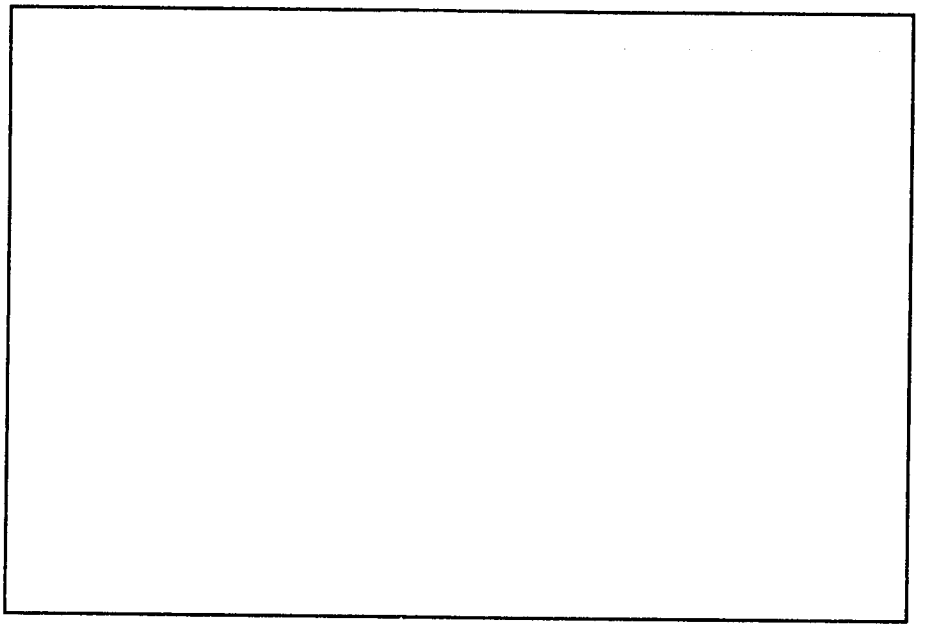


PRITECH
Technologies for Primary Health Care

Management Sciences for Health
1925 North Lynn Street
Suite 400
Arlington, Virginia 22209

PN-ABU-973

FOLLOW-UP AND EVALUATION OF A FLYER ON THE HOUSEHOLD MANAGEMENT OF DIARRHEA

A STUDY CONDUCTED BY THE CAMEROON DIARRHEAL DISEASE CONTROL PROGRAM

A Report Prepared by Paul Alexander Memorial Fellow:
ANI HYSLOP, MD
PRITECH Technical Officer:
ELIZABETH HERMAN, MD, MPH
And PRITECH Cameroon Field Representative:
HUGH WATERS

During The Period:
MAY - JUNE 1992

TECHNOLOGIES FOR PRIMARY HEALTH CARE (PRITECH) PROJECT
Supported By The:
U.S. Agency for International Development
CONTRACT NO: AID/DPE-5969-Z-00-7064-00
PROJECT NO: 936-5969

AUTHORIZATION:
AID/S&T/HEA: September 9, 1993
ASSGN NO: LPC 059-CA

TABLE OF CONTENTS

INTRODUCTION

Health education is an essential component of primary health care. Its importance is clearly recognized in the Declaration of Alma-Ata[1] and is reflected in the policies and implementation plans of primary health care programs throughout the developing world. Primary health care interventions have used a variety of channels and media, including television, radio, traditional theater, and print materials to disseminate messages. Most programs in developing countries, however, rely heavily on face to face communication to meet health education goals.

Limited health education budgets are often spent producing and distributing a variety of posters, flipcharts, counselling cards, flyers, flannelograms and booklets that are intended to facilitate face to face communication. Surprisingly little data exist, however, on the relative costs, the perceived value and usefulness of these different materials. Existing research focuses instead on the reach and credibility of different channels of communication[2,3] or on the effectiveness of health education as a generic activity.[4]

Most developing country ministries of health are facing an environment of dwindling resources and increasing need. Whether they direct efforts in family planning, control of childhood diseases, control of AIDS or other programs that require behavior change, managers need information about the costs and effectiveness of different health education activities and materials in order to make rational decisions about the allocation of limited funds and personnel time.

