%

2.1.5 Perceived role of fluids during diarrhoea

The main perceived role of fluids and the reason for giving fluids was to quench thirst. This was expressed by 26% of all respondents but more frequently by respondents in Assam and Andhra Pradesh.

The second expectation was that fluids would give strength and reduce weakness (19%). This was mentioned in Himachal

Pradesh, Jammu & Kashmir, Haryana, Madhya Pradesh and Gujarat.

The third expectation was that fluids would stop stools (18%) once again expressed by mothers in Himachal Pradesh/Jammu & Kashmir, Gujarat, Madhya Pradesh & Haryana.

The fourth expectation was that fluids would help combat dryness and water loss (15%). Water loss was mentioned in Kerala, in Himachal Pradesh and Jammu & Kashmir & in Haryana.

Those mothers who were literate spoke of the strength-giving and water-replenishing roles of fluid significantly more often than illiterate mothers.

2.2. Inadequacies in terms of rehydration

The preceding section on practices with regard to fluids indicates that mothers in rural India are not, in principle, opposed to the concept of fluids during diarrhoea. However, their practices have shortcomings that prevent effective rehydration and could partially account for the high diarrhoea-related mortality in India.

The first of these shortcomings is that fluids are not given in sufficient quantity or frequency.

60% of all mothers who gave some fluids other than water and breastmilk gave less than 100 ml* at a time.

More than half of all mothers who gave the fluid, gave it 2-3 times a day; 11% gave it once a day while the rest gave it more than 3 times a day.

Secondly, since fluids were not given in a conscious attempt to maintain fluid balance in the body, their consumption was not related to loose motions frequency. Thus, a child could pass several loose motions and lose a lot of water but get only 100 ml of fluid or less, 2 - 3 times a day. However, fluid intake was sometimes related to thirst and to this extent a child was likely to get more fluids on demand. This would, by definition, benefit an older child more than it would a younger child.

Thirdly, the fluids that were given (barrihg breastmilk) were mainly, water, milk and tea. These fluids all share one shortcoming, namely, lack of salt. Thus they were inadequate for the task of replenishing lost body salts which would be important for proper rehydration.

* The quantity was determined in this study by means of a standard 200 ml plastic beaker marked at $\frac{1}{4}$ th, $\frac{1}{2}$ and $\frac{3}{4}$ levels that was given to each interviewer. The respondent was asked to indicate the level to which the fluid quantity given by her, at a time, would fill that beaker.

Fourthly, effective rehydrants such as ORS and SSS were not used.

THREE : FOOD IS NOT WITHHELD; HOWEVER, FOOD ITEMS
AND QUANTITIES ARE REDUCED

3.1 Food items

All food items were dropped to some extent during diarrhoea. This was reported from all four zones in the country.

Rice was dropped by some respondents (32%) in every zone except in the West zone.

Roti (or chapatis, the traditional whole wheat-flour bread) was dropped across all zones (36%) where it was traditionally consumed in a normal diet.

Vegetables were dropped by 40% of all respondents from all four zones and by over half the respondents in the East and South zones.

Pulses were dropped by 36% of the respondents, particularly in the East and South zones.

3.2 Food quantities and consistency

47% of all respondents gave as much food as normal and with the same frequency as normal.

36% gave less food, less often in the day.

4% gave more quantity of food more frequently whereas 3.5% gave less quantity of food at a time but made no changes in the frequency.

Most mothers made no changes in the method of cooking food; only one mother in eight deliberately changed cooking methods to make food more liquid, softer and sometimes, more bland. Changes in cooking method were mentioned mainly in the East and South zones.

3.3 Attitudes with regard to food

74% of all respondents believed that feeding should be continued when a child had diarrhoea.

23% believed that feeding should be stopped, primarily because they felt that food could worsen the diarrhoeal attack.

There were no special practices with regard to food after the diarrhoea had stopped. Mothers allowed the child's appetite to dictate the quantity of food consumed. If the child was more hungry, they did not hesitate to give more food; if, on the other hand the child had a poor appetite, they did not coax him to eat more either.

FOUR: THERE WAS A HIGH PROPENSITY TO SEEK TREATMENT DURING DIARRHOEA. THE MAIN DEPENDENCE WAS ON PRIVATE PRACTITIONERS, USUALLY OF THE ALLOPATHIC SCHOOL.

