



Social Marketing and Diarrhoeal Diseases

Hema Viswanathan

Indian Market Research Bureau, New Delhi

The efficacy of oral rehydration therapy in the treatment of diarrhoeal diseases is now well established. Nevertheless, in the underdeveloped world, education of the population in methods of diarrhoea treatment remains a significant problem. In this article, Hema Viswanathan describes a "marketing approach" to increase the acceptance of oral rehydration salts. Ironically, all the excellent research on diarrhoeal toxins, their receptors and cellular responses are yet to lead to practical solutions to this widespread problem. While disease prevention is far more preferable than 'disease management', the latter appears to be the only available course, at present.

The term marketing is associated strongly with the commercial world of buying and selling and advertising and probably has, for the scientist, dubious overtones of slick deals and smooth talk.

In recent years, there has been a growing realization across the world that the various techniques of marketing could be usefully applied to social development issues. The concept of social marketing was born from this realization.

Social development involves the marketing of a product or a practice that people have to be persuaded to accept or use; they may or may not have felt the need for this product/service or the change in behaviour that is being suggested; there would be competition, often not from other products or services but from past practice, from familiar behaviour patterns, from tradition or a resistance to change; there would be a price to be paid, if not in cash or kind then in the changed behaviour, attitudes or practices that are being expected. As much as in commercial marketing, sustained social development finally depends on the ability to persuade and to convince.

The Government of India has taken the initiative in using both market research and advertising to examine current knowledge, attitudes and practices regarding various social developmental issues and creating advertising that responds to the needs brought out by such studies. Surveys have been

carried out, often with assistance from international agencies such as UNICEF, on diverse issues ranging from drinking water and environmental sanitation to infant immunization and diarrhoea management.

This article addresses the issue of diarrhoea management.

In 1985, prior to the seventh five year plan, the Government of India had set up a National Diarrhoea Management Programme (NDMP) to deal with a public health problem that is responsible for over 1.5 million childhood deaths every year. In addition, a close association between diarrhoea and malnutrition has been noted through several studies. Diarrhoea attack rates vary from 2 to 6 per child per year. Before the age of 5, the average child would have had some 15 attacks of diarrhoea. The net effect is clearly one of impaired growth and of malnutrition.

According to WHO estimates some two-thirds of diarrhoea deaths could be effectively averted with oral rehydration. In addition, proper management of the disease at home, through continued feeding, use of fluids, and supplementary post-diarrhoeal feeding could go a long way in preventing malnutrition.

It was recognized that since oral rehydration and correct diarrhoea management lay at the root of the issue of controlling diarrhoea-related morbidity and mortality, the first intervention would have to come from the mother. It was therefore recognized that communication with and education of the mother

about correct diarrhoea management practices was the first and most major task facing the NDMP.

UNICEF and the Government of India, recognized that mothers would be the most important target audience for the diarrhoea management programme. They respected the importance of her role, her unquestionably sincere interest in the well being of her child and the fact that she would certainly have some method, which may, or may not be appropriate, of managing diarrhoeal disease. The first need was therefore to understand the mother and her behaviour so as to build the programme on the basis of this understanding.

Some areas in which information was needed from the mother were:

- Beliefs regarding causes of diarrhoea.
- Understanding of the severity of diarrhoea.
- Terminology used for various types of loose stools.
- Recognition of dehydration and its seriousness.
- Traditional and non-traditional methods of treatment.
- Beliefs and practices regarding food and fluids.
- Views on oral rehydration therapy – responses to the concept and suggested fluids, areas of resistance to various fluids, availability of necessary ingredients.

Apart from mothers, it was necessary to understand beliefs and practices of those who could influence the mother. These were medical practitioners and retail pharmacists. It was hypothesized that the latter would be consulted for health problems perceived as being minor. The areas of inquiry with these target groups pertained to their own beliefs about diarrhoea and its severity, the treatment recommended and their views and knowledge about oral rehydration therapy.

The Research Approach

It was evident that since we were stepping into a complex and largely unresearched area we would need to carry out extensive exploratory research using qualitative research techniques. Thereafter, behaviour and attitudes would need to be mapped such that unique regional features and regional differences could be understood. For national and state level programme design and strategy, it was also necessary to measure knowledge, attitudes and practices across the country with an acceptable level of precision.