This paper describes a study to assess the distribution and use of a health education material developed by the Cameroon Diarrheal Disease Control (CDD) Program. The health education material is a small printed flyer on the recommended household management of diarrhea. By documenting the costs of developing and distributing the flyer as well as its effect on caregiver knowledge and its use during diarrheal episodes, the study provides information on which a program manager can base the decision to continue or discontinue printing the material.

BACKGROUND

Since its establishment in 1987, the Cameroon National Program for the Control of Diarrheal Disease (CDD) program, with technical and financial input from the PRITECH project, has focused on the training of doctors, nurses and other health workers in the principles of good diarrhea case management and good communication skills. Following this initial focus on improving diarrhea case management in health facilities, efforts shifted to improving the household management of diarrhea. A campaign aimed at the general public to promote better understanding and care of child diarrhea has featured radio spots, newspaper articles and the distribution of promotional materials bearing the logo of the National CDD Program.

In order to support both public education efforts and interpersonal communication in health centers, PRITECH/Cameroon and the CDD Program developed, pre-tested, produced and distributed two illustrated informational flyers for distribution to caregivers of young children. The first of these flyers, describing the preparation of an ORS packet, was distributed through Ministry of Health channels in September 1990. The second, describing the appropriate household management of children with diarrhea was distributed during the time period November 1991 - March 1992.

Both flyers drew on knowledge of local beliefs and practices obtained from focus groups discussions about diarrhea in young children. Each flyer was produced in three versions: a French version with illustrations for the mostly muslim northern section of Cameroon; a French version with illustrations appropriate for the South; and an English version with illustrations for the South. Both were extensively pre-tested among the target populations (low-literate caregivers of children less than five years old). Guidelines instructing health workers and other distributors on appropriate procedures for explaining and distributing the flyers were drafted and pre-tested with health workers.

For the first flyer, describing the correct preparation of an ORS packet, "top-down" distribution through the health system proved problematic. Bottlenecks in the distribution system, a lack of motivation on the part of health workers, and a lack of clarity as to the purpose of the flyers all hindered their effective use as a counseling tool. Additionally, a low visitation rate of the public health system (the CDD National Program estimates that less than 2% of child diarrhea cases are seen in a public health facility), limited the potential impact of the flyer on the general population.

Consequently, the CDD Program and PRITECH decided to use alternative and somewhat experimental approaches for the

distribution of the second flyer, concerning home treatment of diarrhea. In addition to distribution through health centers in certain parts of the country, three pilot zones were targeted for intensive distribution of the flyer. In each zone the method of distribution was different. The three zones and methods of distribution, were:

(1) In the Extreme North Province of Cameroon, Divisions of Mora and Mayo-Tsanaga, the non-governmental organization CARE sponsors a community based health care project featuring small health centers in villages or other communities. The health centers are managed with the active participation of the community. CARE ensured that the diarrhea home management flyer was distributed to approximately 45 health centers in the divisions, and that the personnel working in those centers knew the purpose of the flyer and were exposed to the instructions on how to use the flyer for counselling.

(2) In the Littoral Province, the CDD Program and PRITECH organized a two day seminar with the Service of Community Development, under the Ministry of Agriculture. Three Community Development representatives from each of the province's four divisions attended the seminar. Topics of the seminar included general guidelines on diarrhea case management and detailed explanations of the contents of the home treatment flyer. The participants drew up plans of distribution for the flyer in their respective divisions, relying on a network of Community Development agents numbering approximately 20 agents per division -- 80 for the entire province. At the end of the seminar, 15,000 copies of the flyer, and accompanying sheets of instructions, were given to the Community Development representatives for distribution.

(3) In the Northwest Province, the CDD Program and PRITECH organized a one day seminar with representatives from fourteen church-affiliated community groups, including the Baptist Women's Association, and other Protestant and Catholic organizations. One Muslim group was included, representing the Northwest Province's limited Muslim population. As with the Littoral Province seminar described above, the seminar focused on basic treatment for diarrhea and dehydration, and culminated with dispersal of the flyer (a total of 10,000 copies) to the participants for distribution in their communities.