4.1 Preventing the worsening of diarrhoea at home

In order to understand the reason for the high tendency to seek medical treatment, it would be useful to look at the mother's confidence in her own abilities to handle the problem. Respondents were asked to talk of the measures that they could adopt at home to prevent the worsening of diarrhoea.

56% of the respondents said that nothing could be done at home; another 14% ventured the suggestion that they could seek treatment for the child. Thus, in effect, 70% of the respondents believed that there was nothing that they could do, at home, to prevent the worsening of diarrhoea.

25% spoke of home remedies that they could try in an effort to prevent the diarrhoeal attack from worsening. Qualitative research had revealed a wide range of home remedies based on herbs, spices and leaves, etc. Home remedies were mentioned by over 25% of the respondents in the states of Kerala, Tamilnadu, Gujarat and Orissa.

4.2 Treatment sought

65% of all respondents had sought treatment during the last episode of diarrhoea being studied. An additional 10% had sought informal advice (mostly from the husband or the mother-in-law). Only 25% had managed the last episode of their own, without advice or treatment.

The 35% who had not sought formal treatment were asked to name the person whom they would have consulted had they felt the need to seek treatment for their child when he had recently had diarrhoea.

The following table reveals the pattern of reference that had been followed by respondents who had actually sought treatment (actual) and who had not sought treatment but spoke of the person they would have referred to if required (hypothetical).

	Actual(65%)	Hypothetical(35%)	Total(100%)
	%	%	%
1. Private practitioner	83.3	75.0	80.4
Allopathic	70.2	57.3	65.7
Type not known	13.1	17.7	14.7
2. Health centre/worker	7.5	12.9	9.4
2. Homeopathic	5.1	3.3	4.5
4. Ayurvedic	4.1	2.8	3.7
5. Faith healer	1.4	2.9	1.9
6. Vaid/Herbal	1.8	1.2	1.6
7. Chemist	1.2	0.8	1.0

It is interesting to note that fewer respondents actually went to the health centre or health worker than had thought they would in a hypothetical situation.

On the other hand, a higher proportion went to private practitioners (allopathic, homeopathic and ayurvedic) than had thought would do so in a hypothetical situation.

The role of the chemist in diarrhoea treatment was negligible.

There were variations in actual treatment seeking practice by regions and by literacy levels.

95% of all respondents in Kerala had sought treatment during the episode of diarrhoea being referred to. Over 70% of the respondents in Himachal Pradesh/Jammu & Kashmir, West Bengal, Andhra Pradesh and Karnataka had sought treatment.

A larger proportion of literate women sought treatment than illiterate women.

4.3 Treatment received

Treatment provided by the doctors consisted of :

	%
Tablets	70.7
Syrups/mixtures	53.6
Injection	39.7
Powdered medicine	17.5

ORS had only been given by 6.2% of the doctors on the whole. The states in which a larger proportion of doctors had prescribed ORS were :

- 17% of the doctors in West Bengal
- 14% of the doctors in Kerala
- 11% of the doctors in Maharashtra

4.4 Cost of treatment

The treatment had cost an average respondent Rs 38/- in all.

The median value was at Rs 21 - 30 which indicates that half the respondents had spent less than 21 - 30 Rs while half the respondents had spent more than that sum.

Cost of treatment (and other related expenses) varied by zones. In the South zone, the average cost of treatment had amounted to Rs 48/- while in the East, the cost was lowest, at Rs 29/-.

FIVE : THE ENVIRONMENT IS RECEPTIVE TO THE PROMOTION OF HOME-BASED FLUIDS. AWARENESS AND USAGE OF ORAL REHYDRATION SALTS(ORS) AND SUGAR SALT SOLUTION (SSS) IS LOW

5.1 Home based fluids

A number of fluids were read out to each respondent; for each fluid she was asked if she would be willing to give that fluid to her child when he had diarrhoea.

The list of fluids and the percentage of respondents who were willing to give that fluid are listed below. Water and glucose water emerged as being the two fluids that most mothers would be willing to give.