The research was designed in two phases. The first phase was exploratory, using qualitative research techniques. The second phase was designed to

quantify knowledge, attitudes and practices with a view to sorting out the important issues from others and evaluating the extent to which knowledge, attitudes and practices found in the qualitative phase held good.

Our first task was to find a cost-effective way of representing the very considerable diversity in India's rural population. The solution was to break the 16 major states of the country down into 35 sociocultural regions. Each region was relatively homogeneous in terms of language spoken, customs, traditions and food habits.

Findings and their Programme Implications

Before this study was conducted, the Government of India and UNICEF had been working on a set of assumptions which were the basis on which the National Diarrhoea Management Programme was being formulated. Findings from this study supported some of the assumptions, contradicted others and altered a few. These findings were therefore responsible for considerable changes in programme direction. The previous assumptions, study findings and recommendations and the resultant programme changes are discussed below:

The first assumption had been the rural Indian mother does not look upon diarrhoea as a serious problem.

This assumption was confirmed by the study which found that the rural mother acknowledges the presence of a problem much later than she ideally should. Whereas a single loose motion should alert the mother to the presence of diarrhoea, she waits on an average, for 4 or 5 loose motions before acknowledging the problem. Qualitative research further revealed that, having recognized a problem, her first response is to wait and watch. Action is only taken when the situation does not improve (fewer motions, less loose motions) on its own.

The recommendation, therefore, was that a mother should be informed that even a single loose motion could be an indication of a problem and to educate her to take immediate action. The study also revealed that mothers did not really believe that diarrhoea could lead to death. She saw diarrhoea as a common, childhood disease. Communication which spoke of death due to diarrhoea would face the risk of running into credibility problems which would negate these efforts. Communication would need, instead, to capitalize on the major area of anxiety which was the weakness and listlessness that resulted from diarrhoea. By referring to known and recognized symptoms (which, unknown to the mother,

were signs of dehydration) and by promising improvements in those visible, physical conditions, communication could hold the mother's attention and persuade her to try rehydration methods.

The second assumption had been that the mother withholds food and fluid during diarrhoea. A joint WHO/UNICEF statement published in 1983 said that 'it is a common practice to withhold fluids and food (including breastmilk) for him' (the diarrhoea patient).

The study found that, in fact, the mother continues to give both food and fluid to the child during diarrhoea. Nearly all mothers who were breastfeeding at the time the child had diarrhoea continued to do so. Some of the educated mothers believed that breastfeeding should be stopped during diarrhoea. However, thankfully even they continued to breastfeed.

98% of the children had received some fluids in the form of breastmilk, water, milk, tea, a specially prepared fluid or combinations of these.

	Breastfed children	Non-breastfed children
Base	3590	1718
Water	69%	90%
Fluids	35%	59%
Both	27%	52%
Neither	23%	2%

The situation however, was not perfect. Fluids were given in response to perceived or stated thirst or feeling of dryness and not after each loose motion or in any routine manner. This method depended too heavily on the mother's attention and judgement, which allowed undesirable variations in quantity and frequency of fluid given. 70% of respondents gave less than 100 ml of fluid at a time, less than 3 times a day. Communication would need to emphasize the giving of fluids after each loose motion.

Despite being aware of a wide range of fluids traditionally recommended during diarrhoea, mothers reported that they mainly gave tea and milk, possibly as these were the most convenient. The child was given food but quantities were reduced and some food items were dropped from the diet.

The recommendation was that positive behaviour in the form of food and fluid giving practices should be reinforced. Communication should help the mother by suggesting a range of appropriate foods and fluids. The fluids would need to be appropriate from the point of view of rehydration as well as in the context of the food habits and food availability in that region. Food items suggested would need to have appropriate energy-density, be consonant with

traditional beliefs pertaining to foods permissible during diarrhoea and be acceptable in the context of the region's food habits. Some fluids that emerged from this study were rice water, lime water and buttermilk.

The third assumption had been that medical practitioners were rarely consulted for the treatment of diarrhoea. This was based on the fact that very few diarrhoea cases were normally reported by the public health network. It was also supported by the assumption that mothers did not look upon diarrhoea as a serious problem.