The household management flyer consists of seven panels with four-color illustrations: a cover showing a child with diarrhea and advising caregivers to follow "the 4 golden rules", one illustrating fluid administration, one illustrating continued and increased breast feeding, one showing a caregiver feeding a child, one showing a dehydrated child and listing the danger

signs, one showing the mother taking the child to a health center, and a final panel illustrating a recovered child held by happy parents. (A copy of the flyer is reproduced in Annex A.)

OBJECTIVES

Initially, 120,000 copies of the household management flyer were produced, 30,000 in French for the North, 60,000 in French for the South, and 30,000 in English for the South. It was recognized that these quantities were inadequate to meet the needs of the country. Prior to investing more resources into the flyers, however, the CDD program sought to gather information regarding the distribution, use and effectiveness of the flyers. A household survey was therefore designed to:

1. Estimate the proportion of caregivers in the distribution areas who reported having seen the flyer;

2. Estimate the proportion of caregivers in the distribution areas who received copies of the flyers;

3. Determine under what circumstances and through what channels the caregivers saw or received the flyers;

4. Determine whether the flyers has been explained to the caregivers and whether this varied according to the distribution channel;

5. Measure caregivers' awareness and understanding of the content of the flyer;

6. Estimate what proportion of caregivers kept and referred to flyers that were distributed to them.

METHODOLOGY

Household surveys were conducted in selected areas of 3 of the 10 Cameroon provinces: Northwest, Littoral and Extreme North provinces. The surveys were conducted in May and June 1992. Distribution of the flyer had taken place in December 1991 (Extreme North Province), and February 1992 (Littoral and Northwest Provinces).

It is estimated that 17,000 flyers were distributed in Northwest (10,000 through church-affiliated groups and 7,000 through the public health system), 20,000 in Littoral (15,000 through the Community Development Service and 5,000 through the public health system), and 5,000 in the Extreme North Province (all in community health centers with the assistance of CARE). Corresponding 1992 population estimates are 1,835,731 inhabitants

(Littoral Province), 1,534,534 (Northwest Province), and 786,538 (Mora and Mayo-Tsanaga Divisions in the Extreme North Province). Within the provinces, sites where distribution was known to have occurred were chosen for the surveys. People responsible for distribution assisted CDD program personnel in identifying communities that were likely to yield the highest density of distribution.

In Littoral and Extreme North provinces, every fifth household was surveyed until the entire community had been visited. If the primary caregiver of a child under five was absent, the household directly preceding or following was substituted. Fourteen communities were surveyed in each of these provinces.

Eleven communities were surveyed in Northwest province. Every household with children under five was visited until the surveyor reached a quota of 50 households per day. Therefore, the entire community was not visited if the quota was met prior to reaching the last household. If the caregiver was absent, the household was skipped.

Households with children under 5 were identified and the primary caregiver interviewed. In all three regions, caregivers were shown the appropriate flyer, asked if they had ever seen it before, and, if they had, where they had seen it. If the caregiver reported having received a copy of the flyer, (s)he was asked what (s)he did with it. If the flyer was available, the interviewer asked to see it. If the caregiver produced a document other than the household management flyer, the interviewer recorded that the caregiver had not received the study flyer. The same type of verification could not be done when caregivers reported they had lost, discarded or stored the flyer elsewhere. Caregivers who had received the flyer were asked if any of their children had since had diarrhea. If the caregiver reported a case of diarrhea, (s)he was asked if(s)he referred to the flyer.

The survey questionnaire was changed after the initial survey in Northwest Province. In Northwest, all caregivers were asked questions to test their general knowledge about appropriate household management practices for children with diarrhea. In Littoral and Extreme North Provinces, caregivers who had seen or been given the flyer were asked instead, "What does the flyer tell you to do?" Caregivers in Littoral and Extreme North who recognized the flyer were also asked whether it had been explained to them, whether they had been shown the pictures, and whether they were alone or in a group when they saw or were given it. More specific information was also obtained about the channel through which caregivers were exposed to the flyer in the second and third surveys.