Mothers were also asked if they would be willing to add sugar or jaggery (for the first five fluids in the list) and salt, (for all the fluids) if advised to do so. The percentages of those who would be willing to add sugar and salt are also given below.

Base : Willing to give = 100%

	Willing to give	Willing to add sugar	Willing to add salt
	%	%	%
Water	82	46	39
Tea	47	85	26
Coffee	25	91	15
Buttermilk	43	48	72
Dal water	39	20	82
Coconut water	44	-	23
Rice water	45	-	85
Potato soap	15	-	79
Glucose water	68	-	21

Glucose water with salt would ^{have been} an acceptable rehydrant. However, most respondents were unwilling to add salt.

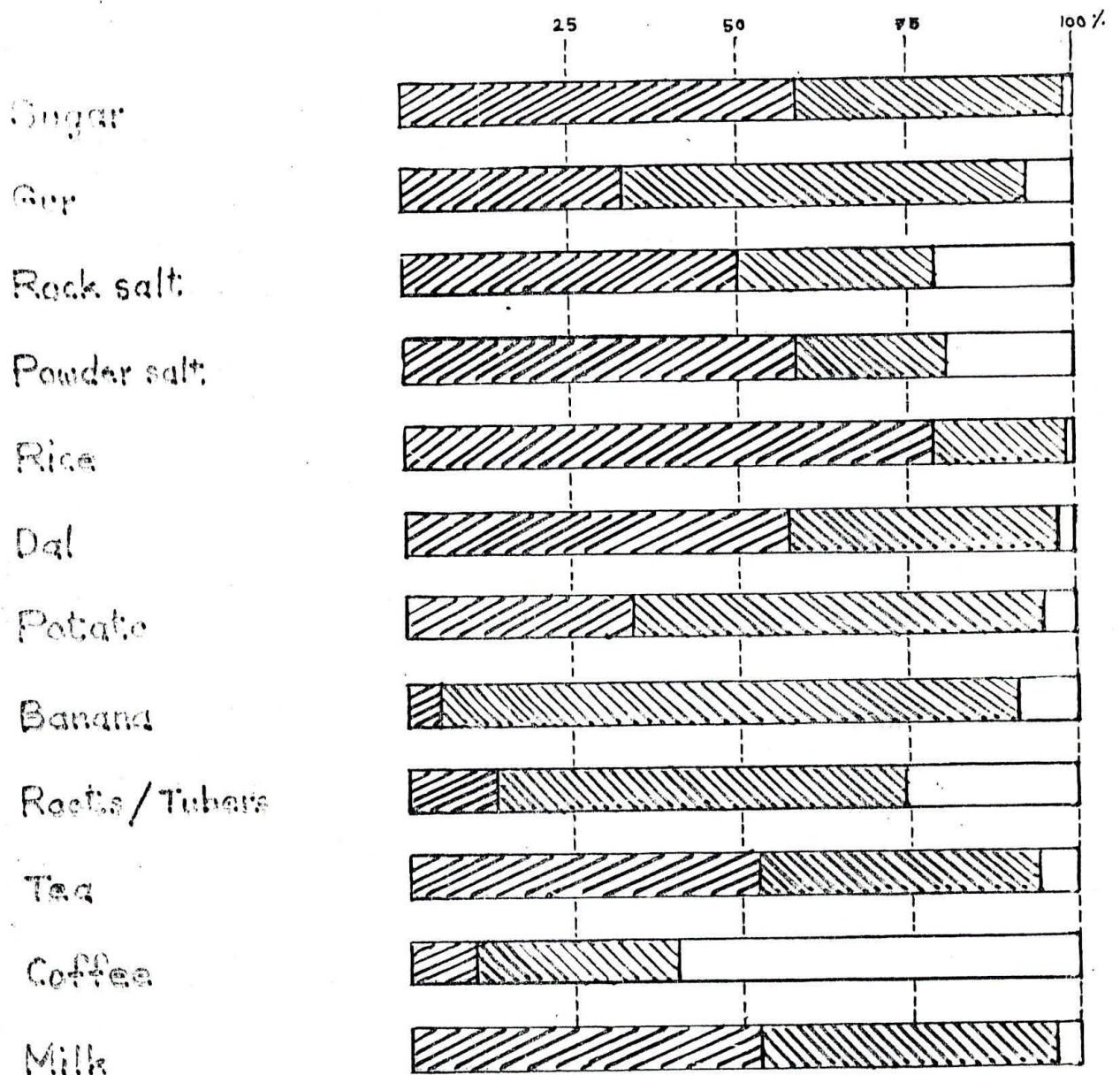
Rice water, acceptable to 45% and acceptable with salt to most of these respondents, could spearhead the promotional effort for the use of home-based fluids during diarrhoea, since rice is an ingredient that is also easily available in most households in the country, as is illustrated below.

