

Posters and songs: Rehydran for your child to avoid the complications of diarrhea.



A HEALTHY ATTITUDE

ORAL REHYDRATION IN EGYPT

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The children still sing about Rehydran in the streets of Berket Ghatas, this small agricultural village about 40 kilometres southeast of Alexandria in Egypt's Nile Delta:

"Father, father, I am sick,
Please give me Rehydran.
Send elder brother running quick,
Save me if you can."

The playing song has worked its way into the lives of the children as the result of a health education campaign to promote the use of oral rehydration therapy to treat the most critical problem of diarrhea. Diarrheal diseases and associated complications such as dehydration are responsible for almost half the deaths of children under three years of age in Egypt.

Dehydration can develop within a few hours of the onset of diarrhea. A child will die if the loss of fluids reaches about 10 percent of body weight. If the child is to live, treatment to restore fluids and the body's chemical balance must begin in the first six to eight hours of an attack of diarrhea. In the past, rehydration could only be accomplished with intravenous solutions

administered by trained medical staff in a clinic setting. The impossibility of reaching children in rural areas with this sort of sophisticated treatment is shown in the statistics: five million child deaths a year in developing countries due to diarrhea, most of them infants under two years of age.

Oral rehydration therapy is a much simpler approach, a line of first aid that can be delivered when and where it is needed. It consists of a mixture of salt, sugar, bicarbonate of soda, and potassium chloride mixed into clean water and drunk by children or spoonfed to them. (See *Reports* 11(1) April 1982, "The simple solution" on oral rehydration in Trinidad and Tobago.)

In Egypt, the Ministry of Health is adopting a strategy of supplying oral rehydration therapy throughout the country. Egypt has begun to manufacture its own prepackaged oral rehydration mix, under the "trade name" of Rehydran. Currently, Rehydran is available at pharmacies and health centres at very low cost or for free.

But simply providing the means to treat dehydration does not ensure that it will be used, or used properly. Experience has shown that unless communities completely understand and agree to cooperate in health programs, nothing will change.

Diarrhea is so common in developing countries like Egypt that it is not considered a disease. Like getting new teeth or being weaned, it is a normal part of growing up. Convincing people to change their basic conception of something that has been a part of their everyday lives for generations is perhaps the most difficult, but critical, first step in reducing the numbers of infant deaths due to diarrhea.

Planners in Egypt thus sought the most effective way to deploy oral rehydration therapy in the country, and IDRC gave its support to their efforts. In 1980, Dr Sunny Sallam, an epidemiologist at the High Institute of Public Health, University of Alexandria, led a two-year project to develop an effective health education package to accompany the introduction of Rehydran in rural areas of the country.

"We chose two villages of about the same size, Berket Ghatas and Kafala, representative of rural Egypt. They have about 4000 people each," says Dr Sallam. "We did a baseline survey—found out how many families there were with children under three, what the 'normal' incidence of diarrhea is and how it is treated, and what sanitary conditions were like. This information will give us a measure against which we can judge how effective the education program was. If it was successful, we would expect to see the deaths from diarrhea drop, as well as the numbers of diarrheal episodes in Berket Ghatas, the experimental village, compared to Kafala, the control."

In both villages, local volunteers supervised by social health workers visited each family every two weeks. They monitored the incidence of diarrhea, and advised mothers to take their children to health centres in severe cases.

The health centres and pharmacies in both villages were supplied with Rehydran. In Berket Ghatas, the mixture was given a wider distribution. Most of the village variety shops kept a stock, and proved to be very effective distribution points. As most shopkeepers lived on the premises, it meant that—with a little determination and some loud knocking—Rehydran was available at any time of the day or night. People ultimately made good use of these supplies, and some merchants reported selling as many as 25 packets a day during the summer "diarrhea season."

"Kafala was the control. Rehydran was made available as it would be normally, through health centres. In Berket Ghatas, we tried to teach mothers about diarrhea and the importance of early treatment," said Dr Sallam. "We also went into the com-

munity, because it is not just the mothers who decide what to do about diarrhea, it's the fathers, grandparents, local healers, shop owners...the whole community influences the way people think and act."

Along with her principal assistant, Dr Ali Abdel Halim Hasab, and the chief administrator and health education director, Mr Nasr Ali El-Manadili, Dr Sallam mounted a year-long information blitz in Berket Ghatas about diarrhea and how to treat it. They consulted with community leaders to gain their approval and cooperation. Once that was secured, the team really went to market. Literally. Every Wednesday, standing among the carrots and chickens they spoke about diarrhea and how to treat it. Anywhere people gathered, in the clinics, at the washing areas, at schools, Rehydran was there. They even drove through the village lanes broadcasting the message of "Rehydran for your child to avoid the complications of diarrhea."

The climax of the campaign came in May 1981 with the Rehydran festival. Skits, songs, speeches, music, and the appearance of a special guest star — a favourite folksinger — reinforced the message.

The community education program ended with the festival. The team waited to see how much information had been communicated, and how it may have influenced the development of life-preserving knowledge, attitudes, and habits. The findings of a survey taken immediately after the end of the education campaign were compared with those of another survey taken six months later. The image that emerged is like a snapshot of change, taken with statistics.

The knowledge of how to manage diarrhea had improved significantly, while the negative beliefs that diarrhea was somehow natural and not treatable dropped by 64 percent.

All the mothers in Berket Ghatas — compared to only about half in Kafala — had heard of Rehydran. About 40 percent of them reported to the survey that they first learned of the solution through home visits, another 20 percent said they were first advised of it at the health units. Over 70 percent still knew the right proportion of water to mix with the Rehydran. And when asked what sort of treatment they would give their children if sick with diarrhea, 87 percent said Rehydran. Only 12 percent of the mothers in Kafala mentioned Rehydran as a treatment for complications of diarrhea.