The surveys were supervised by the first author and by a member or the national CDD program. Six to nine surveyors from each province were identified by contact persons involved with distribution of the flyers. All surveyors spoke the local language and had completed or were attending secondary school. They received a full day of training in survey techniques, familiarization with the questionnaire, and basic concepts of diarrheal disease control.

The study protocol and questionnaires were developed, pre-tested and reviewed with the assistance of members of the National CDD Program and the Health Education Service (HES) in the Ministry of Health. The protocol was approved by the Director of Preventive Medicine in the Ministry. Questionnaires were translated into Pidgin English for the Northwest Province and into local languages in the Extreme North.

Data were analyzed using the EpiInfo program. The Yates corrected Chi Square was used to test significance between groups.

RESULTS

A total of 2652 caregivers with children less than 5 years of age were surveyed; 1459 (55%) reported having seen the flyer before. Only 323 (12.2%) said that they had received a copy of the flyer, and just over half of those (170, 52.6%) were able to show the flyer to the surveyors. Of those who reported receiving a copy of the flyer, 38 (11.8%) had it hanging on a wall, 132 (40.9%) kept it with other important papers, 69 (21.4%) said it was in some other place (for example, "in my sister's house", "in my bag suitcase or sack", or "at the office") and 74 (22.9%) said that they had lost or discarded it.

Of the 323 caregivers who reported receiving the flyer, 83 (25.7%) had children who had experienced a subsequent episode of diarrhea. Fifty-three (63.9%) reported referring to the flyer during the episode. Table 1 lists the results on exposure to and use of the flyer by province.

TABLE 1

EXPOSURE TO AND USE OF THE FLYER BY PROVINCE

Indicator	Province					
	Northwest		Littoral		Ex. North	
	No.	(%)	No.	(%)	No.	(%)
No. of households with children < 5 surveyed	1308		512		832	
Caregivers who "ever saw" the flyer	860	(65.7)	224	(43.8)	375	(45.1)
Caregivers who received a copy of the flyer	146	(11.2)	81	(15.8)	96	(11.5)
Current location of the flyer:						
Hanging on the wall	25	(17.1)	10	(12.3)	3	(3.1)
With important papers	52	(35.6)	14	(17.3)	66	(68.8)
Other place	24	(16.4)	37	(45.7)	8	(8.3)
Lost/discarded	43	(29.5)	18	(22.2)	13	(13.5)
Children having diarrhea after their caregiver received the flyer	43		18		22	
Caregivers with flyer who referred to it during diarrheal episode	20	(46.5)	15	(83.3)	18	(81.8)

Of the 860 caregivers in Northwest Province who reported having seen the flyer before, 681 (79.2%) said that they had seen it at a health center, and 29 at the home of a friend or relative. More specific information about the location of exposure was obtained from respondents in Littoral and Extreme North Provinces. The results are listed in Table 2.

TABLE 2

CHANNELS AND CIRCUMSTANCES OF EXPOSURE TO THE FLYER IN LITTORAL AND EXTREME NORTH PROVINCES

Indicator	Province			
	Littoral (N = 224)		Ex North (N = 375)	
	No.	%	No.	%
Where caregivers saw or received the flyer*:				
Health center consultation	98	(43.7)	94	(25.1)
Health center education session	48	(21.4)	252	(67.2)
Women's group meeting	10	(4.5)	7	(1.9)
Religious meeting	0	-	12	(3.2)
Community meeting	20	(8.9)	1	(0.3)
At home	25	(11.2)	3	(0.8)
At friend's, neighbor's or parents' homes	10	(4.5)	14	(3.7)
Other	18	(8.0)	0	-
When the flyer was seen or received:				
It was explained	118	(53.7)	304	(81.1)
The caregiver was alone	99	(44.2)	26	(6.9)
The caregiver was in a group	109	(48.7)	332	(88.5)

* Some caregivers named more than one channel

Table 3 lists the unprompted responses of caregivers who had "ever seen" the flyer to the question: "What does the flyer tell you to do?". In both Littoral and Extreme North Provinces the most common responses referred to the four main components of household management: giving fluids, breast-feeding, continued feeding, and watching for danger signs.