Availability of ingredients

In order to enable realistic decision making on the subject of home-based fluids to be promoted, this study had covered the purchase and storage patterns of several relevant ingredients.

The pattern is illustrated below for the nation as a whole.

IMIRB

All India

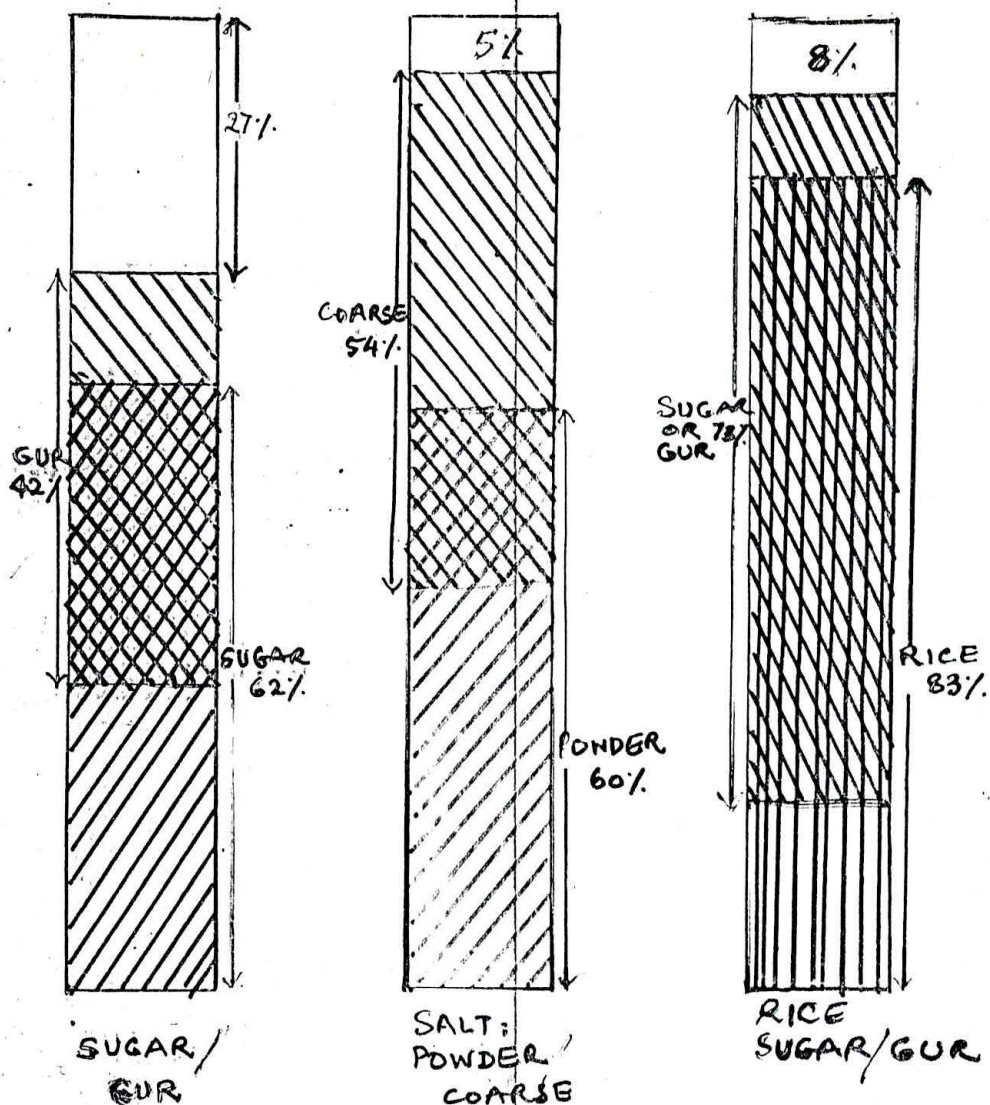
Always — 
 Sometimes/as needed — 
 Never — 

Rice emerged as the one ingredient that would always be available in 3 out of 4 houses in rural India and bought as necessary in almost all the remaining households. Rice water could thus play an important role in home-fluid usage promotion.