This assumption was not borne out by the study which revealed a high propensity on the part of mothers to seek treatment for diarrhoea from medical practitioners. 65% of all mothers interviewed had sought treatment during the most recent diarrhoea episode. The main dependence was on private practitioners rather than on the public health system. It was clear that these 'doctors' would not necessarily be qualified persons. Subsequent research commissioned to profile the rural doctor confirmed this assumption and revealed a person who had become a village doctor either because he had qualifications in systems of medicine other than allopathy (but practised allopathy nevertheless) or had some experience in some supportive role with an allopathic doctor or hospital (e.g. compounder, hospital boy). This person had the rural mother's trust and was approached for treatment during diarrhoea. In spite of being aware of ORS, he tended to prescribe anti-diarrhoeals since the urgent need was to stop the loose motions.

The conclusion was therefore that rural doctors needed to be trained to recommend correct treatment and to promote use of ORS.

Following from the assumption that the mother would withhold fluids during diarrhoea, it had been assumed that the mother would resist the suggestion of giving fluids to a child. It had been assumed that educational efforts would be required to convince the mother about the need for fluids.

The study found that the mother was receptive to the idea of home-made fluids and that persuasion, if any, would be needed in the context of fluid composition (addition of sugar and salt was not equally acceptable for all fluids) or in the adoption of fluids that were not considered appropriate for diarrhoea in her community.

The study also found that basic ingredients necessary for effective rehydration were available in all households. The vast majority (over 90%) would have at least one energy source (sugar, jaggery or rice) and salt in the house at any point of time.

It was concluded that mothers could be taught to

use home fluids if care was taken to promote acceptable fluids made from ingredients available in that region.

Finally, it had been assumed that awareness and use of the two internationally accepted rehydrants namely a sugar-salt solution (SSS) and oral rehydration salts (ORS) would be low. The National Diarrhoea Management Plan had earlier worked with the assumption that the main fluid to be promoted would be the sugar-salt solution since sugar and salt could be expected to be universally available.

The findings supported the assumption of low awareness and use of both SSS and ORS.

ORS was recognized and had been used in the past but by only a small proportion of the respondents (27%). However, only a very small proportion of those who had used it in the past had used ORS for the most recent episode (3%).

There was very low awareness of the sugar salt solution (17%) and even lower usage but few mothers were able to state the correct formula for making a sugar-salt solution. Interviews with rural medical practitioners and some town doctors had further confirmed that there was considerable confusion about the exact sugar, salt and water proportions that should be recommended.

It was concluded that rehydration should be promoted through the route of ORS usage because:

- ORS is a branded, packaged item having the appeal of a modern reliable remedy
- ORS needs to be paid for which lends credibility and value
- ORS is easy to use and has an acceptable

pleasant taste

- ORS was found satisfactory in keeping a child active during diarrhoea.

While the findings have been presented above in a brief form, there were in fact several regional differences in the areas of diarrhoea management, its treatment, in terms of the various foods and fluids considered appropriate and other issues which would require state-specific or even region-specific communication strategies.

All these findings had led to a major restructuring of the National Diarrhoea Management Plan. Some of the main areas of restructuring and action are as follows:

- The plan now envisions major reinforcement of the use of well known home available fluids and particularly of breast-milk. In addition, fluids specifically recommended on the basis of local availability and recognition and credibility are to be encouraged. Messages regarding acceptable foods and the need for frequent small feeding during and after diarrhoea have become more prominent in the new communication strategy.
- A major strategic effort is being taken up to promote the ORS packet as the most important and first response to think of for a child with diarrhoea.

With the acceptance of the preeminent role of ORS, India is now well placed to effectively mount a major programme resulting in a dramatic decline in mortality from acute diarrhoeal illness and the resulting dehydration.

Status of cholera incidence in India

Statistics released by the Directorate General of Health Services, New Delhi, reveals that both the number of cases recorded of cholera and the percentage of cases resulting in death are declining rapidly over the past four decades.

Year	No. of cases notified	No. of deaths notified
1951	86,835	42,070
1956	39,759	17,120
1961	47,637	16,334
1966	13,027	2,788
1971	17,140	3,595
1976	17,492	861
1981	6,073	200
1982	4,693	217
1983	9,202	432
1984	2,642	68
1985	5,813	154
1986*	4,211	71
1987*	11,413	224

** Indicates provisional figures.*

A statistical break-up of the 1987 figures of reported cases of cholera has shown that Tamil Nadu with 7,335 cases was the worst affected, followed by Karnataka (1,899 cases) and Maharashtra (1,153 cases).

Sabbiah Arunachalam.