TABLE 3

CAREGIVER KNOWLEDGE ABOUT THE CONTENTS OF THE FLYER IN LITTORAL AND EXTREME NORTH PROVINCES

Indicator	Province			
	Littoral (N = 224)		Extreme North (N = 375)	
	No.	%	No.	%
What does the flyer tell you to do?				
Give care to my child during diarrhea	12	(5.4)	55	(14.7)
Follow the 4 "golden rules"	14	(6.3)	46	(12.3)
Give fluids	129	(57.6)	264	(70.4)
Breast-feed	35	(15.6)	74	(19.7)
Continue feeding	52	(23.2)	179	(47.7)
If there are danger signs, take the child to the health center	48	(21.4)	163	(43.5)
Other	7	(3.1)	9	(2.4)
I don't remember	40	(17.9)	32	(8.5)
I never read it	5	(2.2)	24	(6.4)

Unfortunately, the number of caregivers who had seen or been given a flyer through a community group was quite limited, totaling 47 caregivers in Littoral and Extreme North Provinces. It is therefore difficult to assess differences between channels. Combined data from Littoral and Extreme North Provinces suggest that caregivers who were exposed to the flyer either in a health center education session or in a community group were statistically more likely to have received an explanation than those exposed during a health center consultation. The results are summarized in Table 4.

TABLE 4

EXPLANATION OF THE FLYER BY CHANNEL OF EXPOSURE:
COMBINED RESULTS FOR LITTORAL AND EXTREME NORTH PROVINCES
N = 539 CAREGIVERS

	Setting In Which The Flyer Was Seen Or Received		
	Health Center Consultation N = 192	Health Center Education Session N = 300	Community Group* N = 47
	No. (%)	No. (%)	No. (%)
The contents of the flyer were explained when it was received or seen	113 (58.9) (a)**	248 (82.7) (b)	41 (87.2) (c)

* "Community group" includes women's group meetings, religious meetings and community meetings.

** The differences between cells (a) and (b), and cells (a) and (c) are statistically significant by Chi Square test ($p < .05$). The difference between cells (b) and (c) is not significant.

Using the combined data from Littoral and Extreme North provinces, caretaker knowledge of the four main messages of the flyer (giving fluids, breast-feeding, continued feeding and watching for danger signs) was analyzed as a function of: 1) having received a copy of the flyer, and 2) having received an explanation of its contents. With one exception, the differences in awareness between caregivers who had received a copy of the flyer and caregivers who had only seen the flyer were <u>not</u> statistically significant when controlled for whether or not the flyer had been explained. The only exception is that 18 (48.6%) caregivers who had received the flyer without explanation stated that the flyer recommends "giving fluids", whereas only 36 (25.5%) of caregivers who had seen the flyer without explanation did so ($P < .05$). Caregivers who reported hearing an explanation of the flyer were more likely to name each of the four main messages, regardless of whether they had received a copy or not. The results are listed in Table 5.

TABLE 5

THE EFFECT OF RECEIVING AN EXPLANATION ON CAREGIVER KNOWLEDGE ABOUT THE CONTENTS OF THE FLYER

Combined Results for Caregivers Who "Ever Saw" the Flyer In Littoral and Extreme North Provinces

Caregiver Response: "What does the flyer tell you to do?"	Number (%) of Caregivers Naming the Message			
	Caregivers who received an explanation (N = 421)		Caregivers who did not receive an explanation (N = 178)	
Give fluids				
Total caregivers	339	(80.5)	54	(30.3)*
Those with flyer	120	(85.7)	18	(48.6)*
Those without flyer	219	(77.9)	36	(25.5)*
Breast-feed				
Total caregivers	97	(23.0)	12	(6.7)*
Those with flyer	33	(23.6)	3	(8.1)+
Those without flyer	64	(22.8)	9	(6.4)*
Continue feeding				
Total caregivers	210	(49.9)	20	(11.2)*
Those with flyer	79	(56.4)	6	(16.2)*
Those without flyer	131	(46.6)	14	(9.9)*
If there are danger signs, take the child to the health center				
Total caregivers	190	(45.1)	20	(11.2)*
Those with flyer	71	(50.7)	4	(10.8)*
Those without flyer	119	(42.3)	16	(11.3)*