Data had also been collected with regard to the availability, at that point in time, of each of the ingredients given above. This data was cross-tabulated to determine the extent of overlap in terms of substitutable ingredients and the extent of households covered by both ingredients.

The cross-tabulated data is illustrated below :

AVAILABILITY OF ESSENTIAL INGREDIENTS (IN THE HOUSE TODAY)



Either sugar or gur would be available in 73% of all households at any given point of time. However, 27% of the households would be without either of these items.

Salt would be available, at any time, in 95% of the houses. The extent of overlap between coarse salt and powder salt was low, indicating that one or the other is usually stocked in the house, but usually not both.

The overlap between sugar, gur and rice was studied, assuming mutual substitutability. This revealed that 92% of the households at that time, had one of the three ingredients that they could use to make home-based rehydration fluids.

Kitchen fire lighting frequencies

It had been felt that one obstacle to making fluids in the home would be that kitchen fires in rural areas would not be lit more than once in a day.

The kitchen fire lighting practices were examined in this study.

It was found that kitchen fires are lit 2 - 3 times a day in over 80% of rural households.

Barring Tamilnadu, where 18% of the respondents spoke of lighting kitchen fires only once in a day, no other state revealed this practice in any sizeable proportions.

In small villages, fires were lit twice a day. In larger villages, fires were lit as and when required in one out of four houses.

The main fuels used were wood (89%) and cowdung cakes (52%). The use of easy-to-light fuels such as kerosene, gas and coal was negligible (kerosene : 6%; gas : 1%; coal 5%).