Both posters and the festival appeared to be effective aids to health education. Over 90 percent of the mothers questioned understood the poster message of the importance of treatment with the rehydration solution, and almost every household had at least one member attend the festival.

But the bottom line of the statistics is this: Infant deaths due to diarrhea in Berket Ghatas dropped by 68 percent compared to previous years. Even in

Kafala, they were halved. No diarrhea cases in Berket Ghatas were referred to hospital for intravenous therapy.

The change was not easily won. When Rehydran was first introduced, villagers looked on it with some suspicion. It was a plot of the government to control birth rates, they said. Rehydran was really a subtle poison. The team made many public shows of drinking the solution to dispel the rumour. It is dangerous, and might not be safe to use on children, the villagers said. The team had an object lesson drawn from among their own neighbours: Go ask Mrs Aziz, they replied. Her son and daughter were sick with diarrhea. She was afraid to give Rehydran to the son, and so tried it first on her daughter. The daughter lives, the son does not. Go ask Mrs Aziz.

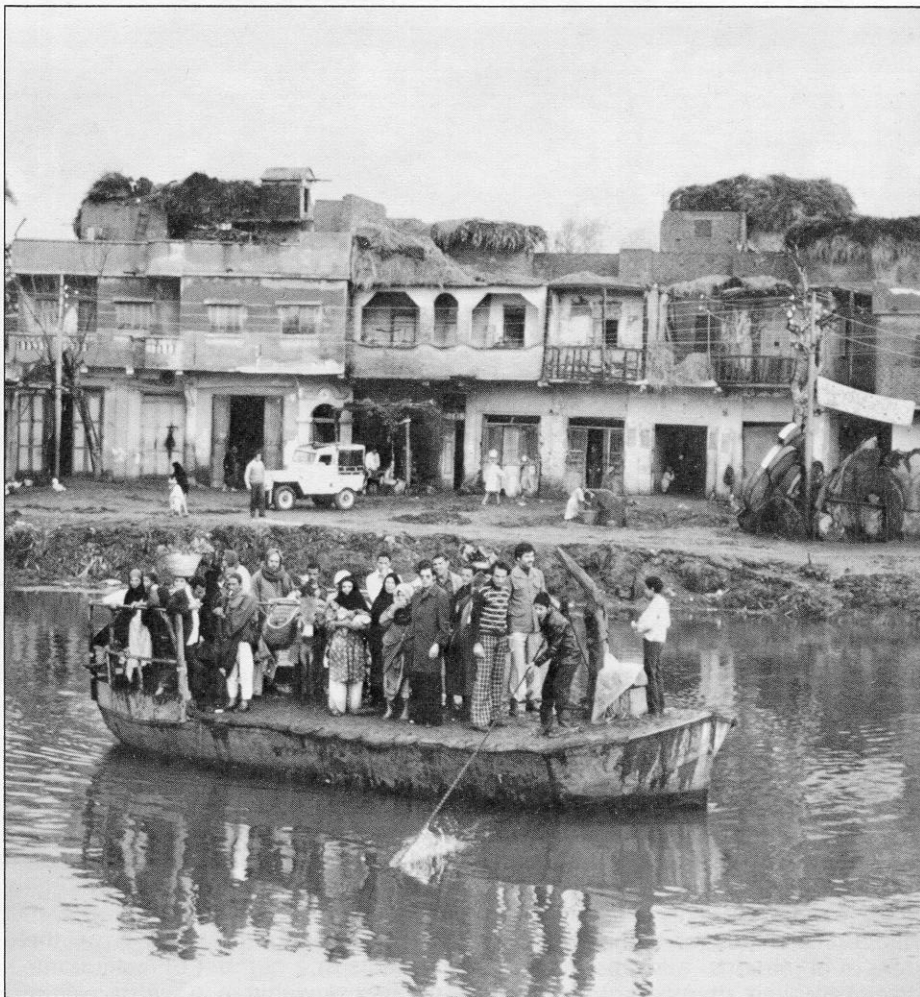
If Egypt were to begin to try to meet the needs for oral rehydration at the village level, it would have to buy or produce some 60 million packets a year. The cost would absorb close to half the national health budget. Effective though it can be, oral rehydration is only a temporary emergency treatment. The long-term solution, Dr Sallam adamantly stresses, is the elimination of diarrhea through improved sanitation facilities and intensified health education. But as long as there is a need for immediate rehydration, Rehydran must serve.

The object of Dr Sallam's research was to find the precise combination of

education and technology that makes oral rehydration effective. If Egypt is to expand and promote the use of Rehydran, it has no choice but to do it in a way that will make the best use of limited health resources. Dr Sallam's research will ultimately influence the decisions made about managing those resources in providing oral rehydration.

But it has also had a more immediate effect in Berket Ghatas, one from which she and Dr Hasab draw hope for the future. As Dr Hasab puts it: "Research is something you take from people. You can fold up the results on a piece of paper and put them in your pocket and walk away. You know, this research has left something with this village, changed it in ways you cannot really understand unless you understand Egypt. Before, people did not even think of diarrhea as a disease, or that it was not natural for children to die from it. People did not use health services. They did not bring their children to be cured. They brought them in to die. Better to die in a clinic than in the home. Better the mother's grief fills the clinic and not the home.

"But now, we have turned mothers into doctors. They are treating their children. They buy Rehydran like aspirin, as medicine. This change is more important than you can imagine. I think to have made this change in people's lives is an accomplishment." □



Berket Ghatas, focus of an intensive health education campaign.