* $p < .05$ for difference between explained and unexplained by Yates corrected Chi Square

\+ $p = .06$ by Yates corrected Chi Square

DISCUSSION

The communities surveyed were purposefully chosen to yield the highest density of households with flyers. The results, therefore, do not assess the overall coverage of the distribution system, nor the relative efficiency of different channels of distribution. They do show good rates of exposure to the flyer in areas targeted for distribution -- 55% of those interviewed reported having seen the flyer, and 12.2% had received a copy. There is also evidence that the flyers were valued in that over 50% of people who received a copy of the flyer were able to show it at the time of the interview. Furthermore, among caregivers who received the flyer and who had a child experiencing a subsequent diarrheal episode, 63% said that they referred to the flyer for treatment of that episode.

It is interesting that, although more flyers were given to church groups and community development officers in Northwest and Littoral provinces respectively, the majority of caregivers in both sites reported seeing the flyer in health facilities. The reason for this pattern is unknown. This finding may reflect the choice of communities surveyed or it may indicate that the alternative distribution systems were not very effective. It may be that some of the community development agents and church groups used health centers as distribution points. Alternatively, the people surveyed may have expanded the interpretation of the term "health center" to mean a place where people talk about health. Finally, because people expect to see materials about health issues in health centers, they may have forgotten that they were exposed to the flyer in a different setting.

The reported rates of exposure to the flyer are probably over-estimated. Surveyors estimated that about 10% of caregivers who reported receiving a copy of the flyer actually produced a vaccination card or an ORS pamphlet. Furthermore, caregivers who reported "ever seeing" the pamphlet may have been referring to an "Advice to Give to Mothers" diarrhea case management poster displayed in health centers. The poster is similar to the flyers, having the same colors, the same messages and similar pictures, but in a different format. Unfortunately, the frequency with which this occurred cannot be estimated from the data collected. This situation may also effect the interpretation of Table 4. Although the data suggest that caregivers are more likely to receive an explanation of the contents during community meetings or group education sessions, it may be that caregivers reporting "exposure" to the flyer during health center consultations were actually referring to the poster version.

Unfortunately, the survey did not contain a question about literacy or level of education achieved. Baseline rates of

knowledge about diarrhea case management in the areas surveyed are not known. It is therefore not possible to control for these factors in assessing knowledge of the flyer's content It is of note, however, that literacy rates in the Extreme North are lower (for both men and women) than in other parts of the country. The flyers had also been distributed three months earlier in the Extreme North. Knowledge of the content of the flyer was, nonetheless, consistently better in the Extreme North than in urbanized Littoral province. This fact supports the suggestion that workers in the CARE system were particularly effective in distributing and explaining the flyer.

The cost of printing 120,000 copies of the home treatment flyer was $10,500 or approximately 8.75 cents per flyer. Development of the pictures and text cost $2000 and pretesting cost $3000. These costs do not reflect CDD staff time or the expenses incurred in conducting the baseline ethnographic research. Additionally, 2,400 copies of instructions for the distributors, explaining the contents and intended use of the flyers, were printed at a cost of $650 or 27 cents each.

The costs of the different channels of distribution varied. Distribution in Littoral Province involved an educational seminar for Community Development personnel; the total cost of this seminar, including travel and per diem costs but excluding CDD personnel time, was approximately $4,000. The Community Development personnel in the province subsequently distributed 15,000 flyers. The cost of distribution for the funding organization was therefore approximately 27 cents per flyer -- more than three times the cost of printing.