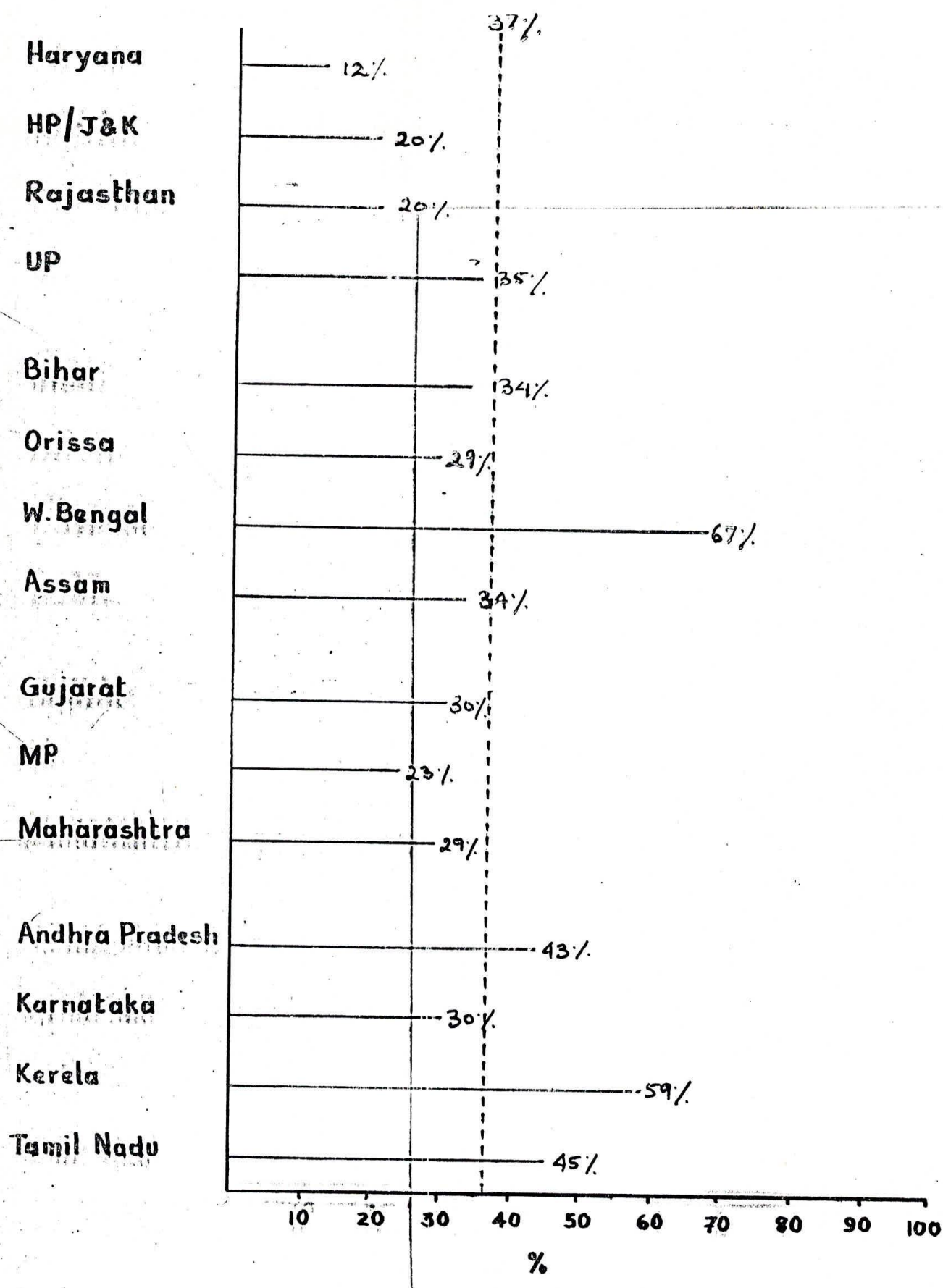
5.2 Oral rehydration salts

Awareness and usage

Respondents were shown packets of branded ORS (including the brand leader, Electral) and packets of the government distributed oral rehydration mixture and asked if they had ever seen and used any of those.

37% of all respondents had heard of oral rehydration salts. Highest awareness existed in West Bengal (67%) and Kerala (59%).

Of those who were aware of and had seen ORS, 72% had used it. Thus, 26% of all respondents had ever used ORS. It is disheartening to note that in spite of the fact that as many as 26% had ever used ORS, only



2.5% had used it in the last episode. This reveals low salience of the product in the mind of the target audience.

Usage as a proportion of awareness had been high in Uttar Pradesh, Kerala, Karnataka and Maharashtra.

ORS had been used mainly for children (84%); 6% had used it only for adults and the balance 10% had used it for both adults and children.

Expectations from ORS

The main expectation from ORS had been that it would stop loose motions (53%). (Base - all users - 1398 respondents).

The other expectations were that ORS would help prevent or quench thirst (25%), that it would prevent weakness (20%), cool the body (11%) and keep the child active (11%).

Of those who had expected that :

- ORS would stop loose motions, 79% were satisfied that it had indeed stopped loose motions
- ORS would prevent weakness and cool the body, 45% in each case had been satisfied
- ORS would keep the child active, 100% had been satisfied that it had indeed kept the child active.

It would appear from this analysis that ORS lived up to the expectation that it would stop diarrhoea. Since correctly managed diarrhoea would come to a halt in due course of time, it would be harmless to allow the mother to believe that ORS did play a curative role. In fact, it would be beneficial for her to believe so (without cure being a direct product promise) since that would give her a reason for use that she could easily understand.

Method of use

50% of the respondents had used a spoon to measure the powder; 37% had used the scoop provided with some branded ORS packs; 10% had used the powder by emptying out the whole pack or parts of it.

Data on the amount of powder used with a scoop and the water used in the same case was analysed. This revealed that the mixture was more dilute than had been recommended. This is illustrated in Fig. 4. The dotted line indicates the recommended water-powder ratio while the unbroken line shows the actual water-powder ratio in use. Water proportions were higher than recommended for a given quantity of powder.

OR.S

WATER : POWDER RATIOS

ml
water

300

250

200

150

100

50

scoop (actual)

scoop (recommended)

0.5

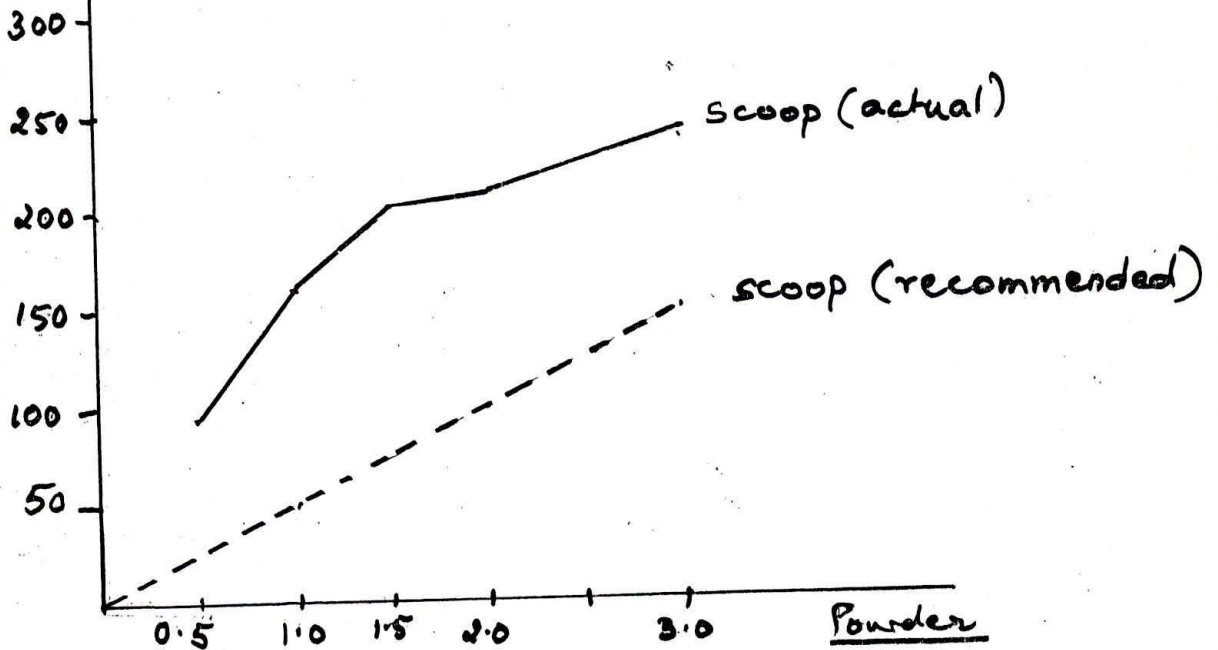
1.0

1.5

2.0

3.0

Powder



5.3 Sugar-salt solution

Awareness and usage :

Sugar-salt-solution had been used in the last diarrhoea episode by less than 1% of all respondents and had been spontaneously mentioned as a means of preventing the worsening of diarrhoea by less than 2% of all respondents. Upon being asked (Have you heard of a solution made with sugar or gur and salt which is to be given to a child having diarrhoea ?), 16.7% expressed awareness.

Awareness was highest in the following states :

Kerala	47%
Tamilnadu	40%
Maharashtra	32%
Andhra Pradesh	22%
West Bengal	20%

Of all those who had heard of SSS, only 46% had ever used it.

The states where usage had been the highest were as follows :

	<u>Users as % Of those aware</u>	<u>Aware and used of all respondents</u>
	%	%
Tamilnadu	64.6	26
Gujarat	64.4	10
Karnataka	60.9	5
Orissa	57.1	6

Reasons for non-use

Over half (56%) of those who had not used SSS inspite of being aware of the same, had no reason for not having used it. The lack of reason indicates lack of conviction or faith in the efficacy of SSS.

Of those who did give some reason for non-use, 29% said that they did not know the method of preparation.

Another 12% expressed doubts about the usefulness of such a solution.

Only 3.5% of the respondents said that sugar was bad for diarrhoea, thereby putting to rest the fear that SSS might be rejected on grounds of the belief that sugar could be harmful during diarrhoea.

CONCLUSIONS

A : DEHYDRATION IS NOT UNDERSTOOD AS LOSS OF VITAL BODY FLUIDS

This conclusion has been derived on the basis of the qualitative research segment where respondents expressed their understanding of water loss in diarrhoea.