In the Extreme North Province, in contrast, there was no additional costs associated with the distribution of the flyer. Health personnel working for the primary health care system and supported by CARE distributed the flyer as part of their normal working duties. The cost of distribution in the Northwest was intermediate, involving CDD staff time, travel and per diem to conduct the educational seminar for church groups.

Using these figures, the costs of printing and distributing flyers for 1/25 of the population (approximately 1 in 3 households) can be estimated. The population of Cameroon is approximately 12 million, therefore 480,000 copies would be needed. Assuming a reduced bulk printing cost of 4 cents per flyer, printing would total $19,200. Printing instructions in the same proportion (1:50) used in the pilot areas would require printing 9,600 copies at an approximate cost of $2592. Assuming no further development or testing costs, the only additional costs would involve distribution and training of distributors. If distribution costs a modest estimate of 5 cents per copy, this would add another $24,000, bringing the total to almost $46,000.

CONCLUSIONS

The finding that caregiver knowledge of the flyer's contents was much more dependent on hearing an explanation of the flyer than on receiving a copy of it has major implications for program planning and resource allocation. It suggests that the program may do better to train health workers and community workers in health education techniques than to put funds into the production of education materials for mass distribution. If these findings are confirmed and duplicated they would argue for development of a more limited number of durable teaching aides for use by various health educators rather than for distribution to caregivers.

One of the presumed benefits of distributing health education flyers is that the recipients will share them with other members of their households and communities. The low percentage of respondents who reported seeing the flyer at a friend's, neighbor's or parent's home, however, suggests that this does not occur very frequently.

The effect of exposure to, possession of, and hearing an explanation of the flyer on home management behavior was not accessed by this study. It is theoretically possible that although possession of the flyer does not improve knowledge of its contents, it may, by serving as a ready reference, improve case management practices. It is also theoretically possible that having a home flyer to distribute has a positive effect on health worker behavior. For example, health workers may feel less pressured to "give" prescriptions for antibiotics if they have something else to "give" the caretaker at the time of the encounter. These theoretical possibilities should, however, be tested before they are used to justify the production of large quantities of health care flyers.

The Cameroon experience underscores that it is extremely important that the individuals charged with distribution and explanation of the flyer are themselves directly instructed in its purpose and feel personally involved in the effort to make it succeed. The demonstrated impact of the diarrhea home treatment flyer in Cameroon stands in marked contrast to the earlier ORS preparation flyer, which was distributed through Ministry of Health channels without the benefit of personal explanations.

It is not surprising that the well organized and established community health care system in the Extreme North was very effective in distributing and explaining the flyer. Clearly, where similar systems exist, it is wise to use them in distributing health education materials and messages. The question of how to reach caregivers in areas without similar systems remains. This study documents that, although it is possible to collaborate with church groups and community

development agents, this approach is not without cost. Individuals who do not work in the health field are probably less likely to feel comfortable explaining the contents of health education materials and probably require additional training and orientation time. Furthermore, alternative distribution systems are less easily accessible to primary health care programs and may, as was the case in Cameroon, require considerable planning time and additional travel or per diem cost.

ACKNOWLEDGEMENTS

Ani Hyslop conducted this study under the auspices of the John Paul Alexander Fellowship in International Public Health administered by Management Sciences for Health.

The authors wish to acknowledge the contribution of the United States Agency for International Development (USAID) Mission in Cameroon in financing, through the PRITECH Project, the development of the flyers described in this article, their distribution, and the follow-up study. Mr. Richard Greene, USAID Health Officer in Cameroon, has been particularly supportive of these efforts.

PRITECH is a project working world-wide for the promotion of the Control of Diarrheal Diseases and the promotion of Oral Rehydration Therapy. PRITECH is entirely financed by the Agency for International Development and is operated by Management Sciences for Health (MSH), based in Boston, Massachusetts.