Their perception appears to be one of a direct flow of water through the body such that water taken in by the child flows out without being absorbed by the body, causing dryness and thirst. However, they do not perceive the water as being body fluids that flow out.

In Uttar Pradesh and in Madhya Pradesh some mothers had spoken of "body loss in diarrhoea" and explained that, in diarrhoea, blood **turned into water and was lost.** This may be the closest that the average mother came to understanding "loss of body fluids".

It would be necessary for mothers to understand that the fluid lost in diarrhoea is fluid that is drained out of the blood system. If water loss is understood as a loss that directly affects the blood system and dehydration perceived not just as "dryness" but as a vision of a sluggish blood stream that cannot flow because of the deficiency of fluids, it could trigger off the concern that would be necessary if a mother had to constantly and carefully keep a child, particularly an infant, rehydrated.

B : HOME-MADE FLUIDS SHOULD BE PROMOTED AMONGST MOTHERS SINCE THEY ARE LIKELY TO BE RECEPTIVE TO THE CONCEPT

The fluids that find acceptance per se are water and glucose water. Water by itself would not be sufficient to effectively rehydrate a child suffering from diarrhoea; the sugar salt solution could run into problems of measures and proportions as well as credibility.

Glucose water with salt could be an effective rehydrating fluid. The fact that glucose powder is a branded, purchased item could add to the overall faith in the effectiveness of the fluid. The difficulty would be in terms of convincing mothers to add salt to glucose powder.

Rice water would be another potential home-fluid which has three factors in its favour namely reasonable acceptability, the availability of rice in most households and the willingness to add salt to rice water. However, since it is an item that would need to be specially prepared, there might be a high drop-out factor between theoretical acceptance and actual usage.

C : PRIVATE PRACTITIONERS ARE IMPORTANT INFLUENCERS
IN THE RURAL ENVIRONMENT

As this study reveals, two out of three mothers sought treatment and the large majority of these went to private practitioners.

It would be important to ensure that these private practitioners impart knowledge to the mother on correct diarrhoea management practices. There are two aspects to this :

Firstly, private practitioners should themselves have correct knowledge with regard to diarrhoea management in terms of continued feeding and prevention of dehydration. Since the medical qualifications of private practitioners in rural areas may not always be as per desired norms, they might need education and information on the subject.

Secondly, qualitative research had revealed that often doctors in a village were aware of dehydration and ORS or SSS but mothers belonging to the same village would be unaware of the of the same. Therefore, it is essential that private practitioners be willing and sincere about imparting knowledge to mothers. One communication task would be to convince doctors of the need to impart knowledge and educate mothers.

D : ORAL REHYDRATION SALTS, IF WIDELY KNOWN AND AVAILABLE, WOULD BE LIKELY TO FIND TRIAL AND ACCEPTANCE

This conclusion is based on the collective experience gained from this study.

ORS is a branded, packaged item which is more likely to find favour with the rural people as being something reliable and modern. Branded ORS would need to be paid for which is something that a parent needs to do if he has to believe that he is doing the best for an ailing child.

ORS is easy to use and has an acceptably pleasant taste. This study shows a higher trial rate for ORS than for SSS which is testimony to its acceptability and ease of use.

ORS was found to be perfectly satisfactory in its expected role of keeping the child active. Since weakness is an important signal that causes concern and weakness is judged by several factors such as fatigue, crankiness, inactivity etc., a fluid that could promise and deliver continued alertness and activity in the child would find acceptance.

Finally, ORS was expected to and mostly perceived as having successfully stopped loose motions. If

ORS gets perceived as a fluid that would prevent weakness in the child and contribute towards stopping loose motions, it would certainly strike a responsive chord in the mother.

An additional question pertaining to the mother's faith in each person if he/she were to advise her on the subject of diarrhoea management had been asked and graded on a three point scale where a score of 1 implied no confidence, 2 implied an unsure answer and 3 implied confidence. All roles were given a rating ranging from 2.5 - 2.7; the school teacher got a 2.5 score.

Thus, a school teacher would appear to be the best personal medium for spreading information and education on the subject of diarrhoea management.