Several people in Cameroon played critical roles in the development and distribution of the home treatment flyer, and in the execution of the follow-up survey. They include:

- Mr. Emmanuel Mbaniko, Control of Diarrheal Disease (CDD) Program, Ministry of Health
- Ms. Colette Mbella, Control of Diarrheal Disease (CDD) Program, Ministry of Health
- Mr. Tah Shadrack, Health Education Service, Ministry of Health
- Ms. Eleonore Seumo, CARE/Cameroon
- Dr. Armand Ekambi, Chief of Family and Mental Health, Northwest Province
- Mme. Agnes Essiben, Health Education Officer, Littoral Province
- Mr. Abduraman, CARE/Cameroon
- Mr. F. Ndam, Ministry of Agriculture, Littoral Province
- Ms. Jacqueline Bouwmans, Dutch Volunteers (SNV)
- Ms. Agma Prins, PRITECH

The authors also acknowledge the assistance of the CDR Division of the World Health Organization for technical review of the protocol and questionnaire.

REFERENCES

1. Alma-Ata 1978, Primary Health Care: Report of the International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978.

2. Bosompra, K. Dissemination of health information among rural dwellers in Africa: A Ghanaian experience. Soc Sci Med 1989;29:1133-40.

3. Briger W. Mass media and health communication in rural Nigeria. Health Policy and Planning 1990;5:77-81.

4. Loevinsohn B. Health education interventions in developing countries: A methodological review of published articles. Int J Epidemiology 1990;19:788-94.

DIARRHOEA

WHAT TO DO AT HOME AGAINST THE DANGERS OF

DIARRHOEA ?

FOLLOW
THE 4 GOLDEN RULES.

1. GIVE TO DRINK

☐ I give him plenty to drink from the beginning of diarrhoea.

Good drinks are :
- rice water,
- carrot soup,
- sugar salt solution,
- guava tea,
- even plain water.

☐ In case he refuses to drink or vomits, I stay patient and I keep trying.

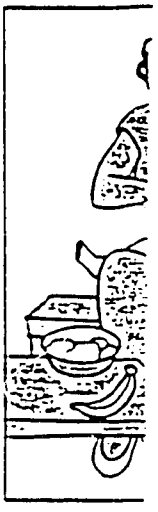
☐ The more I give to drink, the better my child with diarrhoea will be.

2. BREASTFEED

☐ Breastmilk is always good for my child.

☐ The more I breastfeed the better my child with diarrhoea will be.

3



☐ I give hi
mashed.

☐ I feed hir
but very

☐ After t
stopped
meal e
week

Following
rules, mos
will go av
problems.

National Control of Diarrhoeal Diseases Programme Cameroon 1990

3. FEED

ɟive him his favorite food, asned.

eed him in small quantities, ɹt very often.

fter the diarrhoea has opped, I give him one extra eal each day for one eek

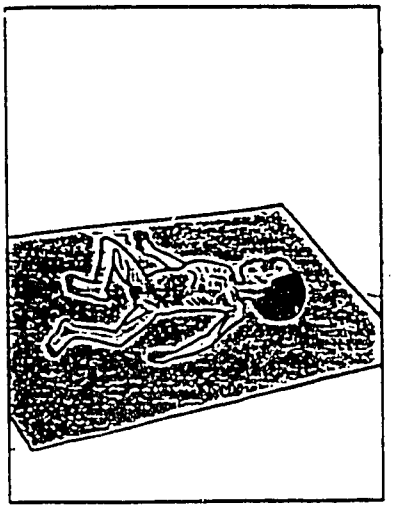
owing these 3 golden s, most cases of diarrhoea go away without serious olems.

4. DANGER SIGNS

Danger signs are :

- weakness or tiredness
- sunken eyes or fontanelle
- very frequent stools
- vomitting
- rapid loss of weight
- fever
- blood or mucous in stools

If diarrhoea continues more that 2 days or if I see the danger signs, I go to the health centre.



HEALTH CENTRE

☐ I continue giving my child to drink on my way to the health centre and while in the waiting room.

☐ The health worker will give me more advice.

GOOD HEALTH !

Do like me !

Follow the 4 golden r they are simple, chea they work to save your from the dangers of diarrhoea.

Design : MinSanté /HES : PRITECH/AMA Production : AMA P.O. Box 267 Yaoundé